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Understanding Women's Empowerment and its Impact on Child Nutrition among Pastoralists in
Northern Kenya

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Abstract

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By Jepkoech Jerop Kottutt

Introduction: Globally, 156 and 50 million children under five are stunted and wasted respectively[1]. More than a third and a quarter of all the stunted and wasted children under five respectively live in sub-Saharan Africa[1]. Undernutrition causes approximately 3 million deaths annually among children 5-years-old and below because it makes the body susceptible to infections, and it prolongs and increases infection severity[2]. Studies have shown that women's empowerment leads to improved maternal and child nutrition [3-5]. This paper discusses the impact of women's role and status, social influences and intrahousehold preferential food distribution on child nutrition in Northern Kenya.

Methods: A cross-sectional exploratory qualitative research was conducted from June through August of 2016 in Marsabit and Isiolo counties. A total of 66 FGDs, with 10-12 participants each, were conducted in the ward level namely Laisamis, Korr, Turbi, Sololo, and Moyale wards in Marsabit county, and Burat, Kinna, Merti, Oldonyiro and Ngaremara wards in Isiolo county. Nutrition and women's empowerment field notes were read, 'memo-ed', and coded using MAXQDA10 Qualitative Analysis Software. Codes were developed inductively and deductively with a thematic analysis approach[6].

Results: The role and the status of women in pastoral communities was defined by division of labour in the household and the family structure, which encompassed the relationship in position between co-wives and their relationship to the man. Maternal figures had more influence over child nutrition in nomadic communities compared to sedentized communities. Practices on preferential food distribution was observed more in nomadic communities compared to sedentized communities. Food distribution in nomadic communities was mostly based on sex, individual status in the household and individual needs.

Conclusion: To better understand the linkages between women's empowerment and child nutrition, the focus on women's ability to provide basic needs should also include acquisition of resources and negotiations on household food budgets. Role of maternal figures and preferential distribution of ASFs in the household should be further explored to determine their influence on child nutrition and to ascertain gender disparities.

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Chapter 1

1.1 Introduction and Rationale

Malnutrition is a major public health issue because it affects 1 in every 3 individuals worldwide and it is the greatest risk factor for disease [1]. Globally, 156 million and 50 million of children under five are stunted and wasted respectively[7]. Stunting is growth retardation caused by long-term nutrition deficiency[2]. Wasting is acute undernutrition resulting from chronic infections and poor diets [2]. More than a third and a quarter of all the stunted and wasted children under five, respectively, are living in sub-Saharan Africa[8]. Undernutrition causes approximately 3 million deaths among children 5-years-old and below[7]. Stunting causes poor physical and cognitive development in children. These effects are devastating because they last a lifetime. Moreover, they affect the ability of a child to perform well in school and the workforce[8, 9]. Effects of wasting include prolonged infection periods and increased severity of infections[2]. Malnutrition not only affects the health and well-being of individuals and communities. But also, the gross domestic product (GDP) of many countries. For example, in Africa and Asia, malnutrition causes an 11% loss in GDP annually. But, averting malnutrition returns an investment of \$16 for every \$1 spent[1]. Thus, it is important for all public health efforts to focus on ending malnutrition.

The three multi-level determinants of child nutrition include community, household, and individual[10]. Market integration, infrastructure, ecological conditions, and subsistence strategy fall under community[10]. Economic status, family size, family type, parental education fall under household[10]. Age, sex, birth order and foster status fall under individual[10]. The prevalence of wasting is higher than that of stunting in pastoral children 5-years-old and below because most of the foods consumed in pastoral communities are high in protein and low in caloric value [11-14]. Most pastoral communities tend to have diets consisting of ASF such as meat and milk because they

depend on livestock for their livelihood. Thus, access to high caloric food such as corn meal and wheat flour is usually from the market. Most pastoral communities don't practice subsistence farming due to their climatic conditions. But, with climate change, some pastoralists have lost their cattle and have become sedentary.

In pastoral communities, livestock is their main livelihood, and it is usually under the man's sphere. Most women depend on their husband for money to buy food from the market. As for agro-pastoralists, the man decides which foods are grown in the household. He also decides how much of those foods get sold at the market. Thus, it is critical to understand the role and the status of the woman in the household because her ability to make decisions on foods bought and sold in the household not only affects child nutrition. But it also affects intrahousehold food distribution, especially meat and milk. Thus, there is a linkage between a woman's ability to negotiate retention of food in the household and child nutrition. A woman's ability to make decisions is also used to determine her level of empowerment. Maternal figures such as the maternal/ paternal grandmothers, elderly women in close contact with the mother and other experienced mothers influence child nutrition. Often, the woman's ability to make decisions over her children's nutrition gets compromised because of the inter-generational power between her and the maternal figure. Most of the research on women's empowerment has focused on agricultural contexts. Thus, there is limited information about women's empowerment in the livestock context especially on its linkages to child nutrition.

This paper will discuss gaps in the literature on women's empowerment in pastoral contexts. It will look at the relationships between the three multi-level determinants of child nutrition. The major themes covered include the role and status of the woman in the household in connection with her husband and her co-wives. This paper will also explore the role social influencers have on child

nutrition. It will focus on the grandmother's role in breastfeeding, complimentary feeding, and childcare. The final theme covered will be intrahousehold preferential food distribution with regards to food selection, preparation, serving and allocation. This paper hopes to understand the linkages in women's empowerment and child nutrition. Analysis of the major themes will be across nomadic and sedentarized communities.

1.2 Problem Statement

Most the research conducted on pastoral communities have focused on men's role in livestock management, trade, politics, and economics. But, women play a critical role in sustaining pastoralism and are instrumental in improving child nutrition. Moreover, there is limited information on the influences maternal figures have on child nutrition in pastoral contexts. Thus, it is paramount to understand the linkages between women's empowerment and child nutrition.

1.3 Purpose Statement

This thesis hopes to understand women's empowerment in pastoral contexts and its impact on child nutrition. It will do so by analyzing the role and status of women in pastoral communities. It will also assess social influencers on child nutrition and intrahousehold preferential food distribution. This paper will provide a framework for understanding women's decision-making process over food bought and sold in the household. It will also explain the impact maternal figures have on child nutrition in pastoral contexts. Finally, it will establish the patterns of intrahousehold food distribution in pastoral communities.

1.4 Research Question

How does the role and status of the woman, social influencers and intrahousehold food distribution affect child nutrition among pastoral communities living in Northern Kenya?

1.5 Significance Statement

Women play an integral part in the existence and sustainability of pastoralism. Women are also instrumental in improving child nutrition. Thus, it is important to understand women's roles and status in pastoral communities to determine their level of empowerment. After that, devise better ways to improve/increase their control on critical spheres of the community especially in the provision of food for the household. When women participate in the decision-making process, and final say over food bought and sold in the home, it will lead to improved child nutritional status.

1.6 Definition of Terms

ASF(s)	Animal Source Food(s)
eIRB	Emory Institution Review Board
ILRI	International Livestock Resource Institute
IRB	Institutional Review Board
IREC	Institutional Review and Ethics Committee
FGD(s)	Focus Group Discussion(s)
FGDG(s)	Focus Group Discussion Guide(s)
GDP	Gross Domestic Product
IYCF	Infant and Young Child Feeding
ASALs	Arid and Semi-Arid Lands
PD	Participatory Dialogue(s)

Chapter 2

2.1 Pastoralism and Child Nutrition

Pastoralists are communities that depend on livestock for their livelihoods. More recently, pastoralism has been defined as:

“the finely-honed symbiotic relationship between local ecology, domesticated livestock, and people in resource-scarce, climatically marginal and highly variable conditions. It represents a complex form of natural resource management, involving a continuous ecological balance between pastures, livestock and people”[15].

Sedentarization is the process in which pastoralists transition from nomadism to living in a town area. The process of sedentarization occurs differently across pastoral communities[16]. Broadly, sedentarization occurs due to political and economic insecurities, and also, when pastoralists lose their cattle due to climate change[16]. Other reasons for sedentarization include privatization of communal lands, population growth in both pastoral and agrarian communities and expansion of game reserves[12, 17]. Sedentarization has both active and adverse effects on pastoral communities especially on the role and the status of women and child nutrition. Increased women’s income due to milk sales, access to health and education services are some of the benefits of sedentarization[14, 16, 18, 19]. Increased infectious diseases, lack of clean water and poor nutrition are some disadvantages of sedentarization[11, 13, 20-22]. Nomadic pastoralists diets consist of mainly ASFs with milk consumption being the primary[23, 24]. Milk is very nutritious because it is high in protein and contains vitamins A, C, and calcium[23]. As pastoralists settle, less of their diets consist of milk. Instead, milk is replaced by maize mill which is more filling yet contains less nutritional value[25]. Age-specific height and weight for children under 6 years of age are higher in nomadic compared to sedentarized communities[23].

Even during the drought seasons, nomadic children under 6 years old tend to have a lower prevalence of severe wasting compared to sedentarized children (6% vs. 17-23% severe wasting)[11]. Nomadic children compared to sedentarized children suffer less morbidity from diarrhea and respiratory illness[23]. The discrepancy in morbidity is due to nomadic children having fewer exposures to infectious diseases agents compared to sedentarized children.

Although the access to water increases when nomadic populations settle, the quality of the water substantially decreases[23]. Thus, describing the linkages between the environment, livestock and individuals is key to understanding pastoralism, sedentarization and child nutrition intersections. Particularly important are cultural beliefs and practices around gender and food distribution, importantly dynamics in the household that govern the foods bought and sold in the markets by women.

2.2 Role and Status of Women in Pastoral Communities

Women's role and status are important indicators for both women's empowerment and child nutrition. Empowerment is the ability to make important life choices over three inter-related dimensions (i.e. resources, agency, and achievements) in a context where this ability was previously denied[26]. The urgency to measure women's empowerment arises from the need to analyze the cost/benefit of public health projects/programs because donors have limited funding and prefer spending money on projects that impact policy[26]. However, measurement of women's empowerment is challenging because several aspects of women's empowerment aren't quantifiable. Moreover, women's empowerment doesn't mean taking power away from men, but rather, sharing power in an equal way between the sexes. Thus, to better understand women's empowerment, empowerment needs to be both a goal and a process.

Women's empowerment in pastoral contexts is described by the Longwe's Women's Empowerment Framework[27]. This framework consists of five domains and their respective indicators organized in levels. The first tier is welfare, which is having the ability to meet basic needs for oneself and the family (i.e. food, clothing, and shelter). The second tier is access to resources, which is having the opportunities and power to access resources necessary for survival. The third tier is conscientization, which is awareness of oneself, others, the surrounding and the ability to alter gender inequalities. The fourth tier is participation, which is the power of choice, voice, and ability to participate in decision-making on a leveled playground. The fifth tier is control, which is capacity to influence change in the public and personal domains in a manner that impacts all individuals [27]. The Longwe's Women's Empowerment Framework focuses on intervening in the household and community level to empower women. It is important to note that pastoralist function as a unit. Therefore, people mostly women are willing to sacrifice their well-being for the family[27]. So, it is paramount for all women's empowerment efforts to focus on the interlinkages between family and livelihood with women being the focus.

Most of the research on pastoral communities have focused on livelihoods specifically livestock management and trade, politics and religion were spheres assumed by men[28-32]. Other studies on pastoral communities have looked at the impact of sedentarization on child nutrition[11, 23, 25]. However, the linkages between women's role and status, and its impact on child nutrition aren't established [33]. Women play an integral role in sustaining pastoralism, especially in running and maintaining the household[33]. Thus, understanding women's role and status in the household is beneficial to conceptualizing women's empowerment and its impact on child nutrition. Analysis of women's empowerment will be through the woman's autonomy and decision-making process on food bought or sold in the household. In many African communities,

women play a significant role in the basic economy compared to their western counterparts[34]. But, the contribution of African women is undervalued and not viewed as prestigious compared to their male counterparts, which explain the ignorance on the importance of women in sustaining pastoralism.

Among the Maasai community in Kenya and Tanzania, studies on personality and social identity among the sexes stemmed from their ability to control livestock in the household[33]. The study defined male dominance as an aspect of economic control and not the man's belief of innate female inferiority[33]. However, to better understand the role and the status of women in pastoral communities, defining what roles they play and how it relates to the men's role is essential. The theory of the status of women explains how men become more powerful than women through strategic alignment and accessibility to resources[35]. According to Denham's ideology of energy relations, the sustainability of primate populations is dependent on three core components that determine the status of a species. These three elements include subsistence, defense and reproductive strategies[36]. Moreover, the most efficient approach has energy utilization being compatible with the structure of the organism[35, 36]. In other words, the role assigned to a man or a woman is dependent on their structure and utilization of energy in the environment. However, it is important to note that the natural environment keeps changing, especially in the areas where most pastoral communities reside. Therefore, there has been a shift to sedentarization, which changes some of the roles and duties that both men and women performed when they were nomadic. According to functional theory, changes in one institution within a society affects the others because they are all interlinked[37]. So, the environment is the independent variable, economics the intermediate variable and institutions in society, cultural beliefs and practices are the dependent variables. Therefore, it possible that sedentarization can

destabilize the male and female perceptions of male dominance and female subservience because of the development of new roles and statuses among the sexes.

There are slight differences between gender roles among pastoral communities around the world, but most of them share similar practices due to their livelihoods. In the Fulani communities of West Africa, women contribute a substantial amount towards household income when they sell their milk and butter. The money is used to buy other foods (grains, salt, and spices) for the household so that the husband doesn't sell their livestock[38]. There are limited studies that focus on the women's autonomy and decision-making process among pastoral communities, in particular on the household food budget[33]. However, it is common to find women's resources going towards buying food, clothing, and school tuition for their children and the household[39, 40]. While men's budgets focus on buying agricultural and animal production necessities, consumer goods and for some alcoholic beverages. [39, 40]. Therefore, if women equally participated in the household decision-making process, more money would go towards the food budget, which would improve dietary diversity in the home and increase women's empowerment.

2.3 Social Influencers on Child Nutrition

Maternal figures play a major role in child development especially in conveying cultural beliefs and practices that affect the nutrition and well-being of both the mother and child[41]. It is important to note that the definition of grandmother is not only specific to maternal or paternal grandmothers. But also, includes elderly women with close contact to the mother and the child. Unlike Western cultures, grandmothers, other older women or women with more experience play a critical role in child development especially in creation and maintenance of nutritional beliefs and practices. Analysis of the influences of family systems, cultural systems, and hierarchy and

the role of elders in non-Western contexts helps explain the pathways of grandmother influence[41].

In many communities around the world, the family is an integral part of social status and identity. In the family systems theory, some of the parameters that influence children's nutrition include the environment in which the mother-child dyads reside in, the hierarchical positions and decision-making process of critical household members [41, 42]. Critical family members are key influencers in the home such as the grandmothers and other elderly or experienced women. Understanding the influences of the environment is important since it determines the amount of control a mother can have over her children's nutrition. The absence of a grandmother and an elderly or experienced woman means that the mother has more control over her children's nutrition, usually with little contributions from her husband. Childcare is considered the woman's sphere and the man's energy is expendable in activities related to livestock management. The impact of maternal figures in pastoral communities is unknown, yet they are significant influencers of child nutrition.

Many people tend to equate culture with only community beliefs and practices while forgetting the main actors and social structures, both of which are manifestations of culture[41]. Culture is a mold created by the interactions of various community members. These individuals tend to live in a similar social system and share common beliefs and practices passed down from generations before them. Thus, grandmother beliefs and practices on child nutrition carry a lot of cultural meaning and importance within the communities. Studies on complementary feeding show that integrated programs that focus on the caregiver and the decision-maker improve child nutrition[43, 44].

In many African countries, the role of the caregiver and the decision-maker on child feeding practices often falls on the grandmother with little influence by the mother[41, 44-46]. The grandmother is usually involved in the care of the pregnant mother and the newborn immediately after birth[47]. Therefore, they are instrumental in deciding which foods the infant receives other than breastmilk. In a study conducted in Malawi, some of the most common foods presented include ‘mzulwa’ (a root infusion), ‘dawale’ (a herbal infusion), water and porridge[47]. ‘Mzulwa’ is the most common substance given to the child before 6 months because of its protective powers against illnesses. A common illness such as ‘moto’ (fast breathing, coughing, white mucus and low weight for the child) was cured by ‘mzulwa’[47].

Grandmothers decide when an infant should begin complementary feeding [46]. The grandmother gives ‘dawale,’ water and porridge to infants below 6 months of age when the mother doesn't have enough breast milk. The grandmother also decides when a child stops breastfeeding and the frequency of child feeding when the mother is away [46]. Grandmothers can also take away a child if they believe (s)he wasn't cared for well [46]. Mothers and grandmothers sometimes disagree on childcare and child feeding practices. But, the woman's ability to make decisions over her children's nutrition gets compromised because of the inter-generational power between her and the grandmother. Grandmother power usually stems from the influence mothers have over their sons [46]. Mothers may affect their son's marital relationship by recommending divorce. Many women fear divorce due to the lack of financial security they get from the man. Thus, women obey grandmother's regardless of knowing appropriate child feeding practices [46].

2.4 Intra-household Preferential Food Distribution

The primary determinants of child nutritional status are child's dietary intake and disease. The underlying factors include household food security, nutritional status of the mothers, childcare

and other surrounding environmental factors[48]. In areas where the girl child is valued less than the boy child, gender inequality is a contributing factor to undernutrition since the boy child receives preference during food distribution[49, 50]. However, the energy and protein requirement intake for children 5 years and below is the same for both boys and girls [51]. In a study conducted in Eastern Kenya, girls had a higher prevalence of moderate (-2 S.D.) and severe (-3 S.D.) malnutrition compared to boys[50]. In a similar study conducted in India, more girls were underweight, stunted and wasted, respectively when compared to boys (5.9%, 51.4%, and 42.3% girls vs. 46.6%, 40.5% and 35.3% boys)[49]. In both cases, the differences were attributed to the variation of dietary intake while controlling for infectious diseases[49, 50].

Preferential food distribution is defined as favoritism in food distribution to certain household members through increased food quantity, improved food quality and other forms of preferences not affecting diet such as serving priority[51]. Several countries across the world practice preferential food distribution but most of the studies are in South Asia[52-56]. There are several patterns to preferential food distribution which include individual characteristics of the household members (i.e. sex, age, birth order), economic approaches (i.e. contribution to household income), and cultural perceptions of ideal body type (i.e. fat or thin body size)[51, 57-60].

The theoretical framework on household food distribution includes four components ordered in levels. The first tier is food selection which includes who selects the foods available in the community market and the selection process. The second tier is food preparation which includes who cooks the food in the household and the preparation process[61-65]. The third tier is food serving which includes the identity of the food server, the serving order for individuals in the household, the server of the food, and distribution of food quantity and quality among

household members [61-65]. The fourth tier is food allocation patterns which include the dynamics in the household based on the status of an individual in the household and transitory states like pregnancy or illness. [61-65]. It is important to note that the levels build up to each other and relationships across the four levels can be explained in the food distribution framework.

Among the Fulani community in Niger, the Bororo sub-tribe believed that the human and bovine species were equal and complementary to one another[66]. Like most communities in Northern Kenya, the Bororo had special ceremonies where individual status determined meat consumption and distribution in the household. In most cases, meat allocation and distribution were in portions based on sex, age, and the role of the different people in the household[66]. However, during betrothal and naming ceremonies, meat was allocated to individuals as opposed to age-groups/peers[66]. Some of the groups in which allocation and distribution of meat were based on included adults (both old men and adult men who held a leadership position in the community); young men; married women with their children and old women. The Bororo sub-tribe also believed that a particular part of the animal was allocated to group/individuals in the household based on the qualities they share in the mysterious connection between human beings and their cattle[66]. For example, the women receive the intestines, which include the stomach, the uterus, the large and small intestines, because of their procreation capabilities. They also received the hind quarters of the animal because they always follow the man. Thus, understanding the reasoning in preferential food distribution will determine its impact on child nutrition, especially on ASFs.

Contributions women make in sustaining pastoralism, and its impact on child nutrition is often lacking. But, women play a critical role in maintaining pastoralism and are instrumental in

improving child nutrition. Women's contributions to the household while men are away herding animals is essential to sustaining their livelihood. There is limited information about the influences maternal figures have on child nutrition in pastoral contexts. This paper will explore the role and the status of women in pastoral communities. It will analyze maternal figure's impact on child nutrition and describe the patterns of intrahousehold food distribution with an emphasis on ASFs.

Chapter 3

3.1 Aims and Overview

International Livestock Research Institute (ILRI) and Emory University conducted a cross-sectional exploratory qualitative research study to understand the domains of women's empowerment and how they influence maternal and child nutrition in pastoral communities in northern counties in Kenya. The cross-sectional exploratory method collected a snapshot of the core issues needed for the rapid ethnographic analysis. Focus group discussions (FGDs) were used to assess valuation, allocation and prioritization of ASF in the household; gender roles and status in the management of livestock and livestock product; decision-making and final say regarding use, sale and purchase of ASFs. Moreover, use of FGDs fostered meaningful discussions within groups and enabled the collection of varied cultural beliefs and practices, behaviors and perspectives from the participants in one setting.

3.2 Study Setting and Sampling Strategy

Kenya consists of 23 Arid and Semi-arid Lands (ASALs) with 9 of them being arid and 14 semi-arid[67]. Nomadic pastoralists tend to live in the arid lands and agro-pastoralists live in the semi-arid lands[67]. ASALs are characterized by low human development, low population density, and poor infrastructure[67]. Out of all the provinces in Kenya, Northern Kenya has the lowest measures for indicators of child nutrition. While most of the children in Northern Kenya breastfeed within the first hour after birth, the province has the shortest median of duration of any breastfeeding in Kenya (19.4 months)[68]. Adherence to IYCF practices (3%), consumption of vitamin A-rich foods (25%), iron-rich foods (21%) and deworming medication (21%) are also low in the region[68]. Overall, Northern Kenya has the lowest percentage on micronutrient intake in Kenya (55.1%)[68].

The research was conducted from June through August of 2016 in Marsabit and Isiolo counties, which are part of Northern Kenya. The two counties were selected based on the safety and stability of the region compared to other counties in Northern Kenya. The selected counties also possessed the heterogeneity in socio-cultural and economic contexts, and sedentarization, which were essential to the objectives of the study. FGDs were conducted on the ward level which was different for each of the counties. Laisamis, Korr, Turbi, Sololo, and Moyale wards are in Marsabit county, and Burat, Kinna, Merti, Oldonyiro and Ngaremara wards are in Isiolo county.

The study participants were recruited from two groups namely young women aged 15-40 years with at least one child below the age of 2 years, and older women >45 years with at least 1 grandchild. Purposive sampling was used to obtain a sample of 10 to 12 women from each group of women who were diverse in social economic status, education, age, family structure and number of children. The ILRI county representative notified the ward officials about the purpose of the study and the importance of their community members participating in it. Thereafter, prospective participants were notified about the study by their village representatives and/or elders within their community.

3.3 Data Collection

A total 66 FGDs were conducted with 22 each on nutrition, women's empowerment and livestock value chains across four groups of respondents, namely younger women (pregnant or with young children < 3 years), elder women, elder men and husbands of young children. FGDS were conducted in the language / dialect selected by participant groups.

Table 1: Characteristics of Study Sample and Format		
Domain	Number of FGDs	Participant Group
Nutrition	11	Older Women
Nutrition	11	Young Women
Empowerment	11	Older Women
Empowerment	11	Young Women
Livestock Value Chain	11	Older Men
Livestock Value Chain	11	Young Men

The FDGs were structured with a mixture of open-ended questions and activities aimed at engaging the participants fully in answering the research questions. Extensive literature review and review of other FGDGs used in nutritional studies were conducted during the development of the interview guide. Some of the topics covered in the interview guide include timing of meals and nutritional knowledge; differences in meals across poverty levels; seasonal calendar on availability of ASFs; allocation and consumption of ASFs; social influencers on maternal and young child nutrition, and breastfeeding and complementary feeding practices.

Although the national language in Kenya is Kiswahili, the FGDs were conducted in the ethnic dialect widely spoken in the ward to include all those who met the sampling criteria. Samburu dialect was spoken in Laisamis and Oldonyiro. Turkana dialect was spoken in Ngaremara. Rendille dialect was spoken in Korr; Gabbra dialect was spoken in Turbi. Borana dialect was spoken in Sololo, Moyale, Burat, Kinna, and Merti. In rare cases, some participants could speak a few words in Kiswahili but then revert to their ethnic dialect.

Pre-testing and refinement were conducted at ILRI headquarters in Nairobi before embarking to the field. Within the first week in the field, additional piloting was conducted in Laisamis ward. Thereafter, refinement and clarification of the research questions were conducted as necessary before data collection commenced in each ward / county. Throughout the study, an iterative approach was applied in developing the FGDs and in the data collection process especially when switching from one ward and/or county to another. This was essential to enhance collection of rich data and to further capture the differences within the communities.

3.4 Training

The FGDs were conducted by trained facilitators who spoke the dialect specific to the ward where the interview was being conducted. A total of 22 (11 per county) facilitators, translators/interpreters and note-takers were trained to facilitate study activities. Training was conducted once in each county, before data collection commenced. The facilitators, translators/interpreters and note-takers were trained on the importance of and how to conduct qualitative research. Emphasis was placed on active listening and rapport formation within the group members and with the facilitator. Moreover, different views and opinions to the issues discussed in the questionnaire were highly encouraged. Demonstrations and role playing of the data collection process were conducted to solidify the concepts discussed in the training sessions. After the training, copies of the different FGDs were handed to the facilitators so that they could practice the evening/night before facilitating a session.

3.5 IRB/Informed Consent

The protocol and Institution Review Board (IRB)/ Institutions Research Ethics form (IREC) form was submitted and approved by Emory IRB and ILRI respectively. FGDs were conducted in a secluded area under a shade in the villages within a ward. The interviews were

approximately 2 hours and 45 minutes and majority of them were recorded after consent from the participants. Participants were offered Ksh.300 for compensation of their time. Informed consent in the form of signatures and/or thumb prints were obtained from all participants before the interview began.

3.6 Data Management

FGDs were audio-recorded with participant permission. Trained note-takers and translators/interpreters were present in the FGDs to translate the discussion verbatim for the student researchers and to fill out the data collection charts respectively. Translation was usually from the ethnic dialect to English. Due to financial constraints, verbatim transcription of the FGDs were not conducted; instead thorough field notes were written by the researchers following each FGD and debriefs with the facilitators. However, with support of facilitators, some sections of the FGDs were transcribed because specific quotes were required to further support the final report, which was submitted to ILRI. Information collected from the participants were confidential and were only shared with the research team. The data collected was de-identified and the data collection charts were stored in locked premises, which could only be accessed by the research team. Transfer of information from the data collection charts to electronic copies were conducted by translators/interpreters and the student researchers. The information was stored in password secured laptops accessible to only the research team.

3.7 Data Analyses

The nutrition and women's empowerment field notes were analyzed for the purposes of this thesis. The student leads on nutrition and women's empowerment combined both the young and older women field notes to form 11 site briefs for each of the topics. Therefore, 22 site briefs

were read, 'memo-ed', and coded using MAXQDA10 Qualitative Analysis Software and two codebooks were developed.

Codes were developed inductively and deductively with a thematic analysis approach[6]. Thereafter, codebooks were shared between the student leads on nutrition and women's empowerment and coding strategies reviewed for each domain. Coding and codebooks were revised and fieldnotes were re-coded as needed. Inter-coder reliability was assessed and the discrepancies were addressed in 5 of the site briefs. Triangulation of the final analyses was conducted to further validate the findings.

3.8 Limitations

Lack of verbatim transcripts, due to funding constraints was a major limitation throughout the data collection and analysis process. This is because key concepts and themes developed in the analysis of the detailed field notes couldn't be grounded in data. Moreover, there stands a possibility that some of the discussions and/or claims made by the women were taken out of the conversation context since only a portion of them were transcribed. Translation of the ethnic dialect directly to English without back translation might also result to the loss of important information, which could have impacted the results in one way or the other.

Nevertheless, the purpose of the study was to give a snapshot of the issues that need to be further explored in the quest to understand women's empowerment in pastoral communities. Therefore, general themes presented in this paper could form a foundation to future analyses if funds for verbatim transcription become available.

Chapter 4

4.1 Role and Status of Women in Pastoral Communities

Division of Labor

An underlying determinant to women's role and status was the division of labor. Women cooked, cleaned both the house and the homestead, and cared for the children. Women also milked and watered animals such as cows and goats. Women's education did not appear to affect their household roles and responsibilities. Most of the young women had some form of formal education, but they would drop out of school to get married. Lack of school tuition and support from their family were additional reasons they would drop out of school. In some cases, families would rather support a male child through school as opposed to a female child. Communities perceived male children had a higher chance of obtaining salaried employment. Among the older women participants, the majority of them had no formal schooling.

Men were the main caretakers of all the large animals. Thus, herding and milking of animals such as the camel delegated to the man. When the husband was not there another man in the household or homestead or community would milk the camel because the camel is a big and tall animal, so the community perceived it to be difficult for the woman to milk. It was on rare occasions that you would have one of the sexes perform a role not designated to them. It is important to note that it was more likely for women to assume male roles but not vice versa. For example, some women would go to the animal markets to buy animals, but a man would never perform house chores. 'Moraans' were the only group of men who performed house chores because they lived outside the community. 'Moraans' are the community warriors and are usually young unmarried men.

Ownership of Livestock

If the man died or was too old to take care of his livestock, the older son would inherit his livestock. He would then take over the role of caring for the family. In cases where the man had more than one son, he would share his livestock among his sons and give none to his wives. The only time a woman owned animals was through women groups. They would buy goats or sheep since they were the easiest to manage and least expensive. Women possessed a limited income of their own, and it was often insufficient for purchasing animals. Restricted access to income and inheritance rights meant that female-headed households were poorer than male-headed households. Women preferred to buy food for the family before spending the money on anything else.

Far distances to both the animal and general markets was reportedly a significant inconvenience for women when purchasing food or engaging in livestock markets. Traveling to and from the animal market took several days. Most women couldn't be away from the household for too long because of their daily chores. As for the general market, it often took the whole day to travel back and forth. But, women in some regions had devised schemes to manage excessive workloads. For example, in some communities' groups of ten or so women would form a team. Then everyone wrote down a list of food they needed from the market. So, one of them would buy the food (s) on behalf of the others. The next week they would alternate until all 10 women had gone to the market before the cycle started over.

Family Structure

Women in female-headed households had more control over livestock because they made major decisions over livestock buying and selling. Married women too had instances where they had control over livestock. But only when the animals were young and the men were away herding. For example, when the man went to graze the small and large animals they would leave behind the

kids, lambs and calves. The care of these animals was the role of the young boys in the household. But, the women were the ones taking care of the kids, lambs and calves because they would be blamed if the animals were to get lost. The consequence for losing an animal would be to search for it until it was found or not come back to the home at all.

Islamic communities were either sedentarized, agro-pastoralist or satellite-mobile and they lived in the town area. Satellite-mobile is an arrangement where the women and the children lived in the town while the man was herding the animals in a different location. Communities that practiced traditional religion were nomadic, and they lived far away from the town area. Polygamous families were not uncommon. Co-wives and their children lived in separate houses, but they all shared a homestead. A co-wife's position in marriage determined their role. Among the traditionalists, all the wives slaughtered an animal during special ceremonies. For example, during Passover/ 'Sorio' in mid-April to mid-May and 'Sondere' in September. But, in February during 'Harafa' only the first wife slaughtered an animal.

In sedentarized communities, co-wives had the option of living in separate homesteads. Thus, there was a greater variety of living arrangements among this group. In nomadic communities, families lived together in the same homestead. Thus, there were several homesteads in a satellite camp. In Islamic communities, it was common to find the husbands favoring the younger wives. Thus, a large part of the money earned by the man would go to the younger wife. Among traditionalists, the number of children a woman had determined the income distribution. Thus, the more children a woman had the larger her share of the household income or foods bought in the market or meat when the husband slaughtered an animal in the household.

In some of the monogamous marriages, there seemed to be some form of equality between the sexes because both sexes had a say in how the money from the sale of livestock and livestock

products got spent. Respondents indicated that women's involvement in decision-making was dependent on the character of the man. Good men would involve their women and bad men would not. In polygamous marriages, equality was dependent on the woman's relationship to the husband. The favored wife received more livestock or a larger share of household income. Each of the wives had a part of animals allocated to them for milking purposes. Allocation of the animals to each of the wives was arbitrary. The head of the household ensured that each family had animals to milk because milk was the primary source of food, especially in nomadic communities. In all relationships between the man and his wives, he was the head of the household. Thus, he made decisions on all the livestock in the homestead.

Buy and Sale of Food

In all the communities, women managed some of the animal produce with emphasis placed on milk because it was the woman's duty to perform milking of the animals. Thus, she had the jurisdiction of deciding how much of the milk to sell or leave in the household. Even when the man milked the camel, he always brought back the milk to the household for the woman to decide. Some communities considered it a taboo for the man to make decisions over the animal milk. Women in nomadic communities left most of the milk in the household because milk was their primary source of food. Women in sedentarized communities sold most of their milk to buy other foods and to pay for school fees. Women sold the milk to neighbors or shops close to their household because it was time-saving and convenient.

Women used the money they received from their husbands or from milk sales or casual work to buy food. If the money was from their husbands, they would discuss with him the foods they could buy from the market because he regulated the household budget. Money earned by the women would buy whichever foods she thought were necessary. Women bought corn and beans

from the market because they were affordable, filling and they could last a long time since they were dry. Women rarely bought meat and milk from the market because they were expensive. Some women would only buy fruits and vegetables on the market day then consume it for the next two days. After that, they would revert to corn or beans and, rarely, rice. If the women had extra money, they would first use it to buy more food for the household. Some of the foods purchased include corn, beans, and rice because they were dry and lasted long. The remaining money was for school fees, school uniform, and books. Some women even mentioned starting a small trade. The man covered all the health care expenses for both the woman and the children in the household. In agro-pastoral communities, the man decided which foods were grown in the household. They would also decide how much of those foods produced would go to the market. In communities that did not value poultry, women had control over the chicken and egg sales.

4.2 Social Influences on Nutrition

Grandmothers as Caregivers

The eldest woman in the household influenced child health, especially nutrition. The elder woman usually the paternal grandmother lived in the same household/ homestead. In nomadic communities, the paternal grandmother lived with the first-born son and, thus, had a stronger influence on children's nutrition in that household. In other cases, all the sons of the paternal grandmother would live in the same homestead. Thus, the elder woman still had a significant influence on the children's nutrition. Not only did the paternal grandmother influence IYCF practices, but also directly provided childcare when mothers went to the market or to work.

Unlike the paternal grandmother, in most communities, the maternal grandmother had limited influence on child care. The maternal grandmother could only visit the mother following the birth of a child. Moreover, she could only care for the mother and baby for the first few days. In

other cases, visitation by the maternal grandmother never occurred because a married woman leaves her family to join her husband's family. Thus, the woman is moving from the jurisdiction of her mother to that one of her mother-in-law. In sedentarized communities, neither the maternal nor paternal grandmother lived in the household because they lived far away and could only visit for a short time before going back to the village. Thus, the woman had more control over her children's nutrition. In some cases, the maternal or paternal grandmother stayed to take care of the mother. Then they would have an influence on the child's nutrition. But, typically other elderly women in the community and other mothers with older children filled that gap.

Breastfeeding and Complementary Feeding

Mothers reported that most women in their communities initiated breastfeeding within thirty to forty-five minutes after birth. In nomadic communities, the traditional birth attendants, an older woman, performed deliveries because the women lived far away from the health center. Thus, she was a significant influence on foods or substances given to the baby before breastfeeding. But, the new mother and the child would go to the health center a few days after birth for a checkup. In sedentarized communities, the woman gave birth in the hospital with the help of a healthcare professional usually a nurse or a doctor. Most of the women preferred having a female healthcare provider because they were shy when naked around men.

In regards to sustaining exclusive breastfeeding, grandmothers encourage early introduction of complementary foods. The introduction of other foods typically occurs when the baby is three to four months. Even when new mothers have received educational information on exclusive breastfeeding, grandmothers' influence remains strong because new mothers fear conflict with the grandmother. Grandmothers were respectable figures in the community and custodians of cultural beliefs and practices, especially in the care of new mothers and babies. When the mother didn't

have enough or any breast milk babies took glucose with water. They were also fed water with animal milk or sugar with animal milk. Babies had the same foods even when they were hungry usually signified when they cried a lot. In other communities, children took a drop of water called 'anqar' after birth. The community believed the baby had drunk amniotic fluid and their throats were dry.

In Islamic communities, boys would taste dates/ honey before breastfeeding because of an Islamic tradition called 'Sunnah.' The community believed that the boy child needed to know that life had sweet times and things. Among the traditionalists, boys would taste honey and a bitter herb called 'Saiyet.' The honey signified sweet times in life, and the herb signified painful times in life. Some of the common ailments children suffered from include fever, diarrhea, and vomiting. If a child were sick, they would receive special herbs. For example, 'Fitto' was for fever and 'Kitunguu Saumu' was for pneumonia. Usually, the herbs were wrapped in a cloth tied to the wrist or stepped in bath water. The herbs were also sniffed into the system to cure the baby of the ailment. Other women would take the child to the hospital. In extreme cases, grandmothers would recommend removing both the upper and lower canines when the child didn't seem to be growing.

4.3 Intrahousehold Preferential Food Distribution

Food Selection and Preparation

Women had some say in the selection and preparation of the food in the household. Sometimes they would have young girls or other women in the household help them. Food selection and availability depended on the household budget and whose income was being used. If the money were the woman's, then she had a say in which foods were bought from the market. Otherwise, the male head of household or husband decided which foods to purchase in the market. Decision-making on foods grown in the household (i.e. maize/corn) and sale of those foods depended on the

man. Decision-making on milk and its products depended on the woman in both nomadic and sedentarized communities. But, women in sedentarized communities had a wider and convenient market for the sale of their milk. Therefore, they made more money from the sale of milk compared to nomadic communities. Women in sedentarized communities also had other opportunities to make income which was from the sale of charcoal, firewood, cooked food in the markets and housework for the wealthy.

Food Serving and Allocation

The women were the ones who served the foods after preparation. Women prioritized men, usually the head of the household, for meat. Prioritization of men was because they were considered the “breadwinner” and were always hungry and craved meat. The women also mentioned that they loved their husbands very much so they wanted to give him sweet things. The women believed that men would be strong if they were served meat first. For some it's because they wanted the man to stay with them. The women believed the man would go look for another woman who would serve him meat first. In other cases, the man was usually present during food preparation. Thus, they served him first. *Participant: “First will be first (men), then children and last is the mother”*. In situations where a pregnant woman was present in the household, she would be prioritized for meat. Mothers prioritized children below five-years-old for milk first. They were in second in prioritization for meat usually after the man or the pregnant woman. After that, all the other children greater than five-years-old received milk and meat. Children received fruits and vegetables first because they were sweet, soft and ready-made. Fruits also contained vitamins that prevented anemia and made children healthy. Men didn't eat fruits because they perceived them to be children's foods. They also didn't eat vegetables because they perceived them to be food for their livestock. Women unless elder or pregnant were always served last in all the foods offered in the household.

There was a preference in serving of the different parts of the animal. Young boys ate the kidney/‘ngalur’, intestines, lungs and chest. Young girls ate one of the forelegs, liver, and spleens. The men ate the animal head, the head of the liver and back of the limb. They also ate a fatty part of the chest referred to as ‘antharaf’ thigh of the hind leg and tongue. Women ate both the large and small intestines, the neck and heart. Older women ate the back, and the married young girls ate the lower backbone. If any of the individuals ate a part of the animal that wasn’t allocated to them, then there would be consequences. For example, if a woman ate or even tasted a part that belonged to the man she received a fine. The fine would be bringing a goat/sheep from her parent’s home to replace the part that she ate or tasted. *Participant: “Your hand or leg will break if you eat a part that isn’t yours”.*

In other cases, there were specific parts of the animal for certain household members. For example, the tongue was only eaten by men because the communities believed that women and children would talk a lot if they ate it. Men weren’t allowed to eat intestines because the communities thought it would make them cowards. Women and young girls weren’t allowed to eat the tail of the animal because it would cause them to wander around/ ‘watazurura’ and not stay in the house. In some communities, men only ate the heart but not the spleen, pancreas and kidneys because of cultural beliefs attached to those cuts of meat. In some sub-tribes, such as the Gonabala in the Borana tribe, men didn’t eat the forelimbs/ ‘irre’ because it was a taboo. The Karayubere sub-tribe of the Borana tribe weren’t allowed to take camel products because it was a taboo. But, in most communities in Northern Kenya when a camel died they wouldn’t consume its meat because the camel is an adamant animal and doesn’t die easily. Thus, when it dies something serious must have happened to it.

Boys received preference in the allocation of food substances compared to girls. For example, the Laisi clan in the Samburu tribe would give boys honey and a bitter herb 'Saiyet.' In Islamic communities, boys would taste dates/honey because of a religious tradition called 'Sunnah.' Allocation of ASFs was dependent on the individual's status in the household and their needs. For example, the elderly received similar treatment as children because they were weak, they didn't have teeth and were perceived to be as vulnerable as a child. Thus, in some communities' allocation of ASFs was similar for the children and the elderly. During severe food scarcity, children five-years-old and below were always prioritized before other household members. If a baby was born in breach position, (s)/he and also the mother wasn't supposed to eat the lower back of the animal/ 'mogole'. Twins and firstborn children weren't supposed to eat the kidney. In both cases, they were because of cultural beliefs. Traditional doctors or people with power weren't supposed to eat the backbone leg/ 'mogole' because the community believed they would lose their power.

The pregnant woman in the household had preference over the man and children in some cases. The community believed a pregnant woman would have a miscarriage if she didn't eat meat. Expectant mothers received milk first because they didn't eat household food, especially during the third trimester when the baby was big. The community believed that big babies caused difficulty in delivery. Pregnant women received milk first to ease heartburn. The community believed that heartburn was because the baby was growing hair. Expectant mothers received fruits first when the doctor recommended it. In other cases, she received fruits first because it would give both the mother and the baby strength. Lactating women were only prioritized in milk allocation immediately after birth because the community believed milk would boost the mother and baby's energy. Milk would also heal the womb of the mother because it was weak and wounded after birth. Women who weren't pregnant or lactating were the last ones to receive any form of food in the

household because they were the ones cooking the food. It was believed that women tasted and ate the food while it was in the pot. Other communities believed that it was courteous for the person that cooked to eat last because they smelled the food during preparation, so they weren't as hungry as those who are waiting for it.

Chapter 5

5.1 Discussion and Conclusions

The functionality of pastoral communities and the utilization of environmental, economic and social resources impacts the roles of the sexes in the household. The roles of the man and the woman are considered both complementary and dependable[27]. Women play an integral role in sustaining pastoralism because they are in control of basic household conditions (provision of food, water, shelter, and health), which subsequently affects child nutrition [27, 69]. In most lower income countries, women are the primary caregivers. Therefore, they directly impact child nutrition, child care and child health[69]. Women's role and status in the household impacts child nutrition through food security, child care and access to health services[69]. Women's role and status in connection to social influencers such as maternal figures impact child nutrition. Grandmothers play a critical role in creation and maintenance of cultural beliefs and practices that affect child nutrition[41]. Women's role and status in connection to intrahousehold preferential food distribution affect child nutrition through food security and preferential food distribution in the household [51].

The role and the status of women in pastoral communities were defined by the division of labor in the household and the family structure, which encompassed the relationship between co-wives and their relationship to the man. Childcare, cooking, cleaning of both the house and the homestead, milking of animals such as cows and goats, and watering all animals were roles designated to the woman. Men were considered the main caretakers of all animals, therefore, herding and milking of animals such as the camel were roles designated to the man. Due to the division of labor between the sexes, men had more control over the large animals' sale, and slaughter and women had control over all the milk sales. Among those that practiced traditional

religion, all the wives were required to slaughter an animal during the season of ‘Sondere’. However, during ‘Harafa’ only the first wife was required to slaughter an animal. Distribution of earned income in the household was dependent on the marriage position of wife and the number of children born to each wife. The younger wife and the woman with more children received the larger her share of the household income, foods bought in the market and meat when the family/ husband slaughtered an animal. Maternal figures had more influence over child nutrition in nomadic communities compared to sedentarized communities. In nomadic communities, the paternal grandmother lived in the same homestead as all the sons. She occasionally provided childcare to those households when the woman went to the market or work. In sedentarized communities, both the maternal and paternal grandmother lived in different locations. Therefore, elderly women outside the homestead but within the community or other mothers who had older children filled that gap. Practices on preferential food distribution were observed more in nomadic communities compared to sedentarized communities. However, the differences between the two groups were either related to cultural or religious belief and practices. However, more research on the quantity and quality of food distribution needs to be explored. Overall food distribution in nomadic communities was mostly based on sex, individual status in the household and individual needs.

The Longwe model of women’s empowerment in the livestock context has increasing levels [7]. The first level is welfare denoted by acquiring food, clothing, and shelter. Among communities in Northern Kenya, women bought food, clothing and built shelters. But, the majority of these women didn’t take part in the decision-making process over the household food budget. Thus, women’s empowerment is not merely provision of food, but also the acquisition of money to buy the food. Among Northern Kenya communities, women had autonomy over the household budget

only if she had earned the money. Like other pastoral communities, women earned most of their income from the sale of milk. But, women in sedentarized communities had more opportunities to earn an income compared to their nomadic counterparts[16, 18, 19]. Living in a town created opportunities for sedentarized women to participate in petty trade, gather and sell firewood, burn charcoal and work as housemaids[70]. It also provided them a vast and competitive market for the sale of milk[18]. Women in both pastoral and agrarian communities spent their extra money on food for the household before spending on other things[39, 40]. Therefore, children's nutritional status in sedentarized communities should be better than nomadic children because women in the former have more money to spend on food. Contrary, children below 6-years of age in sedentarized communities have poor nutritional outcomes compared to nomadic children[23]. Thus, women's acquisition of money to buy food doesn't directly translate to improved child nutritional status. Thus, to better understand women's empowerment in the livestock context, empowerment needs to go beyond the provision of food. But also, include ways of money acquisition and negotiations on household food budgets, in particular on the quantity and quality of food bought or sold in the household to impact child nutrition.

An empowered woman has the power and autonomy to make decisions over key spheres of her life. The second level of empowerment in Longwe's model of women's empowerment is accessing resources[27]. Accessing resources is described as having opportunities and the power to access resources necessary for survival. However, for a woman to provide the basic needs for her family, she needs to have access to resources. Thus, an empowered woman is one who participates in the decision-making process and has the final say over the household food budget regardless of whether she earned the money or it belonged to her husband. Among communities in Northern Kenya, men were the main caretakers of all the large animals. Thus, herding and milking

of animals such as the camel were roles designated to the man. Like most pastoral communities, livestock management and trade, politics and religion were spheres assumed by men [28-32]. Women mostly performed house chores and had control over the sale of milk in the household[33]. In the energy relations model, the female is automatically assigned the role of reproduction due to their biological functions and anatomy[36]. Thus, leaving the role of defense and subsistence to the male to balance the energy utilization between the sexes. Through this, the man gains power and higher status because they are overseeing the political and economic resources in the environment[36]. Similarly, men in pastoral communities have a higher status because of their role as caretakers of all the large animals. Men are usually away for weeks to months in search of pasture for their animals. Women tend to remain behind to care for the family and the household. Thus, male dominance in pastoral communities stems from economic control interlinked to their role as the primary livestock caretakers[33]. Conversely, female subservience stems from undervaluation of women's role as household caretakers [35]. But, the roles of the man and the woman are both complementary and dependable in sustaining pastoralism[27]. Thus, to better understand women's empowerment in the livestock context women's contributions in the household need to be valued. When power is equally shared between the sexes, each of their contributions is equally valued. When women are equally valued as men, then they will be involved in the decision-making process and final say over all household decisions not only the household food budget.

In African contexts, male dominance is an aspect of economic control and not the man's belief of innate female inferiority[33]. Thus, there are times the woman will enter the subsistence sphere when the man is dispensing a lot of energy in defense or when the environment favors female energy utilization. In pastoral communities, women often take care of the remaining

animals when men take the large herd to search for pasture. Thus, women in pastoral communities can assume men's duties while they were away as well as perform their duties. In such cases, the woman will develop power, which can increase over time depending on the level of autonomy she has in performing both male and female duties. Therefore, female status can also be defined as a function of women's involvement in subsistence or defense activities[35]. This scenario is common in female-headed household where the woman is either a widow or a divorcee. But in most cases, women often prefer the subsistence over the defense sphere because they can continue with their role of child caring.

In pastoral communities, grandmothers had a major influence on child nutrition like agrarian communities[41, 44-46]. Grandmothers in both pastoral and agrarian communities encouraged early introduction of food or substances given to the infant before 6 months. In agrarian communities in Malawi, grandmothers gave 'dawale,' water and porridge to infants when the mother didn't have enough breast milk[47]. In Northern Kenya, grandmothers gave water with animal milk or sugar with animal milk to infants when the mother didn't have enough breast milk. But, the influence of grandmothers differs across sedentarized and nomadic communities. In both cases, the paternal grandmother had more influence than the maternal grandmother. Paternal grandmothers in sedentarized communities lived in a different location while in nomadic communities they lived in the same household/homestead. Thus, grandmother influence in sedentarized communities was less compared to nomadic communities. Grandmothers have a strong influence on their son's marital relationship and can even recommend divorce [46]. Thus, women obey grandmother's even when they know appropriate child feeding practices. Similarly, in Kenya, new mothers fear conflict with the grandmother. Even when new mothers have received educational information on exclusive breastfeeding, grandmothers' influence remains strong. Grandmothers are

viewed as respectable figures in the community and custodians of cultural beliefs and practices especially in the care of new mothers and babies.

Several countries across the world practice preferential food distribution with most of the studies being conducted in South Asia[52-56]. Limited information is available on food distribution in Africa with most of it focusing on agrarian communities[71]. In Northern Kenya, intrahousehold preferential food distribution was mostly observed in nomadic communities with some aspects reflected in sedentarized communities. Patterns in preferential food distribution were based on individual characteristics of the household members (i.e. sex, age, birth order), economic approaches (i.e. contribution to household income), and cultural perceptions of ideal body type (i.e. fat or thin body size)[51, 57-60]. In Northern Kenya intrahousehold preferential food distribution was based on sex, individual status in the household and individual needs. Lack of information on the nutritional value of specific animal organs/parts makes it difficult to determine the impact prioritization of ASFs has on child nutrition between the sexes. But, certain foods or substances are given to male children and not to the female children. For example, the Laisi clan in the Samburu tribe would give boys a taste of honey and a bitter herb 'Saiyet.' In Islamic communities, boys would taste dates/honey because of a religious tradition called 'Sunnah.' In both cases, the honey/dates signified sweet times in life, and the herb signified bitter times in life. Among the Fulani community, the Bororo sub-tribe believed that specific parts of the animal were allocated to group/individuals in the household. The allocation was based on the qualities the individuals share in the mysterious connection between human beings and their cattle[66]. For example, the women receive the intestines, which include the stomach, the uterus, the large and small intestines, because of their procreation capabilities[66]. For example, the women receive the intestines, which include the stomach, the uterus, the large and small

intestines, because of their procreation capabilities[66]. Similarly, women in Northern Kenya were allocated the large and small intestines. However, the communities mentioned that it was a cultural practice and not a magical connection between humans and their animals. Conversely, prioritization of men for meat was because they were the “breadwinner” and were always hungry and craved meat. Thus, it is possible that allocation of specific animal organs/parts allocation could have a deeper meaning beyond being a cultural practice.

5.2 Public Health Implications and Recommendations

It is essential to ensure that women’s role and status in providing basic needs for the family are met to understand women’s empowerment and its impact on child nutrition in Northern Kenya. Money-generating opportunities, other than the sale of milk, need to be explored so that women can have a stable income to buy food and to cover other household expenses. When women can provide the basic needs for their families as well as have a dependable source of income they will rise above the poverty level. Research on the valuation of the division of labor and gender roles should be conducted to determine pathways of intervention that will decrease gender disparities. Workshops and demonstrations on healthy conversations should be carried out to equip women with strong negotiation skills, which will be handy during household food budget discussions. When women participate in the decision-making process and have the final say over household food budgets, they can advocate for more nutritious foods to remain in / be bought for the home. Further analyses on the role of maternal figures need to be conducted to ascertain the pathways in which their influence takes place and manifests itself. Participatory Dialogues on child nutrition amongst mothers and maternal figures should also be carried out [27, 51, 72]. Particular focus should be placed on education messaging on breastfeeding, complementary feeding, IYCF practices, and quality and quantity of different

foods. When all women, both young and old, are aware of the importance of healthy foods and practices for children, it will lead to an improvement in micronutrient intake in Northern Kenya. Research on the nutritional value of the different animal organs/ parts and traditional fruits and vegetables need to be conducted to determine its influence on child nutrition and to ascertain gender disparities. Conventional fruits and vegetables can be used to substitute those bought from the market, which will reduce the household food budget and indirectly impact child nutrition. Intervention messaging addressing the impacts of preferential food distribution on child health need to be conducted with men being the focus. Overall, a lot is yet to be done to fully understand the linkages between women's empowerment and child nutrition in the pastoral context. However, themes presented in this paper can be used as a guiding principle for further research in women's empowerment in pastoral contexts. Moreover, the broad explanations of the current state of child nutrition and women's empowerment in Northern Kenya can form a basis for programming in the region.

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