A FORMATIVE RESEARCH ON

MATERNAL & CHILD FEEDING AND CARING PRACTICES

IN 19 DISTRICTS OF UGANDA

FINAL REPORT
OCTOBER 2015

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Submitted to:

UNICEF Kampala National Office

By

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Xavier Nsabagasani
Team Leader and Director
Team Initiatives Limited (TIL)

ACRONYMS & ABBREVIATIONS

ANC	Antenatal Care
BCC	Behavior Change Communication
BMI	Body Mass Index
DCDO	District Community Development Officer
DHO	District Health Officer
DNCC	District Nutrition Coordination Committees
EIBF	Early Initiation of Breast-feeding
eMTCT	Elimination of Mother To Child Transmission
FGD	Focus Group Discussion
HC	Health Center
IDIs	In-Depth Interviews
IDPs	Internally Displaced Persons
IYCF	Infant Young Children Feeding
KAP	Knowledge Attitudes Practices
KIIs	Key Informant Interviews
LC	Local Council
MCHN	Maternal Child Nutrition
MDGs	Millennium Development Goals
TIL	Team Initiatives Limited
ToR	Terms of Reference
UDHS	Uganda Demographic and Health Survey
UNAP	Uganda Nutrition Action Plan
UNICEF	United Nations Children's Fund
VAD	Vitamin A Deficiency
VHTs	Village Health Teams
WFP	World Food Program
WHO	World Health Organization

CONTENTS

SUMMARY AND SYNTHESIS OF STUDY FINDINGS AND RECOMMENDATIONS

Introduction: The UNICEF Uganda country office is in its early stages of designing a community based nutrition program with a focus on improving maternal, infant and child feeding practices in Karamoja, Acholi and Mid-Western regions of Uganda. As part of the body of evidence needed to inform this process, a formative research was commissioned in 19 districts. This formative research explored why families are inadequately feeding their children, pregnant and/or lactating mothers and the different ways in which families could correct inaccurate practices.

Study Objectives: The formative study aimed to identify and gain an appreciation of existing knowledge, attitudes, practices (KAP) and beliefs that community members have regarding nutrition practices. It also sought to establish challenges (barriers) mothers face regarding adequate nutrition practices; what would make mothers start employing adequate nutrition practices (triggers and enhancers) and; incentives within the mothers' immediate social environment that possibly trigger adequate and appropriate nutritional practices.

Methodology: The study adopted an exploratory research stance using a purely qualitative approach. Focus group discussions, key informant, group and in-depth interviews were the main methods of data collection. The study population were mothers of children under 2 years of age, pregnant women and men aged between 18 and 60, significant others including in-laws and close family friends; Others included Village Health Teams , health workers, stakeholders from the agricultural and production sectors, Representatives of the District and Sub-county Nutrition Coordination Committee members, Farmer field school members for Karamoja region, and selected partners supporting food security and nutrition interventions in the selected districts.

Synthesis of the findings and General Conclusions

The nutrition practices for pregnant and lactating mothers across all the regions are largely influenced by insufficient food, lack of entitlements to the food, gender dynamics and failure of families to prioritize appropriate menus for pregnant and lactating women. In terms of food entitlements, there were two extremes: (i) critical food shortages in Karamoja region and (ii) sufficient food in other regions. In the latter case, mothers do not have entitlements to the food since most of the food is sold and men continue to control proceeds from the sale of food. In western region specifically, men invest the money from the sale of food into: business; school fees for children; construction of better/bigger houses and in some areas especially Bundibugyo, they may marry additional wives. All these expenditures are on the expense of budgetary provisions for lactating and pregnant mothers in terms of nutrition. Whereas it is recommended that lactating and pregnant women should eat extra varieties of nutritious foods, this does not easily happen in all the communities of the three regions studied. The nutrition question in all the regions centers around inter related issues food availability at the household level, the knowledge (cognitive), gender dynamics especially male involvement in support of the mothers, financial capacity of families, cultural, behavioral and practical elements as highlighted in table 1.

Food availability and entitlements: This was a challenge across all the regions but with variations in magnitude. In the Karamoja region, the challenge is the harsh climatic conditions that affect crop yields. In other regions, the problem is selling the 'best' and eating the 'worst'. Other challenges include poor post-harvest handling, general economic hardships and unequal gender relations characterized by heavy domestic chores for the women. All these combined grossly undermine the capacity of mothers to cater for appropriate nutrition at different stages of the nutrition continuum for themselves and their children as further highlighted in table 1.

The cognitive gaps: In general, the study findings show high knowledge among mothers about the food nutrients required at different stages of the maternal and child nutrition continuum. Despite that, there are limited practices about appropriate nutrition across the continuum. To a great extent, pregnant and lactating mothers know what they are supposed to eat or feed their children. However there are knowledge gaps among women in aspects of: underrating some of the foods produced at home especially in Mid-Western Uganda; dangers of mothers' excessive drinking of alcohol (Karamoja), the perception that breast milk does not flow immediately after delivery; uncertainties about the risks involved when the mothers breastfeed when they are HIV positive (Acholi and Mid-Western). Children in all the regions are initiated on

other fluids other than breast milk due to the perception that the child is hungry expressed by crying. Therefore, there is lack of information about the fact that breast milk is sufficient. In mid-western region, knowledge was still a problem especially in terms of how to prepare the food and the combinations for children. There is a tendency to feed the pregnant and lactating women and children on the same food that other adults are eating, with the same timings. In all the regions, health workers are the main sources of information, and communities respect them. Nonetheless there are still information gaps among the health workers especially relating to HIV/AIDS and initiation of childresn to other fluids.

Culture and Taboos: The real challenge related to culture is limited male involvement to relieve their spouses of the workload, negative attitudes towards family planning, men eating more food than women, as well as domestic violence (all the regions). There were few taboos that were said to be dwindling in all regions. In Karamoja region, there is the naming ritual and in Mid-Western, there is the provision of tokens by fathers before initiation of breast milk (in western Uganda). Both health workers and mothers in Karamoja Region consistently maintain that naming of the Child no longer affects the initiation especially when the mother has delivered at a health facility. Taboos highlighted included women not eating certain foods e.g. fish and pork in some communities in Western Uganda and pregnant women not being allowed to eat offals in Karamoja region. It was reported that these taboos are dwindling with time, and women especially in Karamoja do not necessarily adhere to the cultural beliefs when they are actually starving. What they eat is determined by what is available. They have no choice but to eat what is available. Many mothers and children in the Karamoja were dependent on the food rations provided to the mothers by the development partners.

Male support: In all the regions, male support was limited. However, where it was possible, there were benefits. It was reported that spousal support improves women's health condition during pregnancy because it helps them to rest. Some few men were also said to support their wives by buying food that was not available at home, if they can afford it. In Western Uganda, pregnant women are respected by their spouses and some women use this opportunity to solicit support from their husbands. On the other hand, lack of male support negatively affects proper nutrition for pregnant and lactating mothers, exclusive breastfeeding and complementary feeding. This was found to be more pronounced in Northern Uganda and Karamoja region.

High motivation to initiate breastfeeding: As presented later, in data from the 2011 Uganda Demographic and Health Survey (UDHS), the motivation and practice of early initiation of breast feeding was highest in Karamoja, followed by Western Uganda and worst in the North. According to this formative study, most of the mothers will introduce sugar solution to the child before breast milk especially when they feel that breast milk is not forthcoming. It is also more likely that mothers will initiate when they deliver at the health facilities, in company of elderly women who are their relatives. In Karamoja, benefits like *mama* kits, food rations and transport voucher system for mothers provided by development partners were reported to be vital in increasing delivery at health facilities. In Acholi sub-region, it is believed that early initiation of breast feeding stimulates breast milk and creates bonding between the mother and the child. The key barriers to initiation are practical in nature such as a weak mother; child refusing to breastfeed, lack of breast milk, fear of infecting the child when the mother is HIV-positive, caesarean birth or delivery at home where there is limited support.

Maternal workload and early introduction of other foods negatively affects exclusive breast-feeding: Exclusive breastfeeding is a big challenge in all regions because of the mothers' failure to reconcile the need to breast feed the child regularly and the overwhelming workload while fending for the entire family's survival needs. Exclusive breast feeding is influenced by lack of food, pregnancies before the child is ready for weaning and the perception that breast milk is not forthcoming. In most of the communities, early introduction of other fluids and foods was reported to inhibit exclusive breastfeeding. Although mothers know it is important to breastfeed up to six months, most of them stop at four months due to the above challenges.

Complementary feeding: Complementary feeding is affected by lack of access to appropriate food in sufficient quantities. In Karamoja, where therapeutic and supplementary foods are commonly provided and meant for children, they are shared with the entire family and hence children nutrition needs remain unmet. Other challenges of complementary feeding include lack of sufficient food at home, maternal workload and alcohol consumption by both mothers and children. The limited support from spouses undermines the women's effort to support themselves and their children in terms of appropriate nutrition. In communities in the Karamoja region where homegrown food is very scarce, lack of money to buy food remains a key challenge. In communities where food is available, the obvious challenge is the mothers' and children's lack of entitlement to the food especially when the food is sold and the money is diverted to other expenditures.

Childcare practices: In all the regions, women leave their children at home with their siblings when they go to work. In such situations, some of the children who are less than 6 months old are introduced to some foods and other fluids in the place of breast milk. Child care practices are also still poor in terms of the caregivers' hygiene practices such as washing hands before feeding the children and after using latrine. Open air defecation is a common practice in Karamoja region and children defecate in the compounds and no effort is made to remove/ burry the stools. Some of the common WASH challenges highlighted during the interviews and observations included: limited latrine coverage, limited safe water supply coverage and household level water rationing. In all the three regions, sharing water sources with animals was a common observation especially in Karamoja.

Table 1: SUMMARY OF BARRIERS AND ENHACERS OF GOOD NUTRITIONAL PRACTICE AMONG PREGNANT AND LACTATING MOTHERS

KARAMOJA	MID-WESTERN	ACHOLI SUB REGION
BARRIERS AGAINST APPROPRIATE NUTRITION AMONG PREGNANT MOTHERS		
CULTURAL BARRIERS		
• Limited male involvement in domestic work • Maternal workload leaves the women no time to rest and prepare food for themselves • Men and children given more share of food at the expense of pregnant women • Conspicuous consumption of food during rituals especially during harvest time leaving little food for the pregnant women • Pregnant women not allowed to eat offals	• Lack of male support to pregnant mothers as they produce and prepare food as well as taking care of children • Polygamous marriages increases the burden of responsibilities on men especially in Bundibugyo • Cattle keepers in Ntoroko and Kyegegwa not eating pork and fish because they fear they can lose their animals	• Maternal workload on the expense of finding time to prepare the food • Unsupportive husbands
BEHAVIOURAL		
• Excessive consumption of alcohol eliminates good health behaviours for pregnant women and induces men's failure to fulfill their responsibilities • None attendance of ANC	• Pregnant women feeding like anybody else despite availability of varieties of food • Alcohol consumption by men affects their care for pregnant women • Domestic violence affects the health of pregnant women	• Non-attendance of ANC • Alcohol consumption by men affects available household income
ECONOMIC		
• Food insecurity at the household level • Limited financial resources at the household level • Sale of most of the food produced in green belt areas at low cost and later procuring the same food at high cost. • Most families cannot afford the high cost of food • Climatic constraints	• High expenditure of the income earned out of farming on education and construction of better houses • Commercialization of food crops and introduction of cocoa (Bundibugyo) on the expense of production of food crops • Over dependence on cattle products by pastoralists in Ntoroko • Immigrant farming systems affect the stability of families	• Household food insufficiency leads to one meal per day for most of the pregnant women • Pre-occupations with farm work at the expense of finding time to prepare the food • Practice of selling off most of the food produced
PRACTICAL		
• Poor appetite during pregnancy • Limited access/uptake of health (family planning and post-natal) services	• Poor appetite during pregnancy • Limited access/uptake of health (family planning and post-natal) services	• Poor appetite during pregnancy • Limited access/uptake of health (family planning and post-natal) services
COGNITIVE		
–	• Stereotypes of despising domestically-available yet nutritious foods such as vegetables • Limited knowledge of appropriate food to eat when pregnant	–

KARAMOJA	MID-WESTERN	ACHOLI SUB REGION
ENHANCERS OF GOOD NUTRITIONAL PRACTICES AMONG PREGNANT WOMEN		
• ANC attendanceWhen men support their wives during pregnancy by; - letting them attend ANC - helping with domestic chores • When families have some money to spend on food for pregnant women. The Money is earned from: - sale of labour - sale of domestic animals - brewing business	• Women have knowledge about what they should eat when they are pregnant due to ANC/health education talksAbility to purchase animal proteinsAvailability of enough and appropriate food at household levelANC attendanceCare demands of some pregnant women once made are honoured by their spouses e.g. requests for transport and lunch to visit health facility or special food.	• Women have knowledge about what they should eat when they are pregnant due to ANC/health education talksANC attendance.
BARRIERS AGAINST APPROPRIATE NUTRITION AMONG LACTATING MOTHERS		
CULTURAL BARRIERS		
• Maternal workload does not allow women to breastfeed sufficientlyWhen there is food scarcity, lactating mothers eat less food than men and children Stigma associated with family planningLimited spousal support to lactating mothers	• Heavy daily domestic chores for the mothersStigma associated with family planningLack of male support during breast feeding periodDomestic violence against women which: - causes them to abandon children and run away affects their milk production	• Domestic violence associated with alcoholism affects family stabilityUnsupportive husbandsStigma associated with uptake of family planning
BEHAVIOURAL BARRIERS		
• Excessive alcohol consumption makes men and women irresponsibleSelling of food rations to get money for drinkingLactating mothers eat a smaller share of the little food available compared to men and childrenNot attending post-natal care services	• Not eating appropriate food to help generate sufficient breast milkNot attending post-natal care services Domestic violence against women which: - affects their capacity to produce breast milk - affects their commitment to their children, causing them to abandon them and seek refuge elsewhere	• Spouses who do not support breastfeeding women; • Mothers' failure to attend post-natal care services
ECONOMIC BARRIERS		
• Lack of adequate and appropriate foods at household levelLack of finances to procure appropriate foods for lactating womenLack of access to animal products and other sources of proteins	• Insufficient household incomeNot eating appropriate food to support breast milk productionLack of access to animal proteinsCommercialization of food productionCocoa production in Bundibugyo has taken over land/gardens that would otherwise be used in production of food	• Limited household incomeLimited access to animal products

KARAMOJA	MID-WESTERN	ACHOLI SUB REGION
COGNITIVE BARRIERS		
• Lack of knowledge about the dangers of excessive drinking of alcohol when breastfeeding	• Limited knowledge about appropriate foods to eat when pregnantHIV pregnant mothers still fear to infect their babies	• Limited knowledge about appropriate foods when pregnant;
PRACTICAL BARRIERS		
• When the mother and or the child is sickWhen breastfeeding is painful.	• When the mother and or the child is sick; • When the breasts are painful.	• When the mother and or the child is sickWhen breastfeeding is painful
ENHANCERS OF GOOD NUTRITIONAL PRACTICES AMONG LACTATING WOMEN		
• Postnatal visits given more knowledge and food rations • Awareness about the right foods for pregnant women • Spousal support	• Mothers are educated about the importance of breastfeeding during post-natal visitsMothers' are educated about the need to feed well so as to produce sufficient breast milkHealthy and friendly relationships between couples in shaping the quality of breastfeedingAvailability in the household, of the recommended foodsSupportive spouses with the means to provide the desired foodSmaller families	• Mothers are educated about the importance of breastfeeding during post-natal visitsMother's are educated about appropriate foods to eat when lactatingAvailability of finances to purchase appropriate foods which are not available at homeSpousal support
BARRIERS AGAINST INITIATION OF BREASTFEEDING		
CULTURAL BARRIERS		
• The process of naming the child especially when the delivery is at home	• Rituals for twins before breastfeeding startsFather offering a token to baby before the initiation of breast-feeding	• Belief that breasts will swell if breastfeeding is delayed after delivery
BEHAVIOURAL BARRIERS		
• Initiation with other fluids before breast milkDelivering at home or at the traditional birth attendantTeenage mothers perception of pain from breastfeeding, - due to breast engorgement	• Delivering outside health facility at the traditional birth attendantInitiation with other fluids before breast milk • Teenage mothers perception of pain from breastfeeding, - due to breast engorgement	• Delivering babies away from health facilities Initiation with other fluids before breast milk • Not making an effort to induce breast milkTeenage mothers perception of pain from breastfeeding, - due to breast engorgement
ECONOMIC BARRIERS		
• Lack of money to procure appropriate foods for mothers after delivery, to induce milkInsufficient food at home; • Domestic responsibilities do not allow women to deliver at health facilitiesWomen do not have items to use at health facilities	• Lack of money for transport to the health facility for deliveryDomestic responsibilities do not allow women to deliver at the health facilitiesWomen do not have items to use at health facilities	• Lack of money: To procure appropriate foods for mothers after delivery, to induce milk For transport to the health facility for delivery • Domestic responsibilities do not allow women to deliver at health facilities; • Women do not have items to use at health facilities.

KARAMOJA	MID-WESTERN	ACHOLI SUB REGION
COGNITIVE BARRIERS		
Teenage mothers perception of pain from breastfeeding, - due to breast engorgement The perception that mothers do not have breast milk immediately after deliveryThe VHTs and Health workers advising mothers to give other fluids such as gripe water and goat's milk.	Teenage mothers perception of pain from breastfeeding, - due to breast engorgement Complicated deliveries that weaken both the mother and the baby The perception that mothers do not have breast milk immediately after deliveryPerception of the risk of HIV transmission even when they are enrolled on option B plus program	Teenage mothers perception of pain from breastfeeding, - due to breast engorgement Perception that there is no breast milk immediately after deliveryPerception of the risk of HIV transmission even when they are enrolled on option B plus program
PRACTICAL		
• Delivery by caesarean section which leaves the mother weak • No breast milk production immediately after deliveryWhen there is no one to help the mother after deliveryPoor health of the motherPoor health of the child	• No breast milk production immediately after deliveryPoor health of the motherPoor health of the childDelivery by caesarean section which leaves the mother weak	• Delivery by caesarean which leaves the mother weakNo breast milk production immediately after delivery;Poor health of the motherPoor health of the child.
ENHANCERS OF INITIATION OF BREASTFEEDING		
• Delivery at a health facilityPresence of elderly woman to support the naming of the baby, which makes the process of initiation fasterGood health condition of mother and baby after deliveryPresence of qualified health workers at the health facility to meet existing demand	• Delivery at a health facility; - the health facility to meet existing demand. Presence of elderly woman to support the naming of the baby, which makes the process of initiation fasterGood health condition of mother and baby after deliveryKnowledge of the importance of early initiation of breastfeedingMother desires quick bonding with the child • Belief that there is therapeutic value in breastfeeding	• Presence of elderly woman to support the naming of the baby, which makes the process of initiation fasterGood health condition of mother and baby after delivery; • Presence of qualified health workers at the health facility to meet the existing demand; • Belief that there is therapeutic value in breastfeeding • Ability of the mother to initiate the child on the breast
BARRIERS AGAINST EXCLUSIVE BREASTFEEDING		
CULTURAL BARRIERS		
• Maternal workload; women leave behind (home) their children under 6 in the care of others: these caregivers immediately introduce the child to food for fear of starving the babyStigma related to family planningMen and children are served more food than breastfeeding women	• Stigma associated with family planning • Maternal workload; women leave behind (home) their children under 6 in the care of others: these caregivers immediately introduce the child to food for fear of starving the baby	• Maternal workload; women leave behind (home) their children under 6 in the care of others: these caregivers immediately introduce the child to food for fear of starving the baby • Stigma related to family planning

KARAMOJA	MID-WESTERN	ACHOLI SUB REGION
BEHAVIOURAL		
• Heavy alcohol consumptionWhen a child is seen craving for food especially when mother/caregiver is eating and is given food	• Teenage mothers do not want to be seen breastfeeding.	• Introduction of foods by the mothers because of the perception that child is ready [as early at 3 months] to eat foodPremature feeding perpetuated by other child caregivers while mother is away
ECONOMIC		
• Inadequate food at household level which affects breast milk production due to: - Inadequate finances to purchase food - Poor food crop yields - Sale of all the food at unfair prices - Buying food at unfair prices.	• Cocoa production given precedence over food cultivation in Bundibugyo; • Commercialisation of food production; • Mothers from destitute families; • Lack of entitlement affecting mothers' access to food.	• Mothers from destitute families; • Lack of entitlement affecting mothers' access to food.
COGNITIVE		
• Perception of danger to the child when you breastfeed while pregnantThe fear that the child will fall sick if no other fluids are given to the child.	• Fear of HIV infection by HIV positive mother; they want to stop as early as possible • Belief that breast milk only is not sufficient for the baby; • Community perception of dangers associated with breastfeed while mother is pregnant.	• Community perception of dangers associated with breastfeed while mother is pregnant; • The fear that the child will fall sick if no fluids are given to the child • Perception that breast milk only is not sufficient for the baby.
PRACTICAL		
• Maternal workloadIntroducing foods as an interim measure when mother is sickWhen the mother does not produce breast milk • Sickness of the breast (breast engorgement)	• Teenage mothers stop breast feeding early in order to go back to schoolWhen there is little/no breast milkIntroducing foods and fluids as an interim measure when mother is sick	• Introducing foods and fluids as an interim measure when mother is sick • Lack of time to breastfeedon the part of the mothersWhen there is little/no breast milk,
ENHANCERS OF INITIATION OF BREASTFEEDING		
• Health Education talks at health facility before and after deliveryGood health condition of mother and babyKnowledge of the importance of breastfeeding. Breastfeeding protects the child from sicknessBelief that there is therapeutic value in breastfeeding	• Mothers are aware of the need to breastfeed up to six months • Sufficient food for the breastfeeding mothers • Good health condition of mother and babyKnowledge of the importance of breastfeeding. Breastfeeding protects the child from sicknessMother loves the child and is always with the child	• When mothers have sufficient food at home • Knowledge obtained through health education sessionsPossession of high milk yield Good health condition of mother and babyKnowledge of the importance of breastfeeding. Breastfeeding protects the child from sickness Belief that there is therapeutic value in breastfeeding.

KARAMOJA	MID-WESTERN	ACHOLI SUB REGION
BARRIERS TO COMPLEMENTARY FEEDING		
CULTURAL		
• Maternal workload leaves women no time to continue to breastfeed and prepare meals for the childrenLimited spousal support in terms of child careMen and children eat a bigger share of food than the mothersPoor uptake of family planning and birth control measures	• Children have same meals as adults in terms frequency and typePoor uptake of family planning and birth control measuresPolygamy creates large families which in turn affects the level of care for children and women • Over dependency on milk products in Ntoroko affects access to other food nutrients • Religious influence in Kyenjojo where followers of the religious sect Bisaka are prohibited by their religion from breastfeeding on the 2nd , 12th and 22nd of every month	• Maternal workload leaves women no time to continue to breastfeed and prepare meals for the childrenLimited spousal support in terms of child care
BEHAVIORAL		
• Excessive consumption of alcohol especially when mothers who are drunk tend to abandon their childrenThe same mothers feed their children on beer residue • Children are given very dry alcohol residue Inadequate food at household level • Sharing of food rations with other family members leaving little for the child and the motherNon attendance of post-natal services Breastfeeding less than the recommended 6 months; early weaning of children	• Alcohol consumption breeds domestic violence which in turn affects womens care of their childrenSale of food to buy alcohol and marry additional wives • Stigma of being seen breastfeedingBreastfeeding less than the recommended 6 months; early weaning of children • Non attendance of post-natal services	• The problem of balancing breastfeeding with complementary foodsPremature introduction of foods during exclusive breastfeedingNon attendance of post-natal servicesExcessive consumption of alcohol using proceeds from the sale of farm produceBreastfeeding less than the recommended 6 months; early weaning of children
ECONOMIC		
• Food insecurity at the household levelLack of financial resources to provide for appropriate food for the childrenLack of access to animal products especially in communities where animals were raided after the disarmament. In Abim animal products are too expensive and there is often unfair exchange of animal products for other foodsLow food production at the household and community levels • Over dependence on food rations without home grown foodsWithdrawal of food rations by some of the sponsors leading to relapse of malnutrition • Selling of rations to get money to buy household needs and alcohol	• Household economic and financial hardshipsSale of most food produced and leaving little for the familyCommercial farming in Bundibugyo where cocoa competes with food crops. Money from cocoa is used to pay fees, build better houses at the expense of buying food for children and the lactating mothersBusy mothers who leave children under the care of siblings and other people	• Inadequate household incomesInadequate food stocks at household level for ensuring balanced dietsSelling the best and eating the worst food • Some families cannot afford animal productsHeavy daily activity profile of mothers leaving little time for attending to childrenDependence on food rations.

KARAMOJA	MID-WESTERN	ACHOLI SUB REGION
COGNITIVE		
• The perception that when a child starts craving for food the food should be givenPerception that when a woman is pregnant she cannot breastfeed	• Limited knowledge about preparation of balanced diets for the childrenPerception that when a woman is pregnant she cannot breastfeedThe perception that when a child starts craving for food the food should be given The perception that food is a good alternative relief for breast milk and a relief from breastfeeding obligations	• Perception that when a woman is pregnant she cannot breastfeedThe perception that food is a good alternative relief for breast milk and a relief from breastfeeding obligations;
PRACTICAL		
• When the mother is too sick to breastfeed • When the mothers do not generate enough breast milk leading to early weaning • Harsh weather conditions affecting food production.	• When the mother is too sick to breastfeed • When the mothers do not generate enough breast milk leading to early weaning • Seasonal availability of foodTeenage mothers who want to wean their children early to go to school	• When the mother is too sick to breastfeed;When the mothers do not generate enough breast milk leading to early weaning • Seasonal availability of food.
ENHANCERS OF COMPLEMENTARY FEEDING		
• Men who support their breast feeding spousesFood rations provided by development partners through health facilitiesSufficient food at the household levelDisposable income to the household through salaried employment and sale of animals and their productsAttendance of ANC and Post-natal services.	• Availability of different forms of food in the region • Improved levels of knowledge about food through health education at the health facilitiesAttendance of ANC and Post-natal services.Favourable climatic conditions enhance home gardening activities	• Dwindling cultural restrictions on what should be eaten by children and lactating mothers • Attendance of ANC and Post-natal services. • Some households are able to purchase animal proteinSupport from the mothers -in -law • High level of knowledge about what children should eatAvailability of home grown vegetablesSupportive husbands
BARRIERS TO APPROPRIATE CHILD CARING PRACTICES		
CULTURAL		
• Open air defecation sometimes even where there are sanitation facilities • The tendency leave children naked • Limited involvement of spouses in the care of children • Domestic violence • Care for children is always left to their mothers	• Domestic violence affects care for children • Early marriages affects the capacity to care for children • Polygamous marriages • Seasonal migration of labourers who do not construct latrinesCare for children is always left to their mothers	• Domestic violence affects care for children • Early marriages affects the capacity to care for children • Polygamous families • Limited male involvementCare for children is always left to their mothers

KARAMOJA	MID-WESTERN	ACHOLI SUB REGION
BEHAVIOURAL		
• Open air defecation -when children defecate the faeces are not removedLarge family sizes affect care time for each child; • Feeding children on alcohol and alcohol residuesLimited hand washing facilities and practicesAdults eat food rations meant for children.	• Eating of cold foodMothers leaving children under the care of other children • Limited hand washingLimited child deworming practicesPoor family planning/Large familiesPoor hand washing behaviours including when mothers are breast feeding the childrenAlcohol consumption common in households	• Limited/poor hand washing practicesLimited child deworming practicesLimited child deworming practices • Poor family planning/Large families • Poor hand washing behaviours • Alcohol consumption common in households • Open air defecation
ECONONOMIC		
• Cannot afford detergents for cleaningAlcohol brewing not a good environment for childrenInability to meet cost of constructing good latrines	• Some families cannot afford the cost of constructing good latrines	
COGNITIVE		
• Limited knowledge of the health benefits of appropriate hand washingCommunities not able to associate certain diseases to poor sanitation	• Limited knowledge of the health benefits of appropriate hand washingLimited knowledge on proper hand washing practicesCommunities not able to associate certain diseases to poor sanitation	• Limited knowledge of the health benefits of appropriate hand washingLimited knowledge of proper hand washing practicesCommunities not able to associate certain diseases to poor sanitation
PRACTICAL		
• Limited latrine coverage • Limited safe water supply coverage and household level water rationingSharing water sources with animalsLimited supervised feeding of childrenChildren left to care for fellow children when mother is away	• Limited latrine coverageLimited safe water supply coverageLimited supervised feeding of childrenChildren left to care for fellow children when mother is away	• Limited latrine coverageLimited safe water supply coverageLimited supervised feeding of childrenChildren left to care for fellow children when mother is away
ENHANCERS OF GOOD CARING PRACTICES		
• Availability and access to safe water supply and sanitation facilities • Knowledge of the importance of proper hygiene practices • Regular Government programme for deworming children • Spousal support in looking after children • Supervised feeding of children and general child minding	• Availability and access to safe water supply and sanitation facilitiesPeaceful familiesRegular Government programme for deworming children • Supervised feeding of children and general child minding.	• Availability and access to safe water supply and sanitation facilities • Peaceful families • Regular Government programme for deworming children; • Supervised feeding of children and general child minding.

Recommendations

1. The Behaviour Change Communication (BCC) strategy should address the cognitive gaps in all regions, on nutrition and for all the nutrition components. The importance of EIB should be strengthened in the Karamoja region and emphasised in Western and Acholi sub-regions. This should include emphasizing that breast milk is sufficient from birth to 6 months. There is need for BBC strategies that focus on individual situations to avoid the 'one size fits all' syndrome. This would require addressing practical aspects of nutrition in the day today management of food for the benefit of the mothers and children. Emphasis should be placed on the following in view of the situation in each family:

a) Specific food security and nutrition education interventions that are needed to target men in order to encourage them to support their spouses and families in production and procurement of appropriate foods;

b) Support their wives in domestic chores to give them time for themselves and the young children;

c) Support family planning in order to reduce the child burden in the home;

d) Respect for pregnant and lactating women, prioritizing their needs and ensuring that they get a fair share of food

e) Supporting their spouses by taking them to the health facilitiesThere is need to address the concerns and uncertainties of HIV positive mothers regarding the risk of infecting their babies during breastfeeding

2. Address the common belief that once pregnant, the mother should stop breastfeeding even when the child is younger than six months.

3. Step-by-step focus should be placed on increasing independence and self-reliance with regard to food production and gradually withdraw from handouts, especially in Karamoja region. Post-harvest economics of handling of food is critical especially for the Karamoja region. For example, the idea of cereal banks in Karamoja region is a vital innovation that should be expanded. In Mid-Western Uganda, emphasis should be on discouraging or at least minimizing sale of all the food produced. For Bundibugyo allocation of all available land to cocoa production should be discouraged.Eliminate the perception in Mid-Western Uganda that some foods such as vegetables, that are available at home, are not nutritious enough for lactating and pregnant mothers

4. Address families' economic constraints in affording food for their children by linking them with income-generating activities and agricultural support. This is vital for the Karamoja region and should include stronger coordination to address gaps in already existing initiatives.

5. There is need to strengthen and expand interventions that are aimed at increasing the participation of males in the care and well-being of mothers, infants and young children. Men should be made to make substantial contributions towards a positive care environment including constructing pit latrines, for proper sanitation. This could be achieved through community dialogues, peer to peer support, and enforced through by-laws

6. It is important to ensure that therapeutic foods and other rations are sufficient to include all family members especially in Karamoja; " protective ration for the family"

7. There is need to improve on the quality of services especially in maternal health to continue to attract mothers to the health facilities for delivery. Mobilization for use of ANC and family planning should be increased and this can be achieved by improving the quality of services and making them acceptable and attractive

8. Health worker education sessions should be stepped up to reach out to mothers, women and men who use ANC services to get the full package on feeding practices for pregnant and breastfeeding women. Outreach services will help to enhance wider coverage.

9. There is need for interventions that address practical challenges faced by mothers when pregnant, during initiation of breastfeeding and when lactating:

    - What mothers do when a child refuses to suckle during initiationHow to help mothers who have delivered by caesarian sectionHow to help mothers who do not have enough breast milk during initiation and later onHow to help young mothers who cannot easily start breastfeedingHelp women who get pregnant when their children are still very young

10. There is need to improve on the quality of services especially in maternal health in order to attract mothers to deliver at the health facilities. This should include improvement in the general infrastructure, especially water and sanitation, transport systems and other social services.

1.

INTRODUCTION AND BACKGROUND

The UNICEF Uganda country office is in the early stages of designing a community based nutrition program with a focus to improve maternal, infant and child feeding practices in Karamoja, Northern Uganda Acholi and Mid-Western regions of Uganda. As part of the body of evidence needed to inform this process, formative research was commissioned and carried out in 19 districts selected purposively from Northern Uganda, Karamoja sub-region and Mid-western Uganda and included Moroto, Nakapiripirit, Abim, Napak, Kotido, Kaabong and Amudat for Karamoja region; Kabarole, Kyegegwa, Kyenjojo, Bundibugyo, Ntoroko, Kamwenge and in Central and Mid-Western Uganda and, Gulu, Lamwo, Nwoya, Kitgum, Amuru in Northern Uganda. This formative research explored why families are inadequately feeding their children, pregnant and/or lactating mothers. It also explores what the triggers or enhancers of practices are.

1.2 RATIONALE FOR THE FORMATIVE RESEARCH

The formative research was meant to inform the design of a community based nutrition program aimed at improving maternal, infant and young child feeding by exploring triggers/enhancers and barriers to appropriate feeding practices. It was meant to define levels of acceptability and adoption of new behaviors, target audiences and the behavior change messages for each of the audiences. By focusing on issues of importance to the community, this formative research provided an opportunity for stakeholders to participate and contribute to program activities that are based on tested recommendations. Based on the results, specific recommendations have been made in relation to what should be done by different stakeholders, beneficiary communities and UNICEF to improve on nutrition practices in the study districts and Uganda in general. The recommendations encompass aspects of how to improve feeding practices based on intra-household dynamics, gender, seasonal changes, and other variables that influence the nature of impact of the messages on the feeding practices.

1.3 SPECIFIC OBJECTIVES OF THE FORMATIVE STUDY

a) To identify and gain an appreciation of existing knowledge, attitudes, practices (KAP) and beliefs community members have regarding nutrition practices;

b) To identify challenges mothers face with regard to adequate nutrition practices;

c) To identify what would make mothers start employing adequate nutrition practices (triggers and enhancers);

d) To identify incentives within the mothers' immediate social environment that have the potential to trigger them to start employing adequate and appropriate nutritional practices.

1.4 STUDY COMPONENTS

The key areas of inquiry for the formative study included the following:

- Maternal nutrition (mothers' eating habits, support from the immediate family and hygiene practices);
- Exclusive breastfeeding of children under the age of 6 months;
- Complementary feeding; including time of introduction of food, frequency, types of foods usually served, consumption of milk (especially for the inhabitants of Karamoja region), food sufficiency in households (food reserves, length of sufficiency of food, home/kitchen gardening, access to animal products, availability of meat and fats);
- Caring practices such as those around water and sanitation aimed at avoiding diarrhea e.g. hand -washing and availability/use of latrine facilities).

2.

LITERATURE REVIEW

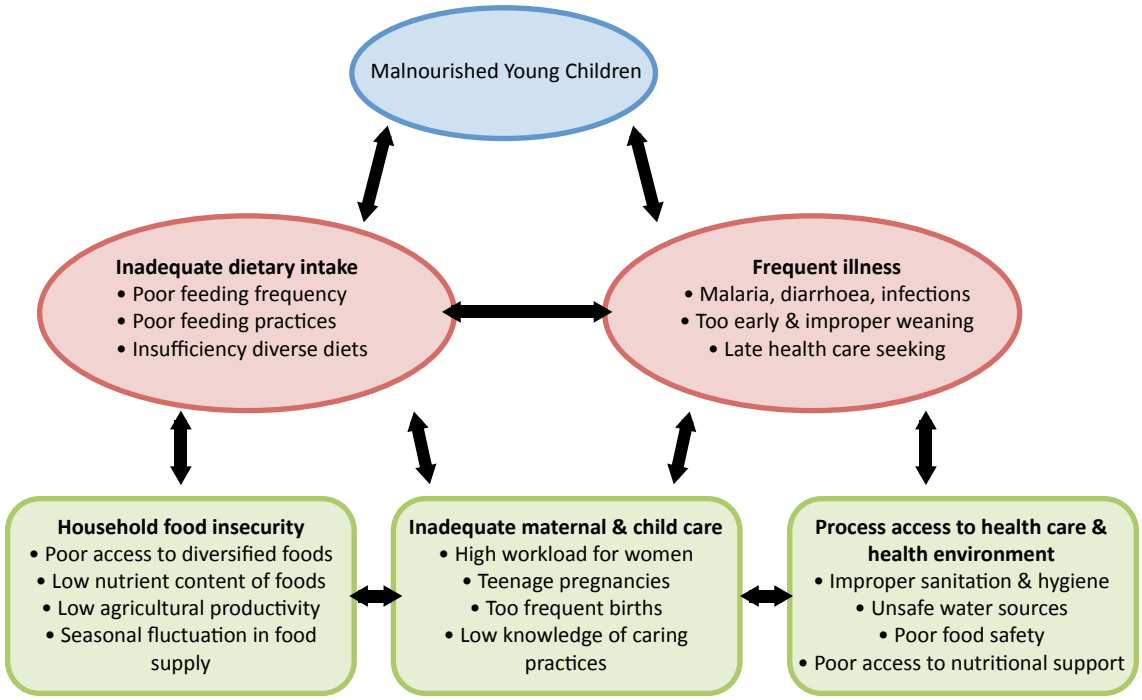
2.1 MATERNAL AND CHILD FEEDING AND CARING PRACTICES IN UGANDA

Globally, malnutrition accounts for about 35% of deaths among children under 5 years of age. Malnutrition is the major cause of morbidity for all age groups, accounting for 11% of the disease burden globally [1]. More than 10 million children younger than 5 years die from preventable causes each year worldwide [2]. Of these, 4 million deaths occur in the first 28 days of life; the neonatal period [3]. In addition, over 500,000 women die from pregnancy-related complications each year, with more than half of the deaths occurring in Africa [4]. Majority of the child deaths occur in low-income countries of sub-Saharan Africa and differ substantially from one country to another [2]. Under nutrition is highlighted as an underlying cause of child

deaths associated with infectious diseases and concurrent illnesses such as pneumonia and diarrhea, which are most often associated with child deaths. Infants who are not breastfed have increased risks of dying from diarrhea or pneumonia compared to their counterparts who are exclusively breastfed [5, 6]. Micronutrient deficiencies and underweight among children incur an additional risk of mortality from infectious diseases [7-9]. Children with vitamin A and zinc deficiencies have a higher risk of dying from malaria, pneumonia and diarrhea, which are the leading cause of child morbidity and mortality in developing countries [10-13]. Fetal malnutrition, which manifests in low birth weight, contributes to neonatal mortality in a similar manner [14]. A child's birth weight is an important indicator of the child's vulnerability to childhood illnesses and death. Children with a birth weight of less than 2.5 kilograms have a higher-than-average risk of childhood death [15].

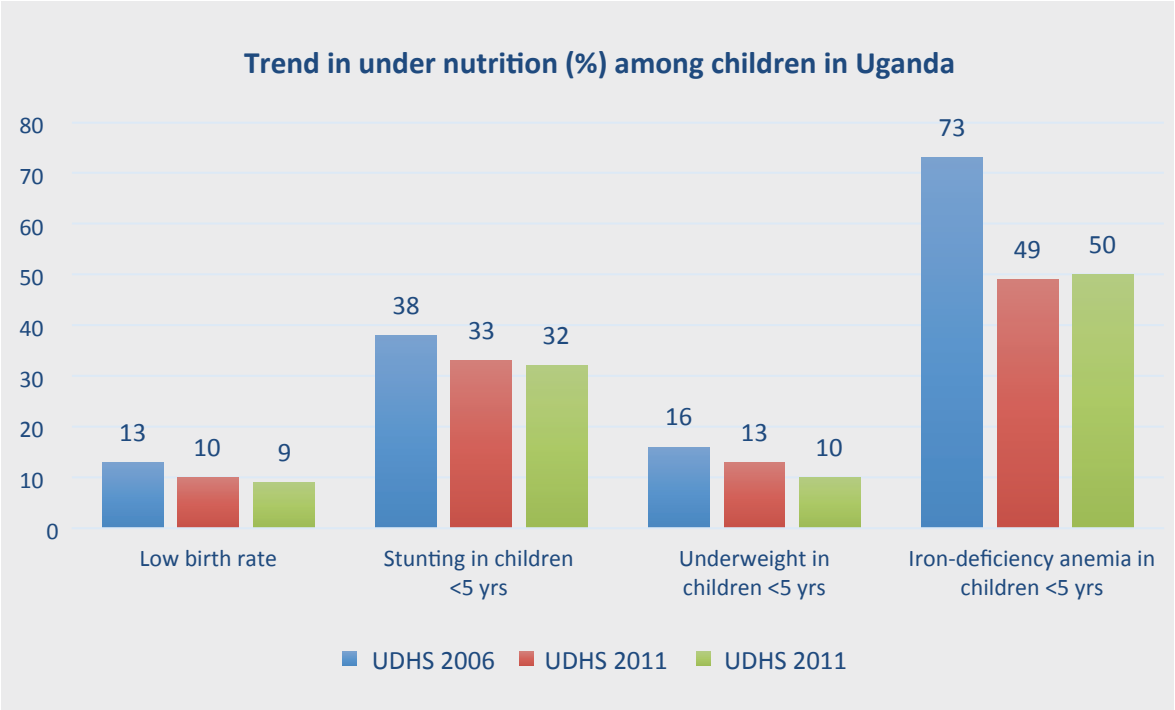
In Uganda, malnutrition is a development concern and affects millions of people in all regions of the country and most segments of the population, but it is mainly devastating to women, babies, and children [1]. Although the country has made progress in producing sufficient food to meet the needs of its population and has registered significant reduction in poverty levels over the years, there is marginal improvement at the levels of malnutrition among women and children. More than 2.3 million children in Uganda today are chronically malnourished. In addition, 16% of children under 5 are underweight while 6% are wasted, and 12% of women are malnourished [1]. The causes of child malnutrition in Uganda are two-fold: inadequate dietary intake resulting from suboptimal maternal and infant feeding practices and the high disease burden resulting from malaria, diarrheal diseases, acute respiratory infections, and worm infestations [1] (Figure 1).

Figure 1: Causes of child under nutrition in Uganda (Adapted from the Uganda Nutrition Action Plan: 2011-2016)



In 2011, a 5 year Ugandan Nutrition Action Plan (UNAP) was developed with the goal of reducing levels of malnutrition among women of reproductive age, infants, and young children. The UNAP provides a framework for multi-sector efforts to scale up nutrition as a foundation for national development [1]. UNAP priority investment areas include: i) scaling up cost effective community-based initiatives that emphasize prevention and control of malnutrition; and ii) establishing an enabling environment and strong institutional capacity and mechanisms to implement the UNAP at all levels. It also includes iii) strengthening food security and nutrition safety nets at national and decentralized levels; and IV) conducting operational research in nutrition to inform implementation and monitoring of UNAP Progress. In addition, nutrition constitutes one of the priority components of the Uganda National Minimum Health Care Package [16]. It was hoped that these efforts would adequately target areas of need for improved nutrition in Uganda. Considerable reduction in under nutrition among children has been registered over the years (Figure 2).

Figure 2: Under nutrition among children in Uganda (Source: UDHS, 2006 & 2011)



Under nutrition remains an important underlying factor and contributes to the current high infant and under five mortality rates in the country at 54/1000 and 90/1000 live births, respectively [15]. The country still faces regional and seasonal food insecurity with Karamoja region being one of the regions with the highest levels of food insecurity in the country [17]. The situation is particularly acute in the southern part of the region where more than 43% of the population is highly food insecure. As a result, households are now resorting to negative coping strategies such as reducing meals, skipping meals, and increasing debt to deal with the situation. Years of erratic and poorly distributed rainfall, crop failures, pests and diseases, and civil insecurity are responsible for the decline in food security and coping capacity in the region [17]. Other regions with high prevalence of under nutrition include Central 2, West Nile and Western regions (Table 1).

Table 1: Under nutrition among children < 5 years in Uganda (Source: UDHS 2006 & 2011)

Region	Stunting		Underweight		Wasting		Anemia			
							Children		Women	
	UDHS 2006	UDHS 2011	UDHS 2006	UDHS 2011	UDHS 2006	UDHS 2011	UDHS 2006	UDHS 2011	UDHS 2006	UDHS 2011
Kampala	22.2	13.5	10.3	5.7	7.4	4.4	52.2	39.8	32.7	19.6
Central 1	39.2	32.5	13.0	**12.9**	4.5	**5.8****	80.3	56.8	57.5	23.5
Central 2	29.8	**36.1****	8.4	**11.4****	3.1	**5.3****	72.3	54.2	42.9	30.9
East Central	38.3	33.5	22.9	16.7	9.9	5.0	79.5	67.5	48.2	29.9
Eastern	39.2	25.3	11.2	**16.0****	3.4	**4.8****	80.0	54.6	48.9	27.9
Karamoja	-	**45.0****	-	**31.9****	-	**7.1****	-	69.5	-	43.3
North	40.0	24.7	21.8	12.3	6.5	3.4	80.2	34.0	64.0	13.1
West Nile	37.7	**37.8****	16.6**	**17.9****	8.3	6.2	69.2	64.4	37.1	32.3
Western	37.7	**43.9****	14.6	**15.5****	5.0	2.7	64.4	38.6	45.1	17.3
Southeast	49.6	41.7	19.3	14.9	9.0	4.9	62.2	24.6	49.7	11.4
National	**38.1**	**33.4**	**15.9**	**13.8**	**6.1**	**4.7**	**72.6**	**49.3**	**49.0**	**23.0**

According to the UDHS 2011, an estimated 33% of children younger than five years are stunted; 13.8% are underweight; 4.7% are wasted. About 49% of children and 23% of women are anemic [15]. Although a comparison of UDHS 2006 and UDHS 2011 data shows a decline trend in the proportion of children that are stunted and underweight, the nutritional status of women has remained unchanged for the same period [15, 18].

Concern Worldwide International conducted a Barrier Analysis study for four behaviors including continued breastfeeding, hand washing, complementary feeding and extra meal for lactating mothers in Karamoja region. It underscored the following as key behavioral determinants: i) self-efficacy, ii) social norms, iii) positive and negative consequences, iv) access, v) cue for action, vi) divine will, vii) susceptibility, viii) severity and ix) universal motivators. Obstacles such as the difficulty of cooking while one is drunk, positive consequences such as the intelligence of the baby, negative consequences such as infecting the baby with HIV through breastfeeding and indigestion caused by semi-solid foods were also highlighted. Social norms such as husband and family support, influence by health professionals and the significant others were reported. The difficulty in accessing enough food for the babies and the inability of caretakers to remember to prepare meals for babies were reported as the access barriers, respectively. Divine will was perceived as a cause for adequate or inadequate breast milk for breastfeeding mothers. The risk of diarrhea, malnutrition, and the uncertainty whether breastfeeding or feeding the child twice daily will reduce malnutrition were highlighted as the susceptibility and action efficacy determinants. According to the study, severity, culture and policy influences were not significant behavioral determinants (unpublished report).

The drawback to the barrier analysis study is that initiation of breastfeeding after delivery and exclusive breastfeeding were omitted.

The achievement of the Millennium Development Goal (MDG) 4 – reducing child mortality and MDG 5 – improving maternal health, necessitates improved nutrition for mothers and their children. Over the past 2 decades, substantial reductions in child and maternal mortality have been registered in many low income countries with under-five and maternal mortality rate dropping by 50% and 45%, respectively [19]. Nonetheless, much more needs to be done to further reduce child and maternal deaths. Appropriate actions, such as improving maternal and child care, including their nutritional status, need to be undertaken [19].

2.2 MATERNAL AND CHILD CARE

In Uganda, 57% of births take place in a health facility: 44% in public health facilities and 13% in the private sector facilities. Women in urban areas are more likely to deliver from an institutional setting compared to women in the rural areas. Delivery in a health facility varies considerably by region, being lowest in the Karamoja region (27%) and highest in Kampala (93%) and Central 2 (69%) regions [15]. According to the 2011 Uganda Demographic and Health Survey (UDHS), a skilled provider compared to 53% of births in rural areas assists more than 90% of the births in urban areas. Births in Karamoja region (31%) are less likely to be attended by a skilled provider than births in other areas. The survey further show that 19% of the women in the Southwest region deliver without any person providing assistance [15].

During the first 6 weeks of the post-delivery period, women may develop serious, life-threatening complications, including post-delivery hemorrhage and infections. Thus, postnatal care is critical in averting such complications. Mothers are expected to receive a postnatal check-up within the first 24 hours of delivery. When mothers are discharged from hospital, they are expected to return for a check-up within seven days of delivery and at 6 weeks post-delivery. However, in Uganda, only 33% of women receive postnatal care [15] and this contributes to the high postpartum mortality rates in the country.

2.3 NEWBORN CARE

Newborn care is essential to identify, manage, and prevent complications soon after delivery, including neonatal death. Like their mothers, newborns are expected to receive postnatal check-up within the first 24 hours of life. Within the first 6 hours of birth, care should be provided to the newborn on an hourly basis. When mothers are discharged from hospital, they are expected to return for a check-up within seven days of delivery. At 6 weeks post-delivery, the mothers are supposed to bring their infants for immunization [20].

According to the 2011 UDHS, only 11% of newborns are taken for their first postnatal check-up within the critical first two days after birth. Only 2% of the births have a postnatal check-up within the first hour after birth, while 9% of births make a postnatal visit within 24 hours after birth. The majority of newborns (86%) do not receive a postnatal check-up. Newborns delivered outside of a health facility are less likely to receive a postnatal check-up than newborns delivered in a health facility. Similarly, postnatal check-ups are less likely among rural births and births in the Southwest region than among births in other regions [15].

2.4 CHILD FEEDING PRACTICES

Breast milk is the natural first food for babies that provides all the energy and the child's nutritional needs for the first months of life, up to 2 years. Breastfeeding is therefore, an unequalled way of providing ideal food for the healthy growth and development of infants; it is also an integral part of the reproductive process with important implications for the health of mothers. Breast milk promotes sensory and cognitive development, and protects the infant against infectious and chronic diseases [21]. Scientific literature demonstrates substantial health, social, and economic benefits associated with appropriate breastfeeding, including lower infant morbidity and mortality from diarrhea and other infectious diseases.

Exclusive breastfeeding, i.e., breast milk as the sole source of food, is the ideal method of feeding infants up to about 6 months of age, after which breastfeeding should be continued but complemented with other sources of nutrition [6, 22, 23]. In order to enable mothers to establish and sustain exclusive breastfeeding for 6 months, the World Health Organization (WHO) recommends i) initiation of breastfeeding within the first hour of life, ii) exclusive breastfeeding, iii) breastfeeding on demand – that is as often as the child wants, and iv) not using bottles, nipples or pacifiers [23]. Exclusive breastfeeding is recommended because breast milk is uncontaminated and contains all the nutrients necessary for children in the first few months of life. In addition, the mother's antibodies in breast milk provide immunity to disease. Early supplementation is discouraged for several reasons. First, it exposes infants to pathogens and increases their risk of infection, especially disease. Second, it decreases infants' intake of breast milk and therefore suckling, which reduces breast milk production. Third, in low-resource settings, supplementary food is often nutritionally inferior [18].

Despite the WHO recommendations, exclusive breastfeeding is not commonly practiced [24]. In order to improve breastfeeding practices, global initiatives have concentrated on hospital policies and procedures [23, 25]. Although hospital-based programs have shown significant impact on breastfeeding outcomes, community-based support of breastfeeding is also needed. Important models for community-based breastfeeding promotion such as peer counseling, which involves training lay community members to contact and advise peers from the same community are recommended for successful initiation and maintenance of breastfeeding [26-28].

2.4 BREASTFEEDING PRACTICES IN UGANDA

Breastfeeding is nearly universal in Uganda, with 98% of children having been breastfed at some time. Nearly 63% of the children under six months are exclusively breastfed [15]. Although some children receive complementary foods too early, others begin to receive complementary foods too late. The median duration of breastfeeding and exclusive breastfeeding in Uganda is 20 and 4 months, respectively. More than 80% of the children aged 6-9 months are complementary fed in addition to breastfeeding, as recommended by WHO. Bottle-feeding is not widespread in Uganda. The proportion of children bottle-fed increases with age and ranges from 8% among babies less than 3 months to 27% among those aged 6-9 months [18].

2.6 INITIATION OF BREASTFEEDING

Early suckling of the breast benefits the mothers because it stimulates breast milk production and facilitates the release of oxytocin, which helps the contraction of the uterus and reduces postpartum blood loss. In addition, early initiation of breastfeeding fosters bonding between mother and child.

Despite the high levels of breastfeeding in Uganda, only 52% of the children are breastfed within the first hour of birth [15]. The percentage of children breastfed in the first hour of birth ranges from 54% in Kampala to 35% percent in Southwest region. Breastfeeding within one hour of birth is common in the Karamoja sub-region, where 70% of children are breastfed. Children born in a health facility are more likely to be breastfed in the first hour of birth than are other children . Except by region, differences in the percentage initiating breastfeeding during the first 24 hours are comparatively insignificant. The percentage of children breastfed on the first day ranges from 79% in West Nile to 95% in East Central region. There is very little difference in pre-lacteal feeding by region. The proportion of children receiving pre-lacteal feeding ranges from 37% in the North to over 65% in Southwest, East Central, and Central 1 regions. Plain water (37%), sugar/glucose water (31%) and milk other than breast milk (16%) are the most common pre-lacteal liquids used [18].

2.7 COMPLEMENTARY FEEDING

UNICEF and WHO recommend the introduction of solid food to infants around the age of 6 months because by that age, breast milk alone is no longer sufficient to maintain a child's optimal growth. During this transition period (ages 6-23 months), the prevalence of malnutrition increases substantially in many countries because of increased infections and poor feeding practices. Nonetheless, only 77% of Ugandan children aged 6-8 months receive complementary foods.

Between the ages of 6 and 23 months, more than 83% of children consume foods made from grains more often than any other foods. Foods made from legumes and nuts are the next most commonly consumed foods. About 40% of the children eat fruits and vegetables rich in vitamin A. Comparing dietary intake of children by their breastfeeding status, as expected, a higher proportion of non-breastfeeding children are consuming solid and semi-solid foods than breastfeeding children [15]. More non-breastfeeding children are consuming milk than breastfeeding

children are. However, the percentage of non-breastfeeding children who consume other milk is still quite low, considering they are not benefiting from breast milk.

Infant and Young Child feeding (IYCF) practices include (i) timely initiation of feeding solid/ semi-solid foods from age 6 months; (ii) increasing the amount and variety of foods; and (iii) frequency of feeding as the child gets older, while maintaining frequent breastfeeding. Over 30% of children in Eastern and Southwest regions of Uganda meet the recommendations for all three IYCF practices compared to only 7% in the North [15]. The proportion of children meeting all three IYCF practices was low in both the IDP camps and in Karamoja (8%). Food groups used in the assessment of minimum standards of feeding practices include infant formula, milk other than breast milk; cheese, yogurt or other milk products; matooke and foods made from grains, roots, and tubers. Others are porridge and fortified baby food from grains; fruits and vegetables rich in vitamin A; other fruits and vegetables; eggs; meat, poultry, fish, and shellfish (and organ meats); beans, peas, and nuts; and foods made with oil, fat, or butter. In summary, less than 25% of Ugandan children aged 6-23 months meet the minimum standard with respect to all the three IYCF practices mentioned above [18].

The poor child feeding practices in Uganda are associated with increased childhood mortality, anemia, diminished physical and cognitive development and susceptibility to infections [15]. For instance, childhood mortality rates are lower in the urban than in rural areas. There are substantial regional variations in early childhood mortality rates. Kampala, which has a higher socio-economic status than the other regions, has the lowest childhood mortality rate of 47 deaths per 1,000 live births compared to 87 and 88 deaths per 1,000 live births in Karamoja and West Nile, respectively. Similarly, the under-5 mortality is lowest in Kampala (65 deaths per 1,000 live births) and highest in Karamoja (153 deaths per 1,000 live births) [15].

Anemia is a critical public health problem in Uganda, where almost 49% of Ugandan children aged 6-59 months are anemic. Anemia is associated with impaired cognitive and motor development in children. Although there are many causes of anemia, inadequate intake of iron, foliate, vitamin B12, or other nutrients usually account for the majority of cases in many populations. Malaria accounts for a significant proportion of anemia in children under five in malaria endemic areas. Children aged 6-8 months are much more likely to be severely anemic than older children. Severe anemia threatens slightly fewer children in urban areas than in rural areas. By region, the prevalence of severe anemia varies greatly, ranging from as low as 1% in the Southwestern region to 9% among children living in the East Central region [15].

Acute respiratory infections (ARI) are among the leading causes of child morbidity and mortality in Uganda. According to the 2011 UDHS, 15% of the under-five children experience symptoms of ARIs. Pneumonia is the most serious illness of ARI in young children. The proportion of children with ARI symptoms ranges from 9% in the Central 1 region to 22% in the Northern region.

Dehydration caused by severe diarrhea is a major cause of morbidity and mortality among young children. In Uganda, nearly 25% of all children under five suffer from diarrhea, while 4 percent have diarrhea streaked with blood. However, regional variations have been reported. Children living in the East Central and Eastern regions are more susceptible to episodes of diarrhea compared to children living in other regions. Children living in the Southwestern region have the lowest prevalence of diarrhea (14%) compared to children living in other regions [15].

2.8 MATERNAL FEEDING PRACTICES IN UGANDA

The quality and quantity of food that mothers consume influences their health and that of their children, especially the health of breastfeeding children. Malnutrition in women results in reduced productivity, increased susceptibility to infections, slow recovery from illness, and heightened risks of adverse pregnancy outcomes. For example, a woman who has poor nutritional status, as indicated by a low body mass index (BMI), short stature, anemia, or other micronutrient deficiencies, has a greater risk of obstructed labor. They are also susceptible to having a baby with low birth weight, producing lower quality breast milk, mortality due to postpartum hemorrhage, and morbidity of both herself and her baby [15].

The staple diet of mothers of young children in Uganda consists of foods made from legumes (68%) and grains (67%). Over 50% of women consume fruits and vegetables rich in vitamin A and foods made from roots/tubers. More than 30% of women consume meat, fish, shellfish, poultry or eggs, cheese or yogurt. Thirty five percent of mothers drink tea or coffee. Adequate micronutrient intake by women has important benefits for both women and their children. Breastfeeding children benefit from micronutrient supplementation that mothers receive, especially vitamin A. Iron supplementation of women during pregnancy protects mother and infant against anemia. An estimated 70% of mothers of young children consume vitamin A-rich fruits and vegetables but only 31% of mothers consume iron-rich foods, namely, meat, poultry, fish, and eggs. For both mothers and their children, consumption of foods rich in vitamin A is highest in West Nile and lowest in Southwest region. Mothers as well as children in the North and Southwestern regions are least likely to eat foods rich in iron. Only a third of women with a child born in the last five years receive Vitamin A supplementation after delivery. By region, the proportion of women who receive a postpartum vitamin A supplement ranges from 23% in Southwest region to 47% in Kampala. With regard to iron supplementation during pregnancy, about 60% of women take iron tablets or syrup during pregnancy [15].

The chronic manifestations of the inadequate maternal feeding practices are highlighted in the UDHS [15]. About a quarter (25%) of the women are anemic. Rural women are much more likely to be anemic (52%) compared to urban women (35%). There is great regional variation in the prevalence of anemia among women. Anemia is lowest in Kampala (33%) and West Nile (37%) and highest in the North (64%). Among women in IDP camps in the North, 65% are anemic compared to 54% in Karamoja.

More than 36% of women have Vitamin A deficiency (VAD). Women in urban areas are somewhat less likely to have any VAD compared to women in rural areas.

10% of the children in Uganda have a low birth weight (less than 2.5 kg), an important indicator of the children's vulnerability to the risk of childhood illnesses and death. The birth weight of a child also varies somewhat by mother's region of residence. Low birth weight ranges from as low as 7% in the Eastern region to as high as 14% in the Central 1 region [15].

2.9 BARRIERS TO MATERNAL AND CHILD CARE AND FEEDING PRACTICES

Most of the evidence-based maternal, childcare and feeding practices are acceptable to both the community and the health service providers. However, a number health system and community barriers hinder their practice [29]. Knowledge barriers, culture and traditional beliefs and practices, financial constraints and service delivery gaps are some of the major factors underpinning the low uptake of maternal, childcare and feeding practices.

Many pregnant women do not comprehend the importance of attending antenatal care unless they fall sick. In some cultures, ANC is misconstrued as provision of medicine for sick pregnant women [29]. There is limited knowledge on the importance of attending ANC. Deep-rooted beliefs in herbs as part of pregnancy care; decision making as a male prerogative for seeking and choice of care; influence from older mothers and the fear of preparing for the unborn whose viability is considered uncertain are some of the cultural and traditional barriers to maternal and child care [30].

Other important barriers to seeking care include transport costs and other costs associated with hospital deliveries such as some supplies, clothing and drugs. More than 7.5 million people (22% of the population) live below the poverty line [31]. The incidence of poverty in the rural areas constitutes 94.4% of the national poverty; therefore, many parents, particularly in the rural areas, cannot afford to pay for the recommended complimentary feeds. Women's reliance on male partners for funds and men's inability to raise the funds or sometimes unwillingness to give the funds also affect child care and feeding options [29, 32].

Service delivery gaps such as inadequate skilled staff, staff absenteeism, poor attitude and communication of health workers, lack of basic equipment and supplies for safe deliveries and child feeding encumber maternal and child care practices [33]. Thus, the financial burden on families for birth preparedness should be reduced if skilled attendance at delivery is to increase, which requires availability of supplies in the health facilities.

In Uganda, 24% of teenagers have begun childbearing: 18% of them have had a live birth and 6% are carrying their first child. However, the proportion of teenagers who have started child-bearing has declined over time, from 43% in the 1995 to 24% in 2011. Rural teenagers (24%) start parenthood earlier than their urban counterparts do (21%). The percentage of teenagers who have begun childbearing was higher in the East Central, Eastern, and Karamoja regions compared to other regions (30%), while Southwest region had the lowest (15%).

3.

METHODOLOGY

3.1 Study Design

The study employed an exploratory stance using a purely qualitative approach. This design enabled deeper exploration context specific nuances, meanings, beliefs and attitudes that influence child feeding and caring practices. Borrowing ideas from grounded theory the study team was cautious of the danger of approaching the field with pre-conceived ideas. In addition, the analysis of qualitative data started immediately with data collection. This enabled generation of first impression summaries that allowed further inquiry in an iterative manner until saturation points were collectively agreed upon by the team. To achieve this, the study team met on daily basis to discuss emerging issues.

3.2 STUDY SITES

Within each of the districts targeted by the study, we selected two sub-counties with guidance from the district health teams and based on the performance in terms of nutrition indicators. Table 1 of Annex 1 highlights the sub-counties visited in all the 19 districts. Other consider-

ations included socio-cultural organization of communities in terms of ethnicity to provide the frame of values, norms and practices relating to childcare, feeding and caring for pregnancy. In addition, different ethnic groups especially in Karamoja, Ntoroko and Bundibugyo districts occupy territories that present diverse environmental/livelihood opportunities as well as challenges relating to feeding among pregnant women and children under 2 years and access to services necessary for proper growth.

3.3 STUDY PARTICIPANTS

The respondents included the following categories: mothers of children less than 2 years of age; pregnant women (usually divided by their trimester of pregnancy and immediate post-partum status); men between the age of 18 and 49; mothers or mothers-in-law of the pregnant women, particularly those living in the same household with their sisters-in-law. Others include Village Health Teams (VHTs), health workers, representatives of community support groups, agricultural extension workers, and community development officers/assistants; representatives of the District and Sub-county Nutrition Coordination Committee members; Farmer field school members for Karamoja region and selected partners supporting food security and nutrition interventions in the selected districts. Unlike other regions where ethnicities were not considered to influence significant variations in opportunity or vulnerability, the selection of participants in Karamoja was based on the ethnic groupings as anticipated in the different districts.

3.4 DATA COLLECTION METHODS

The key methods of data collection were FGDs, IDIs and KIIs and these were supplemented by observation of the general health conditions of the mothers, children and other community members. Thoroughly trained research assistants who could speak the local dialects in Karamoja region did data collection. The field supervisors conducted KIIs. All the FGDs and in-depth interviews were digitally recorded and later transcribed for analysis and report production. Supervisors not only oversaw data collection in the respective areas but also participated in conducting key informant interviews.

3.5 DATA PROCESSING AND ANALYSIS

Analysis started in the field. Using an iterative approach to the inquiry, interviewers and supervisors worked together to ensure that new questions were added depending on the responses generated. The interviewers met with the field supervisors every evening to identify some of the emerging issues that needed follow-up in the subsequent interviews and discussions. All the interviews and FGDs were digitally recorded and transcribed; later, they were translated from the local languages into English. All the transcribed and translated into English. The scripts were then analyzed manually using a grounded theory approach where emerging themes and sub-themes were inductively generated after thoroughly reading the transcripts. Codes were generated and applied to the text to get illustrative examples and verbatim quotations.

3.6 QUALITY CONTROL

Quality control was achieved through recruiting competent research assistants who were not only fluent in local languages spoken in the respective districts but also had enough experience in conducting qualitative interviews. Other important quality assurance strategies included comprehensive training and supervision of research assistants, keeping field diaries for recording any event deemed important in the interpretation of findings as well as tape-recording all interviews and discussions which captured all simultaneous responses. There was also daily de-briefing amongst the study teams to share experiences and lay strategies for the way forward, check saturation and identify new issues to be followed up.

3.7 PREPARATION FOR FIELD WORK

Prior to fieldwork, a number of activities were undertaken including a review of the meeting that was convened by UNICEF with the team to harmonize the understanding of the terms of reference (ToR), methodology, as well as sharing the itinerary for field work and data collection. There was also review of literature on nutrition to obtain a more clear understanding of the situation to enable the team develop the tools. In addition, research assistants were comprehensively trained to further enhance their skills in qualitative research and understanding of the basic requirements for nutrition for pregnant women, lactating mothers and initiation of breastfeeding. Their recruitment took into account competence, possession of adequate qualitative experience and fluency in local languages. Finally yet importantly, the draft tools were pre-tested and finalized during a de-briefing session held thereafter.

3.8 ETHICAL CONSIDERATIONS

Ethical issues observed included providing full verbal explanation to various study participants about the purpose of the interviews and discussions and seeking their verbal consent before the interview, or discussion, note taking and or use of a tape recorder. Study teams also explained to the participants that their participation was voluntary and that they were free to decline participation or withdraw in the middle of the interview/discussion if they so wished. The teams also explained to the participants that the information they provided was to be treated with maximum confidentiality and was only going to be utilized for program purposes.

4.

STUDY FINDINGS

Findings presented in the study relate to the three regions where the study was conducted: Karamoja, Northern (Acholi-sub-region) and Mid-western. Although there are crosscutting outcomes, findings from each of the regions are presented separately to easily reveal unique features that would inform the design of appropriate interventions.

4.1 FINDINGS FROM KARAMOJA REGION

4.1.1 Context

Karamoja region is one area with very arid climatic conditions. It is home to former nomadic pastoralists whose livelihood has drastically been changed largely due to loss of animals and cattle rustling. After losing most of their herd, the Karimojong have been advised to try other sources of livelihoods, specifically crop farming and sedentary animal husbandry. It has been difficult for the Karimojong who are used to moving animals around in search of pasture, to settle for a sedentary farming life style without access to water and pasture for their animals. Several initiatives whose effort is to support the communities to adopt new ways of life have been put in place. The development partners provide seeds, extension services and to some extent post-handling and marketing. Given the extreme weather conditions, farming as an option cannot satisfy the food requirements of the region. The region is chronically unstable

due to insecurity, climate change, environmental degradation and economic pressure [34]. It also faces the highest levels of food insecurity in the country [17]. The situation is particularly acute in the southern part of the region where more than 43% of the population is highly food insecure. As a result, households resort to coping strategies such as reducing meals, and borrowing to deal with the situation. Years of erratic and poorly distributed rainfall, crop failures, pests and diseases, and civil insecurity are responsible for the decline in food security and coping capacity in the region [17].

In this study, we explored the existing knowledge, attitudes, practices (KAP) and beliefs community members have regarding nutrition practices; triggers/enhancers and barriers to adequate nutrition practices and what would make mothers start employing adequate nutrition practices (triggers and enhancers) in Karamoja region.

4.1.2 Knowledge and practices on nutrition in Karamoja

In general, the awareness about the continuum of appropriate nutrition practices was not a problem across all the Karamoja districts according to the responses from the mothers, men, district officials and the development partners. There was also consensus that prohibitive cultural beliefs and taboos were reducing in many of the communities in Karamoja region. However, there are still elements of cultural barriers especially in relation to male involvement, sharing of food and other enormous challenges that hamper the realization of the desired nutrition practices. The findings about the level of existing knowledge, attitudes, practices (KAP) and beliefs that community members have regarding nutrition practices will be presented in accordance with the nutrition components of pregnancy, lactating mothers, initiation of breast-feeding, exclusive breastfeeding, complementary feeding and child caring practices.

Pregnant Mothers

The study explored the existing KAPs and beliefs regarding nutrition practices during pregnancy. Knowledge about appropriate nutrition practices was high among pregnant women and men in all the Karamoja districts. During the in-depth interviews and FGDs with mothers, it was evident that they were conversant with the foods they should eat when pregnant. Many appropriate foods pregnant women should eat as essential foods were mentioned: eggs, chicken, silver fish, vegetables, milk and meat.

> **Interviewer**: As pregnant mothers, what are you supposed to do to ensure you produce healthy babies?
>
> **Respondent 1**: You should also eat good meals, eggs, chicken and fish if you have money.
>
> **Respondent 2**: You also buy milk and take it sometimes **(FGD, Pregnant Women, Abim sub-county, Abim District).**
>
> **Respondent**: Pregnant mothers eat foods like silver fish, eggs, and greens. **(IDI, woman with a child under two years, Nakapiripit District)**.
>
> Women who are pregnant should take porridge, eggs, fruits like papaw, silver fish (*ngemenain*), and vegetables. And these mostly go to the pregnant women who prefer the food they feel like eating at the moment **(FGD, Pregnant mothers; Nakapiripit District)**

In terms of attitude there was concern raised by the Development Partners implying that mothers were negligent and intentionally starved their children to qualify for the food rations. However, this position was not consistent with some Karimojong born men and women who were working with some of the Development Partners organizations and felt it was a biased presentation of the Karimojong people. On the other hand, they argued that there were unavoidable circumstances which force the Karimojong women to give their children little food because they do not have it.

> It is a misconception that Karimojong starve their children to get food rations. First, they do not have the food. Karimojong love their children and would wish the best for them. Many of the development partners have failed to understand the conditions of the Karimojong people. That is why no meaningful development can take place here. **(KII with Karimojong man working with a development partner)**

4.1.3 Enhancers of appropriate feeding for pregnant women

The UDHS (2011) shows that women residing in Karamoja are the most likely to be thin (33%), while women in Southwest are the least likely to be thin (5%). The UDHS also shows that women in Karamoja have the highest prevalence of anaemia (43%, while women in Southwest have the lowest prevalence (11%). This study demonstrated that in terms of what makes mothers start employing appropriate and adequate nutrition practices, the triggers of good feeding practices mentioned by elders, health workers, men and women themselves, included constant health education from the health workers coupled with other interventions that encourage families to improve on food production. Most of the commonly mentioned enhancers to good feeding for pregnant women included ANC visits, support from husbands and the availability of funds to buy food and milk.

> I**nterviewer**: In your view, what can be done to ensure good feeding practices in this community?
>
> **Respondent:** If we continue talking to these mothers about good feeding, it will be practiced well.
>
> During rainy seasons, some seeds like tomatoes, onions, beans, *sukuma wiki* among others can be given to the people such that they plant and supplement their diet. When distributing food, they should not give only one type of food like soya but give a variety of other foods. **(IDI, Elder, Kamion Sub-County, Kaabong District)**
>
> **Participant 1:** mothers should be sensitized to continuously eat nutritious foods to generate enough breast milk for their babies.
>
> **Participant 2:** Mothers should come up with income generating projects to continuously support their families during times of difficult situations. **(FGD, Pregnant Women, Kamion Sub-county, Kaabong District**)

Very few Karimojong families have access to food. If they do, then this is a great incentive to good feeding during pregnancy. Women who had food at home felt they were better off in terms of nutrition than their counterparts who did not have. They could eat enough of this food at different times of the day when they felt hungry. Some were proud that their hard work and planning has enabled them to have enough food at home to eat most of the times. A few women said husbands who treat their wives in a special way, whenever they are pregnant, by ensuring that all the food they need is provided, supported them.

> If there is food at my home and am pregnant, there is no reason why I should not eat very well. All the women would feed well if they had food at home. It is encouraging when you want food and you find it there **(IDI, with a mother in Kacere, Kotido district).**

Interface with the health facilities

According to the 2011 UDHS, 97% of the women in the Karamoja region deliver their babies with support of a skilled health worker. The formative study indicates that both men and women in Karamoja region believe that ANC visits and any other visits for other health services have been instrumental in increasing the knowledge about what mothers are supposed to eat when they are pregnant. Men particularly indicated that they always encourage their wives to go for ANC where on top of health education mothers also receive appropriate food rations for their families.

> **Interviewer**: That is good. How should women be supported to feed well?
>
> **Respondent:** They should be coming to the health unit because that is where we get soya, cooking oil and sugar to supplement our diet **(FGD, men in Kaabong Sub-County, Kaabong District)**

It was reported that women are generally mentored about appropriate feeding practices during antenatal care (ANC) and postnatal health care visits. It was reported that women were highly motivated to visit health facilities when pregnant due to the related benefits of food, transport refund and mama kits for women about to deliver.

Male involvement

Both men and women indicated that if men support their wives when pregnant, the nutritional outcomes would be much better. This support would include buying them the required food and helping them with domestic chores. Women who are supported by spouses feel better psychologically. However, it was also acknowledged that there are still very few men throughout the Karamoja region who support their spouses during pregnancy. In some of the men's group discussions, it was pointed out that women can access the right foods distributed as food rations by UNICEF and other partners at the health facilities. Male involvement in support of their pregnant spouses to some extent would improve feeding practices among women. In some focus groups, men acknowledged that their role is crucial especially in providing resources for the women to buy the right food and continuously reminding them what they are supposed to eat. Men also mentioned that they did not want their wives to take alcohol when they are pregnant. They wanted them to do less work.

Participant 3: During pregnancy, you can also find help for her so that she does not do heavy chores that are not healthy for her body and the child she is carrying in the womb.

Participant 4: She should eat well and stay home never to do work.

Participant 5: If you have chicken or goat, you can also slaughter so that she gains energy.

Participant 6: You should make sure you buy food that her pregnancy craves for.

Participant 7: You as a man should get some time to be with her.

Moderator: Is there anything else that a man can do to make sure his family feeds well?

Participant 1: Most important is for a man to monitor his home on how his family is feeding. Change diet if they eat the same meal several times.

Participant 2: Buy milk or meat for your family **(FGD, men in Kaabong Sub-County, Kaabong District)**

Availability of funds

Both men and women attested to the fact if funds were available to the family, they would prioritize procurement of food for the pregnant women. Men lamented most of the time that they did not have sufficient incomes to buy food. In the past, they would sell cows but most of them said they had lost the cows in raids.

Participants: No, we need support.

Participant 2: Government should at least give us some capital to start up business like tomatoes selling to support ourselves. **(FGD 3, Breastfeeding Mothers of Children below 2 Years, Morulem Sub County, Abim District)**

Some men said they were working in the mines and whenever they are paid, the first thing they do is to make sure that their pregnant women have something to eat. They also said they try to buy milk for their pregnant wives whenever they get some money**.**

Positive beliefs/ Taboos

There were some positive taboos mentioned by the respondents had logical and scientific rationale. For example, in some of the communities, pregnant women were prohibited from eating meat of a dead animal and drinking alcohol in excess when they are pregnant.

Moderator: What foods do mothers avoid to eat when they are pregnant or lactating? Why?

Participant: Foods like taking alcoholic drinks for example crude alcohol, local brew in excess. All this is avoided because alcohol burns the child in the stomach once it is taken in excess.

4.1.4 Barriers to appropriate nutrition among pregnant women

The study aimed to identify challenges (barriers) mothers face concerning appropriate and adequate nutrition practices during pregnancy. The outstanding barriers pregnant mothers are faced with include lack of food, missing spousal support, poverty, and lack of appetite. Some pregnant mothers faced numerous challenges most especially those related to food self-sufficiency. Food self-sufficiency was lacking for most of the communities due to prolonged drought, which leads to the drying up of crops. Others who used to depend on animal products, had their cows raided and they are now starving.

> **Participant 3**: Another problem to our farming here in Karenga is game parks. Animals eat people's crops in the garden. Karenga, through the help of our people and LCs, wrote a letter to the game Authority informing them about the loss of our food to the animals but since then the authority has never written back or acted upon the issue. **(FGD, Men 18-60 years of age, Kaabong District)**
>
> **Interviewer:** Are there any key obstacles to good nutrition for these categories of people?
>
> **Respondent**: Yes, as I said earlier on, drinking is one of the key obstacles to good nutrition because these mothers take a lot of time drinking alcohol instead of caring for the young ones at home. The husbands sometimes do not help their wives in terms of looking for food. They are just redundant, sleeping under trees instead of helping their women in the gardens. Poverty especially when you do not have enough money to buy food for the family. **(IDI, Religious Leader, Karenga sub-county, Kaabong District).**

Lack of male involvement in support of the pregnant mothers

Although spousal support was highlighted as a trigger of good nutrition among pregnant women, lack of their involvement can be counter- productive. In most cases, men are idle and leave the bulk of work to their pregnant spouses. As a result, pregnant women do not have enough time to rest and prepare food to eat for themselves. In all the FGDs with women, complaints about lack of spousal assistance were common. It was also reported that women eat little when pregnant while the husbands are given bigger shares. This imbalance denies them adequate nutrition.

Taboos that prohibit pregnant women from eating certain foods

Taboos were not as significant since people eat what they come across. They cannot afford the luxury of taboos since food is very scarce. The notion of taboos was widely and explicitly explored during the study. We noted mixed feelings about taboos as barriers for appropriate feeding for pregnant women. A few taboos such as women not being allowed to eat offals were mentioned throughout the Karamoja region. However, some of the participants hastened to add that these were no longer holding for most of the communities

There were some taboos that are observed in the communities that prohibit pregnant and lactating women from eating certain foods. According to the study respondents, a few taboos were still respected but were considered of minor importance culturally because they do not attract sanctions for non-conformity. These included prohibitions from eating offals and chicken when pregnant. In the past, they used to believe that eating these foods would cause miscar-

riages. Some clans did not allow mothers to eat pumpkins because they believed that such mothers were likely to produce a baby who is like a pumpkin.

> **Respondent 1**: For instance, some clans say, "pregnant mothers should not eat offals"
>
> **Respondent 2**: Some say that when you are pregnant you should not eat pumpkins. If you do so, you will produce a child who is like a pumpkin. **(FGD, Mothers with children under two years: Morulem Sub-county, Abim District)**

On the other hand, some of the taboos are actually meant to avoid endangering the pregnant mother and the baby's life. Some of the foods prohibited are those that are rare.

> **Moderator**: What foods do mothers avoid to eat when they are pregnant? Why?
>
> **Participant**: Foods like taking alcoholic drinks for example crude alcohol, local brew and beer in excess. All this is avoided because alcohol burns the child when it is still in the womb once alcohol is taken in excess.
>
> **Participant:** Foods like meat of dead animals or certain animals like '*adent*' (bush buck), *Engoletoil* i.e. Not eaten by women for example in the case once chances to eat it, will suffer from spotted skin and start urinating blood.

Lack of food

Both sufficient and appropriate food was a big challenge in the Karamoja region. The majority of families in Karamoja do not have adequate food for every member of the family. Although both women and men mentioned appropriate diets for pregnant women and appeared to know much about appropriate feeding and behaviors required of the expectant mothers, feeding compliance was found to be a preserve of the lucky few who can afford them. Consequently, pregnant women feed on whatever is available at household level especially during the dry months when famine is widespread.

Given the circumstance of food scarcity, it is important to note that pregnant women are not a priority in terms of who should be considered first when there is little food. Instead, men and children are served first and women are generally given the leftovers. This means that pregnant women's access to appropriate foods is of peripheral importance yet they need to feed well for their good health and that of their unborn babies. Women only get to eat when there is enough food for everyone in the home. It is an established fact, that women in Uganda especially in peasant families are responsible for ensuring food availability in the homes and serving the meals. Due to food shortage, food rations given to pregnant women are shared with the rest of the family and little is left for the pregnant women. Hence, better nutrition is not guaranteed if small quantities of food rations given to the women are shared with other family members. One of the district officials in Napak explained:

> The supplementary food rations the mother gets is shared with the rest of the family- especially the husband who is head of the household. So, she benefits little from it especially during times of seasonal scarcity.

Nevertheless, mothers found the food rations very important because they kept their families going. Some development partners maintained that women do not want to get off the food supplementation program so they prefer being pregnant most of the time in order to access the food rations. This has made women produce many children, and remain in poor health. The family planning program has also been affected because women do not want to prevent pregnancies. A pregnant mother in Nakapiripirit said, "Organizations should stop giving us these foods because it is making people lazy. They should give us seeds and train us on how to plant and cultivate" **(IDI, Pregnant woman, Nakapiripit District).**

Challenges related to appetite

It was noted throughout all the discussions that the appetite sometimes naturally dictates food eaten. Some women throw up some of the appropriate foods and instead crave for less important food in terms of nutritional value. Therefore, even when the food is available, some women may fail to eat some of these foods when they are pregnant.

Financial challenges

Most Karimojong have been rearing cattle which has changed with time due to loss of animals in raids. There is always a poor harvest for most families. This state of affairs has left many of the males unemployed. Men earn little from mining and charcoal burning. Men indicated that these risky activities are not paying well enough to enable them meet the needs of their families.

> **Participant 1**: Food sold in shops or other traders is expensive unless you find something to do like collecting firewood to sell to buy that food to feed your family. Although some work in the mines, the payments are meager besides getting diseases from there.
>
> **Participant 2**: All these things of floods and poor harvest have brought us hunger because not all people can afford to buy food **(FGD 4, Men aged 18-60, Kaabong District).**

Women who provide labor for exchange of money and food are common in the area and are highly exploited; in the end, they do not earn enough to cater for family food requirements.

Because most of the families depend on purchase of food, this became a challenge for pregnant women who need special food. Men argued that they could not afford the required special food for their pregnant wives. Most women take local brew because they do not have any other choice. Local brew is the cheapest food item compared to other foods like beans, maize and milk products.

> **Participant 1**: Poor feeding is common here because things like meat are expensive and changing diet becomes a problem. For instance, a kilogram of meat is Uganda Shs 8000/- and yet silver fish is cheap and affordable and sometimes you fail to buy cooking oil. **(FGD, Men aged 18-60 Lotukei, Sub-County, Abim District)**

In the past, families would depend on the sale of animals to address their food needs. However, there were concerns that most families no longer have cows to sell.

Lactating mothers

Lactating mothers must be in good health condition to be to look after their babies very well. When they feed very well, they will have sufficient breast milk which will make their children healthy. These mothers face almost the same conditions as pregnant mothers. This study shows that there are difficulties associated with adhering to the prescribed feeding of lactating mothers.

In a region where household food insecurity is prevalent throughout most of the year, it is not surprising to find lactating mothers feeding on whatever they can lay their hands on to live another day. No doubt, this kind of feeding puts both the mother and the child's health in a very vulnerable situation. Because there are insufficient varieties of food stock in the households, women have to toil most of the time to put food on the table. In most cases, they do not bring enough and this dictates they eat one meal a day. Mothers' feeding is further worsened by the fact that there is an 'unwritten rule' that men and children take priority in terms of the food quality and quantity served at the expense of lactating mothers who arguably are most deserving of this food. It is also worth noting that households in Karamoja feed mainly on cereals and alcohol which do not necessarily provide the nourishment required by the mother and the child. The study established that womens consumption of alcohol is a coping mechanism to deal with hunger.

4.1.5 Enhancers of good nutrition for lactating mothers

Enhancers of lactating mother's appropriate feeding are not so different from those of pregnant women. Key enhancers include knowledge about the right foods to eat, awareness created through health education from the health workers, food rations given at the health facilities and having enough money to purchase some of the food stuffs.

Awareness about the right foods to eat

There was substantial awareness about what a pregnant woman should eat because both men and women mentioned the varieties of foods pregnant mothers should eat.

> **Moderator**: What foods should breastfeeding mothers eat to be able to generate breast milk?
>
> **Participant 1**: They should eat greens like '*boo*', pasted food like '*malakwang*'.
>
> **Participant 2**: For me, if I eat beans only, breast milk forms.
>
> **Moderator**: What else?
>
> **Participant 1**: Eating fruits like mangoes, oranges can help generate milk.
>
> **Participant 2**: Taking (millet) porridge mixed with tamarinds (**FGD 3, Breastfeeding Mothers, Morulem, Sub-county, Abim District)**

Health education

Both men and women indicated that they obtained knowledge through health education at the health facilities. Some men indicated that they would encourage their lactating wives to go to the health facilities to obtain such knowledge.

Moderator: Where do you get messages on nutrition and maternal health?

Participant: A lot of messages are got from the health center when people go there**.**

Moderator: Where else do you get these messages?

Participants: VHTs also teach us about good feeding, pregnant mothers and children sleeping under a mosquito net.

Moderator: What is the most preferred source of information?

Participants: VHTs are the most preferred because they reach down to the households. **(FGD, Breastfeeding Mothers of Children below 2 Years, District: Abim)**

4.1.6 Barriers to good nutrition among lactating mothers

Key barriers to good nutrition among lactating mothers are mainly lack of food, poverty and lack of spousal support of women in domestic chores.

Lack of food

Most families in Karamoja suffer from food insecurity. Although there are food belts in some of the districts, this food is harvested only once a year. After harvest, household heads sell most of the food to obtain other necessities like soap, clothes, and a few also pay school fees. A lot of food is consumed during ceremonies and rituals and this in turn destabilizes the household's food security. Therefore, lack of food was highlighted as a key barrier in all the districts. It was reported that on average, lactating women might eat only one meal a day when there is not enough food in the house.

Sometimes the mothers have nothing to eat so when the baby breast-feeds and finds nothing in the breast, the mothers have nothing to eat it is called hunger. Even the baby will start having a running stomach**. (FGD, Men aged 18-60, Irrir Sub County, Napak District)**

Lack of finances

Lactating women cannot access the food needed for them to breastfeed well because they are poor. They cannot afford to buy the milk yielding foods because they do not have money. In the past**,** families would sell cows to make ends meet and women would depend on the animal products such as milk, ghee and blood. It is constantly reported nowadays, that there are many families without these animal products.

When we had cattle we used to feed well but since our cattle were stolen by the neighbors, now our women and children who used to take milk from the cows and goats no longer do so. They are suffering!

Participant 7: Like this old man who has 10 wives, he used to depend on his cattle but because all the cattle was all stolen it has become a problem and this has affected the children's feeding even bride price has brought poverty **(FGD, Men aged 18-60, Irrir Sub-County, Napak District)**

> Pregnant mothers, those days when cattle were there, used to take milk, porridge mixed with milk and butter. We could use only a calabash to give them the milk and any other foods because it was a tradition. Sometimes mixed with blood, but nowadays because the animals are not as it used to be women take booze (local brew) and porridge. It is not easy for poor families to get money to buy the food for the breastfeeding mothers unless they have an animal to sell (**FGD, Men 18-60, Kaceri Sub-County, Kotido District).**

4.1.7 Initiation of breastfeeding immediately after birth

According to the 2011 UDHS, 52% of infants in Uganda are started on breastfeeding within one hour of birth, and 89% within the first day. It is more common among female babies (54%), babies assisted at delivery by a health professional or born at a health facility (55%, each), and those in urban areas (60%). Initiation of breastfeeding within one hour is lowest in West Nile (27%) and highest in Karamoja (70%)[35]. In Northern Uganda it stands at 38.4% and 61.2% in Western Uganda. Similarly, provision of pre-lacteals was lowest in Karamoja followed by West (48%) and North (38%).

Findings from the formative study indicate that there was a consensus that immediate initiation of breastfeeding is considered paramount for every mother**.** During FGDs with mothers and KIIs with Development Partners it was consistently reported that initiation of breastfeeding immediately after birth is not a problem in most of the Karamoja region. A few cultural practices were identified related to initiation of breast-feeding in different parts of Karamoja but they do not necessarily affect the timing of the initiation. Some cultural rites often accompany the initiation of breastfeeding in some ethnic communities. Once these rituals are performed whenever it is a strict condition, the norm is that mothers will initiate breastfeeding immediately after. One of the rituals commonly mentioned was that of naming of the child. In most parts of Karamoja, the initiation of breastfeeding goes hand in hand with the ritual of naming the child usually presided over by an elderly woman. In this process, those around the mother immediately after delivery clean her breasts and give the breast to the newborn child as they mention the names of the elderly people around. The child will be given the name that is mentioned when the child starts suckling. Similarly, at home, there are no major barriers to prevent the mother from initiating breastfeeding because there are always elderly women to preside over the ritual of naming.

In some few settings, naming may be done much later after delivery and this may result in delays for the initiation of breastfeeding especially if the delivery takes place at the health facility. In Abim, for example, on very rare occasions breastfeeding may be delayed because of the ritual of the cutting of the umbilical cord; a process that may take up to 3 days and during this time, the child is fed on goat's milk and other fluids.

> **Interviewer:** Are there things that prevent a mother from breastfeeding her child soon after delivery?
>
> **Respondent:** Yes, they are there. For instance, when a woman delivers, she stays home for one week until local brew is made and food to celebrate. She then comes out and the child is given a name **(In-depth Interview, Pregnant woman, Karenga Sub-county, Kaabong District)**.

Therefore, under normal conditions, breast milk is among the first things the women in Karamoja region will introduce to the child after delivery. However, there are often practical problems that affect mothers' capacity to initiate breastfeeding such as delivery after an operation, pain in the breast and having no breast milk immediately after delivery which are discussed in the section of barriers.

4.1.8 Enhancers of initiation of breastfeeding

One of the outstanding findings of this study was the positive attitude mothers presented about initiation of breastfeeding.

> **Moderator:** Mothers are expected to initiate breastfeeding of their babies at least in the first one hour of delivery. What is the practice in this region/district or area?
>
> **Respondent**: Women here do the same. They initiate breastfeeding to the child within an hour. Women do that because it is [the] easiest way a woman can start having adequate milk on their breast.
>
> **Moderator**: Why do you think this happens?
>
> **Respondent:** Currently, every community is sensitized at the health facility on the importance of initiating breast milk early to the child and every woman now practices that.
>
> **Moderator**: Other than breast-feeding, what are some of the other fluids mothers in this community give to their newly delivered babies instead of breast?
>
> **Respondent**: Women in our community don't give any other foods to the child immediately after birth apart from breast milk-only **(KII, Enrolled Midwife, Namalu sub county, Nakapiripirit District).**

The belief that the child is hungry

Some women argued that they would be motivated to initiate breastfeeding because they suspect that the child is hungry and requires nourishment. This is a good example of responsive feeding that needs to be promoted.

> **Participant 1** Some mothers always initiate breastfeeding to their children immediately after birth because they believe that the baby is hungry and cannot stay long without breast milk. The first yellow milk is given to the baby after one hour. **(FGD, Pregnant Women, Kamion Sub County, Kaabong District)**
>
> **Moderator**: Why did you have to initiate breastfeeding soon after birth?
>
> **Participant**: I did so that the child can grow well and because the child is hungry when it is born in case the mother had not eaten. Breastfeeding also helps the mother generate breast milk **(IDI, Mother with more than one child, Morulem sub-county, Abim district)**

Mothers want to make sure that the child has taken something and breast milk is the first thing that they will think about. Under normal circumstances, when breast milk is present and there are no other hindrances, the mother will naturally give the breast as soon as the baby is delivered.

When the mother sees the baby crying

In addition to the belief that the baby is hungry, some mothers are not comfortable when the baby starts crying. Crying to them is a sign that the child needs something to eat and would therefore immediately give the child the breast to suckle.

> **Interviewer**: When did you initiate breastfeeding to your child?
>
> **Respondent**: I initiated breastfeeding after birth within the first hour.
>
> **Interviewer**: Why did you have to initiate breastfeeding at that particular hour?
>
> **Respondent**: I initiated breastfeeding because the newly born baby started crying and I was concerned and hence I gave her the breast **(IDI, Woman with a child under 1 year, Kamion Sub County, Kaabong District)**

It is important to note that the fear about the child crying may influence mothers to give other fluids if there is no immediate breast milk. Mothers should know that giving the child the breast would naturally induce milk to come.

Delivery at the health facilities

As already indicated 97% of the women in the Karamoja region deliver their babies with support of a skilled health worker. It is encouraging to note that most of the mothers would love to deliver at the health facility. Mothers are attracted to deliver at the health facilities because there are incentives such as *mama* kits and food rations. When mothers deliver at the health facilities, they are more likely to initiate breastfeeding because health workers help them to do so. Most of the mothers are escorted to the health facilities by elderly women who facilitate immediate initiation of breast-feeding. It is also important to note that early initiation of breastfeeding is highly appreciated, as it is believed to create a bond between the mother and the child. Both men and women reported that women delivering at the health facilities would facilitate immediate initiation of breastfeeding because the nurses would support the process. It was reported that delivery at the health facility is preferred.

> We make sure that our wives deliver at the health res. We were stopped from encouraging them deliver at home. **(FGD with Men aged 18-60 years, Nabilatuk sub-County, Nakapiripirit District)**

It was also maintained that elderly women being near the delivering mother would facilitate the immediate naming of the child, which goes hand in hand with initiation of breastfeeding. There was a general agreement that delivering at the health facility limits traditional procedures and on the other hand enhances initiation of breastfeeding.

> Now days everything done in the health facility and it's not those day where they could say, you first need to put (*edamit*) a Karimojong traditional herb on fire before the child breast-feeds

Moderator: How about these days?

Participant: These days, it is just immediately after delivery, people have boycotted those traditional practices. Those days they could come with about 5-10 names and start naming the child one by one until they reached a consensus and all these used to take a lot of time before a mother could start breast-feeding. But now people have embraced on giving birth at the health facility. **(FGD, Pregnant Mothers, Lokopo Sub-County, Napak District)**

Elderly women work with the health workers who are around and name the child. They give the child the breast and mention the name of someone around and if the child happens to start suckling after the name is mentioned, the child is given the name of that person. In a way, naming of the child aids initiation of breastfeeding.

When it is a normal delivery

Normal delivery is highly valued because it is believed that delivering normally is a sign of being brave and strong. Some women said that they would easily initiate breastfeeding when it is normal delivery since they are alert and are able to do it consciously as opposed to when the mother has had a caesarian birth.

When the mother has had good nutrition during pregnancy

It is interesting to note that, women were aware that good nutrition during pregnancy would positively affect other subsequent aspects in the nutrition continuum such as initiation of breastfeeding. Mothers were convinced that when a pregnant woman is healthy and well fed during pregnancy it would not be difficult for her to initiate breastfeeding.

Participant 1: Mothers should be provided with good nutritious foods like beans, meat, Irish potatoes, cabbage, milk and porridge to generate breast milk to feed the new born**. (FGD, Pregnant Women Kamion Sub-county, Kaabong District)**

Availability of resources

There were a few families who were said to have resources or assets from which they can obtain money. The most common assets were goats and cows. In times of food shortage, especially during the rainy season, the few lucky families draw from these resources to meet their food demands. There is a general belief that women from well to do families are the ones who can afford food. If they feed very well during pregnancy, they will produce milk in their breasts and it will be easier for them to initiate breastfeeding.

Those women, who have rich husbands, eat very well. They are healthy and fat because they have been eating very well. Because they are fat, they have breast milk. If the family has enough food at home, they give the woman food and she would yield much milk **(a participant in an FGD, Men aged 18-60, Kamion Sub County, Kaabong District)**.

4.1.9 Barriers to initiation of breastfeeding

In as much as mothers understand the need and importance of immediate breastfeeding for the newborn child, certain scenarios were given across the FGDs and in in-depth interviews with mothers, some of which can affect initiation of breastfeeding as discussed here below.

Cultural taboos

Most of the pregnant women, during FGDs and in-depth interviews, constantly reported that taboos were minimal and do not substantially affect initiation of breastfeeding. However, in some few communities, a few highlighted some minor and no so dangerous taboos such as no breastfeeding before giving a name especially if the delivery happens at home.

> **Moderator:** Do we have any taboos that prevent mothers from breastfeeding soon after birth?
> **Participants**: There is no breastfeeding the child before giving it a name. It is only after naming the child, that the mother can be given local brew "*ebuntia*" and porridge to take**. (FGD 2, Women with Children under 6 months, Kacheri Sub-County, Kotido District)**
>
> **Moderator**: Are there cultural taboos that prevent a mother from initiating breastfeeding immediately after birth?
>
> **Participant 1**: They used to be there in the past but they are no longer followed these days **(FGD, Pregnant Women, Morulem Sub- County, Abim District)**

Naming of the child goes hand in hand with the initiation of breastfeeding. In an attempt to provide a name for the child, initiation of breastfeeding is done. However, it was reported that when the child is born at home in the absence of an elderly person to initiate the naming, initiation of breastfeeding might delay. However, according to the respondents, it is rare for a woman in Karamoja to deliver without an elderly person around. Therefore, in most cases the naming is not usually delayed.

Initiation of other fluids

As already noted above, the UDHS 2011 indicated that provision of pre-lacteals is lowest in Karamoja. Nonetheless, according to findings from this study it remains an outstanding cultural barrier that affects early initiation of breastfeeding. Certain circumstances and related perceptions were reported that prevent mothers from initiating the baby on the breast milk immediately after delivery. This study found that while mothers generally know and provide breast milk immediately after birth, initiation may fail in instances where mothers believe they do not have the breast milk and for some, this might take two to three days before coming in. Some mothers may be sick as noted elsewhere. Yet they are constantly worried that the child is hungry. In such a situation, a temporary measure, such as giving milk from a goat or a cow, herbs, glucose or sugar water is devised. The cow's milk might be mixed with herbs and sometimes glucose and or sugar or simply mixed with water. In Amudat district, women do no feed children on the first milk; they consider it bad. Infants are also initiated on other fluids immediately after birth as part of cleansing process. It is believed that concoctions of herbs mixed with goat milk would enable the child to defecate the dirty stuff from the stomach immediately. Besides that, the newborns are given porridge, milk, bean soup, tea or alcohol when it is realized that the child's mother does not have breast milk.

During in-depth interviews, mothers indicated that they were told by health workers and VHTS to initiate glucose or sugar solutions to the child when there is no breast milk and/or give gripe water in case the child is crying too much..

> **Participant 2**: I gave glucose. A nurse advised me to do so because the child was over crying. **(FGD, Pregnant Mothers, Otukei Sub-county, Abim District)**
>
> **Participant 3**: For me, when I delivered my first born, I had no breast milk. My caretaker had to go and look for goat's milk to save the life of the child. Some women mix water and glucose, that is, when the doctor advises them to do so. Some women introduce the child to goats or cow's milk when they are trying hard to generate breast milk. **FGD 4, Mothers of Infants Less Than 6 Months, Karenga Sub-County, Kaabong District)**

Painful breasts

It was often reported that mothers especially those delivering for the first time experience terrible pain and find it difficult to breastfeed and would therefore delay breastfeeding.

> Some adolescent mothers are afraid of breast-feeding their children because their breasts hurt while others if she had complication during birth and cannot breast-feed the child. She has to wait until she is well and breastfeed the child / baby **(KIIs with A VHT, Amudat Alakas, Amudat District)**
>
> In certain cases, when the breasts are swollen and when the mother is sick. These can make it difficult to breastfeed the child at that moment **(FGD, Mothers of Children Less 2 years, Rupa sub-county, Moroto District)**

Such mothers do not easily initiate breastfeeding when they deliver without support. Others experienced swollen breasts and they feared that this was not good for the child. This is often the case, especially if the mothers know that they are HIV positive

Delivered by cesarean section

While women argued that normal deliveries would enhance initiation of breastfeeding, the same women argued that mothers who deliver by caesarian would not be strong enough to breastfeed. In the first few hours of delivery, they are often unconscious and cannot breastfeed.

> When you are operated upon during delivery, you cannot feel anything; you remain unconscious and cannot pick the breast to give the child. Most of the women who deliver by cesarean will require more time to become conscious. **(FGD with Pregnant women, Kaceri Sub-County Kotido District)**

Again as indicated earlier, few women deliver by cesarean because there are few health facilities.

Low milk/unyielding breasts

Given the poor health conditions of the mother partly due to lack of sufficient food, breast milk does not come immediately. Such mothers may initiate the child on the breast milk in vain.

> Some mothers lack breast milk thus, [they are] unable to initiate breastfeeding immediately after birth **(FGD, pregnant women, Kacheri Sub-County, Kotido district)**

When there is no breast milk, mothers opt for other fluids and tend not to be worried because they are sure that the child has had something. The main worry here is not to starve the child.

Cultural practices

There were a few beliefs about the time to start breastfeeding that were observed in some communities. For instance, it was pointed out that some communities require mothers who deliver at noon to initiate breastfeed later in the evening. There were few instances where naming of the child which would necessitate the presence of an elderly person, delays the initiation of breastfeeding. However, this was not an outstanding barrier because in most cases elderly women are always around the mother during delivery.

When the mother is very sick

There was a belief that when the mother delivers while she is sick, she should not be allowed to breastfeed for fear of infecting the child. In such circumstances, the father of the child is advised to look for milk from a cow or goat to give to the child until the mother gets better.

> Some mothers in this community believe that if a mother has been sick during pregnancy, when she gives birth, she should not breastfeed. Instead, the father is advised to go and look for milk **(FGD, Pregnant Women, Kamion Sub-County, Kaabong District).**

Taboos

It was reported that there were taboos, which affect initiation, however, respondents hastened to add that these were wearing out and no longer considered serious.

> **Interviewer**: Are there any cultural taboos that prevent women in Kacheri from breastfeeding immediately after birth.
>
> **Respondent**: Yes, there are cultural taboos but I do not follow [pay attention to] them.
>
> **Interviewer**: Could you please tell me some of these taboos?
>
> **Respondent**: There is one that says that if a woman gives birth at noon, she should not breastfeed the child until evening when cows return home and she is to bathe in millet and the child is then breastfed.
>
> **Respondent**: But again these practices are withering out like the one that says 'a mother should not bathe until the umbilical cord is off and you find some children take 4-7 days for it to get off. **(IDI, Pregnant Woman, Kacheri Sub-County, Kotido District)**

Understaffed health facilities

Although delivering at health facilities was highlighted as an enhancer of initiation for breast-feeding, we also noted that this works better where there are enough health workers and few women to attend. Health workers are often overwhelmed or they are not there to attend to women who have delivered. In one of the health III facilities the team visited, a woman who had been seen in labor the previous day was found the next day without any health worker attending to her. Although the mother was yelling, the mother-in-law was not worried about the delay. According to her, the woman might have been crying because she carried a baby-boy and boys 'would want to be born in the evening when the cows are coming back from the field'. The essential thing here is that what a mother delivers in understaffed health unit, they will not get enough attention and initiation may not be guaranteed.

4.1.10 Exclusive breastfeeding up to 6 months

The 2011 UDHS indicates that in both Karamoja and Western Uganda, only 4.4% of babies are exclusively breastfed until six months. According to participants in this study, exclusive breast-feeding up to 6 months is not easily achievable in the context of Karamoja. As already said, after delivery, some children are immediately given herbs mixed with milk and some other concoctions perceived among others to induce defecation of 'unwanted/dirty substances' from the baby's stomach. Owing to the perceived lack of breast milk, mothers give other fluids as an alternative. Most women in Karamoja know that children should be exclusively breast-ed for 6 months. In spite of this, the majority say they only exclusively breastfeed for 3-4 months because they do not have enough breast milk.

> **Moderator:** What is important for a child during the first 6 months to grow well?
>
> **Participant 1**: Consecutive breastfeeding.
>
> **Participant 2:** Keeping close to the child so as to breastfeed when in need even when a mother has gone to the garden, she should carry her baby along with her. **FGD, Mothers of children less than two years, Kalenga sub-county, Kaabong District**

While it is recommended that children should be exclusively breastfed for 6 months, there were diverse responses about the exact duration of exclusive breastfeeding ranging from three to seven months. Whereas, mothers knew that breastfeeding for 6 months was essential for the child to grow well and prevent children from getting sick, they were quick to add that some mothers do not have sufficient breast milk prompting them to start the child on food early.

> **Moderator:** How long do you exclusively breastfeed?
>
> **Participant 1**: The child takes 6-7 months breastfeeding exclusively then you can introduce it to other solid foods and liquids.
>
> **Participant 2**: The children start eating other foods at 4 months because of shortage of enough breast milk.

Moderator: Why should you breastfeed your child for 6 months?

Participant 1: To help the child grow well and resist diseases.

Participant 2: Before 6 months, the food widens the child's stomach which may lead to kwashiorkor. **(FGD, Mothers of children less than 2 years, Karenga Sub County, Kaabong District)**

Mothers noted that it is a common practice to give children food and other fluids before the age of six months. Mothers also give other fluids to stop the child from crying. Some mothers highlighted a number of ways of inducing breast milk such as the types of food and fluids taken by the mother. Some proudly argued that they could sustain breastfeeding for six months especially if they took enough millet porridge, milk, green vegetables like 'eboo', and chicken and '*ekamalakwang*' (local greens) mixed with beans.

Moderator: What do you think is the reason why some mothers give other fluids like goat or cow's milk to children before reaching [attaining the age of] 6 months?

Participant 1: To ensure that the child is always satisfied and not crying. Some mothers naturally do not have enough breast milk, so they end up feeding their children with [on] goat or cow's milk.

Participant 2: For me,, when I was breastfeeding my first borne, I could take enough porridge especially made from millet and I could have enough breast milk and it is what helped me to breastfeed for the recommended 6 months before introducing the child to other foods. When I eat green vegetables like '*eboo*', I get enough breast milk for my baby.

Participant 3: When I eat green vegetables called '*ekamalakwang*' mixed with beans, I generate enough breast milk**. (FGD, Pregnant Mothers, Panyangara Sub-County, Kotido District)**

4.1.11 Complementary Feeding

According to UDHS (2011) the Karimojong women breast feed the longest (23months) compared to a national average of 19 months. Furthermore, only 3.3% in Karamoja compared to 12.3% in the West and 7.2% in the North can have more than 4+ food groups (infant formula and milk other than breast milk, cheese or yoghurt or other product etc). In addition, the UDHS shows that children in Karamoja had a minimum meal frequency of 27% compared to 56.3% in Western Uganda and 29% in Northern Uganda.

The results of the formative study confirm that complementary feeding is one of the most challenging levels of nutrition for children in Karamoja region. While knowledge about the appropriate time (6 months) for introducing complementary foods is very high, most of the mothers introduce children to other foods at the age of 3-4 months even though they know and have been taught that other fluids and food should be introduced at 6 months.

> We are taught from the health centers if the baby is 6 months old you should give supplementary feeding **(FGD, Lokopo Sub- County, Nepak District).**
>
> Here in Panyangara, we are told at the health centers that we should start giving nannies foods at the age of 6 months onwards but situations sometimes will force you to start giving the solid food before the child reaches that period **(FGD, Pregnant mothers, Panyangara Sub-County, Kotido District)**

A number of reasons were given for introducing complementary feeding before 6 months:

1. Mothers go out to work as casual laborers, collecting water, wood and charcoal and participating in other income generating activities. During these activities, they may not carry their babies along with them. When they leave the babies behind, they are introduced to new foods as an alternative while the mothers are away.
2. Some mothers get pregnant when the child is less than 6 months and there is a belief that pregnant women are not supposed to breastfeed.
3. There are also instances when the mother is very sick and cannot breastfeed.
4. Some mothers feel that they do not have enough breast milk and therefore to satisfy the child, they introduce other fluids and foods to the child before 6 months.

> **Moderator**: At what age did you introduce your child to other foods other than breast milk?
>
> **Participant**: At 3 months, I started giving my child food because I did not have enough breast milk.
>
> **Moderator:** What type of food or fluids did you introduce to your child?
>
> **Participant:** I gave porridge, bean soup, soya and these foods are made from home.

5. Some respondents emphasized that there is influence of alcohol where it is reported that mothers who are drunkards tend to neglect their children.

Moderator: At what age do you introduce your child to these foods?

Participants: At 6 months, most mothers introduce their children to soft food. I introduced my child at 3 months to milk and porridge at 4 months.

Moderator: Why?

Participant 1: For the child to grow strong and healthy

Participant 2: By the time, a child is 6 months, it is old enough to take food and breast milk alone is not enough for it.

Participant 3: I introduced at 3 months because I lacked enough milk in the breast**. (FGD, Pregnant Mothers, Otukei Sub count, Abim District**)

Nevertheless, despite the high knowledge, food insecurity was highest in the study region with only 3.8% of the children receiving 4+ food groups according to the 2011 UDHS. This explains why there are so many children in the region with acute malnutrition.

4.1.11 Foods usually eaten by families in the region

There are several programs that support families with food rations; either as a preventive or therapeutic measure. These partners provide monthly supplementary food rations to improve complementary feeding for children, pregnant women and breastfeeding mothers to boost their nutrition status. Some of the key packages include plump nuts, maize flour, corn-soya-blend, oil and lentils. The MCHN intervention has had both positive and negative implications. For example, supplementary foods can be of benefit if the mother takes them herself; however, sometimes this is not the case because, as health providers have observed, some of the food is either sold or consumed by other family members. To some members of the community, provisions of food rations undermine efforts to generate their own food, thus creating a dependency syndrome.

Organizations should stop giving us these foods because it is making people lazy. They should give us seeds and train us how to plant and cultivate". **(FGD, Pregnant mother, Nakapiripirit)**

Some parents do this act in order for the child to continue being malnourished so that they can continue benefiting from the food given by the health unit since it now benefits the whole family, (**FGD, Mothers with children less than two years, Namalu Sub-County, Nakapiripirit District)**

Solid food is introduced to the child at the time the mother eats and most families have one meal a day. There are no special meals prepared for young children.

We eat only once a day and sometimes the children sleep hungry because we do not have enough food (**FGD, Men of age 18-60 years, Nabilatuk Sub-County, Nakapiripirit District)**.

Yes, eating once a day is a common practice. Most families eat once a day because of lack of enough food. **(FGD, Men aged 18-60, Panyangara Sub-County, Kotido District)**

Mothers understand that children will benefit much from the milk from cows, goats, donkeys and camels. Bean soup was also highly acknowledged as important for children. Availability of food in most of the Karamoja communities is seasonal. During the season when there is enough food in stock, children are given maize or sorghum porridge. Most often, sorghum is fermented to make alcohol. Although, the alcohol tastes sour, it is acceptable to the children. It is also reported that alcohol is valued by the community as food and commonly given to children. This is more so during scarcity of food in the homes.

> **Participant 4**: The vulnerable people like the elderly, sick and women living with very young children and without any one to help them live majorly on wild greens (*Ekorete*) and residues from the local brew ingredients **(FGD, Men aged 18-60, Panyangara Sub-county, Kotido District)**.
>
> When a mother goes to sell firewood, she goes to the places where they brew local brew *(kwete*) and asks them for some residues. Even myself, after selling the charcoal, I can buy food and even '*mandazi*' doughnuts for my children **(FGD, Men aged 18-60, Nabilatuk Sub-County, Nakapiripirit District).**
>
> Sometimes mothers give small quantities of local brew *'kwete'* especially during times of difficulties when there is no food **(FGD, pregnant mothers, Kamion Sub-County, Kaabong District)**.
>
> It happens and this is because if the mother and the children had not eaten super the previous day, because of their hunger they tend to resort to anything that can be eaten that is why some mothers go to drink in the morning together with the children **(FGD, Mothers of children below two years, Namalu Sub County, Nakapiripirit District)**.
>
> Mothers also go to neighbors who have made local brew to beg residues for their children for the day as she looks for what to cook **(FGD men of age 18-60 years, Panyangara Sub County, Kotido District).**

During periods of food scarcity, most households depend on the market for food that is usually purchased by women. Women walk long distances throughout the day collecting and selling firewood and charcoal to earn an income. This takes them away from home and leaves them little time to prepare regular meals for their children. For the few families with animals, a cow may be sold to buy food. A common practice is to exchange firewood or charcoal for 'beer residues' to feed the children for a day. Others who are lucky and are living on the borders of forests depend on wild greens and fruits.

> **Moderator:** Is poor feeding common here?
>
> **Participant 1**: Yes, it is common. Most families eat once a day because of lack of enough food.
>
> **Participant 2**: Individual families struggle to get food. One goes to collect firewood, fetch water and others burn charcoal to get money for food.
>
> **Participant 3:** The harvest of sorghum last year was not enough to keep people throughout the year because they harvested very little which was used for other purposes other than consumption.

Participant 4: The vulnerable people like the elderly, sick and women living with very young children and without any one to help them live majorly on wild greens (*Ekorete*) and residue from people who make local brew **(FGD, Men aged 18-60, Panyangara Sub-county, Kotido District).**

An officer in Napak District during a key informant interview reported as follows:

Women believe the 'beer residue' is food; it is fulfilling, and keeps the child quiet. Residue is one of the meals given to children because it is readily available

While in some community's food shortage is attributed to poor harvests, in Kacheri Sub-county, Kotido district, there were lamentations that people lost animals to Pokoth during recent raids leaving no animals to sell to get food.

Respondents: This year, we have not harvested enough because the sun destroyed the crops. For livestock, we used to have animals but [they] were raided by the Pokoth. The few that are there are not equally distributed to all families. During crisis, we sell on Saturday in Kokoria cattle market and the proceeds are used for buying food or borrow milk from a friend who has cows **(FGD 2, Casual Laborers age 18-57, Kacheri Sub-County, Kotido District)**

Many mothers who cannot afford to buy food beg for alcohol residues from the neighbours. Some resort to drinking alcohol and sleeping without eating any solid food. For the mothers, the December-March period is difficult for child caring responsibilities because of food shortage. To adapt, some mothers get involved in casual labor, fetching water, burning charcoal, collecting firewood and thorns for sale, for their families to survive.

4.1.12 Supplementary food rations for children, lactating and pregnant mothers

At the regional level, the proportion of children receiving vitamin A supplements was highest in Karamoja (74 percent). This can be attributed to the heavy involvement of partners distributing food supplement than in any other part of the country. The study found that on a regular basis, many families with children under five receive food from implementing partners through health facilities. These families receive corn-soya-blend (CSB) and RUTF is supplied to undernourished children below five in the communities.

These malnourished children have NGOs that take care of them. They are given rations like soya flour which is mixed with milk, sugar and cooking oil. The rest of the children at home, who are not malnourished, feed from the same foods that the malnourished children get from these NGOs, such as AFC, etc. They also give the child who is badly off plumpy nuts **(FGD, Men aged 18-60 Nabilatuk Sub-county Nakapiripirit district).**

There was concern that provision of food rations leads to over-dependency on these food rations instead of encouraging household food production in the communities.

> There are many partners operating in the district but malnutrition has persisted. Food handouts are not sustainable and are complicating the situation. Let the people work for their food. **(District health official in Nakapiripirit)**

There was also a claim by some respondents (especially development partners) during discussions that some women deliberately starve their children because they do not want them to improve because this would deprive them supplementary foods. This was however, a contentious issue as some respondents rejected the claim and emphasized that it should be viewed in context of the child's recovery and withdrawing the rations when the family is still food insecure and cannot sustain adequate feeding of the child. When the rations are withdrawn without food security at the household level, the malnutrition naturally relapses and the poor mother has not control over this. Some KII respondents and FGD participants strongly contended saying that children are highly valued and therefore no mothers would want to starve their children. Indeed, in many interviews and discussions, it was consistently mentioned that children and men are a priority when it comes to feeding in a home. A few isolated voices among participants said that some lazy women in the communities are not doing their job quite well and resort to drinking alcohol.

> **Participant 6**: Some mothers do not care at all about feeding their children. They do not even know how to cook; they just pour water in food and cook.
>
> **Participant 7**: Some mothers do not cook they tell their other young children to cook yet the children do not even know how to cook. The children do not even know how much salt to add in the food.
>
> **Participant 9:** Other mothers just go drinking alcohol and come back in the evening at home when they are completely drunk" **(FGD, Men aged 18-60 years, Nabilatuk Sub County, Nakapiripirit, District)**

Despite the long history of interethnic clashes, it is also on record that different ethnic groups work together in times of a food crisis. During the dry season, for example, ethnic sharing of food between the Teuso, the Turkana and the Dodoth is also used to promote peace among the neighbors. The Teuso do bee keeping and sell honey to their neighbors to raise money for necessities like cooking oil, salt, sugar and other basic needs.

This study also identified that alcohol brewing and consumption across ethnic groups, among women is a common behavioral practice. Sometimes mothers even forget to breastfeed because of the influence of the local brew, forgetting that there are children to care for.

4.1.13 Food rations: a necessary evil

Food rations are necessary because children are severely malnourished. From the human rights perspective, they need the support. Food rations are bad because recipients take them for granted and never make an effort towards self-sustenance. Some sit and wait for the rations.and

want them as a permanent source of food. Some development partners have been providing support for therapeutic feeding. Some give food rations to the caregivers of malnourished children; the approach has not yielded expected results for the following reasons:

1. Rations are shared with other family members who are also starving; this leaves the malnourished child with little.
2. The child may recover, but once rations are withdrawn, there is insufficient food to sustain nutrition levels.Some of the rations are often sold for money to buy alcohol, which is considered as the most important food.
3. It is alleged that some mothers starve their children to keep them on food rations. For example some of the plumpy nuts given for the children are sold in shops and others are taken by the adults.
4. Women who are the caregivers of children are not available to feed them. They are too busy with domestic chores and this affects the number of times the child is fed even when there are food rations.

It is also important to note that food rations are not packaged with other interventions that would lead to food self-sustenance.

4.1.14 Taboos

From the perspective of the community respondents, there were no outstanding beliefs that negatively affected complementary feeding of children in Karamoja sub-region. Consistent responses show that there are no traditional values or taboos that impede good nutrition among children. The study participants pointed out that most of the beliefs that existed in the past no longer exist.

> **Interviewer**: Are there cultural taboos that prevent pregnant women from eating some foods?
>
> **Respondent**: There are no strict ones except that those days, I used to hear that pregnant women should not eat ribs **(IDI, Pregnant Mother, Karenga Sub County, Kaabong District)**

4.1.15 Access and use of milk products

In the past, pregnant mothers in the Karamoja region used to have calabashes of milk mixed with blood, but because of cattle raids, drought and disease, cattle numbers have dropped. Moreover, during the dry season, animals are herded to far distant kraals closer to water and pastureland, depriving children and members in home kraal of milk yields. In the absence of milk, most pregnant mothers drink porridge and local brew. Some communities like the Pokot in Amudat district, have traditional mechanisms for making milk last longer. They use a specific traditional charcoal powder to keep milk in gourds coagulated during the rainy periods when milk production is high, a form in which it is stocked and preserved for the future dry season. Sometimes this can last for up to six months. The preserved milk is used as food for children and other family members during the dry season when milk yields are too low or sometimes non-existent. Among the Pokot, some children depend on milk even up to six months, without any other form of food.

A cow is a highly valued animal in the Karimajong society because it is used as a resort for survival in time of crisis. In the past, many of the Karimajong communities had cows in plenty and milk was accessible. The views from the region accentuated the significance of milk in the family. Mothers emphasized that cow/goat milk plays almost the same role as breast milk in the life of a child in the Karamoja region. It was reported that mothers who give birth and feel that they do not have sufficient breast milk (allegedly due to poor feeding) resort to giving cow/goat milk to their newly born babies. Today, in the absence of cows milk, goat's milk would be the next alternative. Some of the women reported buying processed milk from shops when they do not have animals to produce the milk at home. Overall, it is not easy for many of the families to access milk.

> In cases where the mother does not have enough breast milk, you give goat / cow's milk alongside breast milk (**FGD1, Pregnant Mothers, Panyangara Sub County, Kotido District)**
>
> We do not have milk because we have no cows **(IDI, Mother, Kamion Sub County, Kaabong District)**
>
> Milk products available are expensive a cup at Shs500/- **(FGD 3, Mothers, Morulem Sub county, Abim District**)
>
> Is it easy to get cow or goat's milk in Lorukumo at shs.300/- a cup **(IDI, Mother, Rupa Sub County, Moroto District)**

The Karimojong communities know very well that for a mother to be able to produce breast milk for her child, she must have fed well on nutritious foods while pregnant and after delivery. However, in practice, this is not the case for most mothers in Karamoja region. The most easily accessible drink for women in Karamoja during pregnancy and after delivery is the local brew and not the milk.

Some mothers believed that the local brew helps them produce breast milk as highlighted in the quote below.

> Others can even take only local brew '*ekombot*' and they will have enough breast milk after that **(FGD 4, Mothers of Infants Less Than 6 Months, Karenga Sub County, Kaabong District)**

Karamoja being in the drier parts of North Eastern Uganda, has seasonal food production and availability. In Kaabong and Kotido districts, food shortages were associated with loss of cattle due to cattle raids from other Karamajong ethnic groups such as the Dodoth and the Turkana of Kenya. Due to these cattle raids, families have lost animals and this has minimized access to animal products especially milk and its products.

> [There is] theft and insecurity especially from the side of Dodoth. We report thieves to the police.
>
> We have advocated peace with the Dodoth **(FGD 2, Casual Laborers aged 18-57 years, Kacheri Sub County, Kotido District**).

> For livestock, we used to have animals but the Dodoth raided them. The few that are there are not equally distributed among all families. During crisis, we sell on Saturday in Kokoria cattle market and the money is used for buying food. (**FGD 2, Casual Laborers aged 18-57 years, Kacheri Sub County, Kotido District)**

There are few families with cattle. According to the local standards, families with cows are regarded as rich families. The cows that are in few homes are sold in times of crisis to cater for family needs. For instance, in Abim, a few lucky families with livestock can sell cows and their products to buy food, pay hospital bills and school fees for the school-going children.

> Now, some people who own some livestock, when a problem arises sell them off. It depends on the owner's budget but when children are going to school or when food is not there, most people sell. (**FGD, Men, Otukei Sub County, Abim District)**
>
> Animals were raided and a few people own animals and it benefits only their own families and the few animals available are also being attacked by diseases. Animals, birds and sorghum have disappeared at the hands of people. Those who have animals are better because they can sell and meet their family needs. (**FGD, Lokoona, Kacheri Sub County, Kotido District)**

In many of the districts, except Amudat, access to milk products remains a challenge and many families have to buy milk for their children. In Abim, for example, where there are a few heads of cattle, they exchange a lot of cereals for small units of animal products such as meat, ghee and milk. A half of a liter of milk in Abim goes for Shs 500/- compared to Moroto where it goes for 300/-

In Karamoja, milk serves many purposes; it is used as food for children and can be mixed with herbs to treat some local diseases. Milk is mixed with other foods since it is good for the child's growth. Some mothers mix milk with porridge while others mix it with water and some sugar to give the baby. In families that have goats, they mix goats' milk with maize porridge and sugar and give the baby. In Moroto, mothers add a local herb to the milk to assist in cleansing 'dirty stuff' from the new born baby's stomach.

> If you have no breast milk, you get goat's milk, mix it with a local herb, and boil it. Let it cool and then give to the child. (IDI, Mother, Rupa Sub County, Moroto District)

Those parents, who cannot access cow/goat milk but have money, purchase packed milk like UHT milk, boil and feed the baby while others are forced to borrow milk from their friends to be able to feed their children.

> You look for money, buy packed milk (UHT), and give the child until you start producing breast milk or you go and borrow from a friend. **(IDI, Mother, Rupa Sub County, Moroto District)**

4.1.16 Cross-cutting barriers against good nutrition practice

The gendered economic production and minimal male involvement in domestic activities

Men leave all the domestic chores to women. Men and boys were seen walking around while women and girls are carrying food and firewood from distant sources. They sell firewood and charcoal to buy food for their families. Women have learned to live under these conditions. This grossly affects them and their children in different ways. Some of the women in the study reported that some of the men are drinking all the time and pay less attention to the family needs.

> My husband and I are not happy because he abandoned and left all the responsibilities to me. I pay school fees and now my children are at home because I have failed to raise the school fees. I go to dig in people's gardens **(FGD, Breastfeeding Mothers of Children below 2 Years, Morulem Sub County, Abim District)**

A few women reported that men sometimes help them to collect food, water and firewood when pregnant. However, the majority say that men are never there to support them in anything.

> A mother living with HIV reported, "It is very challenging to get enough to eat when HIV+ and on drugs. My husband abandoned me and I had no support at all to get enough food to eat."
>
> An enrolled Nurse in Nakapiripirit said, "Men believe women were paid for with cows, they should therefore work and care for themselves and their families, without support from men"

Being cattle keeping communities, men move with animals in search of pasture and water. Women concentrate on the domestic responsibilities. Key chores for women include collecting and selling firewood, charcoal burning, gardening, preparing food at home and building *manyatas* (the typical homesteads with very strong wooden fences). Along the roads, you will see only women carrying firewood and food while men walk along empty handed. This leaves the women no time to take care of the child, or listen to the radio to get information. Ironically, men are given priority in consumption of food, and yet rarely participate in the generation of the food. Men are served the best food. Although men in Abim get involved in cultivation, the biggest burden of domestic chores is on women. Although women do a bulk of work, the men are the key decision-makers including how food is shared and how the money earned from selling food should be used.

There are cultural barriers in relation to the feeding of girls and boys as they grow up. In areas where pastoral life is still practiced, boys spend most of their time in kraals where they can easily access animal products (milk and blood). On the other hand, girls spend much of their time at home doing domestic chores with little access to sufficient food. Out of desperation, they end up getting married at an early age.

Socio-economic and cultural barriers

In some communities, plenty of food is produced. During the harvest seasons, most families will try to meet their cultural obligations in form of marriage and death-related rituals. In doing so, a lot of money and food is used leaving the families with nothing to eat.

Alcohol is an important social and economic item in Karamoja. There are many families involved in the business of selling alcohol to get money. Alcohol is considered as a basic food since some of the families and children partake of alcohol as part of their daily food. As already noted, alcohol is important during rituals and celebrations. To produce alcohol, cereals such as millet, sorghum and maize are used. These same cereals would have been eaten as food.

Persistent food insecurity

There is a seasonal problem in the food basket areas; there is often substantial food harvest but malnutrition is still high. The study found that many of the crops needed for stimulating milk production are grown across all the ethnic groups in the region. They include beans, meat, maize flour, silver fish, cereals like sorghum, maize, millet, and green vegetables like 'boo', sukuma wiki, dodo, cabbage and malakwang. Others are wild greens like *ekiliton*, *edwol, ekorete*; and fruits like oranges and mangoes. Vegetables grown in back yard gardens like groundnuts, green vegetables like 'boo', sukuma wiki, cabbage, dodo, cassava, sweet potatoes are found across all ethnic groups in Karamoja . There were once development partners who were trying to strengthen the production of these crops. However, there is one outstanding limitation: prolonged droughts which do not allow production of perennial crops; their production is only limited to the rainy season.

Perceptions about malnutrition

The communities that were studied could easily identify children who are malnourished and ably explain the physical signs and symptoms. There were no misconceptions about malnutrition where people interpret it to mean something else. Malnourished children are perceived to be weak and sickly with wrinkled skin. There are many local names used to describe the malnourished individual. Malnutrition is associated with lack of a variety of foods given to constitute a balanced diet. Poor knowledge on food preparation for children was also mentioned as one of the causes of malnutrition.

> The District Health officer in Napak said:
>
> The community does not perceive malnutrition as a problem, they believe it is a seasonal issue related to weather/climatic situation; it is a knowledge and attitude problem.

4.1.17 Parenting and Child Caring Practices

This formative study sought to understand and document parenting and child caring contexts and practices that have a bearing on a child's nutrition and health notably those related to access to and use of water, sanitation and hygiene practices.

Access to safe water

There is limited access to water in general and safe water sources specifically. Although communities are aware of the dangers of using unsafe water sources, they continue to use unprotected/unsafe water sources such as rivers, open wells and runoffs because of access constraints. Dirty water is commonly used to wash hands and food especially vegetables, before cooking and utensils.

> We also make this water safe by carrying out regular cleaning of wells, washing of green vegetables. **(FGD, pregnant women, Kimoni Sub-County, Kaabong District)**

In addition to limited access to safe water, hand washing practices are still poor. The UDHS indicates that hand washing in Karamoja is at 13% compared to West (22.1%) and North at 7.2%. It was noted that some organizations have been drilling boreholes and passing on health messages about washing hands after using a latrine. However, this is still being undermined by sustained access to water supply especially during the dry period.

> We women and the community always clean the containers we use to collect water from the wells….we also store drinking water in clean pots to keep it safe from contamination but also for cooling purposes. **(FGD, pregnant women, Kimoni Sub-County, Kaabong District)**

During the drought, when there is great shortage of water, there is a lot of water rationing and the most affected, are women and children. District officials reported that communities depend on boreholes for water during the dry seasons. Many families live very far from the boreholes. Lack of water has meant rationing when it comes to home use. Many of the family members especially women and children do not bathe regularly. It also means utensils and clothes for children are not be washed. However, men are seen bathing along the few streams that go through the Karimojong communities. In Karamoja region, water for animals is considered more important than for human beings. This study established that water for children to drink is not treated when it is collected from the unprotected sources. The alternative is to give these children some alcohol to quench their thirst.

Access to sanitation facilities and fecal disposal practices

Throughout all the communities in Karamoja, safe disposal of human fecal matter is generally poor. According to the 2011 UDHS, latrine use by children in Karamoja stands at 8% compared to 13% in Northern and 18% in Western Uganda. There are local beliefs against use of pit latrines and there is high prevalence of open-air defecation. This was a key concern raised by the development partners who felt that poor nutrition trends could not be reversed without addressing the problem of fecal disposal. According to the 2011 UDHS 24% of children in Karamoja compared to 2.9% in the West and 1.2% in North leave their stool n the open after defecation. It was noted that there were no latrines in the *manyatta*. As a result, open-air defecation is a common practice. It was reported that in urban areas where there is no space, adults defecate in polythene bags and throw them near the homes as garbage. During the rainy seasons, people prefer to collect water from ponds, streams and rivers which they share with animals. These sources of water are nearer to their homes and they find no problem in using them no matter how contaminated the sources are.

> According to the Napak District Health Officer,
>
> The majority of health problems presenting at health units are related to poor sanitation and hygiene. Latrine coverage is only 28% and hand washing practice (10%) are still very poor, requiring more concerted efforts to scale them up. The Hygiene and Sanitation Program has not yet been successful, open defecation is still common, and where there are latrines, they are built on very loose temporary structures.

The District Health Inspector in Nakapiripirit reported, “Communities do not associate disease with poor sanitation – this is still a myth”. Improvement in sanitation and hygiene has only been observed in trading centers; majority of the communities do not yet appreciate the need to change unacceptable hygienic practices. It was also reported that government has an arrangement for regular deworming of children. VHTs mobilize communities to bring their children for de-worming at the health centers and other community outreach programs.

It was also noted that the main responsibility of caring for children is on the shoulders of the women. In addition to shouldering other domestic and economic chores, women pay little attention to children. They will not clean them as expected. They leave children at home to go to work or to drink and they return home late at night.

Healthcare seeking behaviours

Mothers indicated that they would take their children to the health facilities when they are sick. During postnatal visits, mothers receive deworming tablets for their children according to the UDHS and Karamoja (65%) has one of the highest proportions of children who received deworming medication. This is a good practice, given the poor hygienic conditions in terms of access to safe water and sanitation.

4.1.18 Social environment incentives that trigger good nutritional and child care practices

The greatest limitation mothers have in providing for themselves and their children is lack of food. Therefore, anybody in the immediate social environment that provides food will increase the nutritional benefit to the women and children. This is the reason why the Karimojong people consider food supplements provided at the health facilities critical. It was apparent that immediate family members, neighbors and relatives constituted the main proportion of those people who influence the mother a lot within the immediate social environment. Husbands and mothers-in-law were reported to be most instrumental in supporting mothers in tasks related to childcare. For example, mothers-in-law accompany their daughters-in-law to the health facilities, look after them during delivery and become part of the day-to-day care of their children. It was pointed out that when men are involved in supporting their spouses, the situation becomes much better.

Besides the immediate family members and friends, women interface with other people especially those in development work (from both Government and NGOs) who sometimes visit them in their homes or even sensitize them in groups on improving nutrition. They include those such as institutions that provide them with resources to enable them improve their nutrition situation. For this reason, the study explores the role of these institutions in supporting mothers in nutrition practices.

4.2 FINDINGS FOR ACHOLI SUB-REGION

The Acholi sub-region as per the design of this study covered the districts of Amuru, Nwoya, Gulu, Kitgum and Lamwor. While Kitgum and Gulu districts have existed for over 20 years, other districts are relatively younger with some having been created less than 10 years ago. The districts of Amuru and Nwoya were carved out of Gulu while Lamwor was carved out of Kitgum.

4.2.1 Context

Northern Uganda (Acholi and Lango sub-regions) experienced prolonged periods of food insecurity because of the conflict that lasted for more than two decades. The conflict disrupted the economy affecting access to land to farm, which in turn disrupted food production, and these inevitably lead to high rates of malnutrition. After the war, recovery to the normal farming systems has been rather slow and part of this region has been receiving food aid from the World Food Program (WFP). It is considered one of the largest and longest food aid interventions in the world, which phased out between November 2008 and January 2010.

When the war ended, some of the displaced persons were generally not able to go back to their homes. The Acholi people who were prosperous before the war were predominantly agriculturalists practicing subsistence farming alongside animal husbandry. The conflict also transformed traditional gender roles. Confined to camps, men were no longer able to fulfill their traditional productive roles. Women, on the other hand, continued to be responsible for reproductive roles with the added burden of having to care for orphans. The phenomenon of child-headed households became pronounced.

Traditionally, Acholi women were defined almost exclusively in relation to their reproductive role. The socialization of girls revolved around preparing them for marriage and motherhood. One of the most important lessons passed on to young girls was how to respect and care for a man. Elaborate ceremonies prepared young girls and women for these roles, including birth ceremonies which formally recognized a woman's status where she was married. The roles validated her worth to the family and the entire clan. The gendered division of labor followed. In the home, women were expected to care for children, attend to the fields, cook and clean. In contrast, men were expected to dig, harvest, hunt, and construct and maintain the compound.

Thus, in many ways, some of the current nutrition practices among pregnant and lactating women are linked to this background and the associated cultural values and beliefs.

4.2.2 Early Initiation of Breastfeeding (EIBF)

According to the 2011 Uganda Demorgraphic and Health Survey (UDHS) results 38% of children in Northern Uganda start breastfeeding within one hour of delivery. This is much lower compared to the Karamoja region (70.4% [UDHS, 2012]). This is surprising since according to the UDHS, only 54% of mothers in Northern Uganda deliver with the help of qualified medical personnel ranging from a nurse to medical doctor [36]. This formative research found that mothers are largely aware about the importance of early initiation of breastfeeding, and endeavored to put this knowledge into practice. Mothers who deliver from the health centers are urged by health

workers and senior mothers to initiate breastfeeding within one hour of birth. This knowledge is usually acquired from health education during ANC. Interviews with health workers revealed that health education during ANC covers a range of issues including recommended practices before and after birth, with child and mother's health being emphasized. Therefore, the need to initiate breastfeeding immediately after birth is taken as a blueprint action.

> **Participant 6**: The nurses also remind you to breast-feed if you deliver from the HC. **(FGD, pregnant women, Lukung HC III, Lamwo district)**

Mothers indicated that breastfeeding early stimulates breast milk production and promotes bonding between the mother and the child. They attribute the knowledge they have to the health education sessions attended at the health and out-reach facilities. The mothers' belief is based on knowledge that introducing breast milk to baby immediately as well as continued breastfeeding creates a lasting mutual bond. Therefore, unless mothers have special reasons they are always set to create this bond.

> Moderator: What encourages you to breastfeed?
>
> **Participant 5**: I breastfeed because this is my baby and I love the baby so much that I have to breast-feed my baby all the time. If I do not breastfeed my child until they grow up, who will breastfeed my child for me? It has to be me, that is what all mothers do for their children who are still young **(FGD, Pregnant women, Awach HC IV, Gulu district)**
>
> **Participant 2**: Mothers should also love their children especially if they have just given birth as they carry and breastfeed them at all times, breastfeeding helps the child to also know that that is the mother and they can differentiate their mother from somebody else **(FGD, mothers with children under two years Atiak HC III, Gulu District).**

The study noted however, that some mothers still believe that colostrum is not healthy for the child and they squeeze it out before they give the child the breast. They also clean their breasts and body before the initiation of breastfeeding and in this way, delay to initiation of the child to breast milk.

> **Participant 5**: For me, I first wash my breast and press out the bad milk before I start to breastfeed the baby, the bad milk is yellow in color and I think I have to remove it from my breast. Some people are lucky their breast milk comes out clean **(FGD, pregnant women, Koch Goma HC IV, Nwoya district)**

Challenges mothers face with regard to EIBF

Failure by mothers to breastfeed is based on perceptions and practices which inhibit or cause them delays to act in line with prescribed practice. Contrary to the implicit study, no taboos were found as inhibiting early initiation. Mothers delay breastfeeding within the recommended time after birth because of a number of factors.

Low or no breast milk production

Mothers delay to initiate breastfedding when they believe that their breasts have not yet started yielding milk. Time is then lost doing several activities believed to induce breast milk.

> **Participant 4:** But here in this community, mothers usually initiate their children into breastfeeding immediately after birth, but again other mothers lack or even at times just don't have breast milk immediately after birth, so they are unable to initiate their children on breast milk instead the child is given sugar solution. **(FGD, Mothers, Pagimu Sub County, Kitgum district)**

Mother in poor health

There is a behavioral barrier of mothers with unhealthy nipples not letting their baby's breastfeed for fear that they may have an infection which can be transmitted to the child. In such cases, breastfeeding is suspended until the breast heals. In the meantime, they give such foods as cows milk to the child.

> **Participant 2:** For me, I saw a woman in my community who breastfeeds till the baby reaches three months and then she stops because her breasts develop wounds and yet she is HIV positive. The health workers advised her to stop breast-feeding immediately she sees wounds on her breast because if she does not stop breast-feeding, she could infect the child with HIV. (**FGD, Mothers with under two year children, Atiak HC Gulu district)**

In addition, the condition of a mothers health determines whether or not they breastfeed early. It came through in focus group discussions and in-depth interviews that mothers, who have just given birth and are not feeling fine, may not find it easy to introduce breast milk to the child within the recommend one hour. Sometimes, some mothers would not breastfeed after a caesarean section because they were still in shock or pain when they came out of the delivery ward.

> **Participant 6:** What I know is that, most mothers here initiate their children immediately on breastfeeding. However, some few mothers because of health-related issues, their breast milk takes long to generate so they fail to immediately initiate their children on breast milk**. (FGD, Pregnant Mothers, Paibwo, Bungatira, Gulu District)**

Cultural beliefs/taboos

There was a consistent view across all categories of respondents in this region that cultural taboos relating to early initiation of breastfeeding have faded.

> **Moderator**: Are there any cultural taboos inhibiting mothers from immediately initiating a newborn child to breast milk after birth?
>
> **Respondent:** No, there are no cultural taboos except if you have given birth to twins, if they are males, you don't come out of the house until after three days; for females, the mother stays inside the house for four days. During this time, the mother is breast-feeding. On that day that the mother comes out of the house, a cultural ritual is performed **(FGD, Breastfeeding mothers, Awach HC IV, Gulu District)**

Notwithstanding, some mothers still remember some of these superstitions/taboos. According to the health service providers and some mothers, the superstitions that still exist have lost their original value. They have therefore become inconsequential to appropriate maternal and child feeding and caring practices. Some of the views on taboos during the discussions are cited here.

> **Participant 6**: There is some cultural practice known as *Atii* which is always in specific clan (Labwo). So, after giving birth, you as a mother you are not supposed to breastfeed the child that very day and this violates the right of the child…they usually say when the mother breastfeeds the child immediately after birth, the child may become stupid.
>
> **Participant 7**: There is nothing like that these days; those used to happen in the past. They say that they would have to do something to the mother of the baby to prove that their son fathers the child. If you refused it would mean that that is not their child, this was majorly done for their first child.
>
> **Participant 2**: For me, I heard that they would cook a worm that the mother had to eat to prove that that is their child. If you refused to eat it then it would mean that that is not their child and the baby would die. **(FGD, women with children under 2 years, Atiak HC IV, Gulu District)**

Baby's health condition

The health of the baby was also mentioned as a factor to explain the early or delayed initiation of breastfeeding. It was reported that sometimes the baby is too weak to suckle and this causes delays.

> For me after giving birth, the baby was weighed, so after weighing and bathing the baby, they gave it to me. So, I initiated the baby on breast milk like after 3 hours….because the baby was not even crying; it was just quiet… I delayed giving the breast milk not because the child was not crying but because the child was responding so the child did not take the breast milk, so I had to wait when it had started feeling better then I initiated because I had enough breast milk waiting for him **(FGD, Breastfeeding women, Pagimo HC IV, Kitgum District).**

Interviewer: What can be given to the child soon after birth?

Respondent: The mother can give breast milk to the baby after birth…but for my case, with my other child when I gave birth, I was not able to breastfeed my child, because I gave birth to a deformed child, who was blind with merged noise and mouth. So, he could not breastfeed. So, when I gave birth, I was referred to Kitgum Hospital where they were giving milk through the pipe until he passed on**. (IDI, pregnant mother, Palabek Kal, Lamwo district)**

Enhancers of adequate nutrition practices

Mothers who have just given birth are expected to initiate the child on breast milk within one hour. Those who do so as this study established do it because of one or more of the following:

Knowledge of the importance of early initiation of the child on breast milk

Initiation of breastfeeding is widely known among the mothers to be critical for the baby's health as a breast milk inducer and quite a number adhere to it. Some even know that colostrum is nutritious and that initiation of breastfeeding also helps induce breast milk.

Participant 2: For me, I breast-feed the baby immediately after birth but what I first do is to only wash my breast, I do not squeeze out anything I only wash the breast and give the baby to feed. P 1: I breast-feed because breast-feeding brings out the milk for the baby. If you do not start giving the baby the breast to suckle the breast milk will not flow, that is why it is important to breast-feed the baby as soon as possible so that the milk starts to come**. (FGD, pregnant women, Koch Goma HC IV, Nwoya District)**

Participant 2: After birth, the most important thing to give the child is breast milk immediately. You do not have to wait for the child to even cry. As soon as the baby is born and you have been shifted from the labor suit, it is important to start breast-feeding immediately they bring the baby to you**. (FGD, pregnant women, Lukung HC III Lamwo district)**

Advice by health workers

Most of the experiences shared about initiation of breastfeeding suggest mothers delivered from the health centers. Upon delivery, mothers are urged to breastfeed their babies by many present who including health workers and mothers-in-law or friends who have been attending to the new mother right since labour started at home. With advice from such influential persons, these mothers heed the advice to initiate breastfeeding immediately.

Participant 7: For me, when I was at the HC after delivery the health worker came and told me to give the child breast milk. It was my first born child and the baby was not even crying but she told me that as soon as the baby woke up, I should breastfeed that baby because it is important that the baby feeds **(FGD, pregnant women, Awach HC IV, Gulu District)**

Ability by some mothers to give breast milk immediately after giving birth

Mothers who deliver and find they are ready to give breast milk to the child especially those who have given birth before have no excuse for not breastfeeding. It emerged from the discussions and in- depth interviews with mothers that the slight delays to initiate breastfeeding immediately are usually due to interim efforts to induce breast milk production. A range of breast milk boosters/enhancers are employed including the improper act of squeezing out colostrum to give way for white milk which is considered by some as appropriate for the baby.

> **Participant 7**: For me, I breast-feed the baby immediately because I had a lot of milk flowing, I never had a problem of not having breast milk after delivery. My breast milk did not delay to flow like for other women, the baby had enough milk. **(FGD, pregnant women, Koch Goma Sub County, Nwoya district**
>
> **Participant 8**: The health worker also told me to give the baby breast milk because the breast milk that comes out first is good for the baby's health **(FGD, Pregnant Mothers Paibwo, Bungatira, Gulu District)**
>
> **Participant 9**: For me,, what helped me in my previous birth was that, I had my breast milk ready for the baby, so initiating the baby on breast milk was not a problem.
>
> **Participant 10:** I had to eat foods that generated breast milk, like *malakwang, obwoga, akeyo*, (Greens) all these worked well for me, and I was able to initiate my baby on breast milk.
>
> **Participant 11**: For me, I do not give the baby anything until they are 1 year old because I am lazy at cooking. I would rather breast-feed the child than start cooking food for the baby yet I have enough breast milk that can satisfy the baby **(FGD, women, children under 2 years, Atiak HC IV, Gulu District)**

Baby's interest in breastfeeding Some mothers in Northern Uganda explained that they breastfeed immediately as long as the baby accepts to suckle. Some said the baby could be crying but when you put it on the breast, it shuns the breast and continues crying.

> **Participant 3**: If the baby is healthy and is breast-feeding well, then the mother is encouraged to continue feeding the baby. But for the children who reject breast milk, you cannot force them to feed when they do not want. **(FGD, pregnant women in Koch Goma HC IV, Nwoya district)**

Mother's Health Status

It was also revealed that when the mother of the baby is healthy and has delivered without much pain, there is no reason they should not breastfeed immediately.

> **Participant 8**: The time of breast-feeding depends on the health of the child and that of the mother. If the mother is healthy she can breast-feed her baby for as long as she wants but if she is sick then she will have to stop breast-feeding so that she does not infect the baby (**FGD, women Koch-goma HC IV, Nwoya district)**

Knowledge that initiation of breastfeeding has therapeutic value for the mother

Some mothers/women believe that when you give breast milk to the baby immediately after birth it also helps the mother to recover from the wounds in the womb immediately. Mothers who held this opinion were those likely to have been counseled especially during ANC visits or at their previous deliveries.

> **Participant 5:** After delivery, I breastfeed immediately because it also helps to heal the wound in the stomach faster. If you delay to breastfeed, the wound also takes long to heal and even your breasts will become so big and even painful (**FGD, pregnant women, Lukung sub-county, Lamwo district)**

Belief that breasts will swell and pain if breastfeeding is delayed

Some mothers reported that ignoring to initiate breast milk has the undesired consequence of swelling breasts which tend to be painful. This category of mothers is therefore likely to comply with the practice of breastfeeding initiation to guard against the pain.

> **Participant 5**: I breast-feed immediately after birth because if I do not breastfeed, the breast will swell and even become painful because the breast milk is not being sucked out. That is why it is important to breast-feed so that the amount of milk in the breast can be reduced and you will be comfortable. **(FGD, pregnant women in Lamwo district, Lukung HC III)**

Knowledge that HIV Positive Mothers must only breastfeed

There is a consistent belief among most women groups that mothers who give birth while they are HIV positive have to breastfeed child immediately. If they do not and introduce other foods or fluids, they will damage the baby's digestive system and increase the risk of HIV infection to the child later on when breast milk is given.

> **Participant 1**: For mothers who are HIV+ they do not give anything else apart from breast milk because the baby's stomach is weak and they could affect their stomach with other foods and later increase on the chances of the baby being infected with HIV. That is why they only give them breast milk only for six months. **(FGD, pregnant women, Koch Goma Sub County, Nwoya district)**
>
> **Participant 6**: After delivery I rested for a while, I think it could have been six hours because I am weak. I am HIV+ and that is why I only gave breast milk after delivery because the health worker told me not to give the child anything else apart from breast milk **(FGD, pregnant women, Awach HC VI Gulu District)**

Fear of child falling sick

Some of the mothers say they have a bad experience of the child falling sick after giving it food. While others said they were told by their peers that introducing foods or fluids to child would expose them to all sorts of illness especially diarrhea. They will therefore breastfeed the child until the appropriate time comes.

> **Participant 3:** For me, I breast-feed my child because the few times I have tried to feed the child on something else other than breast milk, the child falls sick. This has discouraged me from giving the baby other foods if I have to go to the HC each time the baby eats. I will wait for the baby to be older then start again. **(FGD, pregnant women, Awach HC VI, Gulu District)**

Breastfeeding to calm a crying baby

Some of the mothers gave breast milk in order to soothe a 'noisy and crying baby' as some intimated.

> **Moderator**: Why do you breastfeed immediately after birth?
>
> **Participant 8**: You have to breast-feed because if you do not the baby will cry and you will also not rest until you give the baby breast that is when the baby will keep quiet. If there are people they will ask why you are not breast-feeding the baby and yet the baby is crying.
>
> **Participant 9**: When the baby is out of the womb, they feel hungry and cry a lot because unlike before when they were still in the stomach they would have food but now the food is no longer there since they are out **(FGD, pregnant women, Koch Goma HC IV, Nwoya district)**
>
> **Participant 7**: You have to breast immediately after birth because the child is crying and there is nothing you can do other feeding the baby; as a mother you cannot see you baby crying and you do nothing about it. **(FGD, pregnant women, Pabwo HC III, Gulu District)**

4.2.3 Exclusive Breastfeeding (EBF)

According to the 2011 UDHS, only 3.8% are exclusively breastfed up to 6 months; the Acholi region exhibited slightly lower performance compared to Western and Karamoja regions at 4.4%. Interestingly, the study findings indicate that most mothers in Acholi Sub-Region knew about the recommended timeframe for exclusive breastfeeding as well as its scientific rationale thanks to the health education and continued advice by health workers. The mothers know the implications of noncompliance. However, some mothers do not adhere to the exclusive breastfeeding principle due to a number of beliefs and some challenges which are discussed below as barriers.

Challenges (barriers) mothers face with regard to Exclusive Breast-feeding

Inadequate breast milk

Low breast milk production after delivery and into months of exclusive breastfeeding was cited as the cause of introduction of other foods and fluids to the child. Mothers do this because they believe that the baby will not be satisfied. While this reasoning is correct, breast milk production can be boosted using locally grown foods, pasted greens and millet porridge.

> **Participant 3:** For me, I breast-feed exclusively for five months then I start to introduce other foods for the baby. I do not have a lot of milk to continue only breast-feeding until the baby makes six months. I start by giving the baby soups **(FGD, pregnant women, Lamwo district; Lukung HC III)**

Introducing other foods as an interim measure when a mother is sick

While some mothers were keen to stick to the practice of exclusive breastfeeding, they also indicated that sometimes they are not able to, due to sickness. Consequently, they suspend breastfeeding as they take medication until they have improved or fully recovered.

Premature feeding perpetrated by caregivers

Like in other regions, exclusive breastfeeding in Acholi Sub-region was found to be compromised in situations when mothers have to do farm work leaving the baby in the hands of older siblings or grandmothers. These caretakers actually entice or give the child the food as they eat. In the end, the babies start to feed; when they cry for their mother, they give them foods to stop them from crying.

> **Participant 4**: Sometimes it is difficult to see to it that the baby does not eat anything until they reach six months especially if they are crawling. They could go to the houses of the grandmother where they are given food to eat; there is nothing that you can do **(FGD, pregnant women, Pabwo HC III, Gulu District)**

Conceiving is believed to spoil breast milk

Nearly all mothers believed that becoming pregnant spoils breast milk; therefore, the baby will not continue to breastfeed. This is to the detriment of the child who is weaned too early.

> **Participant 6**: Women also stop breast-feeding when they realize that they are pregnant. It is not good to continue breast-feeding especially when you are pregnant; the child could get *neru* (kwashiorkor) **(FGD, Women, Awach HC IV, Gulu district)**

Feeling that child is able to eat food

As early as three months some mothers as well as in-laws feel the child is due to eat solid foods, and so feed them solids.

> **Interviewer**: Why did you introduce food at five months?
>
> **Respondent**: I gave the baby food at five months because the baby would cry when I am eating. They say that by that age, the baby knows the smell of food and they want to eat. That was when I started giving the baby *olel*. But before the age of five months, the baby would not cry or struggle to eat my food; that is why I just had to give the baby some soup to calm the baby down. If the child wants food and you do not give food the baby you will not be able to eat at time the baby will even pour down the food as they try to reach the food**. (In-depth interview, pregnant woman and mother of 14 months-old baby, Pabwo HC, Gulu district**)
>
> **Interviewer**: When do most people start introducing food?
>
> **Respondent**: People start giving food to their children when they feel the child is able to eat the food. This decision is individual. People start at different times, some start at four months while others start at five months for those who delay to give food to their children **(In depth interview, grandmother who lives with a 2 year and three months old child, Atiak HC IV Amuru District**)

Need to reconcile livelihood interests with taking care of children

Mothers knew about the exclusive breastfeeding timeframe. However, the need to balance child feeding and the need to fend for the family compromise compliance to this timeframe. In an effort to ensure food security through tilling land or working for a salary, mothers do not get enough time for the child and they do not feed well or often enough to generate sufficient breast milk.

> **Participant 7**: I started giving my child food early because they do not allow children at my work place and because I also needed the job to be able to support me and the baby, I started to give the baby porridge especially when I am at work and I would breast-feed when I am back. I think they should talk to these employers so that they can allow us breast-feed our children at work. At least, the children should be brought to breast-feed and then taken away but these people do not even want to see a child in the compound (**FGD, Mothers with children under two years, Atiak HC III, Gulu district)**

In many parts of Acholi sub-region, it is believed that to get a good harvest of *simsim*, you must plant it in fertile and fallowed soils. This involves moving away from home to get to these virgin and fertile soils. The implication is that mothers till the land for long without eating appropriately. As a result, children do not get enough breast milk. This is how the introduction of other fluids and foods comes into play.

Triggers and Enhancers of Exclusive breastfeeding

The enhancers of exclusive breastfeeding established by this study revolved around the child and mother's health; therefore, any practice carried out is weighed against its implications on the health of both parties. What is clear is that mothers know why they should exclusively breastfeed within the 6 months after birth and will do it if one or all the following reasons.

Breastfeeding without interruption from pregnancy

Women, across the study districts in Acholi Sub-Region, believe that exclusive breastfeeding should not be terminated unless a mother becomes pregnant. It is widely known among women in the region that exclusive breastfeeding acts as a family planning method and it propels them to comply as much as possible.

> **Participant 8**: Constant breastfeeding also acts as natural family planning method, many mothers breast-feed their children for that long, because they avoid getting pregnant… breast-feeding helps in child spacing **(FGD, pregnant mothers, Pabwo HC III, Butangira sub county, Gulu District)**

Fear of child falling sick

Some mothers breastfed exclusively to prevent their children from falling sick. They gave testimonies of what their children suffered from after they had introduced other foods with previous child deliveries.

> **Interviewer**: How are you breasting the baby?
>
> **Interviewee**: I exclusively breast-feed until the baby makes six months because if I give food earlier than that, the child will get diarrhea. At times, it even causes wounds on the mouth of the baby especially on the gum. The baby breast-feeds at all time. **(In-depth interview, mother of child under two years in Mucwini HC III, Kitgum district)**

Influence of health workers and significant others

The health worker's advice to exclusively breast babies as well as the roles of influential others are critical in making mothers adhere to exclusive breastfeeding. The role of these influential agents is clear from most of the testimonies on why mothers continued to breastfeed their children for 6 months.

> **Participant 1**: When you deliver from home, the child can be given water mixed with sugar but at the HC it is not allowed even when there is no breast milk the baby has to suckle until the breast milk starts to flow **(FGD, pregnant women, Awach HC VI, Gulu District)**

Having high milk yielding breasts

Mothers who continuously breastfed until the end of 6 months attribute it to having breasts that produce enough breast milk for the child. Some said that when their breasts were productive, they continued to breastfeed beyond the 6 months without introducing solid foods.

Moderator: How do you feed a baby before they make six months?

Participant 1: For me, I breast-feed exclusively for 7 months, when the baby is 7 months old then I start to give some food, I have a lot of breast milk and I have no problem breast-feeding. **(FGD, breastfeeding women, Lukung HC III, Lamwo district)**

Appropriate feeding

In order to produce sufficient breast milk for the baby, there was agreement among women that appropriate feeding by lactating mothers is the solution to low breast milk production. The foods most women mentioned as popular in this respect are pasted foods and locally-grown greens.

Moderator: What food do you eat to enable you have enough breast milk?

Participant 8: For me, when I eat *malakwang* that is pasted with groundnuts, I have a lot of milk; even after birth, I eat malakwang a lot to generate breast milk.

Participant 2: For me, it is *wangiri* that works for me,

Participant 1: For me, when I eat pasted boo with *oddi*, I have a lot of breast milk.

Participant 4: For me, even meat that is smoked and pasted, when I eat that, I will have a lot of milk even *malakwang* too but the pasted meat brings more milk **(FGD, pregnant women, Bungatira Sub County, Gulu District)**

Love for and need to bond with child

Another important drive for mothers to continue breastfeeding their children was the need to create a bond between the mother and the child because there is a long-standing interface. Another reason that was cited is to emulate other mothers in the community.

Moderator: What encourages you to breast-feed?

Participant 5: I breast-feed because this is my child and I love the child so much that I have to breast-feed my baby all the time. If I do not breast-feed my child until they grow up, who will breast-feed my child for me, It has to be I, that is what all mothers do for their children who are still young **(FGD, pregnant women, Awach HC, Gulu District)**

4.2.4 Complementary Feeding

According to the UDHS only 7.2% children in the North (which includes Acholi sub-region) can have more than 4+ food groups (infant formula and milk other than breast milk, cheese or yoghurt or other product etc) compared to Karamoja (3.3%) and Western (12.3%). In addition, in terms of minimum meal frequency (receiving solid or semi-solid food at least twice a day for infants 6-8 months and at least three times a day for children 9-23 months), according to the UDHS was 29% in Northern Uganda, 27% in Karamoja, and 56.3% in Western Uganda.

Findings from the formative study in the Acholi Region indicate that mothers differed in practice and behavior relating to complementary feeding for children. All mothers who participated in this study knew about when and what foods and fluids to give their babies. However, in practice, it was reported that few mothers adhere to the required practices due to some barriers and enhancers of good appropriate/adequate complementary feeding practices as discussed below.

Barriers to adequate complementary feeding practices

Seasonal household food self-sufficiency for ensuring balanced diets

Overall in Uganda, adherence to recommended complementary feeding practices continues to remain a challenge. According to the UDHS, about 14% of infants under 6 months are given complementary foods, 11% are given other milk, 5% are given plain water only, and 4% are given juice and liquids other than milk. Complementary feeding increases from 6% of children aged 0-1 months to 24 % among those aged 4-5 months. 87% of children continued breast-feeding alongside complementary feeding for at least one year, and 46% continued breast-feeding at 2 years [36].

Key barriers indicate that household food self-sufficiency is a key challenge. In Acholi sub-region there are certain periods associated with household food insecurity. Some mothers in the region face the challenge of ensuring that their children get balanced diets. Seasonal variations make it hard for mothers to have the minimum recommended food diets.

> **Interviewer:** In which months is there plenty of food?
>
> **Interviewee:** Usually there is food from the months of November to March. There is also some food from April harvested from the second season. In June, the food starts to reduce. Before there is potatoes, peas, beans, sim sim; all these are available because we have just harvested and there is still a lot. But now we do not have food that is enough and we buy most of the food even the sorghum. **(In-depth interview, mother of child under two years, Mucwini HC III, Kitgum District)**

Issue of balancing breast milk with complementary foods

It should be noted that complementary feeding means a mother gives other foods in addition to breast milk. When this time comes, mothers feel a sense of relief because that is when they can concentrate on their farm work without a child crying too often for breast milk. In essence, the solid and soft foods given tend to replace breast milk while the mother minds about land tilling or other activities. However, this, in itself, may be counterproductive for the child since it needs both the breast milk and complementary food.

> **Participant 6**: When children are used to eating food, at 9 months, they join the entire family in the meals. They also eat breakfast, drink porridge and take lunch. The only time the baby will breast-feed will be at 5:00 pm in the evening unlike before when the baby would want to breast-feed at all times **(FGD, pregnant women, Lukung HC III, Lamwo District)**

Inadequate household incomes

Household incomes are closely associated with seasonal household food insecurity. Households that do not produce certain foods or that experience a decline in existing food stocks, but have the financial means have the option of buying from shops or away from the community where such desired foods can be obtained. However, it was revealed that most households do not have the disposable income if ever to purchase foods in sufficient quantities to meet the family's dietary needs.

Premature introduction of foods during exclusive breastfeeding

The practice of complementary feeding for children after 6 months is pre-empted often by mothers who give soft, solid foods much earlier than the stipulated time. Some mothers start feeding other foods as early as 3 months. Because this is quite a common practice, mothers who default largely blame it on insufficient breast milk production.

> **Participant 6**: For me,, I have ever seen a woman in my community who started giving a three-months old baby food and even water to drink yet they tell us at the HC that a three months old baby is still young and we should not give any food apart from breast milk.
>
> **Participant 8**: For me,, I see some mothers start giving children *olel* at three months and soup that they keep putting a little in the mouth of the baby to test, sometimes the children also want and you have to give them because they disturb you especially when you are eating **(FGD, pregnant women, Awach HC, Gulu District)**
>
> **Moderator**: At what age do you initiate food to the children?
>
> **Participant 4**: I start giving the child food at the age of six months, and then I start giving them soups.
>
> **Participant 3**: For me, I start giving the children food after eight months but they do not even eat much, they start by eating a little bit of food.
>
> **Participant 4**: For me,, I start to give them some food at five months because by then, they start struggling to eat food especially when you have served your own food to eat, what I do is to give them some soup as I eat. **(FGD, pregnant women, Pabwo HC III, Gulu District**)

Pregnancy

Similar to other regions, in Acholi sub-Region, some mothers terminate breastfeeding due to the belief that pregnancy negatively affects the quality of breast milk. Others believe that the breastfeeding baby will suffer from kwashiorkor (*neru*).

> **Participant 3:** If you are on family planning and then you do not get pregnant then you can breast-feed the child for long but if you get pregnant when your child is still young you will have to stop breast- feeding the baby because of the pregnancy. **(FGD, pregnant women, Lukung HC III, Lamwo district)**

Moderator: Why do some mothers breast-feed their children for a shorter time?

Participant 8: For me, I heard that when you get pregnant you are not supposed to breast-feed a child. The baby in the womb contaminates the breast milk and it is not good for the baby to continue breast-feeding because many times it causes *neru*. Besides even the warmth from the stomach is not good for the child; that is why you have to stop breast-feeding, [it is] for the wellbeing of the baby.

Participant 2: When you get pregnant the breast milk becomes spoilt and not good for the baby to feed on any more that is why all women who get pregnant and are still breast-feeding stop breast-feeding the children. **(FGD, women with children under 2 years, Atiak HC IV, Gulu District)**

Enhancers of complementary feeding

The findings from the Acholi region show that most women have a good knowledge base on appropriate foods and feeding practices. They are knowledgeable on the basics regarding complementary feeding. They know the recommended time to introduce soft and solid foods to babies and the ideal foods that should be given.

Interviewer: What can you feed the baby on, at six months?

Interviewee: When the baby is six months then you can feed the baby on cow milk that you cook and put in a flask. [You can] even [use] the packed milk. You feed the baby on this each time the baby is hungry or at any time you feel it is the right time to give the baby milk. The baby cup should be different from the one other people use. When giving cow milk you continue to give breast milk too. The other milk acts as a reserve, just in case you are not at home, may be you have gone to the market or the garden and then the baby gets hungry; the baby sitter cannot bring the baby for you to breast-feed, that is why you have to cook that milk **(In-depth Interview, pregnant woman, Koch Goma HC IV, Nwoya District)**

In addition, they make as much effort as possible to ensure the recommended foods are given.

Moderator: What foods do you give to the children?

Participant 3: Children are cooked millet porridge mixed with groundnut paste and some sugar. The porridge should be cooked light so that the baby can drink, not too thick because they are just starting to eat.

Participant 1: The children are given *olel* (pasted soup made of groundnut and *sim sim*) that is fried and then ground. This is mixed with water and then boiled to make soup.

Participant 6: I give the baby foods that have soups, for example, bean soup and any other as long as it has soup; that is what I give the baby with some little food.

Participant 4: Most often, I give the baby *olel* from any food like boo, meat, beans as long I cooked it with *olel*. I give the baby *olel* because they cannot eat the beans, *boo* and even meat that is why I give the soup**. (FGD, pregnant women, Pabwo HC III, Gulu District)**

The health center-based maternal and child health education is credited for the knowledge tha the women possess about complementary feeding. Therefore, any complementary feeding shortfalls cannot be attributed to lack of knowledge among those who care to know because there are clear sources of information at the disposal of all women.

Availability of food in the home

Giving recommended complementary foods to the baby depends on the food availability in the home or within easy reach. The study observed that some foods could not be obtained even within the district. Therefore, mothers will easily give the foods they can get with minimum effort and at minimum cost. It should be noted that children of over 6 months are not given special foods and what is prepared for the family is what the babies partake of.

> **Participant 1**: I started giving my baby food, when she was 7 months. I started giving her porridge mixed with *sim sim* and groundnuts paste, silver fish soup pasted with sim sim and groundnuts paste with tomatoes. I would give her food three times a day: at breakfast, she would take tea or porridge; at lunch and supper, she would eat together with people. The foods were accessible because that is the food we usually eat here. **(FGD, Pregnant Mothers, Paibwo, Bungatira, Gulu District)**
>
> **Moderator**: When do you introduce food to the children?
>
> **Participant 4**: For me, I start to give the child some to eat at six months and then I start by giving the baby porridge then later I also start giving other foods as well.
>
> **Participant 6**: When my child is six months, I start to give the baby food and porridge but I start by giving a little bit and with time, I increase on the amount of what I give to them. **(FGD, Mothers, Atiak HC IV, Gulu District)**

Economic status of the household

The economic status of the household where a baby is born is important because some foods that are not produced on a family farm such as milk and eggs have to be purchased to be a part of the household's menu.

> **Participant 6**: Cow milk is very expensive for me to buy every day; so, what I do is to feed the baby on porridge but most of the time the child breast-feeds and then eats food when we are also eating. I keep putting some food in the mouth of the baby. **(In-depth interview, mother of a child less than six months Palabek Kal, Lamwo district,)**

Supportive spouses

It is straining for one person to shoulder the responsibility of fending for the family. When the couple cooperates, there is shared responsibility and complementary feeding is both possible and easier. Mothers shared their experiences on what their spouses do at various stages before and after a child is born. From their narratives, supportive spouses tend to comply with the child's complementary feeding recommendations compared to irresponsible ones.

Moderator: How supportive are husbands in this community during their wives' pregnancy or breast-feeding? What kind of support [do they provide]?

Participant 4: When I was pregnant, my husband used to support me. He used to buy me food that I would crave for, and so I would eat… he bought for me, maternity dress.

Participant 7: These days, my husband buys me food and in case the baby is sick; he walks with me to the health center.

Participant 5: My husband used to help me with work in the garden; he stopped me from digging that I am not supposed to do a lot of heavy work since it would affect my child. [He would] also fetch me firewood.

Participant 7: For me,, my husband used to support me emotionally, he could buy For me, what I want and also make love to me…. even now that I am lactating, he buys me food that I want to eat **(FGD, Lactating women, Pagak HC III Amuru District).**

4.2.5 Existing knowledge, attitudes, practices and beliefs on nutrition during pregnancy in the Acholi sub-Region

Pregnant women attend ANC and receive education messages on appropriate feeding especially when they go to health centers. Therefore, they are expected to put such positive education messages on nutrition and care into practice through appropriate feeding for their own good health and that of the unborn baby. Inadequate access to financial resources to purchase some recommended foods appears to be a big problem. For most of the families, it was reported that milk products are not easy to come by for most households although there is easy access to most types of grain/cereals in the region. There were no foods mentioned during this study that pregnant women are strictly culturally prohibited from eating. The women treated as baseless, any such prohibitions that were associated with eating certain foods.

Barriers to adequate nutrition among pregnant women

A number of barriers to appropriate maternal nutrition were identified. The most prominent appears to be food shortages at household level especially during certain months in a year.

Household food insufficiency

It emerged that despite returning to their former homes after a long stay in IDP camps, some families have not come to terms with the reality; they still suffer from the hangover of free food supplies which they were used to during the insurgency times. This is further compounded by having large family sizes that do not engage in serious production to harvest enough for home consumption and sale for income. The implication is that the number of meals eaten per day reduces and this is not healthy especially for the pregnant women and younger children.

Moderator: How common is the problem of poor feeding in this community?

Participant 1: This problem is common among family [families] with many children and this affects mostly the children in the family because they are supposed to feed well but they are limited, so they become malnourished. **(FGD, Breast-feeding women, Pagimo HC 3, Kitgum District)**

Participant 7: The problem is common among families with many children and they tend to eat only beans every day because they cannot afford other foods. The children get affected because they are still growing and the same kind of foods affects their growth.

Participant 10: People who are also too poor, who cannot afford to dig and buy foods; they tend to feed poorly and their children get most affected, they become malnourished. **(FGD, Pregnant Mothers, Paibwo-Bungatira, Gulu District)**

Practice of selling off most agricultural produce

Household food sufficiency is further compounded by selling off most of the agricultural produce to meet other family obligations as reported to be more pronounced in border communities such as Awach sub-county near Southern Sudan.

Participant 8: This is the month when there is not much food, it is worse for those who could have sold off their food during the time of harvest when they told they had enough to sell off. Beside people are even planting and most of the food could have been replanted in the garden especially the ground nuts, peas and beans that is why there is a problem of lack of enough food majority of the people are eating *Wangiri* because it is the only one that you can get from the market **(FGD, pregnant women, Lukung HC3 Lamwo district)**

Pre-occupations with farm work

In Acholi sub region, food production like elsewhere in African rural settings sits mainly on the shoulders of women. Because of this, women, particularly pregnant ones have to balance time between tilling the land and ensuring there is food on the table for the family. Consequently, women find that they have limited time to prepare food and eat appropriately

Interviewer: Have you introduced any other food or fluids to your breast-feeding child 0-6 months?

Respondent: Just like I told you earlier, I am a farmer, usually I leave the baby at home, so now, when she fails to take the baby to me in the garden, she just give the baby soup of beans or whatever they are eating at home….when I ask her why she didn't take the baby to me for breast-feeding, she tells me she had already given the baby something to eat….even if I quarrel like what…I asked to stop, but now the baby is old enough, they give the baby millet porridge**. (IDI, breastfeeding Mother with child under two years, Lukung Sub County, Lamwo district)**

Non-attendance of ANC

Women who do not attend ANC when they are pregnant may not be as knowledgeable as those who make regular visits to the health centers. This may be explained by the fact that the nutrition information which is given during outreach visits or by village health committees or any other sources outside the health center is usually not so focused since often the non-static health education is integrated in scope.

Lingering superstitions and Taboos related to feeding for pregnant mothers

Although no serious superstitions exist among the Luo in Acholi sub region there are some which were mentioned by respondents who hastened to add that these did not have serious consequences. Some were reported as rumors because the women who mentioned them would not say with certainty and detail the implications of observing or not observing those taboos. For example:

> **Participant 6**: For us pregnant women are not allowed to eat honey when they are pregnant because it will affect the child's stomach **(FGD with pregnant women in Lamwo district; Lukung HC3)**
>
> **Participant 3**: For me, what I heard is that, when you are a pregnant woman, you are not supposed to eat offals because when you eat them, the umbilical code, can easily tie around the baby's neck. **(FGD, Pregnant Mother, Palabek-Kal, Lamwo District)**

Enhancers of adequate nutrition practices in the Acholi sub-Region

A number of factors that enhance compliance to the recommended dietary practices were identified in the region.

Knowledge about appropriate feeding for pregnant women

Women were confident about the foods that they are supposed to eat while they are pregnant. They were able to give a long of list of foods and appeared to know the nutritional value derived from each food type. However, it is clear not all mothers know how best to prepare the foods for the child, which is why there have been initiatives supported by different development partners to improve on this knowledge aspect.

> **Moderator**: What are you doing as a pregnant woman to ensure that you produce a healthy baby?
>
> **Participant 6**: For me, I drink porridge, and I eat chicken, sometimes vegetables so that I can have a healthy baby. I also keep myself healthy.
>
> **Participant 7**: For me, I ensure that I eat on time, I do not let myself feel hungry I have my breakfast at 10:00 a.m. and lunch at exactly 1:00 p.m. I even eat at all times when never I feel I need to eat something.
>
> **Participant 4**: For me, I eat whatever I want to eat, these days I even eat pork because that is what I always want to eat.
>
> **Participant 2**: For me, the food I want to eat is boo, I do not mind whatever way it is prepared whether it is fried or it is pasted as long as it is boo I will eat and enjoy my food.
>
> **Participant 1**: For me, I eat anything as long as it can enter my stomach; my mouth has not rejected anything. I am not selective; as long it is food, I eat it. I have no special food that I eat because I am pregnant.

Participant 8: For me, when I am pregnant I like to drink a lot of porridge **(FGD, pregnant women in Koch Goma sub county Nwoya district).**

Interviewer: What should pregnant women feed on?

Respondent: Pregnant women should eat vegetables, beans, passion fruits porridge with lemon and *oddi*, they should eat food that has "vitamins" with nutrients so that the baby and [the mother] are healthy and they have to make sure they eat food all times whenever they feel hungry. There is nothing that pregnant women are not supposed to eat, may be for some other women, but for me, I eat all foods there is no food that I do not eat. When I am pregnant my husband does not allow me to delay under the sun, split firewood, he does that for me, many times unless when he is not around. **(In depth Interview with Grandmother Atiak HC IV Amuru District)**

Women mentioned health workers as the main source of information on appropriate feeding. During ANC visits there are always health talks covering a wide range of topics including nutrition. The women confirmed that it is a requirement for them to visit health centers for ANC as soon as they realize they are pregnant. During these sessions they are given information on nutrition among other topics.

Eating of locally available and accessible food varieties

Discussions with pregnant women indicate that the food women eat while pregnant varies. The commonly mentioned foods are those locally grown in the area. It should also be noted here that there are no special foods in practice that are served to pregnant women. They partake of the food cooked for the benefit of all.

Moderator: What food do you eat when you are pregnant to ensure that you have a healthy baby?

Participant 7: When pregnant you eat anything, you change the foods depending on your capacity to buy.

Participant 8: There is a lot of food, but you eat what you can afford. For example, for me, when I am pregnant I do not want to eat beans or even smell it being cooked.

Participant 1: It depends on the season, for example, now, it is *wangiri*, *okra* because many of the foods have been planted like peas and groundnuts have been planted. Those who have some money buy groundnuts but it is expensive; a cup of unshelled groundnuts is Shs. 200.

Participant 5: For me, when I am pregnant I want to eat bananas, paw paws, pineapples, and porridge. **(FGD, pregnant women, Pabwo HC3, Gulu District)**

Level of household incomes

Possession of money was widely cited as critical to eating what one feels like eating considering there are some recommended foods that may not be available in the household such as eggs and milk which are reported to be expensive.

> **Moderator:** Are there any foods you would want to eat but can't have them? Why?
>
> **Participant 1**: Yes, there are specifically foods that we are unable to afford like chicken, meat; there are very expensive. So, even if we want to eat, we fail to eat because we cannot afford**.** **(FGD, Pregnant Mothers, Pagak Otwe health center III, Amuru District)**

Household food self-sufficiency

In Acholi sub region, the food eaten also depends on the months of the year beacause some months are known to be poor in terms of household food stocks. From October to April there is sufficient household food supply. During the other months, most households do not have enough food for all household members.

> **Moderator:** what about food availability?
>
> **Participant3**: From the month of May, there is less food because most people have already sold their food, to buy school requirements for the children at school and most of the food that was stored has been eaten.
>
> **Participant 1**: This is the planting season since the rains are coming back and we have to plant, that is why there is little to eat because a lot has been replanted like the groundnuts, and that is why it is scarce even in the market, if you want to buy.
>
> **Participant 2**: There is food to eat; it is just that the amount of the food is now little. Unlike the other months when we had just harvest from the garden, we have already eaten most of the food that we store. We have also planted and are waiting for the next harvest that is why the food is now not much**. (FGD, pregnant women, Lukung HC3 Lamwo district)**

Supportive husbands

There were mixed views on whether husbands/men do support maternal care. Some women said they had supportive husbands while others said that their husbands were not as supportive as expected especially because of lack of a sense of responsibility.

Absence of restrictions on what is eaten

There was general agreement among most discussion groups of pregnant women that there are no cultural restrictions on what foods pregnant women should eat. As such, it was established that what they do feed on was due to access constraints or because the smell and taste are good. Some mothers said they could not eat certain foods during their pregnancy because the smell, taste and thought of it, were repulsive.

Moderator: Moderator: Are there foods that you are not allowed to eat because you are pregnant?

Participant 5: For me, during my early pregnancy until 3 months I do not eat rice, maize meal and tea. But this is different depending on an individual; some people eat them but for me, I do not eat these until I am more three months pregnant.

Participant 2: For me, the only food I would want to eat when I am pregnant is *lapena*, which is fried, and chicken if possible. I can eat this daily without changing to some other food**. (FGD, pregnant women, Lukung HC3, Lamwo district)**

Participant 2: For me, when I am pregnant the food that I hate to eat is beans, but I can eat all the vegetables. I eat *boo, malakwang* that is pasted and even *wanjiri* that I buy from the market.

P**articipant 1:** For me, I do not take sugar or anything sweet and that is why I do not take tea; the only thing I drink is porridge.

Participant 5: For me, during my early pregnancies I lose appetite for food. Even though I feel hungry, I do not want to eat food. I have just started eating recently but before I would not eat anything, yet I feel hungry but my mouth does not want to eat. **(FGD, pregnant women, Lukung HC3 Lamwo district)**

Influence of mothers-in-law

The role of mothers-in-law during preparation for childbirth and after was underscored in this study. In-laws, especially mothers, give advice on how to care for the child after birth but also help to ensure the mother feeds correctly. Some of them in fact undertake to cook and serve food to new mothers.

Moderator: How supportive are your mothers-in-law?

Participant 5: My mother-in-law guides me on how to take care of the child; she tells me to always cover the head of the child to prevent the cold from entering the baby at least until the baby makes three months. She says that before three months, babies are very delicate and should be taken good care of.

Participant 4: Mine says that I should protect the umbilical cord so that the flies do not contaminate it with germs by always covering the cord area until the wound completely heals.

Participant 3: For my other children she would even cook me *malakwang* when I had come back from the HC with the newborn baby so that the baby can have enough breast milk.

Participant 1: My mother-in-law would also tell me not to eat too much food because I could deliver a very fat baby and I may get difficulty delivering normally, so nowadays I eat but I avoid eating too much food I eat what is enough for me,. **(FGD, pregnant women, Lukung HC3 Lamwo district)**

4.2.6 Existing knowledge, attitudes, practices (KAP) and beliefs community members have regarding nutrition for lactating mothers

Breastfeeding mothers are expected to feed well in order to be healthy and producee breast milk that their babies depend on especially during the first six months of life. This study found mothers were aware of what foods they should eat and strive to get them.

Barriers to adequate nutrition for lactating mothers

Feeding practices of lactating mothers to produce sufficient breast milk was found to be affected by a range of factors. They are linked to practical realities of seeking to meet the family livelihoods within the broader context of household poverty as explained below.

Heavy daily activity profiles of Mothers

Given the daily heavy domestic chores, mothers are overwhelmed and fail to take care of themselves and the children who depend on them. These mothers exhaust themselves working because they never eat enough and this has implications on the quality and quantity of breast milk they will produce.

Interviewer: How many times a day should mothers give breast-milk to the child less than 6 months?
Respondent: The baby should feed countless times a day… but for me, I am mostly involved in cultivation/ farming. I spend most of my time in the garden and leave the child with my little sister who is 15 years. …. even if I tell her to bring the baby at 12:00pm for breast-feeding, she forgets. When I get home and I try to breast-feed the baby, she starts vomiting because she has taken long to breast-feed… I can breast-feed the baby, like 3 times in a day and in the night, she also suckles. **(IDI, Mother, Lukung HCIII, Lamwo district)**

Irresponsible husbands

For those women who said they had irresponsible husbands, what they wanted to eat was never provided. It was observed that this category of men have taken to alcohol consumption using proceeds from the sale of farm produce with no regard to the interests of other household members, particularly women who are usually the primary caregivers.

Interviewer: How supportive are husbands in this community during their wives' pregnancy or breast-feeding?

Respondent: Men in this area, very few support their wives. You should have brought them here to the health Centre and talk to them as you have done to us. Majority are not supportive. **(IDI, Elderly woman, Otwe HCIII, Amuru District)**

Interviewer: How does your husband support you?

Interviewee: In this village, men do not do much: he does not work at home but he supports us with money at home. When he has the money and there are things that are needed, he buys; but when he does not have the money, then we find some that we can get, but he is supportive. Although my husband helps, there are some other women whose husbands do not support at all, even financially. What you have to do as a wife is to ensure that you take good care of yourself. If you have some money, buy the things that are good for you like juice and drink. If you wait for your husband to do that for you, then it not coming soon, because at times they also have their plans. That is why if you are able to do some [work] for yourself then you should do that other than waiting. (**IDI, Pregnant women, Pgimo HCIII, Kitgum**

Lack of disposable income

The findings also indicate that most households have limited income opportunities or earn much less than they need to meet their expenditure. In such households, appropriate feeding which may entail purchase of certain foodstuffs is compromised.

Moderator: Is food easily accessed in this community?

Participant 1: The food that we get in the garden is easy; the food that is difficult to get is the one from the market because if you do not have money then you cannot get it.

Participant 6: Most of the food has been planted back in the garden that is why there is no food for now; if you do not plant then you might starve later in the year because you have nothing to harvest **(FGD, pregnant women, Pabwo HC3, Gulu District)**

Enhancers of adequate nutrition practices among lactating mothers

Appropriate feeding by lactating mothers in Acholi sub-region was found to be because of many factors.

Knowledge of recommended foods

There was consistence on what breastfeeding mothers eat. It emerged that what these women eat is driven by desire to produce enough breast milk for the child. The common foods mentioned include millet porridge, pasted greens, silver fish, chicken and beef. Health workers have played a key role in providing knowledge although other factors may make it hard for the women to put it in practice.

Availability of locally produced foods

Although the list of what foods mothers are told to eat is long, in practice, they feed on what is locally available. *Sim sim* paste, millet porridge and greens of various names were mentioned as easy to get and therefore as key items on their menus.

> **Moderator**: What foods do women eat so that they are able to have enough breast milk?
>
> **P6**: For me, when I am breast-feeding I eat *okra, boo*, and *lachede* that is pasted, For me, this is what brings breast milk and it is what I eat when I am breast-feeding. But boo and *lachede* bring more breast milk compared to *okra*.
>
> **Participant 2**: For me, I eat *Malakwang* and cabbages, whenever I eat this when I am breast-feeding, then the breast milk comes very first, when I get to realize that I have little breast milk that is what I cook and I can feel the breast milk flowing.
>
> **Participant 5**: For me, I eat vegetable but not beans, if I try to eat beans; I get stomach pain so I try as much as possible to avoid eating beans.
>
> **Participant 1**: For me, I eat *akeyo* and porridge made from millet and that is what works.
>
> **Participant 2**: Some people take black tea and that brings breast milk.
>
> **Participant 4**: I see many people eating *Malakwang* and each time you say you do not have enough breast milk they tell them to prepare *Malakwang* and you eat it**. (FGD, pregnant women, Lukung HCIII, Lamwo district)**

Supportive husbands

In the light of the influential position of men in respect to decision-making on a range of aspects including what to eat and sell, their role is critical when it comes to what breastfeeding mothers want to eat and will eat. Although generally women till the land, the man is the ultimate decision maker of food produced for home use and sale. Thus, when husbands are supportive, women tend to eat appropriately, as some mothers in this study revealed.

Moderator: How supportive are the men during your pregnancy?

Participant 8: Men are different; women are very lucky that they meet men who support them but others are unlucky with men that we get those who do not help you at all. For instance, for us we are three women married to one man which even makes it difficult for him to help anyone of us. That is, perhaps he does not help at all, each one of us struggles on their own to support their family. **(FGD with pregnant women in Lamwo district; Lukung HC3)**

4.2.7 Knowledge and Practices on Child Caring

Child caring is a continuous process requiring the mother and father to play their supportive roles untiringly right from conception through feeding to health seeking and beyond. This study also explored the child caring practice in the home environment focusing on water, sanitation and hygiene practices. In terms of knowledge, it came out clearly from the discussions and interviews that women as well as men know measures that should be taken to ensure a safe environment for the child. Indeed, they try to ensure that the water they use at home especially drinking water is safe, by boiling it, filtration or treatment using water guard tablets.

Water, Sanitation and Hygiene Practices

According to the 2011 UDHS, latrine use by children in northern Uganda stood at 13% compared to 8% in Karamoja and 18% in western Uganda. It In addition, hand washing in the North was lowest at 7.2% compared to Karamoja at 13% and 22.1% in the West. Boreholes and open water sources like wells and streams constitute the main source of water in the districts covered by the study. The implication is that with limited clean and safe water sources, mothers in the region have the added burden of finding time to boil the water they get from unprotected sources, although for some it was indicated that they do not boil their water. They are content to believe that when they keep it in clean containers after using rudimentary methods of filtration, it is good enough for drinking.

Safe disposal of human fecal matter leaves a lot to be desired in spite of reports of what they do. While most study participants said, they have pit latrines, their use is the preserve of adults. Besides, when they are in the gardens away from home, they do not use them. They resort to bush defecation. The consequence is that during the rainy season this human waste is washed into rivers which are also key sources of water for domestic use. In addition, children fecal matter is disposed of in the bush. Other women said they dig holes where they put fecal matter but this is not widely practiced. It is therefore, not surprising that the most commonly mentioned childhood diseases in the study districts are diarrheal diseases and intestinal worms.

This study also established that mothers do not follow a uniform pattern of hand washing practices. Some washed hands at critical times while others omitted to do that attributed to heavy workload. The key times they said they wash hands include before breastfeeding and washing breast nipples, after visiting the toilet/pit latrine and when they are handling food. They also know that they have to use soap and water for effective hand washing

Other practices to prevent childhood diseases

Mothers and men know and agreed that it is necessary to observe the following: cleaning the containers for fetching water; using of a drying rack for utensils; washing and cleaning clothes especially for children; and regular deworming of children.

It also emerged from the study that some women do wash their bodies and nipples before a child breastfeeds. While this is commendable it was found to cause delays before a child is put to breast.

Identified challenges mothers face with regard to adequate nutrition practices

The need to fend for the family, limited knowledge coupled with poverty appear to be the most important barriers to observance of appropriate personal, household hygiene and sanitation practices. Time and money tend to limit what women and men would do to observe the public health habits they learn from various information sources.

The mothers' narratives of what they do to ensure a clean and safe environment for the baby reveal some challenges they encounter. They include use of ineffective water treatment methods such as filtration; drinking unboiled water; and child's fecal matter disposal practices, which put children at most risk especially when they begin to crawl.

Incentives within the mothers' immediate social environment that trigger adequate and appropriate nutritional practices

Our analysis of responses from pregnant women and lactating mothers indicates their actions in relation to their own nutrition and that of their unborn babies have much to do with the family and the socio-economic relations within the existing nutrition service-provision arrangements.

Male involvement in child caring practices

Mothers are culturally known to be responsible for the childcare needs; however, in practice, they fall short because certain decisions cannot be taken without the consent of the husband. For example, the husband has to decide how much food should be kept for home consumption and how much should be sold off despite the fact that women are the major producers of this food. There were reports that some men have taken to alcohol and sell the remaining family food for money to drink. The decision to buy foods that are not available in the home but that are required by children also requires consultation with who have the upper hand. This may breed domestic violence if there is no mutual understanding on this issue. Conflicts over use of household resources, particularly agricultural produce were often reported.

Therefore, among households where women have a say in the way resources are allocated in the household or where the couple sits down to agree, appropriate feeding for the family, good nutrition practices are likely to be acceptable.

Influential advice of significant others

This study found that what mothers know derives from what they learn from people they interact with on a regular basis and believe in. They mentioned these persons as their source of advice and information on nutrition during pregnancy, during breastfeeding and feeding a child from birth onwards: the elderly in the community, mothers-in-law, members of village health committees, friends and other relatives, health workers, local leaders and husbands.

4.3 FINDINGS FROM MID-WESTERN UGANDA

4.3.1 Introduction and context

Seven districts in Mid-Western Uganda, namely Kyegegwa, Kyenjojo, Kabarole, Mubende Kamwenge, Bundibugyo and Ntoroko were covered by this study. Geographically, these districts are connected as one block, although they possess unique socio-economic, ethnic, geographical, and demographic features. All of these districts have populations that produce food at household level through subsistence farming; however, there are minor variations in the types of food crops emphasized and the different conditions that support or constrain food production. For example, in terms of livelihood diversity, Ntoroko district has a largely pastoral community, with few subsistence farmers who are mainly located in the mountainous areas of the district. In Bundibugyo district, cocoa growing features more prominently as a lucrative venture. Most of the lowlands have been dedicated to cocoa growing as cash crop economy, leaving very limited, and sometimes no land for the growing of food crops. Kabarole and much of Kyenjojo districts have a relatively shorter dry spell and longer wet season that not only encourage food production but also tea growing. Tea growing has also partly affected food production because it affects labour and land allocation to food crop production. Kyegegwa, Kamwenge and Mubende districts not only experience a relatively longer dry spell, but they also attract many traders dealing in foodstuffs especially maize and beans. Predominant foods grown in the region include bananas mainly in Kabarole and Kamwenge, irish potatoes (mostly in Kyenjojo and Kamwenge), maize, beans, ground nuts, millet, cassava, and a variety of vegetables including avocadoes, cabbages, carrots, tomatoes, onions and greens *(dodo)*.

Despite the fact that food is available in the sub-region, there are some minor variations between the districts in terms of access to adequate varieties of food for consumption. Structural factors such as gender, access to land and climate variability especially in Kamwenge and Mubende districts affect food production. In addition to food crops, some households are also involved in rearing of livestock such as cattle, goats, pigs and poultry but this is more for sale to meet basic household needs like medical bills and school fees. In Ntoroko, rearing of livestock especially cattle is the main activity and food is mainly bought from the markets by the pastoralists. There is over-dependency on cattle products at the expense of production of other food crops such as cereals and other energy giving foods. Yet, these communities would benefit from the use of cow dung for improved food production.

4.3.2 Maternal Nutrition

The study noted largely that nutrition indicators are not currently captured in the routine data available at either district or health facility level. However, health officials interviewed agreed that pregnant and lactating mothers and their babies face numerous barriers to proper nutrition. Limited knowledge and prioritisation in terms of balancing diets, commoditisation of foodstuffs, gender and other structural barriers continue to affect the quality of nutrition in households. More detailed findings on enhancers and barriers to maternal and infant feeding and caring practices from the Mid-Western region are summarised in table 1.

Enhancers of Maternal Nutrition

Enhancers of maternal nutrition were very diverse and included aspects of knowledge, food security and gender dynamics.

High knowledge of the importance of good maternal nutrition

Findings from the region indicate that there is substantial knowledge regarding how expectant mothers should feed in order to produce healthy babies. Mothers were aware of the need to have balanced diets while pregnant. They mentioned vegetables such as *dodo* [amaranth], eggs, meat, milk, fruits and their traditional delicacies such as millet food (in Kyenjojo and Kabarole among the Batooro) and porridge made from fermented sorghum (among the Bakiga) as essential foods for pregnant mothers.

Availability of food in the region

There is generally more food availability in the Mid-Western region and Northern Uganda than there is in Karamoja. Kabarole and Kyenjojo districts stand out as districts with more reliable food supplies throughout the year due to favourable soils and climatic conditions, but these too face nutrition challenges.

> Kabarole produces a lot of food, unfortunately, there is malnutrition; there are many cases of malnourished children in health centers and at the regional referral hospital. The situation is worse in areas far from health service points. Mothers with young children are affected most **(District Health Officer, Kabarole District)**
>
> There is food in this area, actually plenty of it, except that some mothers do not even know how it is supposed to be prepared. Food is always available and even if it is a dry season, there will always be food. **(FGD, Pregnant Mothers, Kichwamba Sub-county, Kabarole District).**
>
> Food availability is not a problem in the district only that it has become commercial and a lot of it is sold. Otherwise people here have a lot of food which they rarely eat **(DHO Mubende District).**

Increasing though still limited male support

While the popular view was that most men were not supportive of their pregnant and lactating spouses, there were exceptions. Some men were reported to be supportive of their pregnant wives when it comes to their nutrition. However, this is still undermined by household economic constraints, and the nature and level of support which dwindles significantly after delivery.

Men who provide some support to their pregnant wives do so in form of provision of some cash either for transport to health facilities for antenatal or for purchase of some foods and medicines. They are supportive sometimes through buying women whatever food or drink that their heart desires, buying clothes for the babies, accompanying women to clinics for antenatal visits, fetching firewood. **(IDI, Mother with a child < 2 years, Bubukwanga Sub County, Bundibugyo District).**

> For my case, my husband is supportive because he gives me money for transport when coming for ANC and he comes here at the health facility for HIV testing and counseling. I am positive and he is not, so the nurses advised us to use a condom. He only removed the condom once when he decided that we should have a baby. Otherwise, we use a condom all the time. So, when I became pregnant, he came here and again tested for HIV and he was still negative. In short, that is our story. He loves me in my situation. The good thing is that before we married, I told him that I was HIV positive and he said that was okay for him. So he is aware and he even provides transport to pick drugs here at the facility, **(FGD, Pregnant mothers, Kyarusozi Sub County, Kyenjojo District)**.

Indeed, few cases were observed during key informant interviews at health facilities. Very few men turned up accompanying their spouses to attend antenatal clinics while others dropped them off and went away. For example, in the photograph below, one man was seen handing some money to his wife after dropping her and then rode off.

Man drops woman to attend antenatal care services and hands her some money in Kasambya H/C III, Kasambya S/C, Mubende District

However, there were isolated cases particularly in Kyenjojo (Butunduuzi, Sub-County) where pregnant mothers reported that they use the chance (pregnancy) to demand for good feeding from their husbands as noted*" when women are pregnant they have chances to be treated as queens by their husbands".* The women meant that their husbands listen to them more when they are pregnant than when they are not.

> My husband is supportive because he gives me money for transport when I am coming for antenatal care services and for picking drugs because I am HIV positive. He has no problem with me being HIV positive **(FGD Pregnant mothers Kyarusozi Sub County, Kyenjojo District).**
>
> It is not easy to go with her every time she is going to the facility, but at least twice I went with her… I also help her fetch water but people say that she bewitched me; they don't know that we need to help the women [because] at that time they are weak **(IDI with a father in Kasule Sub County, Kyegegwa district).**

With the current policy, *'there are no queues'* for mothers who come with their spouses for services at the health facilities. Mothers also noted that their husbands were beginning to be supportive. Some men not only accompany their pregnant wives physically for antenatal care or any other maternal child health visits but have also gone ahead for couple-testing for HIV. Others just provide transport and some willingly accept to stay behind at home to take care of children while their spouses go for antenatal care. Other forms of support from men include participation in domestic chores such as fetching water and firewood when their wives are pregnant. However, such men remain few thanks to the efforts of the community health workers and VHTs for their sensitization efforts.

Barriers to good nutritional practices during pregnancy

Barriers to good nutritional practice ranged from attitudes, economic constraints and gender dynamics.

Stereotypes that disregard some domestically available foods

There were attitude and behavior related barriers. For example, for some mothers, feeding well largely meant eating foods purchased outside the home such as meat and rice. These mothers regarded the foods available in homes such as beans, groundnuts and green vegetables as inadequate for their feeding. Some women during the interviews argued that they had eaten these foods for too long since childhood and were fed up. They also argued that most of the foods available at home were not delicious. Such stereotypes indeed point to the need for more sensitisation and coaching about the nutrition needs and the fact that some of the foods produced at home have valuable nutritional content for pregnant mothers. The findings indicated that it is not a practice that mothers include vegetables in their daily menu, but that they only prepare and consume them when there is no alternative. It was common during discussions with women that feeding on greens for a meal were due to economic hardships at the household level.

> Now, for example, it is the rainy season and there is a lot of *dodo* [specie of green vegetables] everywhere but people just overlook it. It is just free but they do not consume it. The eggplants are there but they are not eaten and they will all focus on beans all the time. **(FGD, Fathers, Kichwamba Sub County, Kabarole District)**

Furthermore, it was also found that pregnant mothers avoid foods such as cassava and sweet potatoes because of the belief that such foods do not have any nutrients for their babies. The other foods that women said they avoid consuming when pregnant are chilies and lemons, which are perceived to make them deliver underweight babies.

Economic hardships and household demands on mothers

Moreover, whether pregnant or not, mothers remain largely responsible for ensuring that their families have what to eat with or without male support. In addition, as indicated in most FGDs, the quality of their nutrition is dictated among other things by their own individual or household economic conditions, common [cultural] beliefs and peer influence. Like in the other regions of this study, mothers in Mid-Western Uganda also remain central to not only household food provisioning but also take a lead role in other critical domestic chores. Needless to say that their involvement affects their own nutritional status as well as that of the babies they produce and raise.

> I want you to know that most families depend on the woman and because they eat badly and lack money to buy good food, they lack enough breast milk and end up introducing other foods as early as 4 or 5 months **(KII, VHT, Kahunge Sub County, and Kamwenge District).**

Economic hardships in some cases force some households to sell all their harvests and leave little for food for their consumption. Sometimes, demand triggers selling especially when traders come to the villages looking for produce. In extreme situations, some households were reported to be selling gardens of crops before they are harvested in order to access income.

> To me as someone who works in the community I find it a challenge because people here sell food when it is still in the garden. Someone comes and pays for the whole garden. You may think someone has a garden yet it is already sold off…. Someone has a chicken but they cannot give [provide meat] to the child…. (**Health Inspector, Butunduzi Town Council, Kyenjojo District)**.

In these communities, food is sold to get money to pay school fees, build better homes, buy domestic essentials (such as soap and clothes) and meet health costs.

Lack of male support

Much as it was observed that there is emerging support from men, the problem of limited male support is widespread in the region. The involvement of men in the care environment right from caring for their pregnant spouses to when they are lactating is still very low.

> They (men) spend much of their time away from home and do not mind so much about what is available for food in their households. They can also sell family harvests and spend all the money on alcohol with their friends **(FGD, women Ruyonza Sub County, Kyegegwa District).**
>
> In some households, they support but in others, they do not. When they get money, they go to drink and leave nothing to their homes or wives to support the family. **(In–charge / Clinical Officer, Rwimi Health Centre IV, Kabarole District)**
>
> A man can even manipulate you to sell all the harvest promising that they will buy other foods in the future, but at the end, they misuse all the money and you end up lacking what to eat. A man can even go to Kampala and leave you starving with your children…. If the woman doesn't plan for what the children will eat, men always want to sell everything without thinking about tomorrow. **(FGD, Mothers of children below 2 years, Rukunyu village, Kamwenge District)**
>
> When you ask him to give you some money to buy food, he says there is no money but as you are moving around the trading centre, you see him entering a restaurant and when he comes back home he still wants to share the little food that you have prepared for the children. **(FGD, Pregnant mothers, Kyarusozi Sub County, Kyenjojo District)**
>
> Men are negligent. They spend much of the money in drinking and marrying many women and this leaves the children and the mother who is at home starving **(FGD, Mothers with Children less than 2 years, Bubukwanga Sub County, Bundibugyo District)**
>
> Now where is the support! It is not there, you see me here, I started carrying a 20-litre jerry can just 5 days after delivery and my husband was there looking **(FGD, pregnant women, Kahunge, Sub county Kamwenge District)**

Interestingly, discussions with men showed that some of them appreciate that they are not playing their roles. They agreed that some gains can be made regarding male support to maternal and infant feeding if more education and sensitization is made alongside enforcing some relevant by-laws to get them involved in antenatal care services, food production, storage and harvest management. When asked the extent to which they support their wives, some men in Mubende district admitted that indeed a few of them support their spouses to deliver and raise healthy babies. Most of them are reluctant, for example, to accompany their expectant wives to health facilities for antenatal check-ups or to support good feeding practices.

> You can even start by seeing what is here [at the health center] today. How many men have accompanied their wives? For me, I think supportive men are around 40 per cent if you are to award any marks to the men, and even that score seems high **(FGD, Fathers, Kasambya Health Centre III, Mubende District).**
>
> Men don't support us in anyway; their work is to drink alcohol, for example, *waragi*... For example, my husband takes alcohol and when I ask for money, he tells me to go and make mine. [*Tots*] **(IDI, Mother to a child below 2 years, Nombe Sub-County, Ntoroko district).**

Participants in Kamwenge and Bundibugyo also attributed the lack of/ limited male support to alcoholism.

> The problem I see among most men around is alcoholism and that is why they leave family responsibilities to their wives **(FGD, Men aged 18-60 years, Nyabbani Sub County, Kamwenge District).**
>
> Most women don't have responsible husbands. [...] they [always] go out to drink alcohol and neglect their pregnant wives **(KII, LC1 Chairman, Sindira Sub County, Bundibugyo district).**

Foodstuffs for pregnant mothers at household level

Related to economic hardships, mothers mentioned that being pregnant sometimes necessitated that they eat certain foods; however, they may not be readily available. Generally, there is no special consideration for pregnant mothers when it comes to feeding at household level. Pregnant mothers feed on what everybody else in their household feeds on even when they crave other foods. This is due not only to economic hardships but also to limited male support. When men were asked whether pregnant women can eat the foods they desire to eat when they need such foods, they reiterated their worries about economic constraints.

> It depends... some families can even take a year without eating chicken. They may have the chicken but prefer to sell them to hotel operators for an income and sometimes in preparation for the delivery in case of emergencies **(FGD, Men aged 18-60 years, Kahunge sub-county, Kamwenge district).**

Taboos and cultural beliefs

While overall, there were no significant cultural taboos mentioned about what the pregnant mother should or should not eat, the study found that some ethnic groups avoid eating certain foods and others ensure that certain foods are available. For example, in Ruyonza Sub County, Kyegegwa district, eating fish or pork is not popular among the women because the community is largely constituted by *Bahima* ethnic group who are cattle keepers and do not culturally condone eating pork and fish.

> Most of us women in this area do not eat fish or pork whether pregnant or not because we grew up knowing that fish is not something that we should eat... Also, a woman who is still giving birth is not supposed to meat from a cow that has died in labor **(FGD, pregnant women, Ruyonza Sub County Kyegegwa district).**

> Women in this community do not eat fish since most of them are Balaro *[cattle keepers].* They say that fish smells bad. Others cannot eat pork and do not even rear pigs **(KII, Community Development Assistant, Ruyonza sub-county, Kyegegwa District).**

Consumption of herbal medicines/concoctions

In addition to eating or avoiding certain foods, nearly all women - both pregnant and lactating ones mentioned that they are advised to take certain herbs or concoctions in form of syrups if they want to deliver healthy babies with a 'good skin'. Mothers or mothers-in-law were cited to be key in enforcing such demands on their young pregnant daughters or daughters-in-law.

> She [implying her mother] can almost [kill] you if she tells you to drink herbs when you are pregnant and you start dodging that... They [senior women] will shout at you saying that you want your husband's child to be born with deformities, and shame them! **(FGD, Women, Ruyonza Sub County, Kyegegwa District)**

4.3.3 Early Initiation of breastfeeding

The 2011 UDHS indicates that initiation of breastfeeding within one hour is highest in Karamoja (70%)[35] followed by Western Uganda (61.2%) and Northern Uganda at 38.4%. Similarly, provision of pre-lacteals was lowest in Karamoja followed by West (48%) and North (38%). As already discussed in the literature in section 2, early initiation of breastfeeding is scientifically known to bring health benefits not only to the baby but also to the mother. The findings from Mid-Western Uganda are not very different from those from the Northern and Karamoja regions. There are important enhancers identified in the analysis of the findings but also barriers ranging from economic to social-cultural, cognitive and behavioural.

Enhancers of Early Initiation of Breastfeeding

Knowledge about early initiation of breastfeeding and its importance

The results show that mothers in this region are largely aware of the need to initiate breastfeeding as soon as they give birth but not so much in the detail of doing so within the first hour. The mothers know that early initiation of the child on breast milk not only stimulates production of breast milk but also that the first milk provides nutritious food values and boosts the baby's immunity. Mothers also frequently observed that if a child is not immediately initiated on breast milk, it may refuse to breastfeed completely. Other reasons cited included the recognition that the child is born hungry and must therefore be initiated on breast milk immediately, and the need to stimulate the breast to produce milk as early as possible.

> Breast milk helps the baby to grow well and healthy and you can tell the difference between babies who have been breast-fed from those that have not. (**FGD, Pregnant mother, Rwebisengo Sub-County, Ntoroko District).**

> The breast milk after delivery is good for the child's health. It helps in developing the brain very well. **(FGD mothers of children less than 6 months, Kiganda Sub County, Mubende District)**.
>
> You have to initiate the child on the breast immediately and the child learns to suckle and by breast-feeding, you stimulate the breasts to produce milk **(FGD, Mothers less than 2 years, Butunduzi Sub County, Kyenjojo District).**
>
> Breast-feeding of the baby after being brought from the labor ward is important in that it creates love between the mother and the child. **(FGD, Pregnant Mothers, Bubukwanga Sub County, Bundibugyo District).**
>
> The breast milk after delivery is good for the child's health. It helps in developing the brain very well. **(FGD, Mothers < 6 months, Kiganda Sub County, Mubende District).**

The benefits of breastfeeding were however more skewed towards the baby than the mother. There was evidence of very limited knowledge among participants on the positive relationship between early initiation of breastfeeding and a mother's post-delivery health.

Deliveries in health facilities and support from health workers and VHTs

Apart from attending ANC, mothers are given health talks about the importance of breast-feeding, especially early initiation to breastfeeding. The findings show that the mothers were not only aware of the need to initiate a baby on breast milk immediately after birth but also reported that they were endeavouring to do so. The mothers indicated that even the health workers especially mid-wives insist that they do so whether they are weak or not.

> Breast-feeding your baby is the first and the most important thing to do, because the baby only survives on breast milk. **(FGD Pregnant mother Rwebisengo Sub County, Ntoroko District).**
>
> As soon as the mother is fully prepared by the nurses, then she can be given the baby to breastfeed. **(FGD Mothers of babies less than six months in Rwimi Town Council, Kabarole District)**

Health workers and officials acknowledged helping mothers who deliver under their super-vision to initiate breastfeeding immediately after child birth.

> For those who deliver from here, we ensure that they initiate breast-feeding within one hour, and most of them adhere to this advice including first mothers **(FGD, Health workers, Rwimi Town Council, Kabarole District).**
>
> In health units, when mothers come to deliver, they are told that they have to initiate breastfeeding immediately. We always encourage them to start breastfeeding and initiate the child onto the nipple **(Health Assistant, Kasule Sub County, Kyegegwa district).**
>
> Of course, this is in all places where delivery is taking place now. This is one of the components mothers are advised to do and most have taken it up to a large extent especially those who are delivering in the health facilities. First of all, health workers have been empowered to monitor it and as a district, we follow it very closely to see that all mothers who deliver at the facility do it **(DHO, Kabarole District).**

> Mothers are expected to initiate breastfeeding of their babies at least in the first one hour of delivery and this is adhered to if the mother delivers at a health facility **(Midwife and Nutrition Focal Person, Kiganda H/C IV, Mubende District).**

The findings also show that in addition to health workers, VHTs have been instrumental in promoting the practice amongst mothers whenever an opportunity avails itself, for example, during home visits and ANC, and on immunization days. The study further notes that health providers strictly monitor the mother to ensure that she has initiated breastfeeding before being discharged. In addition, health workers instruct mothers to place their babies on their chests, which practice aids the initiation of immediate breastfeeding. When I was attending ANC, the nurse told us that this first milk is the most nutritious for the baby.... and when I delivered, I placed my baby on the breast within about 20 minutes to make sure that that the breast brings milk early. **(FGD, Mothers of babies less than 6 six months, Rwimi Town Council, Kabarole District)**

> We are told by health workers that when you breastfeed immediately after birth, you stimulate breast milk, and that is what most of us have been doing**. (FGD, Mothers with children less that < 2 years, Butunduzi Town Council < Kyenjojo District).**

Barriers to Early Initiation of Breast-feeding

Deliveries in health Facilities or attendance of ANC still limited

This study found out that mothers still deliver away from health facilities despite the increasing awareness and sensitization about the importance of delivering babies in health facilities.

> There is a low turn-up for facility delivery which is about 30 per cent. This is below the national average because the national average is 40 percent where by the big number of mothers deliver elsewhere and we are not sure if they initiate breastfeeding in the first hour [of birth] **(A DHO, Mubende District).**

It was also noted that that mothers who deliver at home do not often initiate breastfeeding immediately because of challenges such as prolonged labour, and the fact that traditional birth attendants may not appreciate the need to initiate the baby on the breast milk as early as possible.

> In the village, it takes time because you may deliver but the person around you does not know how to cut the umbilical cord and that has to take a bit of time. Remember by that time you the one who has delivered you are weak and by the time you regain your energy to start breastfeeding, an hour will have passed. **(FGD, Mothers < six months in Rwimi Town Council, Kabarole District).**

Teenage mothers

Like in the other sub-regions covered by this study, the findings from interviews with health workers and some mothers indicate that awareness and practice of early initiation of breast-feeding was lower among teenage mothers.

> There are girls who become pregnant un-expectedly or get un-wanted pregnancies and they do not want their breasts to fall. They want to remain adolescent, such mothers may decide not to breastfeed at all and that's why some even throw their children in latrines **(FGD, mothers of babies less than 6 months, Kiganda Sub County, Mubende District).**
>
> When you are school girl and you parents still want you go back to school, they may not allow you to breastfeed. **(FGD, Pregnant mother, Rwebisengo Sub-county, Ntoroko District)**
>
> When it is the first pregnancy and first birth, the mother feels as if the baby is tickling her so she gets uneasy placing the baby on her breasts especially the younger [teenage] mothers but with support from the midwives she gets used and breast-feeds normally. **(FGD, pregnant mother, Rwebisengo Sub-county, Ntoroko District).**
>
> You can tell somebody who has just delivered the first baby to breast-feed but they cannot. If you have not told her the importance of colostrum to the baby, she will say that the milk is not there and refuse to breast-feed… She will be delaying to initiate the process, which is not good, and in such cases, we insist except if they deliver outside health facilities. **(FGD, Health workers, Rwimi Town Council).**

Complicated Deliveries weaken the mother and baby

It is believed that delivering in a health facility does not automatically result in early initiation of breastfeeding especially when delivery is by caesarean section or labour is prolonged or wrought with complications, resulting in a weak mother or baby. Mothers who went through such experiences explained how it was hard for them to breastfeed within one hour of delivery.

> I did not breastfeed my baby within the first 1 hour after birth, because I was still in too weak. Then I was given some drugs for the pain and later I started breastfeeding after relief. **(IDI, pregnant mother, Kasule Health Centre III, Kyegegwa district).**
>
> Some mothers delay breastfeeding because of having health complications such as malaria after giving birth. **(FGD, Mothers with Children < 2 years, Nombe Sub County, Ntoroko District).**
>
> Initiation of breast-feeding depends on some situations for example, I started breast-feeding after 2 days because I was operated and didn't have breast milk. (**FGD, Mothers with Children < 2 years, Bubukwanga Sub County, Bundibugyo District).**
>
> To initiate breastfeeding also depends on how the mother has delivered. Some mothers deliver badly and you cannot start breastfeeding not until the mother has stabilized. You see, for example, when you become unconscious you cannot start breastfeeding immediately, you have to first recover and then you start breastfeeding **(FGD, Mothers of children less than 2 years, Kichwamba Sub County, Kabarole District)**.

There were also reported instances of babies sometimes being too weak themselves, to breastfeed after delivery.

False perceptions about C-section

There were also some false perceptions women seem to hold about the safety of breast milk to the baby whose mother has delivered by caesarean section. Some mothers believe that chemicals used to sterilize the mother who delivers through caesarean section could affect the baby if breastfeeding is initiated immediately.

> Now you see, when a mother has just delivered, the breast nerves which carry breast milk are not yet open so that is why they first give mushroom soup and really you find women looking for mushrooms seriously and the baby can even spend two days on mushroom soup **(Focus Group interview; Men aged 18-60 years, Kasambya Sub-county, Mubende District)**

Perceptions that breast milk takes long to come

Other mothers delay initiation of breastfeeding because they claim they do not have breast milk because of poor feeding during pregnancy. They claim that such foods as cassava and matooke, which they mostly feed on, do not promote breast milk production.

> Some mothers do not get breast milk immediately **(FGD, Mothers with Children < 2 years, Nombe Sub County, Ntoroko District).**
>
> What is on the ground is that most of the mothers do not initiate breastfeeding immediately because they have this feeling or notion that the milk is not yet there in the breast. So you find that a few hours have passed [elapse] before the child is put on the breast **(Nutrition Focal Person / Clinical Officer, Kabarole District Local Government).**

HIV status of the mother

In some cases, initiation of breastfeeding is delayed for babies born of an HIV-positive mother when certain procedures have to be followed before the child is initiated on breastfeeding.

> Some mothers delay initiation of breastfeeding because some mothers are sick of HIV + and they can't breast-feed unless the doctor or a health worker has told them to do so. **(Pregnant Mothers, Bubukwanga Sub County, Bundibugyo District).**
>
> When the mother is HIV positive, they discourage you from initiating breastfeeding immediately. Some mothers are stopped from breastfeeding completely and they start their children on other foods **(FGD, Mothers of children less than 2 years, Kichwamba Sub County, Kabarole District).**
>
> Again, when the mother has HIV, they are told not to breastfeed the baby. That what the midwives tell them, so as not to infect the baby, they first give them some medicines **(FGD, Pregnant Mothers Sindira Sub County, Bundibugyo District).**

This study also noted instances where HIV positive mothers do not initiate breastfeeding at all. In the first instance, even if the HIV positive mothers are taken through preventive processes while attending antenatal care services, some continue to believe that breastfeeding can infect their babies with HIV.

> Those who don't always breast-feed are mothers who have HIV/AIDS, because they think a child will also get sick and they decide to feed them on cows' milk. But this is always done in families that are well off **(FGD with mothers of babies less than 6 months, Kiganda Sub County, Mubende District).**

After delivery feeding practices

The study noted that there was a widespread practice of giving warm water (gripe water) and sometimes glucose, and in other cases milk other than breast milk and mushroom soup. This practice is mainly carried out because mothers and their attendants have various beliefs and perceptions including perceptions that the mother is too weak after labor.

> I gave her warm water and glucose because my breast milk was still watery. [There is] Nothing bad I know about glucose since, at least, I have always been using it **(IDI, Mother with a child < 2 years, Bubukwanga Sub County, Bundibugyo District).**
>
> There are times when they get glucose and mix it with water and they give to the child. This happens especially when the mother has been operated on and has no energy to start breastfeeding. So when the child starts to cry the nurses say give the child some glucose **(FGD, Mothers of babies less than 6 months, Rwimi Town Council, Kabarole District).**
>
> Sometimes they give glucose or powdered milk. But the main thing we give is warm water, in case the mother can't breast-feed immediately. **(FGD, Pregnant mother, Rwebisengo Sub County, Ntoroko District).**
>
> Babies are given fluids like glucose, warm water and even some give milk. You cannot leave a baby to die if the mother is still unconscious **(FGD, Mothers with Children < 6 months, Rwebisengo Sub County, Ntoroko District).**

Health workers the study interacted with in the region also acknowledged that pre-lacteal feeding was a widespread practice as can be seen in the extract below.

> Some mothers even give it from here except that they do not want the health workers to know because if they know it is not good. It is only when the baby start not to feel well that they will tell us that we have given him or her either water or glucose. As the health workers are cleaning the mother, these helpers will be busy giving the child warm water **(Midwife, Kyarusozi Health Centre IV, Kyenjojo District).**

Whereas it may be justifiable in the above circumstances to give warm water or glucose, the study noted that the practice of giving warm water (gripe) or glucose to newborns to 'open up the throat' is widespread as was commonly claimed across most of the study participants. There was also a revelation at Butunduzi Health Centre III in Kyenjojo district, where some health workers sometimes encouraged the mothers to give a sip of water to their newly born babies to help them 'clear the throat and open the intestines'.

> The nurse advised me to first give water and later breastfeed. The child had refused to breastfeed so I was told to first give the baby water and later start breastfeeding **(FGD, Mothers of less than 2 years, Butunduzi Town Council, Kyenjojo District).**

In addition to giving gripe water or glucose, another practice of giving mushroom soup to newborn babies was widespread. This was believed to help not only to feed the 'hungry baby' as some mothers indicated, but was also perceived to help clear the baby's digestive system.

> I hail from Wakiso and in Buganda, we boil mushrooms (*obutiko*) and after the child is born, it is given first, before breastfeeding. It helps to clear the baby's digestive system…. Such a baby will not get [suffer from] colic **(FGD, Mothers with babies less than 6 months, Kiganda Sub County, Mubende District).**
>
> You see, when a mother has just delivered the breast nerves which carry breast milk are not yet open so that is why they first give mushroom soup and really you find women seriously looking for mushrooms and the baby can even spend two days on mushroom soup **(FGD, Fathers, Kasambya Health center III Mubende district).**
>
> Mushroom soup helps in cases where the child fails to pass stool in a few days after delivery. It helps to clear the stomach or even if the child had failed to pass urine. The system clears and the child urinates in a few hours **(FGD, Mothers with babies less than 6 months, Kiganda Sub County, Mubende District).**

Beliefs, perceptions and taboos

Regarding beliefs and practices that enhance or disable early initiation of breastfeeding by mothers who have just delivered, this formative study found that some beliefs still exist. However, they are neither widely spread nor influential on the general trends and behaviors regarding initiation of breastfeeding. The study did not come across major cultural taboos that inhibit mothers from initiating breastfeeding immediately after birth in the Mid-Wwestern region. The few identified include one in which rituals have to be performed on twins when they are born. This was mentioned in Kamwenge district. The other practice was when the father of the baby has to give the baby something to hold in the hand, for example, a money coin, so that the baby can start breastfeeding. It was said that babies refuse to breastfeed until they are given a token by their fathers.

There is when the child refuses to breast-feed and they have to do something, which involves the father or the grandfather of the child coming and tie something on the child's arm or leg. **(FGD mothers with children < 2 years Kichwamba Sub County, Kabarole District).**

Sometimes the baby can refuse to breast-feed, so a coin has to be placed on the baby's tongue. From other categories, if an uncle holds the baby and performs some rituals which the mother is not supposed to see then the child begins breast-feeding. In other instances, the father has to tie a string on the arm or touch a baby before it can start breast-feeding **(FGD with mothers of babies less than 6 months in Rwimi Town Council, Kabarole District).**

I have a neighbor who says that after delivery and before the father has seen the child, she can't breastfeed the child. This woman is a Munyankore but I don't know the tribe of the husband. **(FGD Mothers of babies less than 6 months, Kiganda Sub County, Mubende District).**

Like me, I delivered from Butunduzi and the father of the child is from Rwimi; so the child was far from home and could not breastfeed for three days until the grandmother gave money to the kid and it started breastfeeding **(FGD Mothers with children < 2 years< Butunduzi Sub County, Kyenjojo District).**

I have a neighbor who says that after delivery and before the father has seen the baby, she cannot breastfeed the baby. I was told that the father should name the child but it continued crying until the grandmother told us to take the baby to her and when she gave her a name as we call it, the child stopped crying… **(FGD, mothers with children below 6 months, Kiganda sub county, Mubende)**

4.3.4 Exclusive Breastfeeding

The 2011 UDHS indicates that in both Karamoja and Western Uganda, only 4.4% of babies are exclusively breastfed until 6 months. This study explored beliefs and practices as well as enhancers and barriers to exclusive breastfeeding in Western in Mid-Western Uganda and examined levels of knowledge of its importance among others.

Enhancers of exclusive breastfeeding

Knowledge about the importance of exclusive breastfeeding

Generally, findings from Mid-Western Uganda, like in other regions, reveal that mothers are aware about the need to breastfeed exclusively up to 6 months, but also acknowledge with examples the difficulties associated with this. For example, mothers rightly know that exclusive breastfeeding does not only boost the child's immune system but also builds the child's brain, enabling the child to grow well amongst others.

If babies are breastfed exclusively, they will grow as healthy children and their immunity is high, **(FGD, Mothers with children < 6 months, Kiganda Sub County, Mubende District).**

We are supposed to feed our children on breast milk alone, at least for 6 months. This will help a child to grow well and have no health problems **(FGD: Mothers, with Children with children < 2 years, Nombe Sub County, Ntoroko Sub County)**

> Because breast milk is the only food children can take at that particular time to grow well, and become healthy and wise. Besides, it boasts their immune system. At that age, the digestive system can only digest breast milk. Breast milk is the most important thing in a kid's life. **(FGD, Pregnant Mothers, Kichwamba Sub County, Kabarole District).**
>
> …in that a well breast-fed child will always have good health without being disturbed by any sickness. I even did that to my first-born and she is now six years and no sickness has disturbed her. **(IDI, Mother with a child < 2 years, Bubukwange Sub County, Bundibugyo District).**

Promotion of Exclusive Breastfeeding among pregnant mothers by Health Workers

Whereas health facilities are still located in far away, much of the knowledge about exclusive breastfeeding and other good nutrition and feeding practices for expectant and lactating mothers is obtained from health talks provided by health workers, VHTs and other peer mothers in their respective communities. However, most importantly, they get information from talks held at health facilities when the mothers go for antenatal services as shown in Photograph 2 below.

Women waiting for immunization and Antenatal services at Kasambya H/C III, Kasambya S/C, Mubende District.

During discussions with mothers across the districts, they acknowledged that they received information from not only health workers but also also VHTs.

> We get information from hospitals and health centers, VHTs (Village Health Teams) and during antenatal visits. Also through the Radio program/talk shows that are being aired on local FM radios. **(FGD Mothers with Children < 2 years, Bubukwanga Sub County, Bundibugyo District).**

Barriers to Exclusive breastfeeding

The barriers to exclusive breastfeeding range from socio-economic household challenges to perceptions and beliefs about exclusive breastfeeding.

Belief that breast milk is not sufficient for the baby's feeding needs

It was reported that despite knowledge and appreciation of exclusive breastfeeding, it is difficult to achieve by most mothers. Mothers, who try, do not exceed 4 months. In many cases, by the third or fourth month, many mothers would have already started giving complementary fluids (cow's milk, porridge, etc.) and other soft foods (smashed Irish potatoes, etc.).

> Well, I think if one does not have enough breast milk, one can give cow's milk. Personally, I gave my child cow's milk at one month because I didn't have enough breast milk, **(FGD, Mothers < 6 months, Kiganda Sub County, Mubende District).**
>
> Here, most women by 3 months are already introducing food to the children. Very few people wait for the 6 months**. (FGD, Pregnant Mothers, Sindira Sub-County, Bundibugyo District)**
>
> It also depends, when you don't have enough breast milk, you supplement other drinks at three months but when your breast milk is enough, you wait up to 6 months and give every other drink and food **(FGD, Pregnant women Nyabbani health centre III, Nyabbani Sub county Kamwenge district)**
>
> Most mothers introduce these other foods earlier; by three months, they are already giving these other foods yet they are expected to breastfeed for the first six months. **(Nutrition Focal Person / Clinical Officer, Kabarole District.)**

The dynamics are also likely to change depending on whether a mother has produced twins; in such cases, introduction of cows milk could start even much earlier.

> Some [mothers] start at four months, but for me, I introduced fluids at one month because these were twins and I realized I didn't have enough breast milk. I have already introduced foods because they are now five months old. **(FGD with mothers of babies less than 2 years, Butunduzi Sub-County, Kyenjojo District).**

Busy mothers leave their babies under the care of other children or the elderly

Breastfeeding mothers who take up work outside their homes or work in distant places tend to leave the children behind in the care of other children or caregivers. In the absence of the mother, the babies are introduced to other fluids and soft foods which available.

> Children left under the care of other children are most likely to start eating early. When Joshua was four months, his old sister saw him crawling, trying to eat soil. She thought she was ready to eat and gave her Irish potatoes, and when I came back, she was excited to tell me that Joshua had started eating. **(FGD, Women with children 0-6 months old, Nyabbani Sub County, Kamwenge District).**

> Some mothers are workers and when their children are, for example, two months they start leaving them with the maids and for them they leave the house early in the morning and they come back in the evening. During that time, the child is not breastfed. When this continues for weeks the child gets used to eating soft food and ends up refusing the breast completely. **(FGD, Mothers < 2 years, Kichwamba Sub County, Kabarole District).**
>
> It is sometimes because of some kind of work or business outside the home. You cannot go with the baby from one market to another. **(FGD Pregnant mother, Rwebisengo Sub County, Ntoroko District).**

The study noted that the length of exclusive breastfeeding generally varies amongst different age groups and classes of mothers with the local peasants likely to breastfeed longer than the formally employed working class. This is because the former can carry their children along as they go to their gardens and continue to breastfeed while the latter leave them home when their maternal leave ends. They have no choice but to introduce them to other fluids and soft foods.

Babies crave for food early and mothers/caregivers feed them

Interestingly, the mothers largely agreed that some babies crave food early especially when their mothers are eating. In an FGD with pregnant women in Kasambya Sub-County, Mubende district, mothers argued that some babies practically want food early and cry when not fed. To some, it is a sign that the breast milk is not enough for the babies; consequently, women give in to feeding their babies with solid foods.

> When you are eating, the baby starts holding your hands to help you swallow; so, there you know that s/he wants to eat. She can also start eating soil. Even if you have enough breast milk, s/he starts losing weight **(FGD, Pregnant mothers, Kasambya Health centre, Mubende district).**
>
> Some of them know exclusive breastfeeding but when the mother is eating and the child puts up a hand, the mother will say that this child also wants to eat and they will end up giving some foods even before the six months. **(FGD, Health workers, Rwimi Health Centre IV, Kabarole District).**

Other findings on this issue indicate that mothers' interpretations and reaction to the behavior of the children with regard to the appropriate time to introduce complementary feeding could constitute the lack of knowledge as to why babies may eat soil and lose weight due to worms related to a poor care environment for the babies.

> Some babies also show you that they want to eat more when they start to put anything into their mouth including soil (**FGD, Pregnant mothers, Kasambya Health center, Mubende district).**
>
> Sometimes a baby could be greedy; you then start giving drinks at four months. You give like milk, porridge and at 6 months you give them food **(FGD, Pregnant women, Kahunge Sub County, Kamwenge district).**

Inadequate uptake/use of family planning

Poor adherence to exclusive breastfeeding combined with inadequate uptake of family planning services has constrained the effectiveness of post-delivery amenorrhea. Most women shared experiences of having conceived before their babies were 6 months old and they had to terminate breastfeeding. They alleged that breast milk causes ill health to the child. Mothers have a strong belief that breast milk from a pregnant mother is not good for the child. It causes ill health to both the un-born baby and the one breastfeeding. Consequently, most mothers completely stop breastfeeding the moment they realize they are pregnant.

> Lack of family planning may cause malnourishment among children in that the child may still be young and the mother becomes pregnant again and still sleeps with the baby who wants to breastfeed. The heat from the mothers' womb may affect the child. The best option is to separate the child from the mother and the child will improve **(FGD, Mothers of children below 2 years, Kasambya Sub County, Mubende District).**
>
> I have realized that mothers become pregnant while still breastfeeding. So, when it comes to exclusive breastfeeding, this category of mothers, a practice common among younger mothers, will always stop breast-feeding early to avoid underfeeding the baby in the uterus **(Regional Nutrition Coordinator, Mubende district).**
>
> There is when the breastfeeding mother gets pregnant because as soon as a woman conceives, they stop breast-feeding. It is not allowed for a pregnant mother to continue breast-feeding. Therefore, in a situation where there is limited spacing between the children, this reduces the amount of time that a mother spends breastfeeding**. (DHO, Mubende District).**

Household socio-economic status

As is the case with all the other maternal and infant feeding components, exclusive breast-feeding was also known to be constrained by women's socio-economic status.

> Those who have their money start giving millet porridge, powdered milk (especially NIDO), and soya porridge as early as 3 months but for us who don't have money breast-feed up to 7-8 months and start to give food **(IDI, Pregnant mother, Kasule Sub County, Kyegegwa District).**

The study further notes that exclusive breastfeeding is also affected by limited male support as is the case with many of the other practices as observed by many participants.

> Most mothers don't get help from their husbands and sometimes they get only one meal in a day and they keep few for the next day so, this will lead to loss of milk in breast due to poor feeding and the mother will decide to introduce local food to the child. **(FGD, VHTs, Rwimi Town Council, Kabarole District).**

Religious influence among followers of Bisaka

In Kyenjojo district, followers of a religious sect led by Bisaka were reported not to breastfeed their babies on certain days defined for worship or sacrifice, namely the 2nd, 12th and 22nd of every calendar month. Because of their religious belief, the babies have to be introduced to alternative fluids and foods early.

> Then we have another category of those who believe and have attachments to culture and religion. For example, people who follow Bisaka have what is called *"ekiro kyorutambi"* or day of worship [which] requires them to dedicate 2nd and 12th, days for worship and on these very days of the month they cannot breastfeed babies. So, in such instance, they have to introduce foods to the babies because the babies can't starve. **(Midwife, Kyarusozi H/C IV, Kyenjojo District).**

Teenage Mothers

Similar to the initiation of breastfeeding, the achievement of exclusive breastfeeding for 6 months varies with age. This study has established that young / teenage mothers exclusively breastfeed less than older mothers. There are many reasons why this is so, but prominent among them is the fact that young mothers do not appreciate exclusive breastfeeding because they want to preserve the appearance of their breasts.

> We have the young girls here who think that when they breastfeed, their breasts will fall [start sagging] and become very loose. So, in that case, they prefer their husbands to buy cow's milk to give to the child so that their breasts do not become like 'sandals', **(FGD, Fathers, Kichwamba Sub County, Kabarole District).**

HIV positive Mother

Whereas there have been efforts to improve breastfeeding options amongst HIV positive mothers through promotion of *option B plus,* the message has not been fully appreciated by all HIV positive mothers. This is because some mothers still believe that they can infect their newborns by breastfeeding.

> There are even those that are discouraged from breastfeeding, especially those who have HIV/AIDS. They fear that if they breastfeed they may infect their children **(FGD, Fathers, Kichwamba Sub County, Kabarole District).**

4.3.5 Complementary feeding of children

According to the UDHS, 12.3% of children in Western Uganda compared to only 7.2%in the North and only 3.3% in Karamoja region can have more than 4+ food groups (infant formula and milk other than breast milk, cheese or yoghurt or other product). As earlier indicated, Western Uganda had the highest minimum meal frequency of 56.3% compared to only 29% in Northern Uganda and 27% in the Karamoja region. This study indeed found that knowledge about the importance of mothers introducing complementary feeding by among the study community in

Mid-Western Uganda is high. Generally, mothers in the region are aware that the introduction of complementary feeding should happen after 6 months. The study notes that availability of different forms of food; health talks and sensitisations are important determinants of this knowledge. The same factors discussed under nutrition of pregnant and lactating mothers apply. Some mothers have been trained on the practice of preparing smashed foods containing different types of foods for easy consumption by the baby locally known as *ekitobero (mixed grill)*. Such trainings were, particularly carried out at Mubende and Kyegegwa health facilities by VHTs.

Barriers to complementary feeding

Children in many cases feed on what everybody else feeds on in the household

In general, as with pregnant mothers, there is not much special attention provided to babies concerning what they should eat. Nearly all mothers and fathers interviewed indicated that the babies are fed on what everyone else feeds on in the household except that their food is mashed. Foods that mothers offer for complementary feeding, include irish potatoes, cow's milk, cassava porridge, silver fish, bean soup, etc. The findings also indicate that these foods are not given to children in a balanced manner.

> To be sincere, there is no special food that is given to the children. In almost all the cases, what is available is what is cooked and the children feed on that as well. **(FGD Fathers, Kichwamba Sub County, Kabarole District).**
>
> Children are given porridge whether made from cassava or millet flour because it is good for them and it makes them satisfied. You see, with porridge made from cassava flour, even two spoons are enough to make the child satisfied. **(FGD, Mothers with children < six months in Rwimi Town Council, Kabarole District).**
>
> Some people give soya because that is what they can afford. When I give soya, I give it four times in a day. This helps me to reduce on the number of times I breastfeed. **(FGD Mothers < six months in Rwimi Town Council, Kabarole District).**

Introduction of solid foods before six months

As was indicated in the discussion on exclusive breastfeeding above, the mothers tend to introduce some solid foods earlier due to the set of socio- economic barriers including economic hardships and limited male support.

> At three months, I gave the baby millet porridge because we do not have enough money, the porridge is plain and not mixed with milk. I well know that mixed porridge is the best but the lack of money to buy the milk is the problem. **(FGD, mothers of babies < 2 years, Butunduzi Sub County, Kyenjojo District).**

> There is a saying which goes that "*Ekitariho tikiriza mwaana*" literally meaning that 'a baby/ child never cries over what is it cannot see'. A child can only be given special food when sick and after recovery, the child will have to go back to eating cassava and maize meal, that is, when it is even available. **(FGD with mothers with children < 6 months, Nyabbani Sub County, Kamwenge district).**

Mothers breastfeed less or even stop earlier than the recommended two years

There are many reasons why infants are introduced to food early or weaned before they are two years old. They include among others economic hardships and conceiving when the baby is still young. A mother becoming pregnant again is attributed to domestic violence mainly perpetrated by the men or family separation.

The common practice among most mothers is that they reduce the frequency of breastfeeding and others actually choose to stop breastfeeding when a child is introduced to complementary feeds. Few mothers continue breastfeeding up to two years with most mothers stopping at one year.

> The frequency changes once the baby starts eating food and other fluids as soya, milk and juice. So, I may breast-feed her like at night and in the morning. **(IDI, Mother with a child less than 2 years, Bubukwanga Sub County, Bundibugyo District).**
>
> When children begin to eat food, they do not breastfeed so much because they are always eating and drinking and their breastfeeding reduces. **(FGD with mothers less than 2 years, Butunduzi Sub-county, Kyenjojo District).**
>
> It certainly changes because the child has complimentary foods and is no longer depending on breast milk only. In such cases, the child can even spend a whole day without breastfeeding but depending on how the child likes the breast milk. Most children tend to like breast milk, **(IDI, Pregnant Mother and with a child less than 2 years, Kiganda Sub County, Mubende District).**

A child eating a cold sweet potato without any gravy. (Observed during an FGD with women in one of the sub-counties in Kyenjojo District.)

Poor feeding practices

This study also noted a common practice among parents of giving children cold food, particularly sweet potatoes. During FGDs in Butunduzi Sub-County, Kyenjojo District, mothers could be seen giving cold food (mainly sweet potatoes) and fermented millet porridge *(see photograph3 below).* Mothers also acknowledged that whenever they are going to the gardens, they have to carry cold food for their children.

Perceptions that a child will not learn to eat foods early

Mothers also generally argued that introducing other fluids and foods early reduces the risk of a child eventually refusing to eat such foods yet the breast milk may not be enough for their feeding needs.

> When you don't stop breastfeeding, the child will even refuse the food and drinks you are giving and want to breastfeed alone yet you do not have enough milk. **(FGD, Mothers with children less than six months in Rwimi Town Council, Kabarole District).**

4.3.6 Feeding of lactating mothers

Results regarding maternal feeding for lactating mothers are not very different from those of expectant mothers. Mothers were largely well aware about the need to feed well so as to have enough breast milk for their babies. For example, they knew that such foods as eggplants, bean soup, greens and animal products including ghee and milk help to stimulate breast milk.

> Greens are encouraged when one is breast-feeding. If you can afford to buy porridge and milk, they are good sources of breast milk. This is true because after taking porridge one needs like thirty minutes, and they will have enough breast milk. **(IDI, Pregnant mother with a child less than 2 years, Kiganda Sub County, Mubende District).**
>
> In addition to porridge, milk helps women to generate a lot of breast milk. Fish is also good for them; bean sauce is very nice for the breastfeeding mothers and they like it so much **(FGD, Men aged 18-60 years, Kiganda Sub County, Mubende District).**
>
> It is foods like eggplants, porridge, milk, greens, beans and drinking lots of fluids that enable the mother to have enough breast milk. Even eating meat and fish is helpful, **(FGD, Mothers < 6 months, Kiganda Sub County, Mubende District).**

Lactating mothers reported that where possible they avoid eating dry/hard foods such as cassava and yams especially when there is no good gravy because they are perceived not to stimulate the production of breast milk. Similarly, inability to switch food varieties was mentioned to be a barrier to breast milk production.

> For my wife, the times she complains that she does not have breast milk are when she is eating only one type of food. She is stressed, thus her body is not free to produce breast milk for the baby. So, poor feeding [and stress] cannot help the woman to get breast milk. **(FGD men aged 18-60 years, Kiganda Sub County, Mubende District).**

The state of well-being especially the quality of relationships was also mentioned by both men and women to be a crucial element in contributing to adequate breast milk. In other words, even if households have adequate food supply, household relations characterised by domestic violence may constrain women's capacity to produce sufficient breast milk as some of the participants observed.

> It is good we have talked about foods but I would like to add that the situation in which the breastfeeding mother is living in is also crucial. For example, even in animals like a cow, if you beat it so much it fails to give you milk. So when the woman is not having a good relationship with the husband it makes them fail to produce breast milk. No matter much the woman feeds, if she has no peace of mind, she cannot produce the milk. As soon as she sees you, she becomes restless, wondering what you are going to do to her**. (FGD, Fathers, Kiganda Sub County, Mubende District).**
>
> According to me, there is no food that brings breast milk but how you eat what food you have. For instance, you cannot eat *posho* for a whole week and you expect a woman to get breast milk. You cannot eat cassava for a whole week and you think you can get breast milk; that is not possible. if you either it *maize meal* or cassava today, you should change and eat sweet potatoes or *matooke* the following day, that is what is called balanced diet, definitely breast milk will come. **(FGD, Men aged 18-60 years, Kiganda Sub County, Mubende District).**

4.3.7 Child caring practices

The quality of care and the care environment for mothers and children is essential for the well-being and health of both the mother and the child. In this formative study, barriers and enhancers associated with water, sanitation and hand-washing practices were examined.

Enhancers of a good caring environment

Good knowledge of a good care environment for children and mothers

Ensuring domestic and personal hygiene practices such as sweeping houses and cleaning the compound, bathing oneself and children, clearing the bushes around homes, cleaning latrines with ash, and washing utensils and drying them before using them were some of common practices mentioned for ensuring a good care environment. Participants also emphasised hygiene regarding storage of cooked food, drinking of boiled water and use of mosquito nets.

Increasing safe water supply coverage

The study noted that there have been efforts by government and donors to improve safe water coverage in the region through sinking of boreholes and protected springs; however, these water sources suffer frequent breakdowns. Access to safe water was reported to be between 60 – 70% in Western Uganda.

Supply of water purifiers to HIV-positive mothers

The study found that people living with HIV/AIDS (PLWHAs) were being given water purifiers particularly *water guard* by development partners such as Mild May and Baylor Uganda.

> For the HIV-positive mothers, we provide them a package that includes water purifiers. We have also encouraged VHTs to teach them as part of the health promotion so that people can boil water for drinking. **(PMTCT- Officer, Baylor Uganda, Kyenjojo District Office).**
>
> We normally advise mothers to boil water and be clean and sometimes if there is the water guard in stock we also provide it **(Enrolled nurse, Buhinga Regional Referral Hospital, Kabarole District).**

Growing knowledge and practice of hand-washing

The results of the 2011 UDHS indicate that hand-washing practice was highest in Western Uganda at 22.1% compared to Karamoja at 13% and Northern Uganda at 7.2%. This formative study found that awareness about hand-washing such as when to wash hands, and what to use when washing exists but it is not widely practiced because of associated economic costs of access among other reasons. In the FGDs with pregnant and lactating mothers, some of them knew that they were supposed to wash their hands with soap after visiting the toilets, before eating, and before breastfeeding or giving the child food.

> **Participant. 4**: When you are going to prepare anything for eating for both the child and yourself, you are supposed to wash your hands with water and soap.
>
> **Participant.2**: Before picking up the plate you are going to use to give the baby food, you must wash your hands with water, soap and a hand washing sponge.
>
> **Participant.1**: Honestly, for me, when I am in the field, I do not wash hands when am going to care for the child but when am at home I first wash my hands with water and soap.
>
> **Participant.10**: But if you do not have water at the garden you make sure that you carry either a folk or spoon which you use to give food to the child while at the garden.
>
> **Participant.9**: We also wash our hands after cleaning baby's nappies and visiting the latrine **(FGD, pregnant mothers, Kyarusozi Sub County, Kyenjojo District).**

Most of the mothers also knew the likely consequences of failure to wash hands when caring for children such as contraction of diseases likes diarrhoea, typhoid, etc.

> You have first to wash your hands before breastfeeding because if you don't do it, the child may get infections because of eating germs **(FGD mothers with children < 6 months, Kiganda Sub County, Mubende District).**

Availability of deworming services at health centers

De-worming children is one of the child-caring practices that seems to have taken root. Mothers acknowledged that often when they go for immunization, health workers give their children *Albendazole.* Albendazole tablets were also reported to be handed out during Family Health Days by health workers and VHTs at schools and churches. It was reported to be handed out to children on a quarterly basis.

> De-worming is common and it is done free at the health facility and in schools. It is something common here in the community. People try to de-worm their children in outreaches and in schools. (**FGD, Pregnant mothers, Kiganda Sub County, Mudende District).**
>
> De-worming is too common here in this community in that at least the children are given Albendazol tablets whenever they are brought for immunization. **(FGD, Pregnant Mothers, Bubukwanga Sub County, Bundibugyo District).**
>
> Health workers together with the VHTs have been moving around homes, worshiping centers, giving de-worming tablets to our children and most of the people even those who do not want to come to the health center were found in their homes. **(FGD, Pregnant mothers, Kyarusozi Sub County, Kyenjojo District).**
>
> After every three months, health workers even bring the tablets in our homes, schools and places of worship **(FGD Mothers with children < 6 months, Rwimi Town Council, Kabarole District).**

According to health workers, mothers have appreciated the practice of de-worming to the extent of demanding for these tablets whenever they feel it is time to have their children de-wormed.

> We tell them about de-worming and they now understand it. Mothers ask for de-worming tablets more than anything else. They have grown to learn the importance of de-worming children **(Nursing Officer/ Nutrition Focal Person Kiganda Health Centre IV, Mubende District).**

Health care managers in the sub-region acknowledged that the de-worming practice is indeed doing well compared to other health services.

> The situation is good and this is one of the areas where the district is doing well. We normally adhere to the government schedule of de-worming twice a year. Recently, during Family Health Days, we have been able to de-warm children from places of worship, schools and at health facilities. The parents are demanding for de-worming tablets and we think this is a practice that people have taken up. **(Nutrition Focal Person, Kabarole District).**

Barriers to a good care environment

Inadequate access to safe drinking water

Generally, access to safe water for most communities in the sub-region, like elsewhere in Uganda, remains sub-optimal. Few communities, mainly urban and those within the vicinity of a health center or school, draw their water from a tap, protected spring or borehole. Many households still draw their water from open wells and streams because they do not have a protected/improved water source or they have it but it is not functional. The study noted instances where people share water sources with livestock, especially cattle.

> We have a water problem here because most of us get water from ponds which are even used by cows and when the owner of the pond finds you, sometimes you lose the water and the jerry can **(FGD women with children below 6 months Ruyonza Sub-county, Kyegegwa District).**

Some organizations are supplying free water guard tablets for water purification but some mothers detest drinking water treated using water guard claiming that it not only smells bad but that it is also not tasty.

> Some of us failed to use water guard because it smells badly. There are people who came here and sensitized us about drinking boiled water. The truth is that boiled water is not tasty, "*Tigakunura"*, and that is why we failed with it. **(FGD, Mothers with children <2 years, Kichwamba Sub County, Kabarole District).**

The practice of not boiling drinking water

The study findings show that people are aware of the dangers associated with drinking un-boiled water. Study participants were able to indicate that contraction of waterborne diseases like diarrhea, cholera and flu resulted from drinking un-boiled water. However, they also acknowledged that boiling water was not being practiced in many households including those with mothers and children.

> To be open, most of us don't boil water for drinking in our families. Some people are just pretending to be boiling the water (all participants laugh and say it is true). **(FGD, Pregnant mothers, Kichwamba Sub County, Kabarole District).**
>
> Honestly, some people do not boil it. They just take it the way it has been brought into the home from the water source and even others drink it from the water source while collecting it. **(FGD, Pregnant mothers, Rwimi Town Council, Kabarole District).**
>
> We don't do anything, we just drink it as is, and we do not boil it. We just fetch, put in the pots, jerry cans, and drink. **(FGD, Mothers with children aged 6 months, Sindira Sub County, Bundibugyo District).**

Constraints to boiling water also related to inadequate access to firewood and the perception that past generations never used to boil water and lived long.

> To be frank with you, majority do not take boiled water. Some say that their grand-parents and parents did not take boiled water and they lived for long so how can we fail to live because we have taken un-boiled water **(FGD, Mothers with children < 2 years, Rwimi Town Council, Kabarole District).**
>
> I do not want to deceive you that I boil water, no, because I do not have the time to boil it. Most of the day, I am in the garden and I leave garden at 6 p.m. in the evening. **(FGD, Mothers with children < 2 years, Kyarusozi Sub County, Kyenjojo District).**
>
> I don't boil water because it takes too much firewood of which it is costly here. **(FGD, Pregnant mothers, Bubukwanga Sub County, Bundibugyo District).**
>
> We don't boil water due to lack of firewood. We cannot afford charcoal for boiling drinking water **(FGD Fathers, Rwebisengo Sub County, Ntoroko District).**

The study further noted a popular belief among people that water drawn from a borehole, tap and protected spring is safe enough and does not require boiling. Whereas such water may be safe, careful handling of water to keep it safe through the water chain is still a problem.

> When I get water from the borehole, I just look for a clean container like a small jerry can where to keep it but I do not boil it**. (FGD, Mothers with children < 2 years, Kyarusozi Sub County, Kyenjojo District).**

More specifically, the study participants from Bunyangabu County, Kabarole district, believe that water from river Yeriya is safe for drinking even without boiling it.

> In Bunyangabu, there is a belief that if you fetch water from River Yeriya early in the morning it is safe. I think it is a perception because long time ago, there were not many people in the mountains that would contaminate the water early in the morning. However, as the day go by children uphill play in it, wash in it, which makes the water dirty **(Nutrition focal person, Kabarole District).**

Low uptake of proper hand-washing practices

While most mothers were aware of the dangers of improper hand-washing, a few mothers do not seem to mind. They do not attribute diseases among children to improper hand-washing; they treat it as normal and they care (even breastfeed) children without washing their hands. Asked what was likely to happen to their children if mothers did not wash their hands properly, some mothers answered:

> Health workers say that a child may get some diseases but to me, I don't think it is true because I now have three children and they are all healthy, yet I have not always keenly washed before breastfeeding. May be if you touch the breast with soil, the child may suffer from worms. **(FGD, Pregnant mothers Nyabbani Sub County, Kamwenge District).**

However, given the peasant nature of most of the mothers, very few across the sub-region reported to be practicing hand washing all the time. This is because sometimes while in their gardens they may not carry water along with them to wash their hands before breastfeeding their babies.

> It is not common and most of the mothers myself inclusive while in the field I just give the breast to my child to breastfeed without washing my hands **(FGD, Pregnant mothers, Kyarusozi Sub County, Kyenjojo District)**.
>
> Most of us do not do it. When a baby cries while you are in the field, you just put the baby onto the breast without washing your hands. **(FGD, Pregnant mothers, Rwimi Town Council, Kabarole District)**.
>
> I go with my baby to the garden every time I am going to dig, do you expect me to carry water for washing my hands when I am going to the garden? **(IDI, Mother with a child < 2 years, Kasule Sub County, Kyegegwa District).**
>
> Even when you are in the kitchen cooking and the baby starts to cry, all your mind is on the baby that is crying; so, you just pullout the breast and give him. You do not even remember to wash the hands. **(FGD, Pregnant mothers, RwimiTown Council, Kabarole District)**.
>
> We wash hands when we are going to eat, after visiting toilet and before feeding the baby. But for me, I don't normally wash when going to feed the child because it is inconveniencing. I have to be sincere with you. **(FGD, Mothers with children < 6 months, Butunduzi Sub County, Kyenjojo District).**

Overall, it was found that majority of the mothers tend to give their babies solid foods without washing hands while in the gardens, a practice attested to by many mothers and other informants. Our observations during fieldwork attested to this because most children who turned up with their mothers during FGDs were being served with cold food and neither their mothers nor the children washed their hands before eating.

VHTs as well as health workers estimated mothers that could be practising hand-washing correctly and consistently to be between 10% and 30%. Whereas most of the mothers claimed that they use soap and water for washing hands, in Bundibugyo district, some mothers revealed that that they use sand and ash to supplement soap and believe these can clean hands as much as soap does. Key informants on the other hand, noted that the way mothers wash their hands is still unsatisfactory.

> We wash hands with soap and water; if you don't have soap, you wash with water only. **(FGD mothers with children < 6 months, Butunduzi Sub County, Kyenjojo District).**
>
> The practice of hand washing is poor because even those who are doing it are not doing it properly. Many people do hand wetting and not hand washing. They wash without soap; they do not dry their hands after washing. **(DHO Kamwenge District)**.

Children minding babies

The practice of childcare minders also compromises the caring environment of children in communities. It was reported that infants, who are often left in-charge of their siblings by their mothers when they are away in the gardens, collecting firewood or on any other errand, start complimentary feeding before the recommended period. The other children are likely to give them what to eat whenever they cry without any special considerations which may compromise their health**.**

Latrine coverage still low, though improving

According to the 2011 UDHS, latrine use by children in Western Uganda stood 18% compared to 13% in Northern Uganda and 8% in Karamoja, which means that Western Uganda was in the lead. Indeed, in one of the interviews it was mentioned that latrine coverage had taken a step forward due to support from some non-governmental actors.

> Our latrine coverage is 60% and safe water coverage is now at 67%. UNICEF has helped in the construction of latrines. However, in towns and trading centers where different people share a latrine this is still a problem. **(DCDO, Kyegegwa District).**

It was found that there are seasonal immigrants who come from other districts and hire land for cultivation and after the harvesting period, some go back to their districts while others choose to stay and buy land. These farmers face challenges because most often their landlords do not allow them to construct latrines; therefore they practice open defecation that puts their lives and those of their children at risk from poor sanitation-related infections such as diarrhea.

Local herbs administered for deworming

While the practice of de-worming with Albendazole has been popular, the study found that some mothers especially in Kyegegwa and Kamwenge districts still believe in giving local herbs [*Omwitanjoka*] to the children for deworming.

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ANNEX 1:

CATEGORIES AND NUMBER OF RESPONDENTS FOR KARAMOJA REGION

FGDs	Number	IDI	Number	KII	Number
Amudat District					
Women with child less than 2 years	2	Adolescent mother	1	VHT	1
Pregnant women	2	HIV positive mother	1	Nursing officer	1
Men	2	Elder	1	H/C In-charge	1
		Mother with > 1 child	1	DAO	1
				Nutrition Focal person	1
				Partner field officers (Agric)	2
Napak District					
Women with child less than 2 years	2	HIV positive mother	1	District Health officer (DHO)	1
Pregnant women	1			Health assistant	1
Men	2				
Nakapiripirit District					
Women with child less than 2 years	3	Pregnant woman	3	S.H. Inspector	1
Pregnant women	1	Elder	1	Enrolled Nurse	1
Men	2	HIV+ woman	1	H/C In charge	1
		Mother with 1 child	1	VHT	1
				Program officer	1
				Ag DHO	1
				DH Inspector	1
				DAO	1
Moroto					
		Pregnant woman	1	UNICEF	1
		Mother with child < 2 years	2	IRC	1
		Mother with children less than 2 years	1	CUAMM	1
				Ag. DHO	1
				Nutrition Coordinator	1
				Elder	1

				ACDI /VOCA	1
				RWANU	1
Kotido					
Women with child less than 2 years	1	Pregnant woman	1	FAO	1
Pregnant women	1	Elder	2	DHE	1
Men	1	Adolescent mother	1	CUAMM	1
Elders	1	Women with child < 2 years	1	Mercy Corps	1
				Nutrition Coordinator	1
				Deputy CAO	1
				DHO	1
				DEO	
Abim					
Women with child less than 2 years	1	Elder	1		
		Retired civil servant	1	District production coordinator	1
Pregnant women	1			District Health Inspector	1
Men	1	Mother with > 1 child	1	Nutrition Coordinator	1
				CAO	1
				DHO	1
				DHE	1
				ADRA	1
				DEO	
				World Vision	1
Kaabong					
Women with child less than 2 years	1	Pregnant woman	1	Nutrition Coordinator	1
				CAO	1
		Mother of child less than 2 years	1	DHO	1
Pregnant women	1	Elder	1	DHE	1
Men	1	HIV positive mother	1	ADRA	1
				World Vision	1
				WFP	1

Summary of the respondents for Karamoja region

RESPONDENT CATEGORY	NUMBER
FGDs	
FGD Women with child less than 2 years	6
FGD Pregnant women	6
FGD Men	6
IDIs	
IDI Adolescent mother	2
IDI HIV positive mother	4
IDI Elder	6
IDI Mother with >1 child	2
IDI Mother with 1 child	1
IDI Mother with child less than 2 years	2
IDI Women with child less than 2years	1
IDI Mother of children less than 2 years	1
IDI Retired civil servant	1
KIIs	
Partner field officers (Agriculture)	2
VHT	1
Nursing officer	1
H/C in-charge	1
DAO	1
Nutrition focal person	1
District Health Officers (DHO)	1
Health assistant	1
Senior Health Inspector	1

RESPONDENT CATEGORY	NUMBER
Enrolled nurse	1
H/C in-charge	1
Program Officer	1
Ag DHO	1
DH Inspector	1
DAO	1
UNICEF	1
IRC	1
CUAMM	1
Nutrition Coordinator	1
Elder	1
ACDI / VOCA	1
RWANU	1
FAO	1
DHE	1
Mercy Corps	1
Deputy CAO	1
DEO	1
District Production Coordinator	1
District Health Inspector	1
CAO	1
ADRA	1
World Vision	1
WFP	1

Sub-Counties Selected from Karamoja

District	Sub-counties selected	Main ethnic group
Moroto	Tapac Rupa	Tepeth, Matheniko
Napak	Looro Iriri	Bokora
Kotido	Kacheri Panyangara	Jie
Abim	Morulem Otukei	Nyakwae, Labwor
Kaabong	Kamion Karenga	Teuso, Ngapore, Dodoth
Amudat	Loro Alakas	Pokot
Nakapiripirit	Namalu Nabilatuk	Kadamas, the Pian

ANNEX 2:

CATEGORIES AND NUMBER OF RESPONDENTS FOR MID-WESTERN REGION

DISTRICT	KIIs	SUB-COUNTIES	FGD			IDI's		OTHERS
			Mothers of Children less than 2 YRS	PGNT MTHS	MEN (18-60)	PGT MTHS	MTHS(CDN) LESS 2YRS	
MID- WESTERN REGION								
Mubende	• Regional nutritionist, • Health asst. Kasambya HC3, • Mid wife Kasambya HC3, • Nursing officer Mubende referral hospital, -Nurse in charge O/P Dept. Mubende Referral hospital, • DHO Mubende district, • Asst DHO, • Agric. Officer, • Nutrition focal point person Kiganda (9)	KASAMBYA	2	1			1	1Group interview with men, 1FGD with VHTs,
		KIGANDA	2	1	1	1	2	Group interview with 2 health assts, Gp interview with VHTs
Kyegegwa	• 3 Health workers, • Enrolled nurse, • S/C chief, • VHT(Social worker), • CDO Kasule s/county, • Asst.DHO Kyegegwa, • DCDO (9)	KASULE	1	1		1	1	IDI with a father with a childless 2yrs
		RUYONZA	1	1	1			Group interview VHTs Group Interview with 2 men

Kyenjojo	• DHO Kyenjojo district, • DCDO Kyenjojo, • Health inspector Butunduzi T/c, • C/person nutrition coordination committee, • Asst. Agric. Officer, • Mid wife Butunduzi HC3, • In charge Butunduzi HC3, • Mid wife Kyarusozi HC3, • Senior CDO Butunduzi (9)	BUTUNDUZI	2	1	1			IDI with an elderly lady, Group Interview with VHTs,
		KYARUSOZI	1	1	1		1	Group interview with VHTs,
Kabarole	• DHE Kabarole district, • DHO Kabarole district, • PMTCT officer Baylor Kabarole • Asst.CAO &UNICEF focal person, • Nutrition focal person, • District Agric Officer, • Secretary of production Rwimi, • Nursing officer, • Senior Clinical • Officer Rwimi, • KI with a nutritionist at Baylor Kabarole, • KII with head information dept. KRC Kabarole, • KII with regional coordinator SNV, • Enrolled nurse Fort portal regional referral hospital, • VHT Kichwamba (14)	RWIMI	2	1	1		1	Group interview with health workers, FGD with VHTs, KII with a religious leader (Sheikh), IDI grand mother
		KICHWAMBA	1	1	1			

Bundibugyo	• KII with district officials, • 2 KII with district Health officials, • KII with NGO staff (4)	BUBUKWANGA	1	1	1	1	1	Group interview with 4 men
		SINDIRA	1	1	1		1	1 KI with a man
Kamwenge	• DHO, Program manager Samaritans purse, • District production coordinator, • -2 health workers Nyabbani HC3,In charge Rukunyu HC4, 1 mid wife Nyabbani s/c, (7)	KAHUNGE	2	1	1	1		Group interview VHTs, Group interview with EMTCT mothers
		NYABBANI	1	1			1	IDI a man with a baby(0-6)
Ntoroko	• KII with district officials, • 2 KIIs with Health officials, • 2 KII with community resource persons/ VHTs (5)	RWEBISENGO	1	1	1		1	
		NOMBE	1	1	1		2	
ACHOLI SUB- REGION								
Gulu	• Nutrition Focal Point person Gulu district, • Assistant DHO, • Clinical officer &In charge Pabwo HC3, • In charge Awach HCIV Gulu district (4)	BUNGATIRA	1	1	1	1	1	IDI with a man
		AWACH	1	1	1	1	1	IDI with a man
Nwoya	• DHO Nwoya district -Clinical officer and In charge Koch Goma HC3, • Senior Clinical officer Aleero HC3(3)	KOCHGOMA	1	1	1	1	1	IDI with a man
		ALERO	1	1	1	1	1	IDI with a man (VHT)
Kitgum	• Asst. DHO, • Overseer of Nutrition Activities Kitgum district (2)	MUCWINI	1	1	1	1	1	IDI with a man
		PAJIMO	1	1	1	1	1	IDI With a man
Amuru	• Clinical Officer Atiak HCIV (1)	OTWE	1	1	1	1	1	IDI with a man
		ATIAK	1	1	1	1	1	IDI with a man
Lamwo	• DHO Lamwo District,(1)	PALABEK KAL	1	1		1	1	IDI with a man (VHT)
		LUKUNG	1	1	1	1	1	IDI with a man (VHT)
Total (12) districts	**51 KIIs**	**24 Sub-counties**	**28**	**24**	**20**	**14**	**22**	**27**

KARAMOJA REGION

BARRIERS TO APPROPRIATE NUTRITION AMONG PREGNANT WOMEN

Mid-Western region complementary

1. Introduction of solid foods before six months
2. Mothers breastfeed less or even stop earlier than the recommended two years
3. Poor feeding practices
4. Children in many cases feed on what everybody else feeds on in the household
5. Perceptions that a child will not learn to eat foods early

Breastfeeding

1. Busy mothers leave their babies under the care of other children or the elderly
2. Belief that breast milk is not sufficient for the baby's feeding needs

Household socio-economic status

1. Babies crave for food early and mothers/caregivers feed them
2. HIV positive Mother
3. Inadequate uptake/use of family planning
4. Religious influence among followers of Bisaka
5. Teenage Mothers

BARRIERS TO GOOD NUTRITIONAL PRACTICES DURING PREGNANCY

Acholi region

Barriers to adequate maternal nutrition practices

1. Household food insufficiency
2. Practice of selling off most agricultural produce
3. Pre-occupations with farm work
4. Non-attendance of ANC
5. Lingering superstitions/Taboos related to feeding for pregnant mothers

KARAMOJA REGION	MID-WESTERN REGION	**Acholi region**
Pregnant mothers		
1.Lack of food 2.Lack of male involvement in support of the pregnant mothers 3.Financial challenges 4.Lactating mothers 5.Challenges related to appetite 6.Taboos that prohibit pregnant women from eating certain foods	1.Foodstuffs for pregnant mothers at household level 2. Economic hardships and household demands on mothers 3. Stereotypes leading to disregard for some domestically available yet essential foods 4. Lack of male Support 5. Taboos and cultural beliefs 6. Consumption of herbal medicines/concoctions	
Maternal nutrition		
		Household food insufficiency
		Practice of selling off most agricultural produce
		Pre-occupations with farm work
		Non-attendance of ANC
		Lingering superstitions/Taboos related to feeding for pregnant mothers
Initiation of breastfeeding		
	Exclusive breastfeeding	
	Complementary feeding	
	1.Introduction of solid foods before six months 2.Mothers breastfeed less or even stop earlier than the recommended two years 3.Poor feeding practices 4.Children in many cases feed on what everybody else feeds on in the household 5.Perceptions that a child will not learn to eat foods early	