

SOCIOECONOMIC BASIS OF CHILD STUNTING IN MEKET DISTRICT OF
AMHARA REGION: HOUSEHOLD RESOURCES, BELIEFS: CONVICTION
ABOUT CHILD FEEDING PRACTICE, AND MATERNAL EMPOWERMENT

BY

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A THESIS SUBMITTED TO THE DEPARTMENT OF SOCIOLOGY
PRESENTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF ARTS IN SOCIOLOGY

ADDIS ABABA UNIVERSITY

ADDIS ABABA

FEBRUARY 2020

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**A Thesis Submitted to the Department of Sociology in Partial Fulfillment of
the Requirements for the Degree of Master of Arts in Sociology**

Addis Ababa University

Addis Ababa

February 2020

ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

This is to certify that the thesis prepared by Misganaw Getachew, entitled: *Socioeconomic Basis of Child Stunting in Meket District of Amhara Region: Household Resources, Beliefs: Conviction about Child Feeding Practice, and Maternal Empowerment* and submitted in partial fulfillment of the requirements for the Degree of Master of Arts in Sociology complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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ABSTRACT

The prevalence of stunting is the conventional anthropometric measure that reflects multifactorial social deprivation. Despite substantial reductions in recent years in Ethiopia, the prevalence of stunting in the Amhara Region remains unacceptably high, affecting 47% of children under-five. Several studies have been conducted to explain why this could be the case with a focus on districts, despite they employed nutritional, biological, and economic models. The researcher argues this necessitates a need for an adequate understanding of the influence of socio-cultural and gender factors in the child stunting status. In light of this, a mixed-methods approach was employed to collect and analyze the data needed to address these. Accordingly, information was collected from 303 mothers with stunted children through surveys and in-depth interviews. A group interview with six individuals and key informant interviews were also made with four health professionals and two woreda officials. The quantitative data were analyzed statistically whereas qualitative data were analyzed using a thematic analysis. The research indicated that most of the households lacked land, livestock, trees, and fruits, and produced small. Thus, the food did not last and face food shortages seasonally. The study found that a household's choice of ingredients is often severely limited and the ability to mix the food into a nutritious combination is hampered by traditions and religious values. The research indicated that most of the stunted children were originally from mothers whose ANC and PNC visits were less than four and delivered at home. The study further reveals that the vast majority of stunted children were from mothers married in early life, illiterate, no decision making power within the household, and who did not make trips to market, hospitals, or relatives. Mothers were found busy with domestic tasks, have few social support networks and thus, prepare easily made food and feed children infrequently. In inferential statistics, the variables having assistant with domestic tasks, consumption behavior during pregnancy, stop consuming certain kinds of food during pregnancy, child age, household size, maternal age, and decision on mother's healthcare have a statistically significant effect on severe stunting. The socioeconomic variables and maternal healthcare utilization were found not statistically significant on affecting severe stunting. The researcher recommends that efforts to reduce stunting prevalence should address cultural and gender issues alongside economic issues. Also the need for a further study examining the family legacy of malnutrition where its effect on child nutritional status is strong.

ACKNOWLEDGMENTS

I would like to express my gratitude to my Advisor, Professor Getnet Tadele for his contribution in the course of my study just starting from the title selection to the completion of the study. His encouragement and valuable comments were priceless and made the study viable. It has been a great opportunity for me to be supervised by Professor Getnet.

Many thanks to Helmut Kloos Executive Scholarship program for funding the study. It was an honor and motivational for a novice researcher like me. I am very much indebted to Dr. Helmut Kloos for the scholarship and valuable comments during the study. His constructive and detailed comments were invaluable for the study.

My deepest gratitude goes to officials in Meket Woreda Health Office and health extension workers in each of the selected health posts. They actively helped me in making arrangements with mothers of a stunted child even traveling by foot for hours and they also participated in key informant interviews.

I would like to express my heartfelt gratitude to mothers who participated in the study for giving me their time and stories; without them, there would be no study.

I would like to thank my former teacher Dr. Kibur and colleagues and friends Addisu, Molla, for their support and critical review of the study.

Finally, I am very grateful to my friend Solomon, for his work and patience he showed during supervising the data collection traveling those difficult roads for hours by foot.

ACRONYMS

CSA	Central Statistical Agency
EDHS	Ethiopian Demographic and Health Survey
FAO	United Nations Food and Agriculture Organization
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
ORDA	Organization for Rehabilitation and Development of Amhara
SD	Standard Deviation
UNICEF	United Nations Children's Fund
WB	World Bank
WFP	World Food Program
WHO	World Health Organization

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CHAPTER ONE

INTRODUCTION

1.1. Background

The physical and mental development of under-five children is a determining factor for the development of a country or a region. They are sensitive indicators of a country's health status as well as economic conditions (UNICEF 2009:2). Particularly physical growth is a well-established population-level indicator of overall well-being and social equity. Tanner (1992:115) expressed child growth as a 'mirror of the conditions of society'. Physical growth is also a suitable proxy for children's general health and nutritional well-being (de Onis and Branca 2016:24). Growth assessment thus not only serves as a means for evaluating the health and nutritional status of children but also provides an indirect measurement of the quality of life of a population (de Onis and Blössner 1997:3). Therefore, ensuring the growth of children is a concern of families, communities, and nations throughout the world (Mahmood and Nasir 2014:1009).

The growth of children worldwide varies from region to region and even within communities, to a considerable extent because of differences in livelihoods and nutrition. Because young children are developing physically and mentally and because they depend on others to ensure their health, they are particularly susceptible to socioeconomic, gender and geographic inequities that lead to marked differences in terms of growth and mortality (Black et al., 2013:430). But, children throughout the world have the same potential for growth up to age five, irrespective of where they are born if they are nurtured in healthy environments (Dewey and Begum 2011:5) and born to mothers whose nutritional and health needs are met and if raised in unconstrained conditions (Prendergast and Humphrey 2014:252). But many are not so fortunate. Alarming numbers of mothers and children in developing countries are not getting the nutrition they need (Save the Children 2012:3).

For mothers, this means an increased risk of death or giving birth to preterm or small babies who

are more likely to die or suffer from suboptimal growth and development (Allen and Gillespie 2001:18). For young children, poor nutrition in the early years often means they are too short for their age or will be forever stunted (WHO 2013:1). Stunting or being too short for the age indicates a failure to achieve one's own genetic potential for height. It is a manifestation of severe, irreversible physical and cognitive damage (PATH 2018:2). Globally, nearly 151 million children under-five, or over 22 %-of all children, were affected by stunting in 2017. Africa and Asia accounted for 39 % and 55 % of all children stunted globally, respectively (FAO, IFAD, UNICEF, WFP, and WHO 2018:11). Latin America and the Caribbean Islands had 5.1 million under-five stunted children, while Oceania and North America had 0.5 million under-five stunted children each. Africa is the only continent where stunting is still increasing in absolute numbers, with the highest-burden in sub-Saharan Africa (WHO, UNICEF, and WB 2017:4).

Ethiopia has the 7th largest number of stunted children worldwide, affecting more than 6 million children (European Commission 2017:1). Hence, child growth is one of the main concerns of the health sector in Ethiopia (FDRE 2016a:17). It has now set itself the target of reducing the prevalence of stunting to 26% from 44% in 2020, an-ambitious targets of growth monitoring. A lower percentage of girls, 36 %, compared to 41 % of boys were stunted. The stunting rate in rural areas (39%) was higher than in urban areas (26%). There are also large inequalities in physical development across regions, with the deprivation rate ranging from 15 % in Addis Ababa to 47 % in Amhara (CSA and UNICEF Ethiopia 2018:36). Similar rates were also presented by the Ethiopian DHS reports (2005 EDHS, 2011 EDHS, 2014 mini EDHS, and 2016 EDHS).

Amhara Region has remained the region most highly affected by child stunting. Health inequalities are related to social inequalities in nutrition through complex pathways, including policies addressing health and nutrition (WHO 2018:1), and the nutritional state of the populace both influences and reflects the level and pace of national development. Prendergast and Humphrey (2014:252), in explaining the variation in stunting prevalence across countries and between different populations within countries demonstrated the importance of socioeconomic factors. de Onis and Blössner (1997:1) also stated that all the handicaps of poverty are more important than genetics in producing growth deviation. Thus, poor growth is attributable to a range of factors closely linked to overall standards of living and the ability of populations to meet their basic needs,

such as access to food, housing, and health care. A study by Walker et al. (2007:145) showed that poverty and poor nutrition prevented over 200 million children in developing countries from attaining their full potential development. Poverty is associated with poor maternal education, inadequate food, poor sanitation and hygiene that lead to increased infections and stunting in children. All these factors may detrimentally affect child development. UNICEF (2013:9) stated that children in the poorest households are more than twice as likely to be stunted as children in the richest households.

From epidemiological studies, it is apparent that suboptimal breastfeeding and complementary feeding practices, recurrent infections, and micronutrient deficiencies are important proximal determinants of stunting. However, studies found an association between prolonged breastfeeding and poverty and growth retardation. For example, Cetthakrikul et al. (2018:5) found that child stunting was higher among poor women who breastfed more than 12 months than among their counterparts who stopped breastfeeding earlier in Thailand. Beasley and Amir (2007:4) reported that breastfeeding up to 12 months can reduce child mortality, but heavy reliance on breastfeeding threatens to complementary feeding practice as poor mothers could not afford and rely on breastfeeding alone. These studies indicate the relationship between poverty, breastfeeding and child development.

Growth failure occurs within a more complex interplay of more distal community and societal factors, such as access to healthcare and education, urbanization, food production, and social support networks (Stewart et al., 2013:25). Be'gin, Frongillo, and Delisle (1999:680) revealed that child growth and development also depend on caregiver's resources. Caregivers' resources including education, beliefs, nutritional status, autonomy and control of resources, reasonable workload, and availability of time, and family and community social support have a tremendous influence on child growth and development. These resources influence mother's breastfeeding and feeding of young children, hygiene and health practices, food preparation and storage, psychosocial stimulation and care for children (Be'gin, Frongillo, and Delisle 1999:680). All these issues put mothers, their empowerment, at the forefront in determining the nutritional status of children. Mothers as primary caregivers play a crucial role in the nutritional status of children.

Women's status also affects child malnutrition via food security, maternal and childcare (IFPRI 2003:9). The more independent mothers are to make decisions related to food, feeding practices, health care of children, and allocation of household resources towards her children, the more likely their children are to be nourished and less likely to experience deaths (Carlson, Kordas and Murray-Kolb 2014:2). The analysis of 36 national DHS data sets from South Asia, Sub-Saharan Africa, Latin America, and the Caribbean by IFPRI has shown the stronger effect of women's decision making power on chronic child malnutrition in South Asia (IFPRI 2003:47).

With the growing problem of malnutrition, research had now been focusing on family and social influences on children's eating patterns (Patrick and Nicklas 2005:87). Wardle et al. (2003:344) demonstrated numerous socioeconomic and cultural factors influence patterns of feeding children and the nutritional status of women and children. Children in developing countries are especially vulnerable to behavior that may have harmful effects on their health, such as fasting during pregnancy (Brainerd and Menon 2015:440). Studies have shown the role of poor food habits in determining child growth (Esimai et al., 2001, Geresomo et al., 2017, and Ersino et al., 2018). Traditional feeding practices are customary practices along ethnic lines. Ethiopia is a large country with a diverse culture reflected by different diets and traditional feeding practices. In 2015, around 75% of the Ethiopian population were Orthodox and Muslims (CSA 2016:42). Prolonged fasting is common in both religions.

The consequences of stunting are catastrophic (Cetthakrikul et al., 2018:2), not only in terms of health but also in terms of economic outcomes. The economic consequences of stunting represent losses of about 11 % of gross domestic product (GDP) every year in Africa and Asia (IFPRI 2016: 1). In Ethiopia, the report by the European Commission showed child stunting is estimated to cost the national economy more than 16% of GDP every year (European Commission 2017:1). Furthermore, the devastating impact of stunting spans across generations, as stunted mothers are more likely to give birth to stunted children, resulting in vicious intergenerational poverty (Prendergast and Humphrey 2014:251). The World Health Assembly (WHA) in 2012 aimed at the reduction of stunting by 40% by 2015 as the core of its six global nutrition targets (WHO 2012:12). Reducing stunting is also central to the WB Group's twin goals of ending extreme poverty and promoting shared prosperity as well as building resilience and preventing instability ((Eozenou et

al., 2017:5). The United Nations' Sustainable Development Goals (SDGs) identified stunting as a key development indicator used to measure progress towards its goal to end hunger (United Nations 2015b:15).

Forty-seven percent of children below five years of age in Amhara Region were stunted in spite of 34 to 40 % coverage of national cereal production, possession of 40 % of national livestock, diverse agro-ecologies, arable land and fertile soil, and plenty of water potential in the Region (U.S. Agency for International Development 2000:3, Amhara Regional State Bureau of Agriculture 2015:15). This necessitates the need to look for social and cultural factors determining child stunting. It is therefore imperative to understand the socio-economic, cultural, and gender basis of child stunting in this district for the design of effective and efficient interventions. Accordingly, knowledge on the social, cultural, and gender basis of child stunting remains crucial, with the need to reduce or eliminate the causes of stunting. Thus, this mixed-methods study provides a detailed description of the impact of property, convictions about child-rearing and feeding practices, and maternal empowerment on the degree of stunting of under-five children in Meket Woreda, North-Wollo Zone, Amhara Region of Ethiopia.

1.2. Statement of the Problem

Malnutrition, particularly chronic malnutrition or stunting, has attracted the interest of various researchers in Ethiopia focusing on the prevalence, cause, consequence, and intervention mechanisms (Umeta et al., 2003, Teshome et al., 2009, Getabil 2012, Gashu et al., 2016, Tariku et al., 2017, Batiro et al., 2017, Aklilu 2017, Abeway 2017, Dewana et al. 2017, Shiferaw et al., 2018, Woldehanna et al., 2018). However, these studies failed to adequately examine the situation of households with stunted children and factors contributing to stunting as they merely linked the issue with low income, poor diet and complementary feeding, sanitation, and demographic determinants.

Socio-cultural, and gender factors, as well as economic factors other than income and employment, has not been investigated. Amongst biological nutritionists, a substantial emphasis was examining

the effects of protein and micronutrient deficiencies, and inappropriate feeding practices on growth retardation. The literature abounds with studies of calories in the diet- providing information on only one of the important inputs for child health-caloric availability and nutrition. Umeta and colleagues (2003) measured the content of zinc, calcium, and copper in breast milk by obtaining breast milk from 305 breastfeeding mothers in a rural area of Dodota-Sire District, Arsi Zone, Ethiopia to determine whether there is an association between zinc content in breast milk and child stunting status. They found higher stunting among children whose mothers' breast milk had lower zinc concentration. However, Mosely and Chen (1984:28) argue that it is maternal diet and nutrition during pregnancy that influences the quantity and quality of breast milk.

Maternal diet and nutrition are, in turn, influenced by household food security, and available health care services. A holistic understanding of stunting necessitates, among other things, the influence of mother's access to food, mother's consumption behavior, and mother's fasting (abstinence from animal source food) during pregnancy. Also, without considering those factors, Aklilu (2017) identified low maternal weight gain during pregnancy as a key predictor of child stunting among 6-36-month-old children in Gurage Zone, Southern Ethiopia. Similarly, Adama et al. (2018) assessed household, maternal, and child dietary intake using standardized dietary diversity tools and tested their association with child growth. Children from households consuming "dairy, vegetable, and fruit" grew more in height-for-age as compared to those who did not consume. The study assumed that households are rational actors and consume food which is important for health and nutritional wellbeing and call for nutrition education.

Adama and colleagues (2018) failed to consider the role of community food habits, religion, and norms and values shaping feeding practices and preferences. Above all, they did not consider the availability and accessibility of food at the household. However, numerous socioeconomic and cultural factors influence patterns of feeding (EDHS 2011). Cultural beliefs, norms, and social support networks contribute to poor feeding and dietary patterns (Wirth et al., 2016). Mosely and Chen (1984) revealed that patterns of dietary intake and food choice are among the strongest culturally conditioned tastes across all societies. Moreover, food insecurity and poor living conditions are associated with stunting (Gupta 2017, Goudet et al., 2015). WHO (1997) reported that it was more aware ever than before that the underlying causes of impaired growth are deeply

rooted in poverty and lack of education (WHO 1997). Food and nutrition education, in the presence of widespread food shortages, ends up in teaching people to eat what they cannot afford or do not have and, thus, has only limited potential. It reflects an attitude, such as ‘keep them poor but teach them’ (Gurung 2010). Cognizant of this, this study assesses the role of food habits, food insecurity, and household resource in influencing child linear growth in the study area.

Teshome et al. (2009) reported that inappropriate child feeding practices by mothers and caretakers are the principal risk factor in growth retardation among under-five children in the food surplus areas of Mecha and Wenberma woredas of West Gojjam Zone. But, Teshome and colleagues failed to discuss what prevents mothers from applying recommended child feeding practices. It is known that mothers must be empowered to feed and grow the food to provide a good diet for their children, and several individuals have to be available to assist with domestic tasks. The mother’s influence on household decision making relating to cooking, purchase of food and household items, and ability to take short trips to market or relatives’ homes plays a great role on her nutritional status and child feeding practices (Wirth et al., 2016).

Since childcare is assumed to be the sole responsibility of the individual mother (Save the Children 2012), it is important to look more closely at the actual social situations of mothers. All mothers have to be away from home some of the time if only to fetch water and firewood, and work in their gardens. Whyte and Kariukui (1991) reported that mother’s work prevents her from caring for her child properly in western Kenya. Some studies tried to disclose the link between maternal empowerment and child stunting in Ethiopia (Eshete et al., 2017, Dendir 2015). Nevertheless, these studies measured maternal empowerment in terms of employment status in the formal sectors having a specified salary. This might be because their study areas were towns. They showed that maternal unemployment was a key predictor of child stunting. However, having a regular job with a specified salary rare among rural women in Ethiopia. Therefore, this study measured maternal empowerment in terms of age at first marriage, decision-making power, social support, and asset ownership; to examine child growth.

The effects of socioeconomic status on determining stunting status were examined in Ethiopia,

although it is based on common socioeconomic status indicators such as income, education, and occupation. Fentahun, Mamo, and Amare (2016) explored the socioeconomic factors associated with stunting among 6 to 59 months aged children in East Belesa Woreda, northwest Ethiopia. However, their study relied on a single index of socioeconomic status, family income. Family resources, instead of income, are more stable over time and a more reliable measure for poor households in developing countries (Deaton 2003:45). Moreover, income, education, and occupation might not be the most adequate indicators of SES in very poor regions (Urke, Bull, and Mittelmark 2011:742). In poor regions, only a few people have an adequate single source of cash income, level of formal education is low, and many have multiple occupations. Accordingly, this study relied on household resources such as land, livestock, and cereals produced and trees, as indicators of wealth-important wealth indicators in rural Ethiopia (Andrew and Dennis 2008).

Demographic factors such as sex and age of child and family size were given due emphasis as determinants of child stunting in public health literature. For instance, Lisanu and Gashaw (2018) examined the prevalence and factors associated with stunting among school-age children in Dembia Woreda, northwest Ethiopia. It was found that 38 % of school-age children were stunted in that area. The key predictors of stunting they found were the age of a child, family size, and child's immunization status. However, sex and age of the child are driven by food security, childcare practices, maternal education, and access to health services (Fenske et al., 2013, Goudet et al., 2015). Therefore, it is a household resource and access to health services that should be investigated. Immunization status also has more to do with access to health care services. The health care system underlies multiple causal factors in the pathway to child growth and development (Stewart et al., 2013).

The various studies above focused on demographic, nutritional, and biological determinants of child stunting. On the other hand, few studies have focused on the consequences and intervention mechanisms of stunting. Woldehanna et al. (2018) found that stunting has a significant impact on the cognitive performance of children. It was found that stunted children scored 16.1% less in listening and understanding of a single-word vocabulary test, and 48.8% less in a numerical test. Fenn et al. (2012) evaluated research projects run by Save the Children to reduce child stunting in food-insecure areas in Ethiopia. They intended to determine which interventions can best reduce

stunting and concluded that only hygiene practices had a significant impact on stunting reduction.

Previous studies failed to assess the role of social, cultural and gender-related factors in determining the prevalence of childhood stunting. Hence, the important role of those factors and their interaction with child growth and development has remained unexplored. There is, however, a need to understand the causes of stunting. The *Lancet* Nutrition Series estimated that nutrition-specific interventions, if scaled up to 90%, would reduce the prevalence of stunting only by 20%, thus calling for a focus on social, cultural, and gender factors (Haselow Stormer, and Prier 2016: 156). Therefore, it is vital to explore the socioeconomic, cultural, and gender basis of stunting.

Besides, a focus on methods, all of the studies done in Ethiopia (Adeba et al., 2014, Haile et al., 2016, Abeway 2017, Bekele et al., 2018) are focused on quantification of the prevalence and predictors of stunting rather than on qualitative factors such as social networks and attitudes towards and preferences of household and child feeding. In this regard, this study particularly qualitatively addresses why maternal and child feeding habits as it is, while the available literature remains trapped with timely initiation and duration of breastfeeding and complementary feeding practices. When and why the mother's breastfeed and feed the child will be qualitatively explored in this study.

Baumann, Majeed, and Majeed (2018:253), sociologists in Toronto University Canada, argued that studies on children's linear growth faltering should not overlook sociological factors. According to them, a sociological perspective on the influence of changes in childhood linear growth faltering emphasizes a set of factors that are often overlooked by health scholars. In particular, sociological explanations consider the role of population-level factors, allowing for cultural and material dimensions of social dynamics to play a role in the understanding of slow childhood linear growth. They concluded that a sociological understanding of the consequences of social inequality can provide new ways of understanding biometric trends and that inequality can manifest in a variety of ways, many of which are often unexpected (Bauman, Majeed and Majeed 2018:253). A socioeconomic, cultural, and gender-based perspective is often overlooked or regarded as a minor consideration.

1.3. Objective of the Study

1.3.1. General Objective

The general objective of this study is examining the socioeconomic basis of the degree of stunting: household resources, beliefs: conviction about child feeding practices and maternal empowerment among children aged 6 to 59 months (as measured by health posts) in Meket Woreda, North Wollo Zone, Amhara Region.

1.3.2. Specific Objectives

The specific objectives of the study are:

- Examining the role of household resources in influencing child stunting status
- To explore cultural beliefs and social norm regarding food habits and feeding practices and child stunting
- Examining the relationship between mother's access to and use of maternal health care services and child stunting
- Examining the link between maternal empowerment and child stunting

1.4. Scope of the Study

This study explored the economic, cultural, and gender basis of stunting by examining mothers' use of maternal health care services, household resources, maternal empowerment, and maternal and child feeding habits. This study employed a cross-sectional survey design than a longitudinal design. No anthropometric measurements of children and mothers were made. Rather, recorded anthropometric data on child height was obtained from patient records in local health posts.

Also, the study only examined the relationship between the independent variables and the degree of stunting. Furthermore, either child or household dietary diversity score, one of the commonly used indexes for assessing food availability and access at both individual and household levels (Adama et al., 2018: 2), was not made in this study. The study simply addressed qualitatively what staple food households eat and why.

The study also did not examine the factors on growth at different ages such as 6 - 11 months, 12 - 23 months, 24-35 months, and 36 - 59 months because these data were obtained from health records in the health posts. It has examined the effects of socioeconomic, cultural, and gender-related factors at all ages (6-59 months). But, it was recommended to examine the factors on growth at different ages since the determinants of growth during the first year of life are considerably different from those in later years (Prendergast and Humphrey 2014:251). For instance, children aged 6-23 months are usually vulnerable to stunting because of various factors such as lack of complementary foods containing the necessary nutrients during the early stages of life which leaves them vulnerable to opportunistic infections resulting in poor health outcomes and ultimately stunting (Bwalya et al., 2015:116).

1.5. Definitions of Terms

Stunted child- a child is considered to be stunted when his/her length/height-for-age falls below -2 standard deviations of the World Health Organization child growth standard median (WHO 2012:67).

Moderately stunted- children are considered moderately stunted when they have height-for-age minus two standard deviations (-2 SD) from the median of the reference population (WHO 2012)

Severely stunted- children are considered severely stunted when they have height-for-age minus three standard deviations (-3 SD) from the reference population median (WHO 2012).

Access to health services-access to health services includes access to health care, qualified health

care providers, availability of supplies (WHO 2013:2).

Household resource- includes land, education, employment, income, amount of cereals stored, number of livestock and fruit trees, and distance from health center/market (Be'gin, Frongillo and Delisle 1999:682). The household resource is used as a wealth indicator instead of commonly used socioeconomic indicators such as income, education, and occupation.

Household food security- is the ability of the household to secure enough food to meet the nutrient requirements of all family members (Prabhat 2013:148).

Household food insecurity- is defined as the limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways (Moradi et al., 2018:6).

Beliefs and norms-beliefs including religious ones and traditions related to feeding habits and preferences like fasting (Brainerd and Menon 2015:440).

Women empowerment- women's empowerment is a multi-dimensional concept with disagreements in its definition and measurement, however, Sethuraman (2007) defines women empowerment as women's decision-making capabilities regarding household decisions, employment, income, household assets, and; their experience of domestic violence (physical abuse); and their education (Sethuraman 2007:2).

Food habits- according to James (2004:186) the term eating habits (or food habits) refers to why and how people eat, which foods they eat, and with whom they eat, as well as the ways people obtain, store, use, and discard food. Individual, social, cultural, religious, economic, environmental, and political factors all influence people's eating habits.

Nutrition-sensitive interventions-refers to interventions or programs to reduce malnutrition including food security, adequate caregiving resources at the maternal, household and community

levels and access to health services and a safe and hygienic environment-and incorporate specific nutrition goals and actions (UNICEF 2015:20).

Nutrition-specific interventions-nutrition specific interventions are actions that have a direct impact on the prevention and treatment of undernutrition, in particular during the 1,000 days covering pregnancy and the child's first two years. These interventions should be complemented by broader, nutrition-sensitive approaches that have an indirect impact on nutrition status (UNICEF 2013:17).

Gender-gender refers to the socially and culturally prescribed roles and values that are ascribed to girls and boys, women and men in different societies and contexts (UNICEF 2011:10).

1.6. Operational Definitions of Terms

Household wealth- wealth in this study refers to ownership of farmland, livestock, eucalyptus and fruit trees, beehives, the number of cereals produced, and houses with roofs made of corrugated iron sheet.

Access to health centers- health care accessibility indicates the mother's access to maternal and child health services, alongside with the geographical proximity to the health center.

Food insecurity-food insecurity is defined as a lack of available food in the household.

Maternal empowerment- in this study maternal empowerment defined in terms of making decisions about the household purchase, use of money, and health care; availability of support with domestic tasks and that have implications on the availability of food, on what a child needs and utilization of health care service. Also, asset ownership, age at first marriage, and their experience of domestic violence in the last 12 months are included as empowerment indicators.

Social resource- mothers' access to support with domestic chores, and it can be from the household, neighbors or relatives and the community.

Fasting- is defined as abstinence from meat, dairy products, and eggs.

Mothers with stunted child- mothers with a stunted child in this study mean that mother's whose under-five child is identified as stunted by the local health post.

1.7. Operationalization of Concepts

The measurement of concepts for this specific study was based on the evidence from national and local reports. Meket Woreda Administration Office (2019) identified the average family size in Meket Woreda (5 persons per household). This study considered household size above 5 large and vice versa. Ethiopia Rural Socioeconomic Survey (2013) identifies the average rural household landholding in Amhara Region 1.8 hectares, and in this study landholdings of 1.8 hectares and more were considered wealthy. Tibebe and Sisay (2017) revealed that most of the food insecure rural households in North Wollo Zone owned 3.07 livestock on average in 2017. Thus, this study considered households with three or less domestic animals as poor. The amount of average household cereal production in the woreda is 5 quintals (Meket Woreda Agricultural Office 2019).

For a child to be considered as having access to adequate health (World Bank 2018:27), the child must have access to prenatal and postnatal services and birth assisted by a healthcare professional. WHO (2007) and EDHS (2016) recommend at least four prenatal and postnatal visits by a pregnant woman. The adequacy measure, therefore, uses four visits as the threshold and children whose mothers have not used the antenatal and postnatal facilities at least four times and not delivered at modern health facilities considered lacked access to healthcare services. Mother's food intake during pregnancy was assessed to identify whether it is increased, decreased, or remained unchanged as compared with the pre-pregnant state; whether any food taboos were consumed during pregnancy. Table 1.1 and Table 1.2 is the author's constructions.

Table 1.1. Operationalization of Concepts

Concepts	Variable	Indicator	Measurement
Household size	Number of children under age five in a household	Children more than two Households with five members	<ul style="list-style-type: none"> • Large or low • Ordinal scale
	Total number of people in a household		
Utilization of maternal health care services	ANC attendance	ANC attendance during the last pregnancy four times	<ul style="list-style-type: none"> • Low or high • Ordinal scale
	PNC attendance	PNC attendance during the last pregnancy	<ul style="list-style-type: none"> • Yes/No • Nominal scale
	Place of delivery	Place of delivery during the last pregnancy	<ul style="list-style-type: none"> • Home or health center • Nominal scale
Household resources	Landholding	Holding land size of 1.8 hectares and above	<ul style="list-style-type: none"> • Poor or better-off • Ordinal scale
	Livestock ownership	Livestock possession of below four	<ul style="list-style-type: none"> • Poor or better-off • Ordinal scale
	Cereal production	Number of quintals produced in the last harvest season (below 5 quintals)	<ul style="list-style-type: none"> • Low or high • Ordinal scale
	Private tree possession	Having fruit and eucalyptus trees able to be sold	<ul style="list-style-type: none"> • Yes/No • Nominal scale
	Hive possession	The number of beehives possessed	<ul style="list-style-type: none"> • Beehive counting • Ordinal scale
	Kind of housing	Houses with the roofing made from corrugated iron sheet Houses with the roofing made from thatched grass	<ul style="list-style-type: none"> • Better-off or poor • Nominal scale

Food habits	Household staple food (subjective)	Type of food daily eaten in the household	<ul style="list-style-type: none"> • Nutritious/nutrient-poor • Nominal scale
	Consumption during pregnancy	Consumed more than or as usual during the last pregnancy	<ul style="list-style-type: none"> • Yes/No • Nominal scale
	Food taboos during pregnancy	Stopped consuming certain food during the last pregnancy	Yes/No Nominal scale
	Fasting during pregnancy	Fasting during the last pregnancy	<ul style="list-style-type: none"> • Yes/No • Nominal scale
	Breastfeeding	Exclusive breastfeeding for six months	<ul style="list-style-type: none"> • Yes/No • Nominal scale
	Weaning food	Type of weaning food given to child	<ul style="list-style-type: none"> • Nutritious/nutrient-poor • Nominal scale
Maternal empowerment	Age at first marriage	Married first at age below 18	<ul style="list-style-type: none"> • Low or high status • Ordinal scale
	Decision-making power	Decide on the household purchase, use of money and health care	<ul style="list-style-type: none"> • Low or high status • Ordinal scale
	Assistance with domestic task	If the assistance with a domestic task is available	<ul style="list-style-type: none"> • Yes/No • Nominal scale
	Mobility	If she can go to the health center, a market without permission from the husband	<ul style="list-style-type: none"> • Low or high status • Nominal scale
	Domestic violence	If the mother has been ever battered by husband/partner in the last 12 months	<ul style="list-style-type: none"> • Yes or No • Nominal scale

Table 1.2. Summary of specific objectives, a unit of analysis, observation units and methods of data collection.

Research Objectives	Unit of Analysis	Observation Unit/Data Source	Methods of Data Collection and Analysis
Examining the relationship between the mother's access and utilization of maternal health care services and child stunting	Health institution (Hospital) Mothers	Mothers Health experts Household head	Survey In-depth interviews Key informant interviews Group interview
Identifying the household resources situation	Households	Head of Household	Survey In-depth interviews
Examining the link between maternal empowerment and child stunting	Households	Mothers Health experts Household heads Community and religious leaders	Survey In-depth interviews Group interview
Exploring the role of religious, cultural and social norms in shaping food habits and feeding practices and child stunting	Households	Mothers Household heads Health experts Community leaders Religious leaders	Survey In-depth interviews Key informant interviews Group interview

Source: author's construction

1.8. Limitations of the Study

The study has some limitations. One main limitation is the failure to include households without stunted children and determine the causality. Failure to investigate meanings attached to childhood height, that is caregivers' perceptions of child growth and the meanings they attach to short stature is another limitation of the study. There is also a limitation in the scope. The study has referred to a single district. Finally, respondents were also asked for information dating back a long time that could have resulted in recall bias.

1.9. Organization of the Thesis

The thesis is organized into five main chapters. The first chapter provides the background of the issue under investigation, child stunting. It gives an insight into the definition, magnitude, causes, and consequences of child stunting. The reason to conduct the study and the purposes of the study are also presented in this chapter. Moreover, the chapter includes scope, limitation, operationalization of concepts, and organization of the paper. The second chapter presents the literature related to nature, prevalence, and factors contributing to the study. The global and regional prevalence of stunting is presented in detail. The chapter tries to provide a vast knowledge of social, economic, and cultural predictors of stunting. Besides, the theoretical and conceptual frameworks of the study are included in this chapter.

The third chapter presents the methods of the study. It outlines the research approach used and rationale, the sample selection process, data collection methods, and how the data is analyzed. The data obtained from the respondents and study participants are analyzed in chapter four. The data analysis is made based on the specific objectives of the study. The final chapter, chapter five is about the summary and conclusions of the study.

CHAPTER TWO

LITERATURE REVIEW

This section deals with literature related to the concept of this specific study. Definitions, prevalence, and determinants of stunting are presented. The theoretical and conceptual framework that shaped the study is also presented in this section. To augment this literature, a structured keyword search in Web of Science, PubMed and Google Scholar, along with published documents from the World Bank, World Bank Group, UNICEF, and WHO was conducted to identify articles related to the definition, prevalence, and determinants of stunting.

2.1. Concept of Stunting

Stunting as an expression of undernutrition was introduced in the 1970s by J.C. Waterlow describing the linear growth retardation in children that results in decreasing their height concerning age caused by prolonged nutritional destitution (Kikafunda et al., 1998:3). Since then, stunting is used to measure the nutritional status of infants and children, particularly, linear growth retardation and cumulative growth deficit. Today, the global epidemic of childhood stunting is recognized as one of the most serious threats to humankind. The recent WB (2017) report identifies it as a silent killer depriving children of their right to grow, to thrive, and to prosper, and, an absolute stain on human collective conscience.

Thus, stunting became a sustained political priority and was treated as a serious human development issue (World Bank 2017:6). At a young age, stunting indicates a continuing process of failing to grow while in older children, it means failed to grow (WHO 1995:18); and represents the long-standing effects of nutritional problems in the community and is not sensitive to recent, short-term deviations of dietary intake. But, stunting is most likely to occur within the first 1,000 days, the period from conception through the child's first two years of life (UNICEF 2017:5). A child is considered moderately stunted if height-for-age is -2 SD units from the median of the WHO reference population and severely stunted if height-for-age -3 SD.

2.2. Worldwide Prevalence of Stunting

Stunting is one of the most prevalent forms of undernutrition worldwide. Globally, in 2017, stunting affected 151 million children under five. The number has decreased from 165.2 million in 2012, representing a 9 percent decline over these five years (FAO, IFAD, UNICEF, WFP, and WHO 2018:13). In seven regions, at least one in every four children under-five is stunted. The prevalence of under-five child stunting in regions of Asia in 2017 is, 33.3 % in southern Asia, 25.7% in southeastern Asia, 15.2 % in western Asia, 11.8% in central Asia and 5.3 % in eastern Asia. In regions on the continent of America, the prevalence of under-five stunted children is, 14.1 % in Central America, 7.5% in South America and 2.3% in North America. Oceania has 38.1% of stunted under-five children.

2.3. Stunting in Africa

About 39% of children under age five in Africa were stunted in 2018 (UNICEF, WHO, World Bank Group 2019:3). In 2018, more than one-third of all stunted children lived in Africa (ibid 2019). In Africa, the highest prevalence of under-five stunting is in Eastern Africa (35.6%), followed by Central Africa 32.1%. Southern and Western Africa account 29.1 % and 29.9% of stunted under-five children, respectively. The lowest prevalence of stunting occurred in North Africa 17.3% (UNICEF, WHO, and World Bank Group 2018:4). The number of stunted children in Africa has risen from 51 million to 59 million from 2000 to 2017, where but declined in Asia and Latin America and Caribbean Islands from 135 million to 84 million and 9.1 million to 5.1 million, respectively (UNICEF, WHO, and World Bank Group 2018:5). Twenty-five of 47 countries of the WHO African Region have high (>30%) or very high (>40%) rates of stunting (WHO 2017:6).

A meta-analysis of Demographic and Health Surveys (2006-2016) of sub-Saharan countries by Akombi et al. (2017) found the countries with the highest significant prevalence of stunting in this sub-region. Accordingly, the prevalence of stunting was highest in Burundi 57.7%, Malawi 47.1%, Niger 43.9%, Mali 38.3%, Congo DR 42.7% and Chad 39.9% (Akombi et al., 2017:5). Specifically, the study in rural Malawi by Semba et al. (2016:247) indicated Sixty-two percent of the children were stunted. Mamabolo et al. (2005:503) also found out 48% of the children were stunted in the Central Region of Limpopo Province, South Africa.

2.4. The Ethiopian Case of Stunting Prevalence

Thirty-eight percent of children under five in Ethiopia were stunted in 2016, showing a slight decrease from 43% in 2011 (CSA and UNICEF Ethiopia 2018:36). Among different regions in Ethiopia, the prevalence of stunting is 47% in Amhara, 43% in Benishangul-Gumuz, 40% in Afar, 40% in Dire Dawa, 39% in Tigray and Southern Nations, Nationalities and People's Region (SNNPR), 36% in Oromia, 32% in Harari, 27% in Somali, 23% in Gambella Region, and 15% in Addis Ababa (CSA and UNICEF Ethiopia 2018:37). Children from Regions such as Oromia, Somali, and Addis Ababa were identified to have lower probabilities to be deprived of physical development.

The prevalence of stunting is reported high in various studies both in Ethiopia in general and Amhara Region, in particular. For instance, Tariku et al. (2016) reported that the prevalence of child stunting in Dabat district, Amhara Region is 64.5%. Fentahun et al. (2016) also found 57.7% of children under five in East Belesa District, Amhara Region was stunted. Furthermore, Bekele et al. (2018) found that about half of children aged 6 to 59 months stunted in Libo-Kemkem district, Amhara Region (Bekele et al., 2018). Similarly, more than half (52.5%) of children aged 24 to 59 months in Butajira town and surrounding district, Southern Ethiopia were identified stunted (Dewana et al., 2017). The lowest prevalence of stunting was identified by Hassen and Tefera (2017) who found that the prevalence of stunting in coffee-producing districts of Jimma Zone, Southwest Ethiopia was 24.1%.

Table 1.3 presents the prevalence and trend of under 5 children stunting in Ethiopia obtained from 2005, 2011, 2014, and 2016 EDHS reports. Table 1.4 which presents child stunting by sex, age (in months) in Ethiopia and Regions is obtained from the 2016 EDHS report.

Table 1.3. Prevalence and trend of under-five stunting by sex and regions, 2005-2016

			2005 EDHS	2011 EDHS	2014 Mini EDHS	2016 EDHS
Regions	Country level	Total	46.6%	44.4%	40.4%	38.3%
		Male	47.3%	46.1%	40.9%	41.4%
		Female	45.9%	42.6%	39.9%	35.1%
	Tigray	Total	40.5%	51.7%	45.9%	39.6%
		Male	39.3%	54.8%	45.1%	41.0%
		Female	41.8%	48.7%	46.9%	38.1%
	Afar	Total	40.8%	50.0%	46.5%	41.2%
		Male	39.5%	50.2%	50.9%	43.9%
		Female	42.6%	49.8%	41.6%	38.1%
	Amhara	Total	56.7%	51.8%	42.1%	46.1%
		Male	57.4%	55.1%	42.3%	50.0%
		Female	55.9%	48.5%	41.9%	42.2%
	Oromia	Total	41.3%	41.3%	38.3%	36.4%
		Male	40.7%	42.4%	38.9%	41.7%
		Female	41.9%	40.1%	37.8%	30.6%
	Somali	Total	45.0%	32.9%	36.5%	27.3%
		Male	48.4%	35.4%	36.9%	31.2%
		Female	41.6%	29.7%	35.9%	23.4%
	Benishangul	Total	39.7%	48.7%	40.5%	42.8%
		Male	40.2%	50.1%	42.2%	42.6%
		Female	39.0%	47.2%	38.8%	43.0%
	SNNPR	Total	51.6%	44.1%	43.9%	38.7%
		Male	54.7%	45.5%	44.3%	37.6%
		Female	48.8%	42.7%	43.6%	39.9%
	Gambela	Total	29.2%	27.5%	22.7%	23.6%
		Male	35.8%	30.7%	26.0%	26.1%
		Female	23.4%	24.3%	19.2%	21.1%
	Harari	Total	38.4%	29.6%	27.4%	32.1%
		Male	37.1%	29.7%	28.8%	33.2%
		Female	40.0%	29.5%	26.1%	30.9%
Addis Ababa	Total	18.4%	22.1%	22.5%	15.0 %	
	Male	20.1%	22.8%	23.3%	17.0%	
	Female	17.1%	21.4%	21.7%	13.0 %	
Dire Dawa	Total	30.7%	36.4%	27.5%	40.0%	
	Male	32.9%	35.9%	27.9%	34.1%	
	Female	28.0%	36.8%	27.1%	44.7%	

Table 1.4: Prevalence of children aged 3 to 59 months indicating significantly low height for age (stunting) by sex, age (in months) in Ethiopia and Regions - 2016

Region and Gender		Age Group (ages in months)					
		3 - 5	6 - 11	12 - 23	24 - 35	36 - 59	All Ages
Country Level							
Male	%	19.52	39.32	50.79	41.05	37.20	41.40
Female	%	12.45	30.85	43.97	44.21	36.59	35.10
Total	%	16.35	35.21	47.43	42.54	36.90	38.30
Tigray							
Male	%	26.38	56.20	69.28	44.47	36.86	41.10
Female	%	14.12	46.32	65.58	52.37	45.17	38.10
Total	%	19.88	50.70	67.45	47.89	40.83	39.60

Table 1.4 Cont'd: Prevalence of children aged 3 to 59 months indicating significantly low height for age (stunting) by sex, age (in months) in Ethiopia and Regions - 2016

Region and Gender		Age Group (ages in months)					
		3 - 5	6 - 11	12 - 23	24 - 35	36 - 59	All Ages
Afar							
Male	%	18.17	45.46	77.68	50.73	52.39	43.90
Female	%	15.00	47.83	77.56	68.56	46.27	38.10
Total	%	16.57	46.52	77.62	59.22	49.34	41.20
Amhara							
Male	%	27.44	52.71	56.77	46.47	37.52	50.50
Female	%	7.39	32.81	53.08	49.73	34.61	42.20
Total	%	18.45	42.34	55.00	47.93	36.01	46.10
Oromia							
Male	%	9.70	31.42	49.23	37.63	34.06	41.70
Female	%	5.89	29.78	40.78	34.81	35.61	30.60
Total	%	7.99	30.68	45.00	36.32	34.81	36.40

Table 1.4 Cont'd: Prevalence of children aged 3 to 59 months indicating significantly Low Height for Age (Stunting) by sex, age (in months) in Ethiopia and Regions - 2016

Region and Gender		Age Group (ages in months)					
		3 - 5	6 - 11	12 - 23	24 - 35	36 - 59	All Ages
Somali							
Male	%	34.92	42.11	38.71	33.06	39.91	31.20
Female	%	32.87	35.10	33.06	35.21	36.57	23.10
Total	%	23.44	39.08	36.49	34.14	38.40	27.30
Benishangul-Gumuz							
Male	%	14.60	24.49	48.12	30.56	40.24	42.60
Female	%	35.63	24.48	47.66	44.56	28.58	43.00
Total	%	24.38	18.59	47.88	36.92	35.09	42.80
S.N.N.P							
Male	%	30.08	39.00	42.17	43.89	42.65	37.60
Female	%	34.17	24.67	34.94	56.26	39.80	39.19
Total	%	31.75	31.59	38.43	50.23	41.23	38.70

Table 1.4 Cont'd: Prevalence of children aged 3 to 59 months indicating significantly low height for age (stunting) by sex, age (in months) in Ethiopia and Regions- 2016

Region and Gender		Age Group (ages in months)					
		3 - 5	6 - 11	12 - 23	24 - 35	36 - 59	All Ages
Gambela							
Male	%	-	42.35	34.82	17.39	22.95	26.10
Female	%	-	16.31	23.45	21.02	20.07	21.10
Total	%	-	31.27	29.28	19.30	21.53	23.70
Harari							
Male	%	22.22	36.62	60.02	32.89	29.88	33.20
Female	%	12.98	32.18	35.90	40.48	19.42	30.90
Total	%	17.06	35.15	46.24	36.58	24.37	32.10

Table 1.4 Cont'd: Prevalence of children aged 3 to 59 months indicating significantly low height for age (stunting) by sex, age (in months) in Ethiopia and Regions - 2016

Region and Gender		Age Group (ages in months)					
		3 - 5	6 - 11	12 - 23	24 - 35	36 - 59	All Ages
Addis Ababa							
Male	%	5.13	15.38	18.22	18.52	25.11	17.00
Female	%	-	9.71	12.14	25.72	21.11	11.90
Total	%	3.23	12.84	15.28	21.81	23.28	14.50
Dire Dawa							
Male	%	-	23.22	46.43	36.58	26.22	34.10
Female	%	12.17	20.26	32.37	25.55	33.77	44.70
Total	%	4.89	12.59	43.72	37.78	19.65	40.00

2.5. Risk Factors Associated with Child Stunting

Childhood stunting has no single cause. It results from a complex array of interrelated factors. A complex interaction of household, environmental, socioeconomic and cultural influences (de Onis and Branca 2016:13) result in being stunted. The causes range from immediate drivers-such as dietary diversity, infant and young child feeding and care practices, and micronutrient status-to more distal, underlying socioeconomic, environmental, and other contextual factors. Among these different stunting drivers, in this section, socioeconomic, sociocultural, and gender-related determinants of stunting are reviewed with empirical evidence. However, whenever discussing factors associated with child linear growth, it should be clear that the height deficit is a long term process result.

2.5.1. Socioeconomic Factors Associated with Child Stunting

The growth of infants and young children throughout the world is related to the socio-economic environment in which they live. Stunting is widespread among children living in environments characterized by poverty, poor nutrition (Adair and Guilkey 1997:314), and lack of health services (Ali, Rafiq, and Chandio 2018:713) because poor living conditions result in high food insecurity, low access to health care, unhealthy environments and a high risk of infections (WHO 2018:7). Low socioeconomic status and socio-cultural context increase young children's exposure to biological and psychosocial risks that affect development through changes in brain structure and function, and behavioral changes (Walker et al., 2007:145).

In South Asia, the highest prevalence of child stunting were reported among children born to the poorest households, children who live in rural areas, children from families with specific social identity (caste and ethnicity), and children born to particularly vulnerable women (young, uneducated, disempowered) (UNICEF 2015:7). In Bangladesh, one-quarter of children in poor households were found severely stunted (Das et al., 2008:143). Roma children in settlements in Serbia were characterized by extreme poverty and were socially marginalized, as demonstrated by substandard living conditions. And, Brcanski et al. (2014:701) revealed that due to their poverty

and substandard living conditions, Roma children in Serbia were more than three times more likely to exhibit stunted and/or severely stunted growth than non-Roma children in that country. Poverty also varies geographically within countries. Northern states of Nigeria have higher poverty rates and health deprivation index than their southern counterparts (Adekanmbi et al., 2013) and the percentage of children with stunting ranged from 11.5% in the southern state to as high as 60% in a northern state. In Guatemala, children of the indigenous population, who are predominantly poor and rural, are found significantly shorter than *landions*, the non-indigenous middle-class population in that country (Pebley and Goldman 1995:15).

All these indicate the underlying causes of impaired growth are deeply rooted in poverty and food insecurity. Yet, they measured wealth in terms of income, education, and occupation. Resources, rather than income are reliable measures of wealth in developing countries. Therefore, an exclusive focus on income and goods as wealth indicators do not provide the right relation between wealth and stunting. Empirical findings on the association between poverty and child stunting in Ethiopia somehow lacked consistency, with some studies found the link, and some did not. Tariku et al. (2017:5) identified lower wealth status is one of the key determinants of the highest prevalence of stunting (64.5%) among children aged 5-59 months in Dabat District, northwest Ethiopia. On the other hand, Hassen and Tefera (2017:199) revealed that childcare and not wealth is a predictor of stunting among under 24-month-old children in Jimma Zone, Southwest Ethiopia.

The source of discrepancy might be the difference in wealth indicators and study populations. Tariku et al. (2017) considered household assets and size of household agricultural land holdings as wealth indicators of rural study residents whereas Hassen and Tefera (2017) studied the coffee-farming population and measured household wealth in terms of assets and utilities. Subsistence farming is the main livelihood of the residents in Tariku et al. study. Besides, Jimma zone is a zone rated at the lowest drought risk in the country and coffee farming is most favored and is the dominant form of livelihood. Moreover, the report by CSA and UNICEF Ethiopia (2018:37) revealed that compared to children residing in Tigray, children in Amhara have an 8-percentage point higher probability to be stunted, even though Tigray is less fertile than Amhara. Hence, all this indicates one has to be careful when measuring rural wealth quintile.

Stunting is affected by food availability in the household. Poor access to food particularly healthy food contributes to childhood stunting (FAO, IFAD, UNICEF, WFP and WHO 2018:26), whereas the availability of high-quality food and affordability of nutrient-rich foods prevents child stunting (WHO 2012:3). Household food insecurity has short-term and long-term negative ill effects on the physical and mental health of children in a period of rapid growth (Gupta 2017:364). A diet characterized by insufficient intake of calories, protein, vitamins, and minerals will impede fetal, infant and child growth and development. Such diets contribute to maternal undernutrition and consequently to a higher risk of low birth weight, which in turn are both risk factors for child stunting.

A study in Nepal found households with severe food insecurity 3.27 times more likely to be severely stunted than food-secure households (Tiwari et al., 2014:11). Household food insecurity is found associated with child stunting in Antioquia, Colombia (Hacket, Melgar-Quiñonez and Álvarez 2013:508). However, what is found to be left in food security assessment was a seasonal aspect of food security, which is (Amanullah 2016:29) an important aspect for rural villages in many developing countries and it is imperative to consider the context in which the study was conducted during conducting research. However, studies that attempt to examine the relationship between undernutrition and food insecurity were relied on quantifying food insecurity, neglecting the seasonal pattern. This might be because most of the studies were quantitative in approach. In developing countries, it is likely to have ample food during harvesting season and food deficit during the harvesting period. Without considering the seasonal aspect, studies in Ethiopia have found a higher prevalence of stunting in food-secure areas such as West Gojam (Teshome et al., 2009, Woday et al., 2018). Thus, this study tried to incorporate the seasonal pattern of food insecurity.

Access to health services is another important social factor for child growth. The availability and use of health care services (World Bank 2018:9) minimize the effects of illness and preventively address health issues, especially those linked with undernutrition. The important role of access to maternal health care services in determining being stunted is well recognized. Deshmukh et al. (2013:216) found access and utilization of health care services one main factor that affects child growth in India. The findings of Bwalya et al. (2015:122) show that children whose mothers

delivered at a health facility were likely to be stunted than those whose mothers delivered at home. Das, Hossain, and Islam (2008:143) also described how important maternal care is in child stunting. In their study, both severe and moderate stunting were found decreased with the increase of maternal care, while the prevalence of stunting among children whose mothers did not take any maternal care was found three times higher than that in children whose mothers received sufficient care. Aoun et al. (2015:140) have also shown the relationship between the travel time to a health center and variations in height for children less than five years of age in eastern Rwanda. Longtime travel to the health center was found a significant association with child growth in the area.

Moreover, Haile and Tigist (2018:45) found that the odds of stunting is higher among children born to mothers who attended less than four times antenatal care visit during their pregnancy in two small towns (Awash Bello and Boneya) located Sebeta Hawas district, Oromia Region. Ersino et al. (2018), however, found no association between access and utilization of health-nutrition services (i.e. ANC attendance, number of ANC visits, place of delivery, receiving iron-folate supplements or health-nutrition education) and child stunting in Halaba Woreda, Southern Ethiopia (Ersino 2018:11). According to the study, during their most recent pregnancy, most mothers attended their antenatal care (ANC) at a Health Post or Health Centre (depending on proximity). This discrepancy must be tested by further studies and see whether there is an association between a mother's health care utilization and child stunting.

The discrepancy in findings between the above two studies might be due to two main reasons. One it is reported that most mothers had geographical accessibility to health services, and the other is that the study communities were part of a larger Ethiopia-Canada project between Hawassa University (Ethiopia) and the University of Saskatchewan (Canada) that sought to improve human health in south Ethiopia. This could help to increase the use of maternal health care services among rural mothers. The situation in this study area, Meket Woreda is different. The lowland part of the district is characterized by a lack of health centers, and no project is undergoing to improve the health of the community in general and mothers in particular. Therefore, it is imperative to investigate the role of access to and utilization of maternal health care services in influencing child stunting status. Consequently, this study examined access to and use of maternal health care services in Meket Woreda.

2.5.2. Sociocultural Factors Associated with Child Stunting

Cultural food preferences and food taboos are additional major causes of undernutrition (Gemechu 2000:12), with deeply entrenched beliefs/cultural practices perpetuate stunting (WHO 2014:13). Inappropriate cultural beliefs and practices often cause failures to give their children diets that are less in quantity and quality than those they could. Odebiyi et al. (1989:990) reported food taboos as major factors determining maternal and child nutritional status and health in the rural area of Nigeria. Poor food habits account for a large number of nutritional deficiencies in that area. Kismul et al. (2015:365) described how girls in South Africa are discriminated in food allocation and malnutrition is more common among girls than boys. Male children are favored over female children since they are a major source of old-age support and for other socio-cultural reasons.

The high percentage of malnutrition in three rural villages in ile-Ife, Nigeria was due to large family size, poor dietary habits, and poor utilization of locally available foodstuffs (Ojofeitimi 1984:355). Darteh et al. (2014) revealed the higher prevalence of stunting among children from Ewe ethnic group in Ghana compared to Akans was due to the ethnic group's beliefs which prevent pregnant women and infants from eating some foods which have nutritional elements needed for optimal growth and development of the child (Darteh et al., 2014: 6). In Ethiopia, around Rift Valley Lakes (Abaya and Chamo) people don't eat some types of food like fish which is very rich in its protein content because of their belief (Gugsa 1997 cited in Gemechu 2000:12). Ersino et al. (2018:10) also identified food taboos during pregnancy were common among mothers in Halaba Woreda, Southern Ethiopia. The most common foods mothers avoided during pregnancy in that woreda were animal source foods.

Martorell and Zongrone (2012:310) stated the fear of birthing a large baby, which leads to 'eating down' during pregnancy is also at play in influencing child development in developing countries. Food habits are also dictated by religious dietary laws which restrict what is eaten. How and when it is eaten greatly influences food habits and thus the nutrition of the members of the sect (Esimai et al., 2001:42). Amanullah (2016:140) described a key role of religion in influencing food habits and childcare practices in Bangladesh. Hindu families were found to consume diverse food which

was absent in Muslim families. Hindu mothers were also found sensitive to hygiene and on what food to be given to the family members at what time. Thus, children from Hindu families are less stunted than Muslim families. Also, religion influence feeding practice through dietary restrictions. Fasting by pregnant Muslim women during Ramadan is linked to worse health outcomes for individuals who were in *utero* during Ramadan: birth weights are lower (Brainerd and Menon 2015:442). Religious beliefs may also affect child health through their influence on female empowerment and autonomy within the household. Nevertheless, what and why people eat, the role of cultural and religious values shaping food habits and thus child stunting has not received attention from studies.

Child's health is also ultimately dependent on the caregiver's care, usually their mothers (Shroff et al., 2009) autonomy, (Hannan 2016) empowerment, and (IFPRI 2016:8) use of facilities and services to optimize the child's health, and ability to provide care to children. In developing countries, where most women are denied a voice in household decisions, they are most likely to be undernourished themselves and less likely to have access to resources that can be directed toward children's nutrition (UNICEF 2006:8). Kennedy and Cogill (1987) cited in Whyte and Kariukui ((1991) found that in South Nyanza District, Kenya, children in female headed-households were better nourished, and they suggested that it is because such mothers have more control over household income and are more likely to spend it in ways that benefit children's health.

In South Asia, the low status of women is thought to be one of the primary determinants of undernutrition across the lifespan (Shroff et al., 2009). In their comparison of malnutrition status between sub-Saharan Africa and South Asia, Ramalingaswami, Jonsson, and Rohde (1996) illustrated that the exceptionally high rates of malnutrition in South Asia are rooted deep in the inequality between men and women. Unlike sub-Saharan women, the women of South Asia often face restrictions that prevent them from leaving the household. Women shoulder "triple roles", including their biological role of bearing-rearing children (reproductive), and productive (farm work) and social (community) responsibilities. These roles add a significant workload on women, increasing their risk for poor nutritional status (Black et al., 2008:244). The mother's workload was identified as a key predictor of child stunting due to its effect on the quality of childcare.

The average time it would take in the collection of firewood and fetching drinking water was identified as the major factors associated with stunting in Guto Gida District, East Wollega Zone by Adeba et al. (2014:8). That is, mothers in that area spent long hours in the collection of firewood and water and this diminishes the caring for the child. It is found that families with long hour travel for household consumable supplies of water and firewood were two-fold that their children became stunted in comparison with families who travel fewer hours.

Women's age at first marriage also affects a child's growth. Early married mothers are likely to get early pregnancy during adolescence, when mothers are themselves still growing, increases the risk of further maternal stunting and leads to adverse obstetric outcomes (Gigante, Ramussen and Victora 2005). Young mothers are more likely than older to have lower status within the household and to lack control over the household allocation of resources including nutrition (Nahar and Pillai 2019:76). In many developing countries, it is common for girls to marry and begin having babies while still in their teens-before their bodies have fully matured (Save the Children 2012). Moreover, Sobkoviak et al. (2012:109) reported the poor growth of Liberian children is due to mothers experiencing sexual domestic violence. Thus, an empowered caregiver is essential for a child's health and well-being.

The role of mother's autonomy in deciding on household purchases, use of money and their health care, and the availability of assistance with a domestic task in determining child stunting have been neglected both in biological and sociological research, particularly in local research. The available literature has stuck to disclosing the link between maternal education, income, and occupation and child undernutrition (Lisanu and Gashaw 2018, Adeba et al., 2016, Tariku et al., 2017, Eshete et al., 2017), indicating the more mothers' are educated and have a specified job with a salary, the lower the stunting prevalence. However, this is not always the case for rural women in Ethiopia where 68.5 percent of employed women were unpaid family workers (CSA 2014). Age at first marriage, social support, asset ownership, and decision-making power should also be investigated. Unfortunately, the link between maternal empowerment and child stunting has remained unexamined, except for maternal occupation and income. The whole picture of maternal empowerment and its impact on child stunting ask to examine factors beyond income and occupation.

2.6. Theoretical Framework of the Study

Although classical sociologists did not discuss health and illness directly, some works have touched the issue of health and illness. Marx's collaborator Engels (1845) uncovered the living conditions of the working class in the then England. During his observation of the working-class people, Engels witnessed deteriorated physical and health conditions of the working class linked to capitalism. He observed that the number of working-class people in the streets looked wholly or half-consumptive due to their poor living conditions and the inability to afford nutritious food. They have peculiar physical appearance-appeared as pale, lank, narrow-chested, languid and incapable of the slightest energetic expression. This is indicative of the impact of the poor living conditions on growth, physical strength and appearance.

Engels also reported the pervasiveness of diseases arises directly from the poor feeding habits of the then working class. He described the food of the laborer as indigestible enough in itself and is utterly unfit for young children. As a result, they remained open to infectious diseases and weak development. Moreover, Engels explained that insufficient bodily nourishment, during the years of growth and development had increased the prevalence of rachitis (now called rickets) among the working-class children (Engels 1845). He stated that appropriate feeding habits are crucial for the child's health and growth. Engels (1845) also stated poor feeding habits resulted from an inability to purchase nutritious food; children of the working-class were stunted and affected by infectious diseases. Therefore, his work signifies the role of poverty and poor living conditions in child health and growth.

Having this as a background, the conflict approach addresses the sources of illness in work environments, working-class health, and differences in health lifestyles (Cockerham 2010:10). Furthermore, the WHO Commission on Social Determinants of Health (2008:3) stated that health inequalities arise because of the circumstances in which people grow, live, work, and age. The conditions in which people live and die are, in turn, shaped by social, and economic forces (ibid 2008:5). It is therefore imperative to consider the living conditions and resources situation of households with stunted children.

Durkheim (1951), another classical sociologist analyzed European suicide rates in 1897 and identified suicide as the act of taking one's life, which was determined by the individual's ties to his or her community or society. His work was an icebreaker to the role of society in influencing health and illness. In this regard, Cockerham (2010:6) stated that Durkheim helps us not only to understand the social facets of suicide but also to recognize that macro-level social events can affect health in a variety of ways through stress and that the effects of stress can be mitigated through social support. A contemporary sociologist show that health is ultimately determined by position within the social structure-society determines health in many ways (Cockerham 2010). Therefore, this study examines the role of norms, values and food habits in influencing child growth and investigates the impact of cultural factors such as women's status and religious practices on stunting.

Considering works as a background, the researcher employed the political economy model and the social ecology model as the theoretical frameworks of the study. The selection was made based on their relevance to appropriately address the issue under investigation. Many sociological theories strive to explain the difference in the health status of individuals and societies. Theories of the sociology of health and illness defy the biomedical model of disease as many of them are 'concerned with the social origins and influence on disease' rather than pathological causes only.

Health disparities require addressing a complex set of structural, sociocultural, and psychological factors. Accordingly, while social ecology stresses the importance of viewing health and health problems in terms of their relationship to other facets of society and the environment, the political economy goes further in suggesting that such problems must also be viewed in broad historical context (Ward et al., 2010). In this way, the study addresses the socioeconomic, cultural and gender-based basis of child stunting in the study area-addressing various issues related to the issue under investigation. The political economy model is presumed to help to understand the role of poverty, poor living conditions, social capital, and access to health care services on influencing child stunting status, while the social ecology model helps to examine the role of cultural beliefs and norms on feeding habits and preferences, healthcare utilization and thus on child stunting (Minkler, Wallace, and McDonald 1995).

2.6.1. The Political Economy of Health and Illness

The political economy of health and illness model provides an important perspective on the social aspects of health and illness, especially in its focus on highlighting the political and economic dimensions of health status. It helps to understand the social structural reasons for disparities in patterns of ill-health across populations. The political economy model examines health as an outcome of social inequality and capitalism. It argues that the larger structural factors such as poverty, unemployment, or environmental hazards contribute to or cause illness (Minkler et al., 1995:116). Accordingly, the model argues that the poor health of the poor and the marked health inequities between countries are caused by the unequal distribution of power, income, goods, and services, globally and nationally, the consequent unfairness in the immediate, visible circumstances of people's lives- their access to health care, schools, and education, their conditions of work and leisure, their homes, communities, towns, or cities-and their chances of leading a flourishing life (Segall and Christopher 2016).

Poverty, early marriage, and patriarchy are common in Ethiopia. The percentage of women (15-19 age group) who were not paid for their work was 66% (CSA 2016:255), while only 30% of women make decisions about how their cash earnings are used independently. Fifty-eight percent of women marry before the age of 18th (CSA 2016:67). The lack of control over economic resources places decision-making power into the hands of men. Women's social location and patriarchy are the major causes of women's illness, according to this model.

Therefore, this study employed a political economy model to assess the situation of households with stunted children regarding wealth, food security, access to health care services, and maternal empowerment. The model explains the influence of poverty, food availability, maternal disempowerment and lack of access to health care services on child stunting. That is, the model helps to understand whether stunting is in line with the lack of resources, food insecurity, lack of access to health care services, and maternal disempowerment or not. The model holds if the majority of the households fall under this category. But, the political economy fails to examine the important role of micro-level factors such as beliefs, knowledge, lifestyle, and cultural factors.

2.6.2. Social Ecology Model

The ecological model articulated by Bronfenbrenner in 1979 presents health as an interaction between persons and their ecosystem or social web, which consists of their family, community, culture, and the physical environment. It illustrates how the health and well-being of an individual are determined by multiple influences that interact at both the macro-level and micro-level. At the macro-level, the focus of this study, factors such as social norms, and religion have a more indirect influence on behaviors (Quick et al., 2017). According to the social ecology model, formal or informal social norms that exist among individuals, groups, or organizations, can limit or enhance healthy behaviors. Also, shared values and assumptions can form barriers when, for example, people perceive that only particular social groups purchase so-called health foods. The existing values and poverty can create a barrier to access health care.

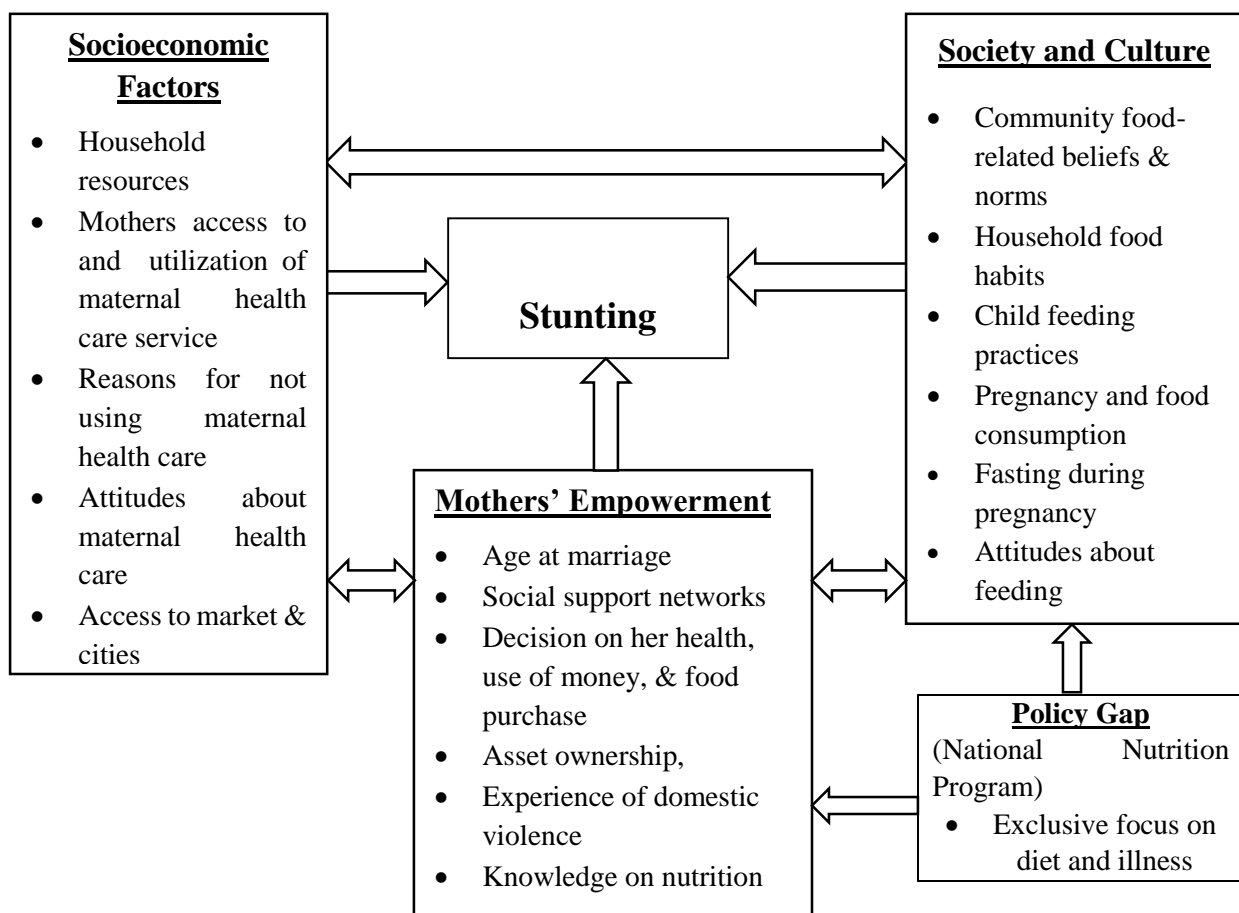
The social ecology model also helps to understand how layers of influence intersect to shape a person's food habits and choices. Food and nutrition are to a large extent cultural phenomena (Ward et al., 2010). This study focused on food consumption as a cultural phenomenon and examines what food is consumed, social and cultural norms like preferences for certain types of foods and feeding habits. The nutritionist approach considers individuals to be rational beings engaged in free and autonomous decision making processes unconstrained by cultural, economic, or social factors. Given the deep social and cultural importance of food, however, an exclusive nutritionist focus is problematic.

WHO (2017:12) states that while many people are aware of nutritional information and dietary guidelines, daily food choices are powerfully mediated by food availability as well as family habits, cultural preferences, and beliefs about food safety. This study examines how the web of cultural norms surrounding food habits, childcare, and place of women in the household influences child stunting status. This places child growth retardation growth within the broader social, cultural, and gender context. Besides, the ability of the caregiver to attend to the needs of children is influenced by social networks. Nevertheless, the social ecology model places little emphasis on the role of structural factors like poverty, unemployment, and inequality on health and illness though they have great implications on determining health and illness.

2.7. The Guiding Conceptual Framework of the Study

The following conceptual framework is developed from a review of the literature related to the study. It attempts to integrate different underlying factors associated with stunting indicated in the foregoing discussions. The framework is constructed to depict socioeconomic, cultural, and gender-based basis of child stunting. However, the framework is used only to shape the study; giving suggestions on which parts to focus. The researcher believes that this approach helps avoid the research from the risk of wandering all over the issues and subjects without direction by providing clues and suggestions regarding presumed socioeconomic and cultural factors behind stunting (Kibur 2013).

Figure 1 Integration of household resources, convictions about child rearing and feeding practices and maternal empowerment in determining the degree of child stunting



Source: author's construction of the review of the literature (2019).

CHAPTER THREE

RESEARCH METHODS

The methods section presents a description of the study area and justification of site selection, the research approach, methods used, and instruments of data collection, sample selection process, methods of data analysis, data quality assurance, and ethical considerations.

3.1. Selection and Description of the Study Area

3.1.1. Description of the Study Area

This study was conducted in Meket Woreda¹. Meket Woreda, one of the nine woredas in North Wollo Zone, Amhara National Regional State. It is bordered to the south by Wadla and Dawunt woredas, in the west by Lay Gayint and Tach Gayint woredas of South Gondar Zone, in the east by Guba Lafto Woreda, in the northeast by Gidan Woreda and in the north by Lasta and Bugna woredas (Ministry of Agriculture (MoA) 2014:28). The seat of the woreda is Filakit town, about 665 km North of Addis Ababa, 220 km northeast of Bahir Dar, capital of the Region, and 145 km northwest of Woldia town, the capital of North Wollo Zone. In terms of administration, Meket Woreda is subdivided into 45 rural kebeles and 2 town kebeles (Ambelu 2011:31).

3.1.2. Justification for Study Site Selection

The area was selected due to the high prevalence of child stunting of 46% (Meket Woreda Health Office 2019), which is very high according to the WHO standard (WHO classification considers stunting prevalence equal to/more than 40% as very high, WHO 1997).

¹ Woreda is the smallest district or administrative unit in Ethiopia (Kibur Engdawork. Exploring Factors and Processes behind Recidivism: The Case of Kaliti Men and Women Prisons in Addis Ababa. Thesis, Addis Ababa University).

Amhara Regional Health Bureau (2018:1) reported that prevalence and consequences of stunting in the Region are the highest among the 27 Woredas in the Tekeze watershed livelihood zone, where Meket Woreda is located. Also, chronic food insecurity and poverty persist in this area. Meket Woreda is the only woreda in Amhara Region where the Productive Safety Net Program (PSNP) Phase 4 is operating. PSNP communities in Ethiopia are the poorest, most food insecure, and vulnerable in terms of environmental shocks (Ministry of Agriculture 2014:38). All eight rural woredas of North Wollo Zone, including Meket, are identified as the most drought-prone and food-insecure districts in Amhara Region (Hailu 2013:11).

Meket Woreda is also characterized by poor market access and poor physical infrastructure. For instance, according to Meket Woreda Health Office (2019), there are only seven health centers and 36 health posts² in the district. The rural population in Meket Woreda has suffered from successive food deficits and famines. Annually, the survival of about 35% of the total population depends on emergency relief food aid in the last two consecutive years (Ministry of Agriculture 2014:28). Also, Meket Livelihood Development Project Evaluation Report³ (2008) reported that maternal and child feeding practices in Meket Woreda were inappropriate and mothers are too busy with household chores and fieldwork. Therefore, the area is appropriate to examine the role of poverty, food insecurity, lack of access to health services, food habits, and maternal empowerment in underlying child stunting status.

² Health posts are of the front line contact that provides basic health services mostly for the rural population, whereas health Centers, also part of primary health care units, provide a wide range of preventive, promotive, and curative health services and serve as a referral point to Hospitals.

³ Meket Livelihood Development Project (MLDP) is phase II of Save the Children UK ran from June 2004 to April 2008 in the Meket wordea to alleviate poverty, environmental degradation, food insecurity, and lack of essential services.

3.2. Research Approach

The study employed both quantitative and qualitative research approaches to collect and analyze the data needed to address the various issues central to the study. Thus, it used a mixed-method research approach. The mixed-methods approach involves collecting, analyzing, and integrating quantitative and qualitative research in a single study or a longitudinal program of inquiry. The purpose is to provide a better understanding of a research problem or issue than with either the research approach alone (Creswell 2009:10). The two major advantages of using the mixed methods approach in this study are as follows: First, the nature of the issue itself, the basis of degree of stunting, entails a statistical examination of the factors associated with the stunting status of an individual, community and a nation to guess as to what explains why the results occurred. In this regard, the household wealth, maternal health care utilization and maternal autonomy and empowerment indicators were examined quantitatively to identify their influence on child stunting status. This helps to explain results (or how mechanisms work) in causal models, regarding the degree of stunting.

Second, there is a gap and a need for understanding socio-cultural and gender attributes of stunting in general and the socio-cultural environment of the study participants (mothers having stunted child) in particular. For instance, qualitative methods best capture the mother's narratives behind fasting, their consumption behavior during pregnancy and the seasonal aspect of food insecurity. Moreover, the qualitative approach responds to the question of why the household in general and child feeding habits, in particular, is as it is, and why mothers did not use maternal health care services from their point of view. Issues such as why the households consume a single type of food regardless of the availability of other resources in the household and why mothers did not feed their child adequately require an understanding of the factors from the participant's point of view.

Consequently, employing a mixed-methods approach is appropriate for this study to gain deep insight into the socio-economic, cultural and gender basis of stunting in the study area. Amanullah (2016:28) stated that qualitative methods help to provide an in-depth understanding of cultural factors of undernutrition, whereas quantitative methods help to capture socio-economic issues. Qualitative methods such as key-informants and group interviews were also used to obtain information on community feeding habits, accessibility and use of maternal healthcare services,

and women's position in deciding food preference, healthcare, and domestic burden.

Creswell (2009) lists six types of mixed methods strategies guiding the nature of data presentation and analysis. Among these, this study has employed a 'concurrent transformative strategy' as a data presentation and interpretation guide. In concurrent transformative strategy, both quantitative and qualitative data are collected simultaneously and may have equal or unequal priority (Creswell 2009:216). Thus, both quantitative and qualitative data were collected concurrently and the quantitative data was integrated with the qualitative data during data analysis. In this study, however, more emphasis is given to the quantitative data because the basis of the degree of stunting entails a statistical examination of the factors associated with the stunting status, while the qualitative data aims are used to provide supportive information for quantitative data from the participant's point of view.

3.3. Methods of Data Collection

As a mixed-methods study, this study has employed both quantitative and qualitative methods of data collection. The research specifically used surveys, in-depth interviews, key-informant interviews and group interviews.

3.3.1. Survey method

The survey method was used in this study to examine the relationship between the independent variables and the degree of stunting. The survey method was also used to examine the position of households having a stunted child under-five regarding their wealth, access and utilization of maternal health care services, and mother's autonomy to decide on household purchases, use of money and health care. The intention is to understand the commonly shared characteristics of the study participants regarding the independent variables and examine the relationship with stunting. The survey responds to the question to what extent households with a stunted child fell under the category of lacked basic resources, lack health services, and disempowered mothers. Accordingly, household resources, availability of health services, and maternal empowerment status were measured quantitatively and their relationship with the level of stunting examined.

Besides, the mother's food intake during pregnancy including fasting was obtained through the survey method. The goal is to determine whether mothers' food consumption during pregnancy 'increased', 'decreased', or were 'as usual'. The survey further examined the duration of child breastfeeding and weaning food. Therefore, the survey remained significant in addressing the role of wealth, maternal feeding habits during pregnancy, and maternal empowerment in child stunting and particularly the degree of stunting.

A total of 273 mothers were selected for the survey. Why this amount and how they are selected is briefly illustrated in the sample selection process section. Those who participated in the in-depth interview were not included in the survey to address more numbers of respondent's views. A semi-structured interviewer-administered questionnaire was used to collect data. The survey questionnaire was first prepared in English and later translated into Amharic and retranslated into English. A total of six data collectors of Grade 11 and 12 students were involved in the data collection under the close supervision of a degree holder supervisor. The training was given to data collectors and a supervisor for a day. Health extension workers facilitated contact with mothers.

3.3.2. In-depth interviews

In-depth interviews were held with 30 purposively selected mothers having a stunted under-five child. How these mothers were selected is described in the sample selection section of the study. However, the number of participants was decided based on data saturation. Data was saturated enough after interviews with 25 participants but the researcher added another 5 participants for certainty. In-depth interviews help to obtain detailed information on mother's access to and use of maternal health care services, seasonality of household food insecurity, household, and maternal feeding habits, social support networks, and access to market, cities and purchasing capacity. Mothers were also interviewed to reflect on social norms and their beliefs regarding household food habits and what and when they fed the child. In an in-depth interview, participants were asked about the type of food daily eaten and the reasons behind it. The interviews were made side by side with the survey data collection period by the investigator. The interviews were audio-recorded with the consent of the participants. Interview checklists were prepared to guide in-depth

interviews. Checklists were prepared first in English and translated to Amharic later and retranslated to English.

3.3.3. Key informant interview

The researcher conducted key informant interviews as well. Accordingly, six key informant interviews were held with professionals and government officials, who have a good knowledge and experience about the issue under study. These are two health extension workers each from Maserut and Berekeza health posts, nutrition professionals from Agrit health center and community health facilitator in Zegay Dabza health post. The government officials include the head of Meket Woreda health office and the head of Meket Woreda agricultural office. The key-informants are selected according to the relevance of their position to the study objectives. Information from health professionals was collected on the factors influencing the prevalence of child stunting in the district, in general, and the mother's use of maternal health care services, household, and child feeding habits, and quality of childcare by mothers, in particular.

The woreda agricultural office was asked to provide information on food insecurity status, commonly produced cereals, and the number of safety net beneficiaries in the district. Accordingly, interview checklists were prepared to guide key informant's interviews. Checklists were prepared first in English and translated to Amharic later and retranslated to English.

3.3.4. Group interview

One group interview was conducted with six individuals including religious (Tewahdo Orthodox Church) and community leaders, two household heads, and two mothers with under-five children. They were considered to represent the group information and could provide important information on the study objectives. The purpose was to elicit group information on community feeding habits, the place of women in the household, accessibility, and utilization of maternal health care services, and the perception behind fasting during pregnancy. The group interview was held at Agrit Health Post.

3.4. Sample Selection Process

This study selected its study members from health post records. The list of mothers having a stunted under-five child was accessed from local health posts of Meket Woreda. The researcher was not in a position to conduct child anthropometric measurements. According to the information from Meket Woreda health office, there were nine health posts in the district during data collection that had lists of under-five children identified as stunted and their mothers. These were Maserut, Agrit, Debre Zebit, Lam-Wuha, Zegay Dabza, Aymat, Berekeza, Tsebelat, and Enat-Guya health posts. Having a permission letter from the woreda health office, the researcher contacted these nine health posts and accessed the list of stunted children and their mothers. Consequently, a total of 303 mothers having stunted under-five children were identified from all nine health posts. That is 35 mothers in Maserut Health Post, 32 in Agrit Health Post, 34 in Debre Zebit Health Post, 32 in Lam-Wuha Health Post, 37 in Enat Guya Health Post, 32 in Aymat Health Post, 31 in Berekeza Health Post, 35 in Tsebelat Health Post and Zegay Dabza Health Post each.

The study is a census study. All, 303, of the households with stunted children were included in the study. Census was made because the size of the study population was not large enough to draw the sample and the difference also will be minimal if the sample size formula is run. Moreover, it is not difficult to manage 303 respondents in a mixed-methods study. In this process, the researcher alongside data collectors started collecting both quantitative and qualitative information simultaneously. That is, first all of the data collectors start to collect survey data and then, the researcher collects qualitative information from those mothers' data collectors who were not met at the moment. The researcher simply picked five mothers from six health posts (from the food demonstration program) and interviewed.

However, qualitative data become saturated enough after the interviews with 30 mothers with stunted children (not participated in quantitative data) and ended collecting qualitative information. Hence, collected survey data from all the remaining 273 mothers with stunted children. The selected health posts for qualitative data are Maserut, Agrit, Debre Zebit, Enat Guya, Tsebelat, and Zegay Dabza health posts, as their order of contact.

The data collection was made during the mother's visit to the health posts. During the data collection time, there was a program called 'food demonstration' implemented in each of the nine health posts. The program is run by the Organization for Rehabilitation and Development of Amhara⁴ (ORDA) and Seqota Declaration⁵ as part of the intervention program on child stunting in the woreda. Meket Woreda is one of the woredas identified by the ORDA and Seqota Declaration for intervention on child stunting due to the severity of the problem in the district. In this program, 30-40 mothers with a stunted child participate for 12 days. Mothers were expected to come to the health posts in the morning with different food items available in their homes such as eggs, wheat or barley flour, and injera and cook together and feed their children. The intention was to convince mothers that it is possible to secure a child's nutritional status through food available at their household. The activity was implemented in cooperation with health extension workers in each health post and community health facilitators employed particularly by ORDA.

Anthropometric measurement was made on the youngest children in the household. The idea is through the participation of mothers in the food demonstration program it is possible to influence the feeding habits and preferences of both mother and children in the household. Data were collected for 13 days, from April 5, 2019, to April 18, 2019.

⁴ Organization for Rehabilitation and Development of Amhara or ORDA is an Ethiopian-operated, Non-Government Organization (non-profit) that focuses primarily on water development programs as a key step in the strategy to end chronic poverty and food shortages in the Amhara region of Ethiopia.

⁵ Seqota Declaration is the Ethiopian Government commitment unveiled in July 2015 to end stunting in children under two years by 2030 (G.C). Seqota Declaration, that builds and support the National Nutrition Program, has a 15 years Implementation Plan (road map) that provides strategic guidance to be executed in three phases namely innovation, expansion and scale-up phases. During this phase proven high impact evidence-based and innovative interventions will be tested to generate learning that will be expanded and scaled-up throughout the country.

Schematic presentation of participant enrollment

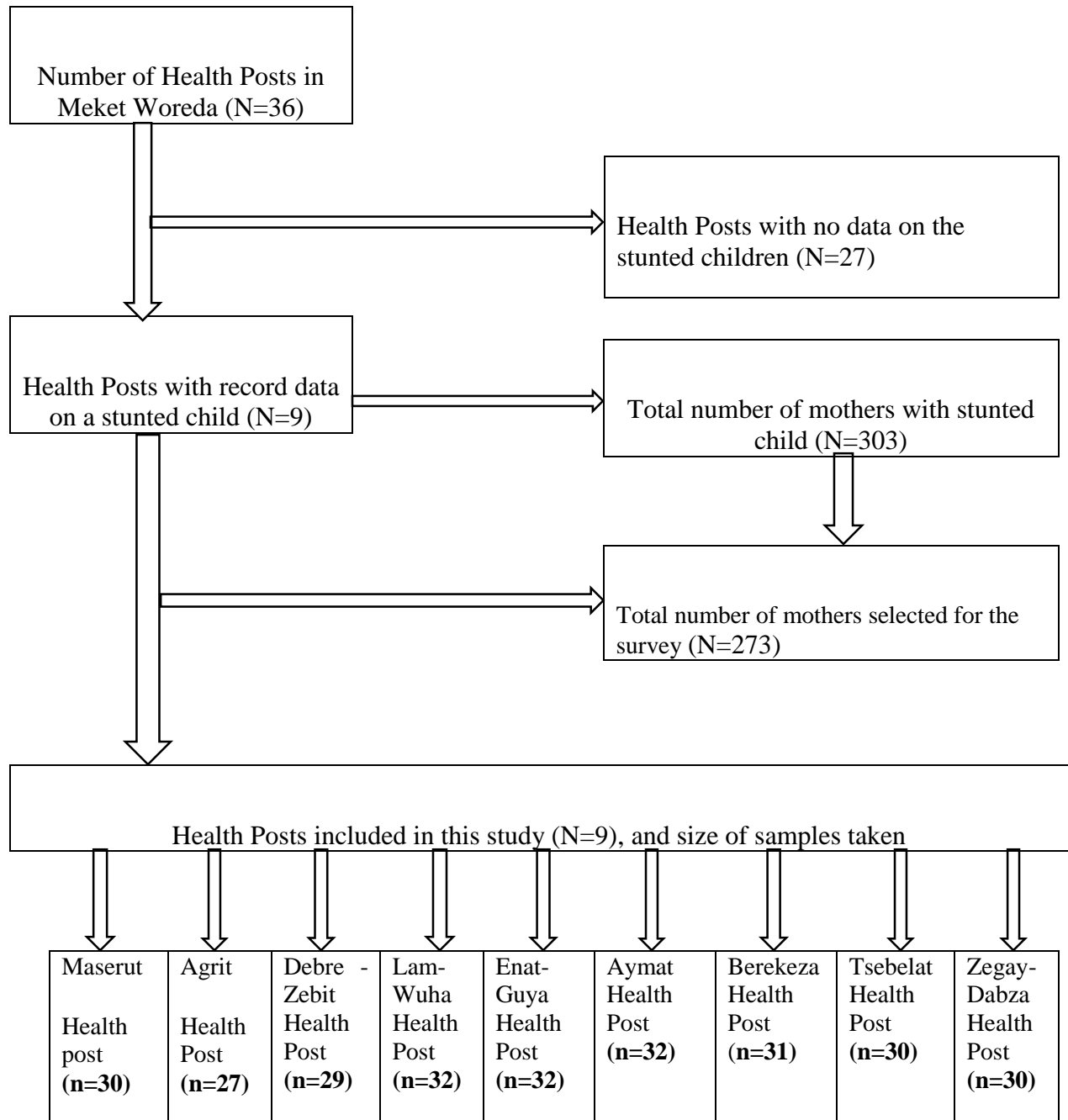


Figure 3. Schematic presentation of participant enrollment

3.5. Data Analysis

3.5.1. Quantitative method of data analysis

Quantitative surveys were carried out using a questionnaire. The questionnaires were checked daily by the investigator and a supervisor for completeness and consistency. The data entry of completed paper questionnaires was made to SPSS (Statistical Package for Social Sciences) software version 22 during the data collection period each night. After data entry was completed, the researcher made the data cleaning process to detect any errors during the data entry process. Accordingly, the researcher ran frequencies for all variables to identify any variables with errors, and some errors were identified and corrected. After ensuring data consistency, both descriptive and inferential statistics were run for the analysis of quantitative data.

Descriptive statistics like frequency tables, percentages, and means were employed to summarize variables and examine the position of households regarding covariates. Cross-tabulations were also run to examine the association between the degree of stunting and independent variables. Inferential statistics such as Chi-square, Phi Coefficient, and a logit regression was made to examine the association and relationship between the degree of stunting and covariates. To conduct logistic regression the dependent variable, degree of stunting was changed to the dummy variable as moderate stunting indicating no and severe stunting referring yes. However, in the first section it is the common characteristics of households with stunted children descriptively presented.

3.5.2. Qualitative data analysis

For the analysis of qualitative data, tape-recorded interview data results were transcribed, coded and categorized before they were analyzed using a thematic analysis. The researcher chose thematic analysis, because thematic analysis is a way of identifying what is common to the way a topic is talked or written about, and of making sense of those commonalities (Braun and Clarke 2012:59) and the result in the thematic analysis aims to highlight the most salient “constellations” of meanings present in the texts (Joffe 2012:209). Accordingly, the researcher used this method to

identify the characteristics that households with stunted children have in common. Also, since the thematic analysis does not require detailed theoretical and technological know-how, it is more accessible, especially for novice researchers (Braun and Clarke 2006).

The analysis process started with the audiotape records being transcribed verbatim. Following this, the researcher started to undertake a thematic analysis. The themes were drawn from the research questions themselves or what is known as “deductive/theoretical/top-down thematic analysis (Braun and Clarke 2006). After the themes were drawn based on the aforementioned fashion; the researcher went through the data corpus to generate codes. This was simply done by finding the relevant answers to the study objectives because in the deductive analysis approach the coding can be done through “capturing something interesting about the research question instead of line by line coding” (Maguire and Delahunt 2017:3355). Through repeated writing and deleting, the researcher was able to identify the final codes for analysis. Codes that form any meaningful patterns or themes to the qualitative data were selected for analysis. The final decision was made with great caution regarding if the codes could be fitted together to form a meaningful pattern or theme.

3.6. Data Quality Assurance

The quality of data obtained is an integral part of the research. One can enhance the data quality in various ways and at various research stages. Among these is a pilot study. The instrument was piloted with 10 respondent’s interviews outside the study kebele 04 (Wof-Chena Kebele). It helped to recognize and modify questions difficult for mothers to understand. The data collection supervisor reviewed the instrument, particularly as he is from the local area. The data obtained by the survey method was triangulated with qualitative data obtained by in-depth and key-informant interviews and group interviews to see whether there is data discrepancy or convergence. Data triangulation is the way of assuring the validity of the research results. Moreover, one-day training was given to the supervisor and data collectors on how to collect data, content, and the nature of the questions. However, I acknowledge some difficulties among data collectors in well-explaining some of the questions to the participants.

3.7. Ethical Considerations

The researcher contacted Meket Woreda health office with the support letter written from the Department of Sociology, Addis Ababa University. The researcher briefed health officials about the purpose of the study and the intention of the researcher. After a brief discussion with the woreda health officials, the researcher has obtained permission and asked for the permission letter to conduct the study from the office. Dessalegn Tizazu vice head of Meket Woreda Health Office provided a written permission letter to all of the nine health posts to conduct the study stating the existence of anthropometric data at the health post level. Having the permission letter from the woreda health office, the researcher traveled to and contacted all of these nine health posts.

The law and code of ethics of research also require researchers to observe certain injunctions, namely, never to cause unnecessary or irreversible harm to subjects; to secure prior voluntary consent when possible and to never release harmful information about specific individuals that were collected for the research (Neuman 2007:50). Thus the researcher explained the aim of the study to participants to secure their voluntary consent before the study. It was made clear that the information will not be used in an inappropriate or harmful manner. The participants were also informed that they have the right to refuse to participate in the study at any time and skip any particular question they might not want to answer. The actual data collection started after their willingness to participate was assured.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

This chapter presents the major findings of the study based on data obtained from the study participants through the survey and interviews to achieve the stated specific objectives of the study. The chapter consists of six sections: The first section presents the background characteristics of the study household while the second section describes the association with the level of stunting. The third section presents the association between the level of stunting and household's resources. The fourth section is about the link between the level of stunting and household feeding habits. The section also qualitatively presents household staple food, pregnancy and fasting, and breastfeeding practices and the rationales behind. The fifth section discusses the mother's access and utilization of maternal health services and relation with the degree of stunting. It identifies whether children stunted were originally from mothers who have access to and utilize maternal healthcare services or not. Furthermore, the section qualitatively presents the reasons for not using maternal healthcare services in the study area. Finally, the last section deals with association between the mother's empowerment status and the level of child stunting.

An attempt has been made to relate the data to other theoretical assumptions and previously done empirical research that is presented in Chapter Two to see whether the data gathered from the study are in line with those pre-existing assumptions.

4.1. Background Characteristics of Study Household

This section presents the background characteristics of stunted children and their mothers. It provides insights on the mother's socio-demographic and economic characteristics which have an overall impact on linear child growth status. Stunted children were described in terms of gender and age, whereas their mothers were characterized by age, religious affiliation, and marital status, and educational attainment, the gender of the household head, household size, and source of the household food consumption.

Table 4.1. Respondent's socio-demographic characteristics

		Frequency	Percent
Sex of the children	Male	189	69.23
	Female	84	30.77
	Total	273	100
Age of the children	<10 months	24	8.8
	11-21 months	144	52.7
	22-32 months	67	24.6
	33-59 months	38	13.9
	Total	273	100
Mother's age	Less than 20	14	5.13
	21 to 30	167	61.17
	More than 30	92	33.7
	Total	273	100
Religious affiliation	Orthodox Christian	268	98.2
	Muslim	5	1.8
	Total	273	100
Marital status	Married	254	93
	Widowed	6	2.2
	Divorced	13	4.8
	Total	273	100
Educational status (mother's)	No education	198	72.5
	Primary education	67	24.6
	Secondary education	8	2.9
	Total	273	100
Household head	Husband	254	93
	Wife	19	7
	Total	273	100
Household size	Four &<4	229	83.88
	Five to 8	44	16.12
	Total	273	100
Number of children under age 5 in the household	One	198	72.5
	Two	73	26.7
	More than 2	2	0.8
	Total	273	100

Source of household's food	Own farm	195	71.43
	Purchasing	78	28.57
	Total	273	100

Male sex and young ages outweigh stunted children in the study area. Nearly 70% of stunted children were males and beyond half were aged 11 to 21 months. The average age of stunted children was 28.8 months (SD±0.84). The majority of study participants (62%) were in the age category of 21-30 years, followed by age category for more than 30 years (33.7%). The mother's average age was 22.9 years (SD±0.55). It indicates that most mothers were young. Looking at their religious denominations, almost all (98.2%) were followers of Ethiopian Orthodox religion, while the smallest proportion (1.8%) were Muslims. Similarly, the vast majority of the respondents were currently married (93%) lived in male-headed households. Regarding literacy, most of the mothers were found not educated (72.5%), while nearly one-quarter (24.6%) of the mothers had primary education.

The family size was found small. Among all participants, 84% of the households had a household size of four or fewer. Only close to 16% of the households had more than four family members. The average household size was 2.91 (SD±0.51). In this study, the number of sibling's under-age five is the lowest. Mothers with one under-five child formed the majority of respondents (72.5%) and those with two children formed about 26.7%. However, few mothers (0.8%) had under five children more than two. Regarding the source of family food consumption, own farm, and purchase from the market were reported as the main sources of household's food. About 71% of the mothers had accessed the food for consumption mainly from their farm, while around 29% of the mothers had accessed household food consumption mainly from the market.

Table 4.2. Respondent's socio-economic characteristics

		Frequency	Percent
Own farm land	Yes	186	68.1
	No	87	31.9
	Total	273	100
	0.25 to 0.5 hectares	149	54.5

Size of farm land owned	0.75 to 1.25 hectares	37	13.6
	Total	186	68.1
Own livestock	Yes	163	59.7
	No	110	40.3
	Total	273	100
Own fruit trees	Yes	36	13.2
	No	237	86.8
	Total	273	100
Own eucalyptus trees	Yes	48	17.6
	No	225	82.4
	Total	273	100
Own beehive	Yes	19	7
	No	254	93
	Total	273	100
Kind of housing	Hut	78	28.6
	House with tin roof	195	71.4
	Total	273	100
Visit for ANC	Yes	145	53.1
	No	128	46.9
	Total	273	100
Visit for PNC	Yes	107	39.2
	No	166	60.8
	Total	273	100
Place of delivery	Home	187	68.5
	Health center	86	31.5
	Total	273	100

Andrew and Dennis (2008:50) described land as the foundation of wealth in rural Ethiopia. The land produces both edible and marketable products for rural people. Even though in this study, most of the households own land (68.1%), their landholding size remained too small, even smaller than the regional landholding average (1.8 hectares). The majority, 54.5% out of 68.1% hold land less than one hectare. The average landholding size was 0.3 hectares (SD±0.4). Regarding household ownership of livestock, finding that the majority (59.7%) of the households possessed at least one type of livestock, while the remaining 40.3% had no livestock at all. Only about 14%

of households possessed more than four types of livestock. Most households (45.7%) had less than three. The average livestock ownership was 2.1 (SD \pm 0.6). As a result, it was common to share oxen through partnerships (*kenja*) in the study area.

The ownership of trees and beehives among the study household was found to be minimal. More than 80% of the households owned no trees and beehives. The majority of households (71.4%) had a house with walls constructed with locally grown indigenous trees, and walls and floors treated with mud-plastered and a tin roof, whereas above one-quarter (28.6%) of the households lived in a hut. Thus, most households had a house with corrugated iron sheets. However, Meket Livelihood Development Project Evaluation Report revealed in highland areas of the woreda covering houses with grass is almost expensive as using iron sheets. Therefore, having a house with corrugated iron sheets, especially in highland areas is not necessarily a determinant of a household's wealth status (Tessema et al., 2008).

Regarding antenatal attendance, beyond half (53.1%) of the mothers had attended antenatal care during their stunted child pregnancy, while a sizeable number of mothers (46.9%) did not attend. Even among those who had antenatal attendance, almost all (49.1%) of mothers had ANC attendance less than four times. Only 4% of mothers had ANC attendance more than four times. Accordingly, mothers had low antenatal attendance during stunted child pregnancy. 60.8% of the mothers had not attended postnatal care, while the remaining nearly 40% of the mothers had attended. Moreover, all of those mothers who have postnatal attendance had attended less than four times. Thus, postnatal attendance among mothers for a stunted child remains low. Above all, 187 (68.5%) of mothers have made delivery of the stunted child at home.

Therefore, most children stunted were from mothers who had low antenatal and postnatal attendances and deliver at home. In fact, in 2016, 66 percent of mothers in Ethiopia with children age 0-11 months did not have four ANC visits or their ANC visits were carried out by unskilled health personnel (EDHS 2016:43).

4.2. The Level of Stunting

The table below presents the distribution of the level of stunting across child and household demographic characteristics.

Table 4.3. The level of stunting and demographic characteristics

Indicators		Moderate (-2 SD)		Severe (-3 SD)	
		Frequency	Percent	Frequency	Percent
Level of Stunting	Degree	201	73.6	72	26.4
Child sex	Male	139	69.2	50	69.4
	Female	62	30.8	22	30.6
	Total	201	100	72	100
Child age in month	<10 months	13	6.5	11	15.3
	11-21 months	106	52.7	38	52.8
	22-32 months	50	24.9	17	23.6
	33-59	32	15.9	6	8.3
	Total	201	100	72	100
Mother's age	Less than 20	10	5.0	4	5.6
	21 to 30	112	55.7	55	76.4
	More than 30	79	39.3	13	18.0
	Total	201	100	72	100
Mother's educational status	No education	145	72.1	53	73.6
	Primary education	48	23.9	19	26.4
	Secondary education	8	4	0	0
	Total	201	100	72	100
Household size	< four	165	82.0	64	88.9
	Five to eight	36	18.0	8	11.1
	Total	201	100	72	100
Number of children U-5	One	145	72.1	53	73.6
	Two	54	26.9	19	26.4
	>2	2	1	0	0
	Total	201	100	72	100
Source of household's food consumption	Own farm	146	72.6	49	68.1
	Purchasing	55	27.4	23	31.9
	Total	201	100	72	100

The information about the percentage of children classified as moderately stunted and severely stunted was obtained from each of the nine local health posts.

Among 273 stunted children under five, the vast majority (73.6%) were moderately stunted and the remaining 26.4% severely stunted. The finding is more or less similar with the findings of Adeba et al. (2014). In their study, Adeba and colleagues found that 27.5% of children aged 6 to 59 months in Guto Gida District were severely stunted. The table indicates there is a significant gender difference across the level of stunting, with male children formed the majority of severely stunted children (69.4%) and female children (30.6%). Female children were less likely severely stunted.

In terms of child age, children aged from 11 to 21 months showed formed (52.8%) of severe stunting followed by children aged 22 to 32 months constituted (23.6%). The prevalence of severe stunting was found lowest among children aged 33-59 months. This is similar to findings by Teshome et al. (2009) and Yisak et al. (2015) who found male child sex and young child age, particularly children age of 13-24 months, as predictors of child stunting. It is demonstrated that (UNICEF 2014) boys than girls are at higher risk of preterm birth and exposure to environmental stress (repeated infections, and increased exposure to toxins and air pollutants), affecting their height. Young age children are vulnerable infants and young children are vulnerable to inadequate nutrient intake during the period of complementary feeding (6 -23 months), the needs of nutrients during this period is very high to support the high rate of growth while the supply is insufficient to meet the demand (Michaelsen, 2015). The first two years in life provide an opportunity for the child to achieve maximum growth potential but at the same time, it is a critical period for growth faltering if the nutritional needs are not attained (Dewey, 2013).

Similarly, the prevalence of severe stunting was found highest among children born from mothers under age group 21 to 30 years. Children born from young mothers were more likely to be severely stunted, with the odds of severe stunting was higher among children born from mothers under age group less than 20. This study found that infants who had mothers aged >30 years were less likely to be stunted. The better baby caring experience developed by older mothers may attribute to this result. Young mothers are more likely than older to have lower status within the household and to lack control over the household allocation of resources including nutrition (UNICEF 2006, Hannan 2016). Also, they get early pregnancy during adolescence, when they are still growing. This increases the risk of further maternal stunting and leads to adverse obstetric outcomes.

In this regard, the study supports the findings of Haidar et al. (2005). In a study from northwestern Ethiopia, Haidar et al. (2005) show that children born to girls <15 years old were significantly more likely to be stunted. Importantly, the degree of child stunting decreases from severe to moderate as the mother's educational status increases. Children whose mothers were illiterate constituted the majority (73.6%) of children severely stunted. Besides, mothers with secondary education have no children severely stunted. Educated women are likely to be more aware of nutrition, hygiene, and health care; and they can easily introduce new feeding practices that can improve the nutritional status of children (Bwyala et al., 2015). Maternal education was identified as protective of child linear growth in various studies (Tariku et al., 2016, Kikafunda et al., 1998, and Dorsey et al., 2018).

The uncommon finding of this study is the level of stunting decreases as the household size increases. That is, the majority (88.9%) of severely stunted children were from households with less than four household members. This might be associated with the availability of assistance with domestic tasks in large family sizes. The finding is in contradiction with many findings. Various studies revealed that stunted children belong to large family size (Adeba et al., 2014, Tariku et al., 2016 and Yonas et al., 2018), usually more than four. Yonas et al. (2018), for instance, showed stunted children of his study to belong to households with eight and above members. In line with this, the level of stunting did not increase with the increase in the number of siblings. The level of stunting was very high for children from households with one and two siblings, 73.6 % and 26.4% respectively. This might be due to the preponderance of young parental age in the study sample. This is in contrast with the findings of Tariku et al. (2017) found under five children more than two constituted 92.2%.

Regarding the source of household food consumption and the level of stunting, the prevalence of severe stunting was found higher (68.1%) for households whose source of family food consumption was 'own farm', whereas the prevalence of moderate level of stunting was found highest among households whose source of family food is purchasing, 72.6%. This might be due to low agricultural productivity and poor complementary feeding practices in the study area. Own production of food does not necessarily mean ensuring per-capita food availability and nutritional security. Accessing family food from farms was found to be associated with child stunting in Dabat

district (Tariku et al., 2017:5).

The test for independence (Chi-square) test revealed that the level of stunting independent of demographic variables such as religious affiliation (Asymptotic Significance (2-sided) 0.7), household head (Asymp. Sig. 0.6), and marital status (Asymp. Sig. 0.4), and mother's educational status (Asymp. Sig 0.5). On the other hand, the Chi-square test indicated the highest association between source of family food consumption and level of stunting with the lowest asymptotic significance value 0.02, confirming households consume family food from their farm at risk of having severely stunted children than households consume family food by purchasing.

The researcher has also employed the test for the association between the level of stunting and the independent variables. Phi Coefficient analysis was made for variables measured at the nominal level, while analysis of Gamma was done for ordinal level variables. The table below presents the association between the level of stunting and socio-demographic characteristics.

Table 4.4. Test for association between the level of stunting & demographic characteristics

Independent variables*Degree of stunting		Value	Approx. Sig.
Marital status	Phi	.082	.403
	N valid cases	273	
Age of the child	Phi	.260	.000
	Gamma	-.407	.000
	N valid Cases	273	
Mother's age	Phi	.216	.002
	Gamma	-.458	.000
	N valid Cases	273	
Mother's Education	Phi	.067	.545
	Gamma	-.019	.895
	N valid cases	273	
Household Size	Phi	.402	.000
	Gamma	-.699	.000
	N valid Cases	273	
Number of U-5 children	Phi	.061	.598
	Gamma	.057	.702
	N valid Cases	273	
Source of food	Phi	.166	.023

	N valid cases	273	
Mother's age at first marriage	Phi	.016	.966
	Gamma	-.025	.831
	N valid cases	273	

According to the table 4.4, the independent variables such as marital status, maternal educational status, number of siblings' in the household, and mothers age at first marriage have shown no statistically significant association with the degree of stunting. The findings of no association between the level of stunting and marital status and household head contradicts with a study done in Nairobi, which reported that mothers' marital status was independently associated with child stunting (Abuya et al., 2012) and the finding by Pradhan (2010) that female-headed households are more likely to have moderately and mildly stunted children. This could indicate that rather than being married or not what matters most is the quality of co-operation between husband and wife, and the possibility of support from other family members (Whyte and Kariukui 1991:174).

The findings age of the children and the degree of stunting are statistically significant ($p=.00$), and the Phi Coefficient (0.3) suggests that there is a moderate relationship between the age of the children and the degree of stunting. And, a gamma of -.40 indicates children's age is moderately associated with the degree of stunting and the relationship is negative. That is, as children's age increases the degree of stunting decreased from severe to moderate level. This is probably due to the risky nature of the age group itself and the higher demand for care and simulation. There was also a statistically significant relationship between the mother's age and the degree of stunting ($p<0.05$), and the strength of the association is slightly moderate (0.2). However, the gamma test indicated the nature of the relationship negative ($G= -0.5$). That is the level of stunting increases as the mother's age decreases. Young mothers were more likely to have severely stunted children. This might be young mothers lacked basic childcare skills and were socially and economically unstable.

The relationship between household size and the degree of stunting is statistically significant ($p=0.00$), and the Phi Coefficient ($\phi=0.4$) indicates there is a strong relationship between two variables. The nature of the relationship, however, is negative ($G= -0.7$) and strong enough. As the household size increases, the degree of stunting decreases. Households with more than four

members would have less severely stunted children. This is an odd finding and might be due to the availability of assistance with domestic tasks and childcare in households with large family size. Not only statistically insignificant, the Phi Coefficient (.06) and Gamma (.05), but a weak relationship was found between the degree of stunting and a number of siblings in the household. Similarly, the insignificant and weak relationship was observed between maternal educational status ($\phi = .06$, $G = -.019$) and the degree of stunting.

4.3. The Level of Stunting and Resources Situation of Study Household

There are regional, national, and community wealth disparities in stunting prevalence, with children from poorer households were more likely to be stunted and severely stunted. The variation in the use of wealth indicators and the nature of the area where the study is undertaken play a large role in the variability of the results. Calculating a wealth index in rural areas demands some sort of subjectivity. This study, recognizing the fact that the main source of wealth in rural Ethiopia is mainly asset-based than monthly income one, examined household's wealth in terms of the ownership of land, livestock, kind of housing, the amount of cereals produced and trees owned and beehive. The table below presents association between the level of stunting and household resources situations to observe whether there is a relationship or not.

Table 4.5. Cross-tabulation of the level of stunting and socioeconomic variables

Socioeconomic status indicators		Moderate		Severe	
		Frequency	Percent	Frequency	Percent
Land ownership	Yes	138	68.7	48	66.7
	No	63	31.3	24	33.3
	Total	201	100	72	100
Livestock ownership	Yes	142	70.6	21	29.2
	No	59	29.4	51	70.8
	Total	201	100	72	100
Fruit tree ownership	Yes	32	15.9	4	5.6
	No	169	84.1	68	94.4
	Total	201	100	72	100
Kind of housing	House with tin roof	172	85.6	23	31.9
	Hut	29	14.4	49	68.1
	Total	201	100	72	100

As indicated in the above table 4.5, land ownership has not associated with the level of stunting. The highest prevalence (66.7%) of severely stunted children were found in households who own agricultural land, while households did not own agricultural land constitute 33.3% of children severely stunted. But, the odds of being severely stunted were highest for children from households without land (24 out of 63). The shortage of land influences child nutritional status and wellbeing through its influence on food security, diet diversity, and purchasing capacity. In contrast to this finding, children from a family whose landholding size was less than 0.5 hectares were found four times more likely to be stunted in the study by Adeba et al. (2014). Height-for-age also varied systematically with farm size in a Guatemalan community, the smaller the average farm size the greater the deficit in height (Pebley and Goldman 1995).

Unlike land ownership, household livestock ownership was found significant in determining children's level of stunting. Households who did not possess livestock formed the majority (70.8%) of severely stunted children than households who possess livestock (29.2%). This finding is broadly in line with that of Haidar et al. (2005), which showed that child nutrition was influenced by a dispossession of livestock. Possession of livestock helps to access animal source food, source of growth important vitamins. Lack of livestock also means rare animal source food consumption. Health extension workers and mothers during interviews have demonstrated the impact of lack of livestock on consuming animal product food in the study area.

As it is indicated in table 4.5 one of the important predictors of the level of stunting was found household tree ownership. It is found that the level of child stunting decreases as households own fruit trees. It is revealed that among 72 children severely stunted, 68 (94.4%) were from households who did not own fruit trees. Households own fruit trees had only the least proportion (5.6%) of children severely stunted. Fruit trees provide growth important minerals and vitamins for children and their mothers. In line with this, Tariku et al. (2017) in their study of predictors of stunting in Dabat district revealed 98.7% respondents did not own fruits. However, a variables eucalyptus tree and beehive ownership did not show significant variation across the level of stunting. Finally, the highest prevalence of severely stunted children was found from households living in a hut, 68.1%. This finding contrasts that of findings by Teshome et al. (2009) showed no significant association between children's nutritional status and housing.

Among the socioeconomic variables, however, the chi-square data revealed no dependence between the level of stunting and land and livestock ownership (Asymp. Sig. 0.8 and 0.6), respectively. The type of house households live had also shown no dependence with the degree of stunting in a chi-square test, Asymp. Sig. 0.6. Nevertheless, the chi-square test has found dependence between the level of stunting and the household's fruit tree ownership (Asymp. Sig. 0.03). Furthermore, the study has employed the Phi and Gamma test to examine the strength and direction of association between the level of stunting and socioeconomic variables.

Table 4.6. Test for association between the level of stunting & household resources

Independent variables*Degree of stunting		Value	Approx. Sig.
Own agricultural land	Phi	.019	.756
	N valid Cases	273	
Own livestock	Phi	.034	.578
	N valid cases	273	
Own fruit trees	Phi	.135	.026
	N valid Cases	273	
Size of land owned	Phi	.084	.250
	Gamma	.226	.281
	N valid Cases	186	
Amount of livestock owned	Phi	.135	.229
	Gamma	-.263	.115
	N valid cases	162	
Amount of grain produced in the last harvest season	Phi	.140	.147
	Gamma	-.156	.142
	N valid cases	273	

The results of Phi test too have shown a statistically significant association ($p < 0.05$) only between the degrees of stunting and the household's fruit tree ownership. The independent variables such as households land and livestock ownership have not shown a significant association ($p > 0.05$) with the degrees of stunting. Although insignificant the results of phi and gamma indicated the direction of the relationship between the degree of stunting and agricultural land owned was positive. Also, the relationship between the degree of stunting and the amount of livestock owned was statistically insignificant ($p > 0.05$), but the Phi Coefficient 0.13 indicates that there is a slightly moderate relationship between the two variables and gamma -.3 indicates the nature of the relationship negative. This is the severe stunting decreases as the household's livestock ownership increases.

The relationship between the degree of stunting and the amount of cereals produced in the last harvest season was statistically insignificant ($p > 0.05$). The Phi Coefficient also indicated a slight moderate relationship and the nature of the relationship negative ($G = -0.2$). That is the severe stunting decreases when a household produces more.

The bivariate test for association has indicated that socioeconomic variables are not primarily predictors of the level of stunting as most socioeconomic variables found statistically insignificant. This is not in harmony with the views of the political economy model which examines illness as a result of socioeconomic deprivation. Political economy views health status dependent on economic the conditions. As a result, the political economy model suggests, significant changes in the health behavior of any group of individuals are seen to require altering the social and economic context within which they live. In this regard, but the vast majority of stunted (without considering the level) children were found from households with limited household resources and poor living condition. And it supports the arguments of the political economy model.

In in-depth interviews it is found that the majority of the households having a stunted child lacked the most important rural household resources except for house ownership and were below the standard in terms of wealth indicators. The landholding size and livestock were inadequate for supporting these households. Plant vegetables were uncommon and the amount of cereal production was low. It is also found that household food purchasing ability was low and women travel for four hours to access the market and cities on average. A low family income and poor living conditions increase the risk of child stunting, as a result of high food insecurity, low access to health care, unhealthy environments and a high risk of infections.

Food availability was said to be strongly affected by seasonality; many households were only able to produce sufficient food to meet their food requirements for less than six months of the year. Food shortage was reported to commonly happen during the summer season. For instance, 19 out of 30 mothers had reported that their household had experienced food shortage last summer. One mother explained food unavailability during the summer season as follows,

Summer was a bad time for us. During this period food was highly unavailable. All of us including the farm, require cereals during summer. For instance, there was a time when we ate once a day or spend the whole day without eating anything. It was common to have a cup of coffee with 'yebuna kurs' until dinner during the summer season (Guded Abe, 37).

Stating the commonness of food deficit during the summer season, she mentioned two main reasons why food shortage occurs during this season. She mentioned that the farm, men, and children require more food during summer. This is to mean summer is time for cultivating and cereal should be allocated and the increase in the need for food during this season. The key informants also mentioned poverty (subjective definition) as one of the determinants of child stunting in the study area. Zewditu-health extension worker in Maserut health post described the higher prevalence of stunting in the district as related to the wide prevalence of poverty in the area.

The stunting prevalence in Meket Woreda is highly associated with poverty. There is persistent poverty especially in the lowland part of the district. The lowland part of the district is degraded and vulnerable to drought. Thus, there was persistent poverty and food insecurity (Zewditu Lebey, health extension worker).

Similarly, the head of the Meket Woreda health office called poverty one main factor predicting child stunting in the study area.

Child stunting is one of the biggest issues in our district [Meket]. The prevalence of child stunting in this woreda is 46%, which is very serious and poverty plays a key role (Berahn, the head of Meket woreda health office).

Moges head of Meket woreda agricultural office revealed the lowland part of the district as highly degraded, drought vulnerable, and mountainous part of the district. This would hamper household food production and is likely to result in food shortage, and thus linear child growth.

4.4. The Level of Stunting and Household Food Consumption Behavior

The majority of the mothers (61.2%) had food consumption behavior during pregnancy as usual, while 34.8% of mothers had consumed less food than usual in their last pregnancy. Only a small proportion of the mothers (4%) had consumed food more than usual during their last pregnancy. And, nearly 20% of mothers out of 34.8%, reported a loss of appetite and nausea as a reason for consuming less food during their pregnancy, while the remaining 10% and 4.8% of the mothers reported making of abdomen weightier and lack of food in the house as a reason for the lower food consumption during last pregnancy, respectively.

Nearly 41% of the mothers had stopped eating certain foods during their last pregnancy with the majority of the mothers had stopped consuming lentil during their last pregnancy (16.5%). 6.2% of mothers had also responded that they stopped both lentil and dairy products during their last pregnancy. Almost all (93.4%) of mothers have breastfed their child for more than six months and most children were provided cereal-based foods, whereas one-quarter have not provided.

Table 4.7. Cross-tabulation of the level of stunting and food consumption behavior

Indicators		Moderate		Severe	
		Frequency	Percent	Frequency	Percent
Mothers food consumption during the last pregnancy	More than usual	9	4.5	2	2.8
	Same as usual	145	72.1	22	30.6
	Less than usual	47	23.4	48	66.6
	Total	201	100	72	100
Stop eating certain foods during pregnancy	Yes	61	30.3	50	69.4
	No	140	69.7	22	30.6
	Total	201	100	72	100
Weaning food given to a child	Porridge	11	5.4	4	5.6
	Injera	93	46.3	28	38.9
	Nothing	45	22.4	24	33.3
	Porridge & Injera	52	25.9	16	22.2
	Total	201	100	72	100

This study indicated that the severity of stunting increases as the mother's food consumption behavior during stunted child pregnancy changes from more than usual to the same as usual and less than usual. As indicated in table 4.7, the vast majority (66.6%) of severely stunted children were originally from mothers who consume less than usual during pregnancy followed by mothers who did not change food consumption during pregnancy (30.6%). The lowest prevalence (2.8%) of children severely stunted was found from mothers who consume more than usual during pregnancy.

Moreover, moderate stunting was higher when maternal food consumption behavior during pregnancy did not change from the usual. Aguayo and Menon (2014:4) mentioned the poor nutrition of women before and during pregnancy as one of the three main drivers of child stunting in South Asia, the epicenter of the global stunting crisis. Preconception conditions including the pre-pregnancy nutritional status of the mother, as well as her energy and nutrient intake, influence the early processes of growth and development (Stewart et al., 2013:32). Since stunting is presumed to start in *utero*, it is largely influenced by the mother's dietary intake during her pregnancy. UNICEF (2013) identifies improving women's nutrition, especially before, during, and after pregnancy as one of the main approaches to reduce stunting.

Above all, from 72 children severely stunted nearly 70% were from mothers who stopped consuming certain types of food during pregnancy due to cultural reasons. It is mentioned that mothers stop consuming during pregnancy nutritious food like lentils and animal source food. Lentils are a highly nutritious food, rich in minerals, protein, and fiber (Ware 2018). Lentils also include minerals such as zinc and copper which are important for child linear growth. In the study area, however, mothers have abstained from consuming such nutrient-rich food alongside with animal products during their pregnancy. Hence, cultural factors have influenced the mother's food consumption behavior during pregnancy.

Concerning the type of weaning food, children who consume injera as weaning and children where weaning food was not provided formed the majority of children severely stunted, 38.9% and 33.3% respectively. Makori et al. (2017:46) states relying on cereal-based complementary foods might

limit micronutrient bioavailability and attainment of nutrients adequacy which may collectively hurt the nutritional status of a child during the critical period of growth. Regarding this, Teshome et al. (2009) have found an association between cereal-based food consumption and child stunting in food-secure woredas of Mecha and Wenberma Woredas of West Gojjam Zone, Ethiopia. He showed stunting was higher among children who received injera as weaning food (47.6%). A significant proportion of children who were fed with porridge from cereals as a weaning food were found to have been stunted possibly because of the low nutrient content (Adeba et al., 2014).

The chi-square output provided that there is a relationship (higher) between the level of stunting and the mother’s food consumption behavior during pregnancy and stopping certain kinds of food during pregnancy due to cultural reasons, with Asymp. Sig. 0.00 each of. It indicates that the mother’s food consumption behavior during pregnancy statistically significantly affects the severe stunting. Hence, maternal food consumption behavior during pregnancy remained prominent in affecting severe stunting.

Table 4.8. Test for association between the level of stunting & food consumption behavior

Independent variables*Degree of stunting		Value	Approx. Sig.
Maternal food consumption behavior during pregnancy	Phi	.401	.000
	Gamma	.685	.000
	N valid cases	273	
Stop consuming certain food during pregnancy	Phi	-.331	.000
	N valid cases	273	
Duration of a child breastfeeding	Phi	.025	.679
	Gamma	.120	.664
	N valid cases	273	

A statistically significant ($p=0.00$) relationship was observed between the degree of stunting and mother’s food consumption behavior during pregnancy. The strength of the association is strong ($\phi=0.4$) and the nature of the relationship positive gamma (0.7). That is when maternal food consumption during pregnancy was more than usual, children were less likely to be severely stunted.

There is also a statistically significant association ($p<0.00$) between the degree of stunting and

mothers stop consuming certain kinds of food during pregnancy due to cultural reasons. The strength of the association ($\phi=0.33$) is a strong one. Regarding the influence of cultural factors in consumption during pregnancy, among the mothers participated in an in-depth interview Yeshi Kassa stated that,

We are not allowed to consume pea, lentil, chickpea, forage, and gruel when we are close to giving birth. It is thought that consuming these foods makes delivery difficult (Yeshi Kassa, 38).

Although, Yeshi was not able to clarify how it would make delivery difficult she stated that she is told it makes delivery difficult. It might be that it would increase childbirth weight. The finding confirms the idea that health behaviors are shaped by cultural beliefs and religious practices. According to the social ecology model, macro-level factors such as social norms, religious values, and social environment have a more direct influence on behaviors.

A statistically insignificant and tinny association was found between the duration of breastfeeding ($\phi .03$, $G= .12$) and the degree of stunting. The duration of breastfeeding by itself is not sufficient to meet adequate breastfeeding. What and when mothers feed the child should be explored. On the other hand, even prolonged breastfeeding was identified as a predictor of child stunting (Tiwari et al., 2014 and Cetthakrikul et al., 2018). These findings are in harmony with the works of Tiwari et al. (2014) in their cross-sectional study aimed to assess determinants of stunting among Nepalese under-five children found prolonged breastfeeding (more than 12 months) has led to increased risk of stunting and severe stunting among the Nepalese children. The possible explanation provided for this was the poorest status of families that made breastfeeding the only viable choice but its nutrient content alone is not sufficient to match the increased demand for children as they grow up.

Below is the food consumption behavior of households with stunted children obtained through qualitative methods. The rationale behind is to understand the food consumption behavior of households with stunted children.

4.4.1. Household Staple Food

The type of staple food usually eaten in the woreda appears to be associated with child stunting. All 30 mothers who participated in in-depth interviews reported that their staple food was ‘Shiro with injera made of ‘teff’ and wheat. Although most households produced cereals such as barley, sorghum, pea, lentil, bean, the mothers’ ability to prepare nutritious foods was rare. Feeding vegetables and fruits were rare, which results in vitamin A and C deficiencies (Andrew and Dennis 2008: 97). Vegetables are nutrient-dense with vitamins and minerals essential for health. Moreover, although most households own livestock, they consumed meat only during holidays. Some of them have counted years since they consumed meat and dairy.

For instance, one mother Yeshe Kassa, 38, who participated in in-depth interviews described that it is two years since she and her two children eat animal product food, even on special days. One mother also described the situation as follows:

I used to drink milk when I was eight years old. My children have never consumed milk or milk products. We eat meat when our relatives invite us during the holidays (Habte Worku, 29).

The statements indicate the influence of both food habits and poverty on consuming animal products. Consumption of animal source food was identified as protective of child linear growth. Herrador et al. (2014:7) found children from families who consume their own cattle products were less likely to be stunted in rural communities of Fogera and Libo Kemkem Districts, Ethiopia, although they observed children of the area do not consume animal products as often. Furthermore, Batiro et al. (2017:9) revealed children who occasionally ate the animal source of food were protected from being stunted than those who did not eat in Kindo Didaye woreda, Wolaita Zone, Southern Ethiopia. The key-informants mentioned that the staple food in the study area was ‘Shiro’.

They described the dual form of stunting in the district: poverty and inappropriate feeding habits.

According to them, this is mainly due to the scarcity of resources and the cultural practice of eating diverse food (meat) as of special events. But, they recognized the stronger effect of habits in influencing feeding practices. That is, rural people prefer to have Shiro as daily household food consumption instead of mixing available food into diverse nutritious food, especially among the highlanders. In line with this, some mothers in in-depth interviews described that they daily consume Shiro regardless of the availability of cereals, fruits, vegetables, and animal products in the household. They reported that they want to sell for other needs rather than consuming at home. Furthermore, one mother Meker Muche, explained that her household doesn't consume diverse food because they could be envied. Socioeconomic Survey (2013:37) also reported that farmers in Ethiopia are more likely to sell high-value food grains and consume more of low-value food grains.

Atsede key-informant stated that most households in the study area were reluctant to consume cabbage. The cabbage was thought of as food for the poorest of the poor and could convey the message that the household had finished the cereals. Thus, she stated that most households remain without eating cabbage out of fear of such labeling although it was available in their field. Also, Atsede explained the challenge to convince the mothers to have fruit consumptions as follows,

Mothers are not willing to make their diet diverse even during pregnancy, even though we continuously thought them to do so. Purchasing fruits and vegetables while selling 'teff' is something a joke for them. They want to use it for other needs. They perceive the consumption of vegetables and fruits as not have great health benefits (Atsede Getanew, health extension worker).

Another key-informant Zewditu elaborated on the problem as more evident among the Highlanders irrespective of relative prosperity and fertile land. She described that most of the mothers in the study area had nutrition knowledge but they did not apply it. For Zewditu the problem was the domestic burden that most mothers had. She defined that mothers were busy with a domestic task and spend less time on preparing diverse food. In her words, Zewditu stated that,

The root cause of the problem lies in the mother's burden with the domestic task.

Domestic tasks in the community were only the mother's business and it is difficult for mothers to take care of the child, prepare diverse nutritious food, and perform household chores simultaneously. Lack of resources, particularly in our site [Maserut kebele] had a minimal role in determining community feeding habits. Look...for example, most people here [Maserut Kebele] have cereals, vegetables, and animals. However, they do not consume what they produce except Shiro, a staple food in the area (Zewditu Lebey, health extension worker).

Regarding this, some mothers reported that they prepare Shiro as a staple food to reduce the domestic burden because 'Shiro' ingredients stay fresh for a prolonged time once it is prepared and stored which minimizes their burden to prepare and travel to market. Food items other than Shiro were less likely to stay for a long period while stored. It was not easy to travel for three to four hours on average to purchase food items since markets were located distantly. 'Shiro' was also stated time-saving food for mothers busy with domestic tasks. Therefore, mothers do not spend more time on preparing 'wot' ingredients if they prepare 'Shiro'. For instance, one mother, Denasew Alebegn, described the reason for using 'Shiro' as a staple household food as follows:

.....we prefer to prepare Shiro because 'Shiro' as 'wot' ingredient stays for a prolonged time once it is prepared. We cannot frequently go to the market for the purchase of food items. We have more tasks at home and the market is located far from us. Hence, we purchase peas used for a long period and prepare 'Shiro' as 'wot' (Denasew Alebegn, 28).

The group interview participants revealed that the domestic burden also has an impact on food quality. They stated that the food quality by single mothers was better compared to that of married mothers. Married mothers are busy with a household task and do not spend more time on cooking alone. They prefer to cook immediately and food easy to cook. In this regard, the group participants mentioned a proverb related to the quality of food by single mothers and indicate the influence of house chores on the quality of food made. The proverb was “ከእቃ ገበታ፣ ከወጥ የጋለሞታ” [literally meaning that as *gebeta* (large round tray) was chosen for a dinner table, also for 'wot' prepared by

a single mother (*galamota*)]. The proverb indicates the role of domestic burden in feeding preference. Single mothers with less domestic burden were likely to prepare a special ‘wot’ although their feeding frequency was reported low. On the other hand, this might be a means to attract the partner for single mothers.

Metsehet a key informant, had shown how mothers in the study area face challenges from their husbands to feed children nutritious food. She stated that there were fathers who were not happy when mothers provided special food to children though this was not confirmed by an in-depth interview. It might be that mothers were not willing to provide such disagreeable information about their husbands, considered as disrespect to their husbands. However, group interview participants have argued that food was made by the husband’s preference. Metsehet described husbands feeling when children are provided with special food while they were not, as follows,

Some husbands were not happy when a mother purchases vegetables, fruits, and eggs to feed the child. He [husband] thought that she [the mother] was familiarizing the child to strange things which the child would require to access every day. This was, however, costly and inaccessible for a rural household. Thus, the husband perceives such a thing as teaching rudeness for children. In addition to this, some husbands were not okay with providing special food for children while they were not provided. For instance, if the mother starts to feed child an egg while providing ‘Shiro’ to the husband, he would get angry and say to her “የልጅ ገል አባጅተሽ እንቁላል ትመግቢያለሽ ነገ ልታሰደቡኑኝ” [literally it means, your child is a husband. You feed him an egg to make him grow soon and strong, and get me to hit) (Metsehet Birara, nutrition professional).

The statement is indicative that better food should be given to husbands, not to children. The perception among husbands is if the child gets adequate food she/he will not be willing to accept family order and even might resist. Generally, traditional cultural practices resulted in a low frequency of consumption of nutritious foods and animal source foods in the study area. Animal source food was found to have a variety of micronutrients including vitamin A, vitamin B-12,

riboflavin, calcium, iron, and zinc. These micronutrients are the building blocks of tissue and are important for a biochemical pathway (Headey et al., 2017:2). When the body has insufficient intake of these nutrients, a child will not physically develop. Generally, this supports the views of the social ecology model that health behaviors are shaped through a complex interplay of determinants at different levels, especially by cultural and social values. In this study, feeding practices and preferences were influenced by traditional values, norms, and social support networks.

4.4.2. Pregnancy, Fasting, and Food Consumption

Fasting requires restricting food consumption. Fasting in Ethiopian Orthodox Tewahedo Church's dominant religion in the study area requires restriction from consuming nearly all kinds of animal products for an extended period per year. Therefore, mothers were likely to restrict food in the study area. But, dietary restrictions encountered by a child in his or her early growing years; the child's exposure to fasting in *utero*, hampers his/her growth potential. Cognizant of this, this study has examined the mothers fasting frequency both during pregnancy and the non-pregnancy period and their food consumption behavior. Fasting was found common in the study area.

Among 273 mothers who participated in the survey, the vast majority (94.1%) of mothers had fasted during the last 12 months, while the least proportion (5.9%) was not. Similarly, fasting was found common in the study area even during pregnancy. 91.2% of mothers had fast during their last pregnancy (pregnant of a stunted child) whereas 8.8% were not. Regarding the meal frequency during fasting (consumption of non-animal product food), all of them (94.1%) stated that they had a meal two times a day regardless of their pregnancy status. That is they would have only lunch and dinner per day. This finding is in harmony with the finding by Brainerd and Menon (2015) who revealed that religious practices influence child growth in South Asia.

Since the vast proportion of mothers had fasted during their last pregnancy, it means they abstained from eating nearly all animal products and consumed twice a day during their last pregnancy. The commonness of fasting in the study area might be associated with a predominance of Orthodox

Christianity. There is a high number of fasting days commemorated by the Ethiopian Orthodox Church which may have repercussions on the nutritional status of the community. Ethiopian Orthodox Church requires fasting (abstaining from eating nearly all animal products) between 100 and 220 days per year. During in-depth interviews, mothers have shown that it was common to fast every fasting commemorated by the Orthodox Church in the study area. They reported that stopping fasting because of pregnancy is not thinkable. Doing such a thing is indicated to result in labeling by community and mocking. The mother will be labeled as deviant and secular. Thus, in fear of such labeling a mother, whether she likes or not would fast. For instance, one mother described the situation as follows,

.....I don't want to disappoint my God. Besides, I don't want to be odd in the community by breaking fasting. My neighbors will sarcasm on me because it is considered as wrongdoing (Haymanot Tefera, 31).

Her statement was indicative of the mother's ability to resist cultural influence. She indicated how religious and cultural values influence maternal food intake. Haymanot prefers to fast rather than to disappoint her God and get mocked by community members. The key informants and group interview participants have also revealed the influence of religious and cultural values on mothers fasting during pregnancy. For instance, Metsehet Birara nutrition professional described mothers fasting during pregnancy as follows,

We [health professionals] are very sad about that [mothers fasting during pregnancy]. We don't recommend them to fast during pregnancy. We usually teach them that it is bad both for herself and a child's health. However, they [mothers] do not pay attention to our recommendation. In this community, cultural and religious influences on fasting are strong (Metsehet Birara, nutrition professional).

The statement is indicative of how health workers get challenged in their attempt to convince mothers not to fast during pregnancy where religious and cultural values are strong. This might suggest what kind of intervention mechanisms should be adopted in such areas.

Besides, Metsehet stated the mother's strong adherence to religious values associated with fasting during pregnancy. She described that the mothers state they were not going to break the fasting for unborn baby (in the fetus), the baby whom they haven't seen born. This is a manifestation of cultural values in fasting. In one case, the statement 'unborn baby' indicates mothers were not certain that they will have a safe delivery and a healthy child. In the other case, if the delivery was not safe and she loses a child it would be double lost, loss of baby and blessing. Atsedeh health extension worker has described the thought behind fasting during pregnancy in the community as follows,

Mothers, in this community, believe that by fasting God's help would be with them during their delivery. They thought if they stop fasting during pregnancy their delivery would not be safe. It is presumed that God would punish them on the delivery. They say he [God] would protect us, so have to fast (Atsedeh Getanew, health extension worker).

Nevertheless, this is indicative of the influence of organizational-level factors such as churches on feeding practice and preference. And, it is in line with the assumptions of the social ecology model of organizational-level factors like churches, community organizations, and stores constrain or promote behaviors through rules, regulations, policies, and structures. Also, it indicates the influence of community norms, another macro-level factor on feeding practices and preferences. Mothers indicated that they fast in fear of labelings and mock from the community because failure to do so is considered wrong among the community members.

4.4.3. Child Breastfeeding Practice

Speaking to the child breastfeeding frequency one mother Atalel Alemnew stated that,

I breastfeed my child when she gets to cry. If she is silent or got sleep, I am happy that I can continue with my house chores (Atalel Alemnew, 27).

Sahle community health facilitator during key informant's interview has associated higher stunting prevalence in the study area to widespread infrequent child feeding practice. In her words, Sahle stated that,

For me, the economic factors have minimal impact on child stunting in this area [Zegay Dabza]. Rather, the main factor contributing to child stunting was inappropriate child feeding practice. That is, most of the mothers in the setting don't breastfeed their child hourly. If the child is slept for five consecutive hours mother's don't wake up and don't breastfeed the child. Rather they are happy that they can perform their household tasks freely. If the child is to breastfeed, it has to cry. In addition to this, mothers don't prepare special food for children. They provide food similar to what they consume. It would be either injera with Shiro or Kik (split yellow peas in a mildly spiced stew) wot (Sahle Fikre, community health facilitator).

Sahle attributed the greater role in determining to stunt to the feeding habit than economic factors. Another key-informant Zewditu, stating the commonness of infrequent child feeding associated the problem to the caregiver's work burden and gender division of labor. According to her, mothers are busy with household tasks and don't remember to breastfeed/feed the child. That is mothers forget to breastfeed their child hourly, they remember to breastfed/feed when the child gets to cry. Thus, what determines their child feeding frequency is more of the availability of assistance with domestic tasks. In her own words, Zewditu described it as follows,

I think one of the problems associated with these [low child feeding frequency] is the fact that child feeding is the sole responsibility of the mother. However, mothers are so busy with house chores. The domestic task in this area is solely the business of women. Hence, mothers fed the child when they cry. Thus, for me, the higher prevalence of stunting in this area is more to do with the domestic burden on mothers (Zewditu Lebey, health extension worker).

Thus, Zewditu indicated the role of gender-based division of labor and the patriarchal nature of society in determining the nutritional status. Mothers have the responsibility to conduct household chores, care for the child, and at the same time to help the husband with the farming. The sole responsibility of husbands in the study area was farming. And, thus, mothers lack time to provide appropriate care and nutrition for the child. Therefore, gender-based division of labor resulting in caregiver time constraint has affected child linear growth, affecting feeding frequency alongside with lack of awareness. In this regard, Nordang et al. (2015) identified increased mother’s work associated with stunting among under-five children in rural Rukwa, Tanzania, affecting child feeding frequency; IFPRI (2016) recognize having a competent adult caretaker as critical to a child’s nutrition and health, especially in the first year of life. These findings are in harmony with the works of Aguayo et al. (2016), who found that stunting was significantly more common in children who were not fed a minimum number of times per day.

4.5. The Level of Stunting and Utilization of Maternal Healthcare Services

Various studies had revealed the use of modern health care during pregnancy positively associated with child height (Deshmukh et al. 2013:216, Das et al. 2008:216, Aoun et al. 2015:140). They found when mothers avail antenatal and postnatal services and delivered at the health centers, the lower the prevalence of chronic malnutrition.

Table 4.9. Cross-tabulation of the level of stunting and utilization of maternal healthcare

Indicators		Moderate		Severe	
		Frequency	Percent	Frequency	Percent
Visit a health facility for ANC service	Yes	112	55.7	33	45.8
	No	89	44.3	39	54.2
	Total	201	100	72	100
	Total	112	100	33	100
Visit health facility for PNC service	Yes	85	42.3	22	30.6
	No	116	57.7	50	69.4
	Total	201	100	72	100
Place of birth	Home	136	67.7	51	70.8
	Health center	65	33.3	21	29.2
	Total	201	100	72	100

Regarding the degree of stunting and healthcare utilization, both the severe and moderate stunting decreased with the increase of maternal healthcare service utilization. As shown in table 4.9, the prevalence of severe stunting was highest among mothers who did not use ANC and PNC services, 54.2% and 69.4% respectively. Regarding the place of delivery, children born not at the hands of physicians formed the vast majority (70.8%) of severely stunted children, while children born at the hands of physicians constituted nearly 30% of severely stunted children. The finding is in harmony with that of Bwalya et al. (2015:122) showed in Zambia children whose mothers delivered at a health facility were less likely stunted than those whose mothers delivered at home.

Contrary to this, the chi-square test has shown the level of stunting and visits a health facility for PNC and ANC services independent of each other (Asymp. Sig. 0.08, Sig. 0.1), respectively. This might be due to the least number of mothers attended both ANC and PNC services in the study area. The finding contradicts with that of Bwalya et al. (2015) found that the more the mothers had ANC and PNC attendances, the lower chronic malnutrition. It is stated that the services received during antenatal attendance might help mothers to take care of their children. Similarly, postnatal clinic attendance might help mothers to obtain knowledge on diet, regain strength, and get the child immunized.

Table 4.10. Test for association between the level of stunting and healthcare utilization

Independent variables*Degree of stunting		Value	Approx. Sig.
ANC Visit	Phi	.087	.149
	N valid cases	273	
PNC Visit	Phi	.106	.080
	N valid cases	273	
Frequency of ANC visit	Phi	.077	.652
	Gamma	.137	.711
	N valid cases	145	

The findings between the degree of stunting and visits to ANC and PNC services were not statistically significant ($p > 0.05$), and the association is also weak (phi 0.09 and 0.10), respectively. A statistically insignificant and tinny association was also found between the mother's frequency of ANC visit (phi .07, $G = .14$). This might be associated with limited access to healthcare services. The findings support the findings in Halaba Woreda, Southern Ethiopia by Ersino et al. (2018),

who showed no association between access and utilization of health-nutrition services (ANC attendance, number of ANC visits, place of delivery), and child stunting.

Below is the reasons obtained through interviews for not using maternal healthcare services in the study area.

4.5.1. Reasons for not Utilizing Maternal Health Care

Recognizing the significant and positive contribution of the use of maternal care to child development requires scrutinizing the question that why mothers in the study area did not use maternal health care services especially antenatal care service. Table 4.11 describes the reasons behind the mother’s non-use of antenatal care services. The information was obtained from 128 (46.9%) mothers who did not use antenatal care during stunt child pregnancy.

Table 4.11. Reasons for not availing ANC service

Reasons for availing ANC service	Frequency	Percent
Not wanting to go	10	3.7
Long-distance to the health facility (reported)	75	27.5
Lack of awareness	13	4.8
Not wanting to go and long distance to the health facility	30	10.9
Total	128	46.9

Long-distance to health facilities were identified as the main factor that hinders mothers from availing antenatal care services. As measured by the hour it took to arrive at the health facility, all of them 27.5% out of 46.9% reported that it took them beyond three hours to arrive at the health facility. It is challenging for pregnant mothers to travel hours to avail of maternal health care services. Even during the postpartum period, it would not be simple to carry a child and go to distant health centers. WHO (2016:75) describes long distance to health centers means children were less likely to receive treatment during illness and benefit from micronutrient supplementation. Lack of health facility also means mothers were less likely to take the child for

immunizations.

Mothers who participated in in-depth interviews (especially lowlanders) also indicated a long distance to the health centers as a factor for not availing maternal health care services. For instance, a woman living in lowland described the challenge to access the health centers in their locality as follows,

Here in lowland, there is no such thing called a health center. It is very uncommon for us [lowland people]. We don't have any exposure to modern health institutions. We know they [health centers] are available in the Highlands. However, we don't go to the highlands to use health care services because it is too far and tiresome. It might take us six to seven hours on foot. Moreover, transportation is not available and the path is also full of ups and downs. It is a road covered by mountainous and gorges (Fasika Wubet, 25).

Fasika also mentioned a lack of transportation services in the area which further makes access to health services hard. Another woman from the lowland illustrated access to maternal health care services as follows,

I haven't attended either antenatal or postnatal services for stunted child pregnancy because there is no health center in our village [the lowland]. We have to travel to the highlands to access the health centers. However, it is a half-day journey on foot. Hence, it is hard for a pregnant woman to travel for half a day and access maternal health care services (Felek Demle, 35).

Health extension workers during key informant interviews stated that lack of availability of health centers in lowland areas was one of the main reasons for mothers not using maternal health care services. For instance, Atsede described the situation as follows,

A woman from the lowland has to come to highland early ahead of two weeks for

delivery if she has to deliver at health centers. This is because lowland mothers had to travel even beyond a day on foot to access the health centers. However, going to the highland is possible only if she or her husband had relatives living there [Highland]. Unless, she had nowhere to rest and give birth (Atsede Getanew, health extension worker).

Moreover, group interview participants explained the lack of awareness and not wanting to go to health centers as the main reasons for not delivering at health facilities. They revealed that mothers were not willing to show their body (reproductive organs) to a physician or nurse, whom they call strangers. Furthermore, they stated that mothers relate safe delivery to the will of God rather than medical help. In addition to long-distance to the health centers and lack of awareness among mothers, a key informant added a lack of permission from their husbands to visit health care centers as a reason for mothers not using maternal health care services.

Metsehet reported that some husbands do not allow their wives to go to health centers and some mothers visit health centers secretly. She reported that young husbands, especially from the lowland, do not want their wives to visit health centers because they want to have a baby immediately after marriage. This way they think that they can prevent the increasing flow of young wives to the cities because unless a woman gives birth she is likely to leave for the city. Therefore, husbands consider every visit to health facilities as an attempt to use family planning. Hence, they did not allow them to visit. Therefore, giving birth is considered as the glue for sustaining a marriage.

However, this was not confirmed during in-depth interviews. This may be due to the unwillingness of mothers to provide such personal information for a male investigator. The reasons provided for not using health care services support the idea of the political economy model and the social ecology model. That of the political economy model, the study participants, especially highlanders were devoid of health centers, whereas according to the social ecology model it was found multiple factors, cultural, affected health-care utilization.

4.6. The Level of Stunting and Maternal Empowerment

In this study, the majority (80.6%) of severely stunted children were also originally from mothers married early, less than eighteen. Mothers first married at the age above eighteen constituted only 19.4% of children severely stunted. Similarly, the majority (80.2%) of the mothers ask for permission from the husband to go to a health center, a market, and public gatherings. Among 273 survey participants, 64.8% had no social support, while the remaining 35.2% had support with domestic tasks. Thus, the majority conducted household chores, including childcare, by themselves. 93% mothers currently living with husband, 245 (89.7%) mothers reported they were not kicked or slapped by their husbands in the last 12 months. Mothers who participated in in-depth interviews have also prominently reported the end of beating women by husbands in the study area.

However, this study have showed women in the study area were less likely to make decisions by themselves about major household purchases and the use of money. That is, for 71.3 % of the mothers who participated in the study, the decision on the major household purchases was made by their husbands. The decision on the use of money was exclusively left to the husbands. Only a small proportion (6.3%) of the mothers decide on the use of money in the household. Group interview participants have also mentioned the limited maternal power in deciding on major household purchases and the use of money. They indicated that women participated less in household purchasing and the use of money. For instance, group interview participants stated the experience in the study area as follows,

We [husbands] decide whether we have to buy oxen or gun, and they [wives] decide on the purchase of pepper and salt. They [wives] have nothing to do with this (Male household head, group interview participant).

According to their statement, women's decision power is limited to the purchase of domestic items such as onion and peppers. This also means husbands are less concerned about the purchase of food for household consumption. Women were not in a position to decide on large household

purchases. It is indicative of the position women have in society and the pervasiveness of the gender-based division of labor in the study area. The participant stated the purchase of gun and oxen, relatively major purchasing's in the study area, are left to the husbands.

Table 4.12. Cross-tabulation of the level of stunting and maternal empowerment indicators

Indicators		Moderate		Severe	
		Frequency	Percent	Frequency	Percent
Mother's age at first marriage	<13	71	35.3	26	36.1
	13-18	88	43.8	32	44.5
	>18	42	20.9	14	19.4
	Total	201	100	72	100
Decide on household purchase	Mother	21	11.2	3	4.5
	Father	131	69.7	50	75.8
	Jointly	36	19.1	13	19.7
	Total	188	100	66	100
Decide on the use of money	Mother	15	8	1	1.5
	Father	153	81.4	59	89.4
	Jointly	20	10.6	6	9.1
	Total	188	100	66	100
Decide on health care	Mother	39	20.7	8	12.1
	Father	76	40.4	43	65.2
	Jointly	73	38.9	15	22.7
	Total	188	100	66	100
Able to go to healthcare, market, and gatherings	Yes	31	16.5	4	6.1
	No	157	83.5	62	93.9
	Total	188	100	66	100
Kicked by their husbands in the last 12 months	Yes	8	4.3	1	1.5
	No	180	95.7	65	98.5
	Total	188	100	66	100
Have assistant with domestic tasks	Yes	93	46.3	3	4.2
	No	108	53.7	69	95.8
	Total	201	100	72	100

The cross-tabulation output revealed there is an association between maternal empowerment and the degree of stunting in the study area. Both severe and moderate stunting was found lowest if mothers have the right to decide on household purchases, the use of money, their health care, and able to go to market, healthcare and public gatherings and had an assistant with domestic tasks. And, households, where a decision on purchasing, use of money and maternal health care was made by husbands formed the majority of children severely stunted, 75.8%, 89.4%, and 65.2%

respectively. Moreover, these households formed the majority of moderately stunted children. The prevalence of severe and moderate stunting in households mothers was not able to go to healthcare, market or social gatherings without the permission of husbands was 83.5% and 93.9%, respectively. Thus, the prevalence of both severe and moderate stunting was found highest among households where women were devoid of decision making power and, thus, indicated maternal empowerment as the most important factor in determining the level of stunting.

The findings are broadly in harmony with that of IFPRI (2016:10) report stating women living in communities where less value is placed on women's well-being than men may find that reproductive health services for women are unavailable. These circumstances make it difficult to undertake the caring practices that are in their children's best interests. They also hamper women's ability to provide adequate care for themselves, further undermining their ability to give adequate care to their children. Furthermore, mothers with the right to decide on their health care can visit health centers for maternal health care services and when the child gets sick. Autonomous mothers devote to their nutrition and resist social and cultural challenges (IFPRI 2003).

Even if the vast majority of mothers with stunted children were found not experienced domestic violence in the last 12 months, this study, however, found that domestic violence is associated with the level of stunting. Almost all (98.5%) of severely stunted children were from mothers experienced domestic violence in the last 12 months. Another important determinant factor was having assistants with domestic tasks. The mothers without assistance with domestic tasks formed 95.8% of children severely stunted and 53.7% of moderate stunting. Lack of social support means that mothers were very busy with domestic chores and could not provide adequate childcare and support. This means they were less likely to feed the child and themselves quality food promptly, keep the child clean and ensure child health. All these influences on child linear growth potential.

The lack of assistance with domestic tasks was largely due to their young age, small family size, and the inability to hire a maid. Young parents were less likely to have a child big enough to do domestic chores and help the mother. The finding support that of findings by Cetthakrikul et al. (2018). Cetthakrikul et al. (2018:7) stated the reason behind the higher prevalence of stunting in

an affluent area of Bangkok was a limited time mothers have for childcare due to the nature of their work and the nuclear-family characteristic of most households in Bangkok, where little or no support from relatives is provided to mothers. In the study by Ersino et al. (2018) the majority of the study participants had six household members, the work-burden of women did not show a significant association with child nutritional status. The important role of gender in underlying maternal and child nutrition was not emphasized in the National Nutrition Program in Ethiopia focusing on dietary factors. Concerning the availability of assistance with domestic tasks, one mother, Fasika Alemnew, explained the burden of lack of social support in the domestic task as follows;

I don't have anyone who supports me with domestic tasks. Two of my children are very little and unable to do the domestic task. It is solely my responsibility. Since my kids are little, I also conduct the field task sheep grazing in addition to domestic chores. I wake up early in the morning and perform house activities such as preparing breakfast or making coffee. Then after, my husband goes to the field and I take two of our sheep bought by a credit to graze while carrying my younger child. I graze them [sheep] until midday and come back to home and then engage with domestic chores. And, again, I return to graze late afternoon. It is very difficult to handle (Fasika Alemnew, 26).

Fasika stated that she engages in both domestic and field tasks because her children were not capable to graze sheep, a field task. She described how challenging it is to engage in both activities. The double burden makes her less able to prepare adequate food and provide adequate childcare because she cannot spend more time in preparing food and childcare. Moreover, during sheep grazings, she carries a child exposed to sun and wind, which could affect the child's health. Fasika made it clear that domestic tasks are solely left to women. Hence, the time provided to child-rearing and stimulation is limited. Thus, domestic tasks and lack of social support affected childcare.

In a chi-square test, the level of stunting have shown highest dependence with mothers having assistance with domestic tasks (Asymp. Sig. 0.00) followed by variables mother's decide on their

healthcare (Asymp. Sig. 0.02) and ability to go to healthcare, market, and social gatherings without asking permission from husbands (Asymp. Sig. 0.03). That is, severe stunting decreases as mothers have an assistant with domestic tasks, able to decide on her healthcare, and able to go to healthcare, market and social gatherings without permission from husbands. But, the test provided that the variables the level of stunting and deciding on household purchase independent with each other (Asymp. Sig. 0.3). The chi-square test has also shown there is independence between the degree of stunting and mother's decision on the use of money and experienced domestic violence in the last 12 months (Asymp. 0.2, and 0.7), respectively.

Table 4.13. Test for association between the level of stunting and maternal empowerment

Independent variables*Degree of stunting		Value	Approx. Sig.
Mothers age at first marriage	Phi	.016	.966
	Gamma	-.025	.831
	N valid cases	273	
Decide on household purchases	Phi	.100	.282
	N valid cases	254	
Decide on the use of money	Phi	.121	.155
	N valid cases	254	
Decide on mother's healthcare	Phi	.217	.002
	N valid cases	254	
Assistance with domestic tasks	Phi	.389	.000
	N valid cases	273	
Mother's ability to mobile	Phi	.133	.034
	N valid cases	254	
Experience domestic violence in the last 12 months	Phi	.028	.660
	N valid cases	254	

A statistically insignificant and tinny association was found between the mother's age at first marriage (phi 0.01, G= -.03) and the degree of stunting. A gamma of -.03 indicates the relationship between the mother's age at first marriage weak and negative. The level of stunting remains moderate when the mother's age at first marriage increases. Early married mothers were not mature enough physically and mentally. They were also more likely to give birth to low-birth-weight children and growth retardation. This is not in harmony with the findings of Efevbera et al. (2017:13) identified girl child marriage as a risk factor for early childhood development and stunting in sub-Saharan Africa using data from 37,558 mother-child pairs. Cettakrikul et al.

(2018:7) found the advanced age of mothers at the time of delivery lowered the probability of stunting.

The results of Phi test have also shown a statistically not significant association ($p > .005$) between the level of stunting and mothers decision on household purchases and the use of money. This is in contrast with the findings of IFPR (2003) stated mothers who have the autonomy to decide on household resources allocation/expenditure devote a greater proportion of resources to child-centered expenditures and vice-versa. However, a statistically significant association ($p < 0.05$) between the degrees of stunting and mothers decision on their healthcare, having assistants with domestic tasks, and mothers ability to mobile. In this study, for the majority, it is a husband who decides on their health care.

The findings of the association between deciding on mother's healthcare and the degree of stunting was moderate ($\phi = 0.2$). Mothers with the right to decide on their health care can visit health centers for maternal health care services and when the child gets sick. This is broadly in harmony with what findings of IFPRI (2016). According to IFPRI (2016:10) report, women living in communities where less value is placed on women's well-being than men may find that reproductive health services for women are unavailable. These circumstances make it difficult to undertake the caring practices that are in their children's best interests. They also hamper women's ability to provide adequate care for themselves, further undermining their ability to give adequate care to their children. The relationship between mothers with assistance with domestic tasks and the degree of stunting was statistically significant ($p = 0.00$). The Phi Coefficient (0.04) indicates there was a strong relationship between the degree of stunting and having assistants with domestic tasks.

There was also a significant ($p < 0.05$) and slightly moderate relationship ($\phi = 0.13$) between the degree of stunting and mother's ability to move to market, healthcare, and public gatherings without asking permission from their husbands. The study supports the statements of IFPRI (2016). IFPRI (2016:11) stated that disempowered women are less allowed to visit relatives, go to markets, and social gatherings. As a result, they were less likely to be exposed to new social and health and

nutrition knowledge. They also have little social support and more likely to be malnourished, sick, or injured as a result of violence. Maternal permission to go to the market may allow for possible interactions and information exchange with people outside the family circle. Going to the market could potentially provide a forum for the exchange of information that helps a mother to gain knowledge and advice which is beneficial for care, feeding or nutrition advice for children's health (Shroff et al., 2009:70).

Finally, the findings of the relationship between experienced domestic violence in the last 12 months and the degree of stunting were found statistically insignificant and very weak relationship (ϕ 0.03). This might be due the small prevalence of domestic violence in the study area. This finding contradicts that of Sobkoviak et al. (2012:109) reported the poor growth of Liberian children is due to mothers experiencing sexual domestic violence. In general, maternal empowerment status reflect the idea political economy model hold that is, women tend to endure greater social and economic disadvantage than men, have restricted access to health-care services and suffer poorer health as a result. The political economy model views inequality between men and women contribute to higher disease burden among women. Women's lower status is also associated with community norms and values towards them. This assumed social ecology community norms and values affect behavior at play with women's status and thus child growth.

Variables found statistically significant in a bivariate association test were also included in a logit regression model to examine if there is a relationship or not.

Table 4.14. Logit model output

Variables	B	S.E.	Wald	df	Sig.	Exp (B)
Child age	-.667	.378	3.117	1	.077	.513
Mothers age	-.769	.603	1.627	1	.202	.463
Household size	-1.770	.409	18.742	1	.000	.170
Own fruit trees (1)	-.712	.704	1.024	1	.312	.490
Source of food			6.722	2	.035	
Source of family food (1)	.767	.667	1.324	1	.250	2.154
Source of family food (2)	-.563	.753	.559	1	.455	.570
Mothers feeding behavior during pregnancy	.999	.485	4.242	1	.039	2.717

Stop consuming certain food during pregnancy (1)	1.638	.537	9.292	1	.002	5.143
Decide on mother's healthcare			10.095	2	.006	
Decide on mother's healthcare (1)	.657	.666	.974	1	.324	1.929
Decide on mother's healthcare (2)	1.722	.549	9.836	1	.002	5.596
Mothers able to mobile (1)	-1.365	.772	3.124	1	.077	.255
Mothers with Assistant with domestic tasks (1)	3.304	.823	16.101	1	.000	27.218
a. Variable(s) entered on step 1: chilage, momage, HHsiz, ownFrtTree, SrcFFD, Feeddarpreg, StopFood, DcidMoHlth, Ablego, and Assistant.						

According to the logit regression test, a statistically significant relationship ($p < 0.05$) was found only between the severe stunting and household size, source of family food consumption, maternal food consumption behavior during pregnancy, stop consuming certain kind of food during pregnancy due to cultural reasons, decide on maternal healthcare, and mothers having assistance with domestic tasks. However, a statistically insignificant relationship was found between the level of stunting and child and mothers age, own fruit trees, and mother's ability to mobile without asking permission from husbands.

The odds of the level of severe stunting decreases by .170 times as household size increases. The odds of severe stunting also decreases by .570 times when the source of household food consumption was purchasing and children from households whose source of household food consumption was own farm were 2.154 times more likely to be severely stunted. Children from mothers whose food consumption behavior during pregnancy was less than usual were 2.7 times more likely to be severely stunted. Moreover, the odds of being severely stunted was 5.14 times higher for children from mothers stop consuming certain kinds of food during their pregnancy, indicating a strong positive relationship between the two variables.

The odds of being severely stunted decreases by 5.6 times for children whose mothers were able to decide on their healthcare, indicating there is a significant moderate negative relationship. Above all, the odds of being severely stunted for children significantly decreases by 27.3% when their mothers have assistants with domestic tasks, strong relationship.

CHAPTER FIVE

SUMMARY AND CONCLUSION

This research was intended to scrutinize what factors, other than biological, environmental, and demographic factors, were at play in influencing under-five child stunting status in Meket Woreda. To this end, the study investigated the role of socio-economic, cultural, and gender-related factors in influencing child stunting status. It specifically examined how lack of resources, food insecurity, lack of health centers and maternal health care service, low mothers status and traditional feeding habits underlie child stunting, intending to examine the contribution of each of these to child stunting.

To this effect, primary data were collected from 303 mothers having a stunted under-five child in selected health posts of Meket Woreda through a questionnaire survey and in-depth interviews. Key informant interviews were held with four health professionals working in health facilities and two woreda officials from health and agricultural offices. One group interview was also held with the community and religious leaders, mothers, and male household heads. This section presents a summary of the study's major findings and its conclusion.

The majority of children stunted were males and the age group 11-21 months. The research found some of the maternal and household attributes were unlike the findings by previous studies. Most of the stunted children were from young married mothers, male households and families with less than four members including number of siblings in the household. In this context, the present study showed that it is the quality of co-operation between husband and wife, and the possibility of support from other family members that matters more than the marital status. Mothers in female-headed households have a smaller domestic burden and have more time to childcare and stimulation which plays an important role in child growth and development.

The study found that the majority of households did not have enough farmland and livestock for food security. The land shortage was partly associated with not participating in the 1997 land

redistribution campaign due to their young age. Most of them owned less farmland than the regional average and did not possess enough oxen to plow independently. As a result, they were forced to engage in sharecropping and day labor, which resulted in heavy workload and instability. Moreover, they produced cereals for not more than six or seven months from the harvesting time. Thus, it exposed them to stress, food deficit, and poor living conditions. The study found that even though eucalyptus tree ownership is common in the study area, most of the households with stunted children did not own both fruit or eucalyptus trees and beehives. However, regarding housing, most of them were found living in a house with eucalyptus with mud-plastered walls and tin roofs. Food was available only seasonally, after the harvest. Thus food shortages were common during the planting season from April to September. This is partly due to the shortage of land and dependence on subsistence rain-fed agriculture. The larger part of the diet in Meket District is obtained from locally produced foods.

The study revealed that household and maternal food habits were influenced by local religious customs and traditions relating to feasts, fasts, and food-taboos. In this regard, the role of economic factors in influencing daily staple food was minimal. Regardless of food availability, households consumed Shiro as a staple food which is perceived as appropriate for rural people. Thus, they did not prepare diverse meals from what was available at home or from the market. Having special food regularly would also result in a mocking by neighbors. Mothers are also challenged by husbands, who complain that children get special food but not feeding the same food for husband. As a result, household food and feeding habits were characterized by a lack of dietary diversity, low consumption of animal food sources and vegetables and dependence on cereals-based complementary and staple foods.

The study also found that mothers' dietary intake did not change during pregnancy. Mothers in the study area did not follow the recommended food intake during pregnancy. A significant number of the mother's lost appetite and experience nausea during pregnancy. Because of the lack of alternative foods and the absence of physicians for consultation, mothers eat ready available and easy to make nutrient-poor food when experiencing loss of appetite and nausea due to pregnancy. Moreover, some mothers had stopped eating certain nutrient-rich food during pregnancy for cultural reasons. However, stopping eating certain food for cultural reasons was not found during

the lactation period. Furthermore, the study revealed that religion has influenced food habits. It is common to fast during pregnancy and the majority of mothers said to fast in fear of punishment from God during delivery and mocking from the community. The study also revealed that stunted children were fed irregularly and were provided mostly with cereal type foods. Children were not provided a meal unless they cried. Similarly, although children were breastfed for a prolonged period it was infrequent. These are partly due to the mother's domestic burden and lack of awareness about timely child feeding practice.

Mothers' utilization of maternal health care services was also low. This is attributed to the long distance to the health centers and not wanting to go to the health centers. In this context, low land areas of the study area lack health centers. As such, patients have to travel for long hours to access health care services. Also, mothers prefer to deliver at home because they do not want to open their bodies to physicians or nurses, which they call strangers. Besides, mothers do not have trust in the modern health system as they trust more in God.

This research revealed the low status of mothers of stunted children. Most mothers of stunted children married at an early age and lacked basic education. They couldn't decide on major household purchases, the use of money, and their health care. Their purchasing power is limited to basic food items and for the majority, it is husbands who decide on their health care. They also have to ask for permission from husbands to go to the market, health centers, and social gatherings. In addition to childcare, women are normally responsible for a wide variety of time-consuming domestic activities. Men are not normally a source of substitute childcare and women find it difficult to obtain such care from other women. This is a consequence of the low value placed on women's caring activities and leisure time.

The study indicated the vast majority of children were moderately stunted. However, the severity of stunting has increased with a decrease in child age and higher among male children. The children born of young mothers are at increased risk for severe stunting. It is also found that children born of mothers educated have less prevalence of severe stunting. In contrast to the common understandings, severe stunting was found not associated with household size and the

presence of more than one toddler in the household. Additionally, the prevalence of severe stunting was found highest of households that consume family food from 'own farm'. However, the level of stunting has not shown a significant difference among households with and without agricultural land and livestock ownership. Also, children from households who did not own fruit trees and live in a hut were found at increased risk of severe stunting.

A significant association was found between the prevalence of severe stunting and the reduction of food consumption during pregnancy. This study also revealed that children born not at the hands of physicians also constituted the majority of children severely stunted. But, both ANC and PNC visits were found statistically insignificant effect on severe stunting.

This study showed that severely stunted children were from mothers subject to early marriage and without decision making power on the use of money and their healthcare. Severe stunting declined as maternal age increases and mothers can decide. Specifically, the logistic regression analysis has shown that severe stunting has a significant relationship with the mother's ability to decide on the use of money at the household. Furthermore, the results generated by the logistic regression model show that mothers without assistant with domestic tasks showed a significant relationship with the occurrence of severe stunting. Finally, it is found that the majority of children severely stunted were primarily from mothers kicked by their husbands and not able to go to healthcare, market, and gatherings without permission from husbands.

For the most part, the findings of this study supported the theoretical framework of the study. As discussed in Chapter Two, the theoretical framework of this study indicated that poverty, food-insecurity, lack of access to health centers and utilization of maternal health care services, inappropriate feeding habits, and mother's low status can influence child stunting status. But some variations are observed; the study uncovered that alongside the presumed factors, households with a stunted child were not in absolute poverty, severe food shortage, and did not consume diverse foods regardless of their availability in the home.

The findings of the study have proved the sociological postulate which states that a society's culture and social structure affect health. It highlights the significance of economic, social, cultural and/or gender factors impacting at multiple levels such as individual, household and community in determining malnutrition. The lowland part of the Meket District lacks health centers and the physical infrastructure and rampant poverty. Community traditions and customs, including religious values, influenced feeding habits, especially in the highland part of the district. In this study, shortage of land, absence of livestock, distance from the household to the health centers, seasonal food insecurity, wrong eating habits, early marriage, and lack of mother's autonomy and social support have been logically connected to demonstrate how they influence the child nutritional status.

The findings of the study support the argument that the reduction of stunting requires human and social development (people). There should be an emphasis on food and nutrition security, sustainable agriculture, health and education and women empowerment alongside nutrition-specific support. However, there should also be a focus on ending a family legacy of malnutrition since it has strong intergenerational effects. The focus on stunted families can kindle the influence of parental nutritional status on childhood stunting and fasten the intervention process. Hence, there is a need for studies with a focus on intergenerational influences, including the intergenerational cycle of poverty and malnutrition. Besides, there should be a study including both households with stunted children and without a stunted child who will fill the void left by this study. To fail to protect young children at the critical ages of their growth and development is to wreak lasting damage on a whole generation, the results of which may well have effects on economic development and welfare for decades ahead.

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Appendix A. Questionnaire Prepared for Mother's/Caregivers having Stunted Children Under-five.

Preamble

Dear respondent! My name is Misganaw Getachew. I am a graduate student at Addis Ababa University, Department of Sociology. Currently, I am conducting a thesis on the study entitled ‘*Socioeconomic Basis of Child Stunting: Wealth, Culture, and Gender*’. The study is part of the requirements for completion of the degree of Masters of Arts in Sociology at Addis Ababa University. This questionnaire is thus developed to obtain information on your socioeconomic background, access and use of health service, empowerment indicators, food security status, and food habits and feeding preferences. Your accurate and truthful responses are very crucial for the success of the study. Bearing this in mind, I kindly request you to provide honest and accurate responses for each question. I would like to assure you that the information you provide will be kept confidential. Thank you in advance for your time and cooperation.

Segment 1: Certification and Identification

- 1.1. Interviewer's Name: _____ Signature: _____
- 1.2. Supervisor's Name: _____ Signature: _____
- 1.3. Date (DD-MM-YY) _____
- 1.4. Respondent's Kebele Name: _____
- 1.5. Questionnaire ID Number: _____

General Instruction for Interviewers. In filling the answers please write the number corresponding the respondent's choice in the box provided in front of each question. For questions without a box, write responses in the spaces provided in front of those questions.

Segment 2: Socio-Demographic background

1. What is the sex of the stunted child? (1=Boy, 2=Girl).....
2. How old is the stunted child?
(1=<10 mo., 2=11-21mo, 3=22-32 mo., 4= 33-43 mo., 5=44-59 mo).
2. What is your current marital status?
(1=Never married, 2=Married, 3=Divorced 4=Widowed)

16. What amount of grains stored in the last 6 mo.? (In quintals) _____

17. What type of cereals does this household produce in the last 6 mo?

Segment 4: Health-related questions

18. Did you see any health care personnel for antenatal care during the last pregnancy? (1=Yes, 2=No).....

19. If yes to question 18, how many times did the last child receive antenatal care during this pregnancy? (1=1-3 times, 2=3-5 times, 3= \geq 6 time).....

20. If No to question 18, what is your reason? (**Multiple response possible**).....

1=Not allowed going to the doctor 2= Lack of money 3=Not wanting to go

4= Long distance to the health facility 5= Lack of awareness 6= other, specify _____

21. If your answer to question 20 is a long distance to the health centers, how long would it take in hours?

1. One hour 2= Two hours 3= Three hours 4= More than three hours

22. Did you see any health care personnel for postnatal care for this pregnancy? (1=Yes, 2=No)

23. If yes to question 22, how many times did the last child receive postnatal care?

(1=1-3 times, 2=3-5 times, 3= \geq 6 time)

24. If no to question 22, what is your reason?

1=Not allowed going to the doctor 2= Lack of money 3=Not wanting to go

4= Long distance to the health facility 5= Lack of awareness 6= other specify _____

25. Where did you deliver the stunted child? (1=home 2=health center 3=other, specify).....

26. Are you covered by any health insurance? (1=Yes, 2=No).....

Segment 6: Maternal empowerment indicators

40. What was your age at first marriage (in complete years).....
41. What is your education status?
1=No education 2=Primary education 3=Secondary education 4=College education
42. Do you work for cash? (1=Yes, 2=No).....
43. Do you own any agricultural land either alone or jointly with your husband? (1=Yes, 2=No).....
44. Do you own any farm animals either alone or jointly with your husband?
45. Who decides on the use of money?
1=Both parents 2=The father 3=The mother
46. Who usually makes decisions about making major household purchases?
1=You 2=Husband 3=Jointly
47. Who usually makes decisions about health care for you? (=You, 2=Husband, 3=Jointly)
48. Can you go to the market, to the health center, and social gathering without permission from your husband? (1=Yes, 2=No).....
49. Did your husband ever kick, or slap you in the last 12 months? (1=Yes, 2=No)
50. Does someone assist you with domestic tasks? (1=Yes, 2=No)
51. If Yes to question 50, who assists you with domestic work? (**Multiple response possible**)...
1=Household member 2=Servant 3=Neighbor

Segment 7: Breastfeeding and weaning condition

52. For how long did you breastfeed your last child? (1= <3mo. 2=3-6 mo. 3=>6 mo.).....
53. What weaning foods did you give the child? (**Multiple response possible**).....
1=Porridge 2= Injera 3= Nothing 4=others, please specify

Thank you very much!!!

Appendix B. Interview Guide for In-depth interview with Mothers/Caregivers Having Stunted Children.

Hello, my name is Misganaw Getachew. I am doing my thesis for my Master's Degree in Sociology. I would like to thank you in advance for meeting me today.

In our discussion, I aim to comprehend your socioeconomic background, existing situation of food security, access to and use of health services, and feeding practices and preferences. I am trying to discover how deep child stunting is rooted in a lack of health services, poverty, food insecurity, and inappropriate food habits and feeding practices. Moreover, I am trying to understand the common characteristics that households with stunted child share in common related to the above variables.

Thus, considering my interest, you should be able to see why I am asking most of the subsequent questions. If you have other information that you think is important and that I have not asked you please feel free to share it with me.

Please be aware that you have the right to refuse to participate in the study and answer any particular question. Your accurate and truthful responses are relevant to the success of the study. I promise and guarantee you the discussion between you and I will be kept confidential.

1. Identification

1.1. Interview NO. _____

1.2. Date of Interview: _____

1.3. Beginning of time: _____

1.4. Termination time: _____

2. Demographic Variables

2.1. Fictitious name

2.2. Age

2.3. Marital status

2.4. Educational status

2.5. Religion

2.6. Head of the household

2.7. Age at first marriage

2.8. Number of educated individuals in the household

3. Access to and use of health care services

3.1. Availability of health care centers (Probing questions: Is health care center available in your locality? How long does it take to access health care centers? Are health personnel available?)

3.2. Health care utilization behavior (Probing questions: Have you ever visited the health care center? Where did you deliver your child? Did you seek advice or treatment for ANC and postnatal facility? How often? Did you take your child for immunization? Did you take your child for treatment if feel sick? Do health personnel provide door to door service? What is the main challenge to utilize health care services?).

4. Household resources

4.1. Household income (Probing questions: Does this household head or you have a source of income? How much per month? Do you and your household members have any type of loan? Do you need to pay interest for the loan?)

4.2. Household house amenities (Probing questions: Does this household own any household facilities? Do you have jewelry? What is the material your house is made from? Do you have separate rooms for children?)

4.3. Household livestock ownership (Probing questions: Does this household own livestock? What are they? How many are they? Are they enough for farming? If they are not enough for farming, what mechanism do you use?)

4.4. Household land ownership (Probing questions: Does this household own land? How much 'Timad' of land do you own? Is it sufficient for a living? If not sufficient, what do you do for a living? Do you have vegetables? Do you have pulses?)

4.5. Households access to and use of services (Probing questions: Does this household access health care service in the face of illness? Does this household send children to school? Does this household have access to the market? How long is the distance to urban centers from your home? Can this household make food purchases? Do you have access to microfinance and credit service? What are the main challenges to access those services (health, education, market, food purchase, agricultural inputs, irrigation and credit service)?

5. Food security and food habit

5.1. Household existing food-security status (Probing questions: Is this household self-reliant in food production? Is what you produce enough for a household? Did your household face severe food shortage during the last year (12 months)? How did you cope? In which season is the food shortage severe? Do you have enough food for your child?)

5.2. Household feeding habit (Probing questions: Does this household eat together? How often per day does this household eat? How often per day do children eat? What foods do children eat commonly? Are children prohibited from eating some foods? What is the reason? How do you portion children's food? To whom is better food given in the family?)

5.3. Household feeding preference (Probing questions: What food does this household commonly eat? Does this household eat food according to preference? Did you stop eating certain foods during pregnancy and lactation? What are those foods? Who decides about the type of food to be cooked? What does your child like to eat? Do you provide them what they like to eat?)

5.4. Food consumption behavior (Probing questions: Does this household consume products from own cattle? Does your household consume products from own chickens? Does this household consume own cereals produced by household/given as assistance or prefer to sell? What is your reason? When do you eat foods like meat, milk and milk products and vegetables?)

5.5. Fasting and feeding (Probing questions: How many times do you fast in the last 12 months? What food do you stop during fasting? How often per day do you eat during fasting? Do you fast during pregnancy and lactation? How is your eating pattern during pregnancy period?)

5.6. Breastfeeding and weaning (Probing questions: For how long did you breastfeed your last child? Why? When do you breastfeed? How many times per day do you breastfeed your child? What weaning foods did you give the child? Why? At what age does your child start weaning?)

6. Mother's Empowerment

6.1. Do you have someone who supports you (Probing questions: Whom do you give to your child when you go to the workplace, market or social gatherings? With whom do you leave? How many hours do you stay leaving your child? Did your child get food/breast milk during your leave time?).

Appendix C. Interview Guide for Key informant Interviews

1. In-depth interview with woreda officials

Hello, my name is Misganaw Getachew. I am a graduate school student at Addis Ababa University, Department of Sociology. Currently, I am researching the impact of poverty, food insecurity, and lack of access to the health facility, maternal empowerment and food habits on child stunting. I would very much appreciate your participation in the study. Your genuine information is very relevant to the success of this study. Whatever information you provide will be kept strictly confidential so I require you to respond to the questions frankly.

1. Identification

1.1. Code given to an interviewee

1.2. Position

2. Main Issues

2.1. Health centers availability (Probing questions: How many health care centers are available in the Woreda? How many health care providers are available? Are available health care centers and health personnel's sufficient for all people in the woreda? Are the Health Extension Workers and Agricultural Extension Support providers available in each kebeles? How many?)

2.2. Food security in the woreda (Probing questions: Where is the woreda placed in terms of food security? What are the main livelihood strategies of households in the woreda? How many people in the woreda are food-insecure? How many people in the woreda are covered by productive safety net program?)

2. In-depth interview with health and agricultural professionals

Hello, my name is Misganaw Getachew. I am a graduate school student at Addis Ababa University, Department of Sociology. Currently, I am researching the impact of poverty, food insecurity, access and use of health care, maternal empowerment and food habits on child stunting. I would very much appreciate your participation in the study. Your genuine information is very relevant to the success of this study. Whatever information you provide will be kept strictly confidential so I require you to respond to the questions frankly.

1. Identification

1.1. Code given to an interviewee

1.2. Position

2. Main Issues (Health Professionals)

2.1. Health professional's perception of socioeconomic predictors of stunting in the area (Probing questions: Why is the area vulnerable to stunting? What socioeconomic, cultural and gender-related factors do you think are particularly associated with child stunting in the area?)

2.2. Health center accessibility and health care utilization (Probing questions: Does this community have access to health care facilities? Do you provide nutrition education? How do you explain the mother's health service utilization in the area? Do mothers regularly visit health care centers for ANC and postnatal services? Could you tell me about the food habits of the community?)

3. Main Issues (Agricultural Extension Workers)

3.1. Food productivity of the area (Probing questions: How do you explain the area in terms of food production? What is per capita crop production of the area? How fertile is the land? How prone is the area to drought, degradation and climate change? What are commonly produced cereals in the area?)

3.2. The food security status of the area (Probing questions: Where do you put the area in terms of food-security status? Are people in this area self-reliant in terms of food production? What is the main source of family food in the area? How is the price of food in the area?)

3.3. Access to agricultural services (Probing questions: Do you provide Agricultural Extension Support for households? Does the community have access to irrigation and modern agricultural inputs?)

Appendix D. Group Interview Guide with Mothers/Caregivers, Household heads, and Community and Religious leaders.

Good morning/afternoon! My name is Misganaw Getachew. I am conducting this study entitled '*Socioeconomic Basis of Child Stunting: Wealth, Culture, and Gender*'. The study is part of the requirements for the completion of the degree of Masters of Arts in Sociology at Addis Ababa University. You are selected to participate in this discussion because of your position on the issues related to the study. In this session, points related to the community's access and utilization of health services, the situation of women's status, and sociocultural factors influencing food habits and feeding practices in the community will be raised and discussions would be followed. To achieve the objectives of this research, your active participation is essential. I thank you in advance for sacrificing your precious time to participate in this discussion.

Point of discussion

- Do women go to health care centers for ANC facility?
- What is the main challenge in accessing health care service?
- Do women own land, livestock, or poultry?
- Are women free to go to market, health care center without permission from husbands in this locality?
- Do women decide on major household purchases?
- Do women and children eat together with families?
- Do pregnant women fast? Should they?
- Do women feed the same amount with men/husband
- What are the common sayings (proverbs) related to women and child feeding habits?

Declaration

I, the undersigned, declare that this thesis is a presentation of my original research work that has not been presented anywhere for any degree. Whatever contributions of others are involved, every effort is made to indicate this clearly and all sources material used for the thesis have been acknowledged.

Name: Misganaw Getachew

Signature: _____

Date:

አባሪ ሀ. ከአምስት አመት በታች የሆኑ የቀንጨፍ ልጆች እናቶች /አሳዳጊዎች/ የተዘጋጀ የዳሰሳ ጥናት መጠይቅ

መግቢያ

ውድ የዚህ ጥናት ተሳታፊዎች! ስሜ ምስጋናው ጌታቸው ይባላል። በአዲስ አበባ ዩኒቨርሲቲ ሶቪየት ጉምህርት ክፍል የድህረ-ምረቃ ፕሮግራም ተማሪ ነኝ። በአሁኑ ሰዓት “የህፃናት የመቀንጨር ችግር ማህበረ-ኢኮኖሚያዊ መሰረቶች፡ሀብት፡ባህልና ሥርዓታ ስታ” በሚል ርዕስ ለሁለተኛ ዲግሪ ማሟያ ጥናት እየሰራሁ እገኛለሁ። በመሆኑም ይህ መጠየቅ የተዘጋጀው የእርሶን የማህበራዊ/ኢኮኖሚያዊ፣ የምግብ ዋስትና፣ የጤና አገልግሎት አጠቃቀም እና የአመጋገብ ልማድና ምርጫን በተመለከተ መረጃን ለመሰብሰብ ነው። ከዚህ በተጨማሪም የጤና ተቋማትን ተደራሽነት እንዲሁም እርስዎ ከሴቶች መብቃት አንፃር የሚገኙበትን ሁኔታ ለማወቅ ነው።

ስለሆነም የእናንተ ትክክለኛና ታማኝ መልስ ለዚህ ጥናት ስኬታማ መሆን ትልቅ ድርሻ አለው። የምትሰጡት መልስ ከትምህርታዊ ጠቀሜታ ውጪ ለሌላ አገልግሎት እንደማይውል አረጋግጥላችኋለሁ። በመጠይቁም ላይ ስማችሁ አያገለጥም፣ ተሳትፋችሁም በሙሉ ፈቃደኝነት ላይ ብቻ የተመሰረተ ነው። የጥናቱ ሂደት ካልተስማማዎት በማንኛውም ጊዜ ራስዎን ማግለልና ከጥናቱ መውጣት ይችላሉ።

ለትብብርዎ ምስጋናዬ ላቅ ያለ ነው!

ክፍል 1: መለያና ማረጋገጫ

- 1.1. መጠይቁን ያስሞላው ሰው ስም _____ ፊርማ _____
- 1.2. የተቆጣጣሪው ስም _____ ፊርማ _____
- 1.3. ቀን (ቀን-ወር-ዓ.ም): _____
- 1.4. ለመጠይቁ መልስ የሰጠው ሰው ቀበሌ _____
- 1.5. የመጠይቁ መለያ ቁጥር _____

መጠይቁን ለሚያስሞሉ አጠቃላይ መረጃ: መላሾቹ የሚሰጧችሁን መልሶች ስትሞሉ ከእያንዳንዱ ጥያቄ ስር ባሉት አማራጮች ፊት ለፊት ባለው ሳጥን ውስጥ ይፃፉ። ሳጥን ላልተሰጣቸው ጥያቄዎች ከጥያቄዎች በታች የተዘጋጁ ባዶ ቦታዎች ላይ ይፃፉ።

ክፍል 2: የስነ-ሕዝብና ማህበራዊ ባህሪያት

- 1. የቀንጨረው ህጻን ያታው ምንድነው? (1=ወንድ , 2= ሴት)
- 2. የቀንጨረው ህጻን እድሜው ስንት ነው? (1= ከ10 ወር በታች 2= ከ11-21 ወር
3=ከ22-32 ወር 4=ከ33-43 ወር 5=ከ44-59 ወር)

3. የጋብቻ ሁኔታዎ አሁን ላይ ምን ይመስላል?
 (1: ያላገባ 2: ያገባ 3: አግብቶ የፈታ 4: ባል የምታባት)
4. የእርስዎ እድሜ ስንት ነው? _____
5. የሃይማኖት ተዛምዶዎን ቢነግሩኝ?
 (1: አርቶዶክስ 2: ሙስሊም 3: ፕሮቴስታንት)
6. የቤተሰብዎ ዋና ሀላፊ ማነው? (1: ሚስት 2: ባል)
7. የቤተሰብዎ አባላት ብዛት ስንት ነው?
 (1: ከአራት በታች 2: ከአራት እስከ ስድስት 3: ከስድስት በላይ)

ክፍል 3: የቤተሰብ ሀብት ጉብረት ይዘታን የተመለከቱ ጥያቄዎች

8. የእርሻ መሬት አላችሁ? (1: አዎ 2: የለንም)
9. የእርሻ መሬት ካላችሁ፣ ምን ያህል ጥማድ መሬት ነው ያላችሁ?
 1: ከ1-2 ጥማድ 2: ከ3-5 ጥማድ 3: ከ5 ጥማድ በላይ
10. የቤት እንስሳት፣ የእንስሳት እርቢ ወይም የዶሮ እርባታ አሉአችሁ? (1: አዎ 2: የሉንም)
11. ለጥያቄ ቁጥር 10 መልስዎ አዎ ከሆነ፣ ምን ያህል እንስሳት እንዳሉአችሁ ቢገልጹልን? (መጠኑን ከዝርዝሩ ፊት ለፊት የሚገኙ ሳጥኖች ውስጥ ያስቀምጡ)
 ሀ: ከብቶች፣ ላሞች፣ በሬዎች ወይም ወይፈኖች ምን ያህል ናቸው
 ለ: ፈረሶች፣ አህዬች ወይም በቅሎዎች ምን ያህል ናቸው
 ሐ: ፍየሎች ስንት ናቸው
 መ: በገጦች ስንት ናቸው
 ረ: ዶሮዎች ስንት ናቸው
 ሠ: የንብ ቀፎ ስንት እንደሆነ
12. የፍራፍሬ አታክልቶች አሏችሁ? (1: አዎ 2: የለንም)
13. ምን አይነት ቤት ውስጥ ነው የሚኖሩት? (1: ቆርቆሮ ቤት 2: ጐጆ ቤት 3: ሌላ ካለ ይግለጹ _____)
14. የባህር ዛፍ አታክልት አሏችሁ? (1: አዎ 2: የለንም)
15. የቤተሰብዎ ዋና የምግብ ምንጭ ምንድነው? (1: የቤት ምርት 2: ግዢ
 3: ከመንግስት/መንግስታዊ ካልሆኑ ተቋማት የሚሰጥ ድጋፍ 4: ሌላ ካለ ይግለጹ? _____)
16. ባለፉት 6 ወራት ውስጥ ምን ያህል ኩንታል እህል ማምረት ቻሉ? _____
17. ባለፉት 6 ወራት ውስጥ ምን ምን አይነት እህል ማምረት ቻሉ? _____
18. ባለፉት 12 ወራት ውስጥ፣ ከቤተሰብዎ አባላት መካከል የታመመ ሰው ነበር? (1: አዎ 2: የለም)

19. ለጥያቄ ጥጥር 18 መልስዎ አዎ ከሆነ፣ ዘመናዊ የህክምና ቦታዎች/ጤና ጣቢያ ወስደዎቻቸው ነበር (1: አዎ 2: የለም)

20. ለጥያቄ ቁጥር 18 መልስዎ የለም ከሆነ፣ ለምንድነው ወደ ጤና ተቋም ያልሄዱ?

1: የገንዘብ እጥረት

2: የጤና ተቋማት በቅርበት አለመኖር

3: ሌላ ካለ ይግለጹ _____

ክፍል 4: ጤና ነክ ጥያቄዎች

21. ለባለፈው እርግዝና በጤና ተቋም የወሊድ ክትትል አድርገዋል? (1: አዎ 2: የለም)

22. ለጥያቄ ቁጥር 21 መልስዎ አዎ ከሆነ፣ ለምን ያህል ጊዜ ነው የሄዱት?

1: ከ1-3 ጊዜ 2: ከ3-5 ጊዜ 3: ስድስትና ከዚያ በላይ ጊዜ

23. ለወሊድ ክትትል ወደ ጤና ተቋም ካልሄዱ፣ ላለመሄድ ምክንያትዎ ምንድነው?

1: የባለቤትዎን ፈቃድ ማጣት

2: የገንዘብ እጥረት

3: የመሄድ ፍላጎት ማጣት

4: የጤና ተቋማት በቅርበት አለመኖር

5: የግንዛቤ እጥረት

6: ሌላ ካለ ይግለጹ _____

24. ለጥያቄ ቁጥር 23 መልስዎ የጤና ተቋማት በቅርበት አለመኖር ከሆነ ፣ ምን ያህል ሰዓት ይወስዳል?

1: 1 ሰዓት 2: 2 ሰዓት 3: 3 ሰዓት 4: ከ 3 ሰዓት በላይ

25. በባለፈው የእርግዝናዎ ወቅት ለድህረ-ወሊድ አገልግሎት የጤና ባለሙያዎችን ኅብኝተው ነበር? (1: አዎ 2: የለም)

26. ለጥያቄ ቁጥር 25 መልስዎ አዎ ከሆነ፣ ለምን ያህል ጊዜ ነው የሄዱት?

1: ከ1-3 ጊዜ 2: ከ3-5 ጊዜ 3: ስድስትና ከዚያ በላይ ጊዜ

27. ለድህረ-ወሊድ ክትትል ወደ ጤና ተቋም ካልሄዱ፣ ላለመሄድ ምክንያትዎ ምንድነው?

1: የባለቤትዎን ፈቃድ ማጣት

2: የገንዘብ እጥረት

3: የመሄድ ፍላጎት ማጣት

4: የጤና ተቋማት በቅርበት አለመኖር

5: የግንዛቤ እጥረት

6: ሌላ ካለ ይግለጹ _____

28. የቀነጨጨው ህፃን የት ነው የተወለደው? (1: ቤት ውስጥ 2: ሃኪም ቤት 3: ሌላ ካለ ይግለጹ _____)

29. የጤና መድሃኒት አባል ነዎት? (1: አዎ 2: የለም)

30. የጤና መድሃኒት አባል ካልሆኑ፣ ምክንያታዎን ቢገልጹልኝ?

ክፍል 5: የምግብ ዋስትናና የአመጋገብ ልማድ መለኪያ

31. ባለፉት 12 ወራት ውስጥ፣ ከፍተኛ የምግብ እጥረት አጋጥሞአችሁ ነበር?

(1: አዎ 2: የለም)

32. ለጥያቄ ቁጥር 39 መልስዎ አዎ ከሆነ፣ በምን መንገድ ተቋቋማችሁት?

- 1. ከብቶችን በመሸጥ፣ ጌጣጌጦችን /የቤተሰቡን ዕቃ በመሸጥ
- 2. የምግብ ፍጆታችንን በመቀነስ
- 3. ቶሎ ቶሎ ባለመመገብ
- 4. ከጫካ የሚገኙ እፅዋትን እየተመገብን
- 5. መንግስታዊ/መንግስታዊ ካልሆኑ ድርጅቶች በሚደረግ እርዳታ
- 6. ከዘመድ ወይም ከጎረቤት በተደረገልን እርዳታ
- 7. ሌላ ካለ ይግለጹ _____

33. በባለፈው እርግዝና ጊዜ የአመጋገብ ሁኔታዎ እንዴት ነበር?

1: ከሌሎች ጊዜያት የበለጠ 2: እንደሁልጊዜው 3: ከሁልጊዜው ያነሰ

34. ለጥያቄ ቁጥር 41 መልስዎ ከሁልጊዜው ያነሰ ከሆነ፣ ምክንያታዎ ምን እንደሆነ ይግለጹልን?

35. በእርግዝናዎ ወቅት በባህልዎ የተከለከሉና የማይመገቧቸው የምግብ አይነቶች ነበሩ? (1: አዎ 2: የለም)

36. ለጥያቄ ቁጥር 43 መልስዎ አዎ ከሆነ፣ ምን ምን የምግብ አይነቶችን እንዳልተመገቡ ቢነግሩኝ?

37. በአራስነት ጊዜስ በባህሉ ተከልክለው የማይመገቧቸው የምግብ አይነቶች ነበሩ? (1: አዎ 2: የለም)

38. ለጥያቄ ቁጥር 45 መልስዎ አዎ ከሆነ፣ ምን ምን የምግብ አይነቶችን ነበር የማይመገቡት?

39. በ12 ወራት ውስጥ ስም ስሙ ያውቃሉ? (1: አዎ 2: የለም)

40. ለጥያቄ ቁጥር 47 መልስዎ አዎ ከሆነ፣ በምን ወቅት በቀን ስንት ጊዜ ይመገባሉ?

1: አንድ ጊዜ 2: ሁለት ጊዜ 3: ሶስት ጊዜ 4: ሌላ ካለ ይግለጹ

41. በጾም ወቅት የማይመገቧቸው የምግብ አይነቶች ምንድን ናቸው? _____

42. በባለፈው የእርግዝና ወቅት ያመው ነበር? (1: አዎ 2: የለም)

ክፍል 6: የእናቶችን አቅም መጎልበት አመለካኛ ጥያቄዎች

43. መጀመሪያ ሲያገቡ እድሜዎ ስንት ነበር? _____

44. ትምህርት ተምረዋል? (1: አልተማርኩም 2: መጀመሪያ ደረጃ ትምህርት ተምራለሁ 3: ሁለተኛ ደረጃ ትምህርት ተምራለሁ 3: ኮሌጅ ትምህርት ተምራለሁ)

45. ገቢ የሚያስገኝ ስራ ላይ ተሰማርተዋል? (1: አዎ 2: የለም)

46. የግልዎ ይዘታ የሆነ ወይም ከባለቤትዎ ጋር የሚጋሩት መሬት አለዎት? (1: አዎ 2: የለም)

47. በግልዎ የሆኑም ወይም ከባለቤትዎ ጋር የሚጋሩቸው የቤት እንሰሳት አሉዎት? (1: አዎ 2: የሉኝም)

48. የገንዘብ አጠቃቀም ላይ መወሰን የሚችለው ማነው?
1: እናትና አባት 2: አባት 3: እናት

49. የቤተሰቡ ትልልቅ ግዢዎች ላይ የሚወስነው ማነው?
1: እርስዎ 2: ባል 3: በጋራ

50. ጤናዎን በተመለከተ የሚወስነው ማነው?
1: እርስዎ 2: ባል 3: በጋራ

51. ከባልዎ ፈቃድ ውጪ ወደ ገበያ ቦታ፣ ጤና ተቋም፣ ወደ ማህበራዊ ስብሰባዎች መሄድ ይችላሉ?
(1: አዎ 2: አልችልም)

52. ባለፉት 12 ወራት ውስጥ ባልዎ መትዎት ያውቃል? (1: አዎ 2: የለም)

53. በቤት ውስጥ ሥራዎች ላይ የሚያግዝዎት አለ? (1: አዎ 2: የለም)

54. ለጥያቄ ቁጥር 60 መልስዎ አዎ ከሆነ፣ ማነው የሚረዳዎት?
1: የቤተሰብ አባላት 2: ሠራተኛ 3: ጎረቤት

ክፍል 7: ጡት ማጥባትና ለልጆች ምግብ ማስጀመር

55. የመጨረሻ ልጅዎን ጡት ያጠቡት ለምን ያህል ጊዜ ነበር?
1: ከ3 ወር ላነሰ ጊዜ 2: ከ3-6 ወር 3: ከ6 ወር በላይ

56. ጡት ከማጥባት በተጨማሪ፣ ምን ምን የምግብ አይነቶችን ይመግባሉ?
1: ገንፎ 2: እንጃራ 3: ምንም አልሰጥም 4: ሌላ አይነት እህል

እጅግ በጣም አመሰግናለሁ!!

አባሪ ለ፡ ከአምስት አመት በታች የሆኑ የቀንጨሩ ህፃናት እናቶች /አሳዳጊዎች ጋር ለሚደረግ ቃለ ምልልስ የተዘጋጁ የቃለ ምልልስ መምሪያ

ሠላም! ስሜ ምስጋናው ጌታቸው ይባላል። በአዲስ አበባ ዩኒቨርሲቲ በሶሻሎሎጂ ትምህርት ዘርፍ የሁለተኛ ዲግሪ ማሟያ ጥናት እየሰራሁ ነው። ዛሬ ስላገኘዎትኝ በጣም አመሰግናለሁ።

የውይይታችን ዋና አላማ የእርስዎንና የቤተሰብዎን ማህበራዊና ኢኮኖሚያዊ፣ የምግብ ዋስትና፣ የጤና አገልግሎት አጠቃቀምና አቅም ሁኔታ እንዲሁም የአመጋገብ ልማድንና ምርጫን በተመለከተ መረጃ ለመሰብሰብ ነው። ምክንያቱ ደግሞ የህፃናት የመቀንጨር ችግር ከድህነት፣ የምግብ ዋስትና እጥረት፣ የጤና አገልግሎት እጦት እና ተገቢ ያልሆኑ የአመጋገብ ልምዶችና ምርጫዎች ጋር ያለውን ቁርኝት ለመገንዘብ ነው። ከዚህም በተጨማሪ ልጆቻቸው የቀንጨሩባቸው ወላጆች በጋራ የሚጋሯቸውን ሁኔታዎች ለመረዳትም ጭምር ነው።

በመሆኑም ይህን ፍላጎቴን ግምት ውስጥ በማስገባት፣ በውይይታችን ወቅት ለምን ረዘም ያሉ ጥያቄዎችን እንደምጠይቅም መገንዘብ ይችላሉ። በውይይታችን ጊዜ እኔ ያልጠየቅሁት ነገር ግን አስፈላጊ ነው ብለው የሚያስበው መረጃ ካለ ከማጋራት ወደኋላ እንዳይሉ።

ከጥናቱን መውጣት ከፈለጉ ወይም መመለስ የማይፈልጉት ጥያቄ ካለ የመተው ሙሉ መብት አለዎት። የእርስዎ ትክክለኛና ታማኝ መረጃ ለጥናቱ ስኬታማ መሆን ትልቅ ድርሻ አለው። ውይይታችንም ከሁለታችን ውጪና ከትምህርታዊ ጠቀሜታ የዘለለ ለሌላ አገልግሎት እንደማይውል ማረጋገጥ እወዳለሁ።

1. መለያ

- 1.1. የቃለ መጠይቁ ቁጥር
- 1.2. ቃለ መጠይቁ የተካሄደበት ቀን
- 1.3. ቃለ መጠይቁ የተጀመረበት ሰዓት
- 1.4. ቃለ መጠይቁ የተጠናቀቀበት ሰዓት

2. ስነ-ህዝብ መረጃ

- 2.1. የውሸት ስም
- 2.2. እድሜ
- 2.3. የጋብቻ ሁኔታ
- 2.4. የቤተሰብ ዋና ሀላፊ
- 2.5. የመጀመሪያ የጋብቻ እድሜ ስንት ነበር?

3. የጤና ተቋማት ቅርቦት እና የጤና አገልግሎት የመጠቀሚያ ሁኔታ

- 3.1. የጤና ተቋማት አቅርቦት/ ምርመራ፤ በአቅራቢያ የጤና ተቋማት አሉ? ከቀየዎ ተነስተው ወደ ጤና ተቋም ለመድረስ ምን ያህል ጊዜ ይወስዳል? የጤና ባለሙያዎች አብዛኛውን ጊዜ ያገኛሉ? ልጅዎን የትነው የወለዱት?
- 3.2. የጤና አገልግሎት የመጠቀም ሁኔታ /ምርመራ፤ ለወሊድና ድህረ-ወሊድ ክትትል ወደ ጤና ተቋማት ሄደው ያውቃሉ? ምን ያህል ጊዜ? ልጅዎን ለክትትል ወስደዋል? የጤና ባለሙያዎች የቤት ለቤት የጤና አገልግሎት ይሰጣሉ? የጤና አገልግሎትን ለማግኘት ዋና ተግዳሮት (ችግር) ምንድነው?

4. የሀብት ሁኔታ

- 4.1. ገቢ /ምርመራ፤ እርስዎ ወይም የቤተሰብዎ አባል ወርሃዊ የገቢ ምንጭ አለዎት? ምን ያህል? እርስዎ ወይም የቤተሰብዎ አባል ብድር አለብዎት? ብድሩ ወላድ አለው?
- 4.2. የቤት ቁሳቁሶች /ምርመራ፤ የቤት ቁሳቁሶች አሉዎት? ጌጣጌጦችሰ? ቤትዎ ጎጆ ቤት ነው ወይስ የቆርቆሮ? ልጆች የራሳቸው መኝታ ክፍል አላቸው?
- 4.3. የቤት እንስሳት/ ምርመራ፤ የቤት እንስሳት አሏችሁ? ያላችሁ የቤት እንስሳቶች ምን ምን ናቸው? ብዛታቸው ምን ያህል ነው? ያሏችሁ በሬዎች ለእርሻ ሥራ በቂ ናቸው? በቂ ካልሆኑ እንዴት ነው እርሻዎን የሚያከናውኑት?
- 4.4. የመሬት ይዘታ /ምርመራ፤ መሬት አላችሁ? ምን ያህል ጥማድ? ያልዎት መሬት የቤተሰቡን ኑሮ ለመምራት በቂ ነው? በቂ ካልሆነ ምንድነው የሚያደርጉት? የመሬቱ ምርታማነትስ? የአትክልትና ጥራጥሬ እርሻ አለዎት?
- 4.5. የአገልግሎት አቅርቦትና ተጠቃሚነት /ምርመራ፤ የቤተሰብዎ አባል ላይ የጤና እክል አጋጥሞት ያውቃል? ከሆነ በዘመናዊ የጤና ተቋማት መታከም ይችላል? ልጆችዎን ትምህርት ያስተምራሉ? ገበያ በአቅራቢያዎ አለ? በምን ያህል እርቀት? ከተማስ በምን ያህል እርቀት ይገኛል? እህል ከገበያ የመሸመት አቅም አለዎት? የብድር አገልግሎትስ? በዋነኝነት እነዚህን አገልግሎቶች ለመጠቀም ተግዳሮቶቹ ምንድን ናቸው?

5. የምግብ ዋስትና ሁኔታና የአመጋገብ ልማድ

- 5.1. የምግብ ዋስትና ሁኔታ በቤተሰብ ደረጃ /ምርመራ፤ ቤተሰቡ የሚያመርተው ምርት ለቤቱ የምግብ ፍጆታ በቂ ነው? በቂ ካልሆነ በምን መንገድ ነው ተጨማሪ ምግብ የሚያገኙት? ለልጆች በቂ ምግብ አለ? ባለፉት 12 ወራት ውስጥ ከፍተኛ የምግብ እጥረት አጋጥሞት ነበር? በዋነኝነት የምግብ እጥረት የሚከሰተው የትኛው ወራት ውስጥ ነው?
- 5.2. የአመጋገብ ልማድ /ምርመራ፤ የቤተሰብ አባላት ምግብ አንድ ላይ ይመገባሉ? በቀን ስንት ጊዜ ይመገባሉ? አዘውትረው የሚመገቡት ምግብ ምንድነው? ህፃናት ሰርክ የሚመገቡት ምግብ ምንድነው? ለህፃናት

የተከለከሉ ምግቦች አሉ? ለምን? ለልጆች ምግብ ሲሰጡ የምግቡን መጠን የሚወስኑት እንዴት ነው?
ለሁሉም ልጆች እኩል ይሰጣሉ ወይስ የተለያየ? ቤት የተሻለ ምግብ የሚሰጠው ለማን ነው?

5.3. የአመጋገብ ምርጫ /ምርመራ፤ ቤታችሁ ውስጥ ምግብ በምርጫና በፍላጎት መመገብ ትችላላችሁ? መመገብ የምትወዱት ምግብ ምንድነው? ልጆችዎ መመገብ የሚወዱት ምግብ ምንድነው? መመገብ የሚፈልጉትን ምግብ እርስዎ ማቅረብ ይችላሉ? ስጋ፣ ወተትና አትክልት መቸ መቸ ነው የሚመገቡት?

5.4. የአመጋገብ ሁኔታ /ምርመራ፤ ከከብቶች የሚገኘውን የወተት ምርት ቤት ውስጥ ለምግብነት ይጠቀማሉ? ከዶሮ የሚገኘውን /እንቁላል/? ያመረቱትን አሊያም በእርዳታ የሚያገኙትን እህል ለቤት ውስጥ ፍጆታ ያውሉታል ወይስ ሸጦ መጠቀምን ይመርጣሉ? ካልተጠቀሙ ምክንያትዎ ምንድን ነው?

5.5. ያም እና አመጋገብ /ምርመራ፤ ባለፉት 12 ወራት ውስጥ ምን ያህል ጊዜ ያመዋል? በያም ወቅት የማይመገቧቸው የምግብ አይነቶች ምን ምን ናቸው? በያም ወቅት በቀን ውስጥ ለምን ያህል ሰዓት ይያማሉ? በያም ወቅት በቀን ስንት ጊዜ ይመጋባሉ? የምግብ መጠኑ በያም ወቅትና በፍስክ ተመሳሳይ ነው ወይስ ይለያያል? በእርግዝና ወቅት ይያማሉ? በአራስነት ጊዜስ? በእርግዝና ወቅት የአመጋገብ ሁኔታዎ ምን ይስመላል?

5.6. ለህፃናት ጡት የማጥባትና ተጨማሪ ምግብ የማስጀመር ነገር /ምርመራ የመጨረሻ ልጅዎን ጡት ያጠቡት ለምን ያህል ጊዜ ነበር? ከጡት ማጥባት በተጨማሪ የሚመገቡት ምግብ ምን ነበር? በስንት አመቱ ነበር ምግብ መመገብ የጀመረ? ልጅዎን መቸ መቸ ነው ጡት የሚያጠቡት?

ክፍል 6: የእናቶችን አቅም መጎልበት

6.1. ወደ ገበያ ቦታ፣ ጤና ተቋም ወይም ማህበራዊ መሰብሰብያ ቦታዎች ሲሄዱ ልጅዎን የሚይዘው ሰው አለ? ወደ ገበያ ቦታ፣ ጤና ተቋም ወይም ማህበራዊ መሰብሰብያ ቦታዎች ሲሄዱ ልጅዎን ጥለው ለምን ያህል ጊዜ ይቆያሉ?

6.2. ቤት ውስጥ በማን ምርጫ ነው ምግብ የሚሰራው?

እጅግ በጣም አመሰግናለሁ!!

አባሪ ሐ. ለጥናቱ ቁልፍ የመረጃ ሰጭዎች የተዘጋጀ የመጠይቅ መምሪያ

1. ለወረዳ ሃላፊዎች የተዘጋጀ የመጠይቅ መምሪያ

ሠላም! ስሜ ምስጋናው ጌታቸው ይባላል። በአዲስ አበባ ዩኒቨርሲቲ ሶቭዬሎቲ ትምህርት ክፍል የድህረ-ምረቃ ፕሮግራም ተማሪ ነኝ። በአሁኑ ሰዓት ለሁለተኛ ዲግሪ ማሟያ “ድህነት፣ የምግብ እጥረት፣ የጤና ተቋማትና አገልግሎት እጦት፣ የእናቶች አለመብቃት እና ባህላዊ የአመጋገብ ልማድና ሥርዓት የልጆች እድገት ላይ ያለው ተፅእኖ” ዙሪያ ጥናት እየሰራሁ እገኛለሁ። በመሆኑም ጥናቱ ላይ በመሳተፍዎ እጅግ በጣም አመሰግናለሁ። የእርስዎ ታማኝ መረጃ ለጥናቱ መሳካት ጥልቅ አበርክቶ አለው። ማንኛውም የሚሰጡኝ መረጃ በጥንቃቄ ስለሚያዝና ከትምህርታዊ ጠቀሜታ ውጪ ለሌላ አላማ ስለማይውል ማንኛውንም መረጃ በታማኝነትና በግልፅኝነት እንዲሰጡኝ እጠይቃለሁ።

1. መለያ

- 1.1. የቃለመጠይቁ ቁጥር
- 1.2. ቃለመጠይቁ የተካሄደበት ቀን
- 1.3. ቃለመጠይቁ የተጀመረበት ሰዓት
- 1.4. ቃለመጠይቁ የተጠናቀቀበት ሰዓት

2. ዋና ዋና ነጥቦች

- 2.1. የጤና ተቋማት አቅርቦት/ምርመራ፣ በወረዳው ውስጥ ሰንት የጤና ተቋማት ይገኛሉ? የጤና ባለሙያዎች ቁጥርስ? ጤና ተቋማቱና የጤና ባለሙያዎቹ ለወረዳው ነዋሪ በቂ ናቸው ብለው ያስባሉ? የጤና ኤክስፔንሽንና የግብርና ባለሙያዎች በየቀበሌው ተመድበዋል? ስንት ስንት ናቸው?
- 2.2. የወረዳው የምግብ ዋስትና ሁኔታ /ምርመራ፣ ከምግብ ዋስትና አንፃር ስንመለከተው ወረዳውን ምን ደረጃ ላይ እናገኛለን? የህብረተሰቡ ኑሮ ምን ላይ የተመሰረተ ነው? ከወረዳው ነዋሪ ምን ያህሉ ህዝብ ነው በምግብ ራሱን የቻለው? ምን ያህሉ ነዋሪ በሴፍቲ ኔት ፕሮግራም ታቅፏል?

3. ለጤና እና ግብርና ባለሙያዎች የተዘጋጀ የመጠይቅ መምሪያ

ሠላም! ስሜ ምስጋናው ጌታቸው ይባላል። በአዲስ አበባ ዩኒቨርሲቲ ሶቭዬሎቲ ትምህርት ክፍል የድህረ-ምረቃ ፕሮግራም ተማሪ ነኝ። በአሁኑ ሰዓት ለሁለተኛ ዲግሪ ማሟያ “ድህነት፣ የምግብ እጥረት፣ የጤና ተቋማትና አገልግሎት እጦት፣ የእናቶች አለመብቃት እና ባህላዊ የአመጋገብ ልማድና ሥርዓት የልጆች እድገት ላይ ያለው ተፅእኖ” ዙሪያ ጥናት እየሰራሁ እገኛለሁ። በመሆኑም ጥናቱ ላይ በመሳተፍዎ እጅግ በጣም አመሰግናለሁ። የእርስዎ ታማኝ መረጃ ለጥናቱ መሳካት ጥልቅ አበርክቶ አለው። ማንኛውም የሚሰጡኝ መረጃ በጥንቃቄ ስለሚያዝና ከትምህርታዊ ጠቀሜታ ውጪ ለሌላ አላማ ስለማይውል ማንኛውንም መረጃ በታማኝነትና በግልፅኝነት እንዲሰጡኝ እጠይቃለሁ።

1. መለያ

1.1. ለተጠያቂው የተሰጠ ኮድ

1.2. ሃላፊነት-----

2. ዋና ዋና ነጥቦች (ለጤና ባለሙያዎች)

2.1. ለመቀንጨር ምክንያት የሆኑ ማህበረ-ኢኮኖሚያዊ ዘርፎች ላይ የጤና ባለሙያዎች ያላቸው ግንዛቤ /ምርመራ፤ አካባቢው ለምን ለመቀንጨር ችግር ተጋላጭ እንደሆነ ቢገልፁልኝ? የትኞቹ ማህበረ-ኢኮኖሚያዊ ባህላዊና የታዊ ምክንያቶች በተለየ መልኩ ከችግሩ ጋር ተያያዥነት አላቸው?

2.2. የጤና ተቋማት ተደራሽነትና ተጠቃሚነት /ምርመራ፤ የጤና ተቋማት በአካባቢው ማህበረሰብ ምን ያህል ተደራሽ ናቸው? ህብረተሰቡ የጤና አገልግሎት ተጠቃሚ ነው? የእናቶችን የወሊድ እንዲሁም የድህረ-ወሊድ የጤና ክትትል ተጠቃሚነትን እንዴት ይገልፁታል? ስለአካባቢው የአመጋገብ ሁኔታ ቢነግሩኝ?

3. ዋና ዋና ነጥቦች (ለግብርና ባለሙያዎች)

3.1. የአካባቢው ምርታማነት /ምርመራ፤ አካባቢውን ከምርታማነት አንፃር እንዴት ይገልፁታል? የመሬቱን ለምነትስ? አካባቢው በግለሰብ ደረጃ የምርት ንፅፅሩ ስንት ነው? አካባቢው ለድርቅ፤ ለመሬት መራቆት ወይም ለአየር ንብረት ለውጥ ያለውን ተጋላጭነት ቢነግሩኝ? በአካባቢው በዋናነት የሚመረቱ ሰብሎች ምንድን ናቸው?

3.2. የአካባቢው የምግብ ዋስትና ሁኔታ /ምርመራ፤ አካባቢውን ከምግብ ዋስትና አንፃር እንዴት ይገልፁታል? ህብረተሰቡ በምግብ/ምርታማነት ራሱን የቻለ ነው? ዋና የምግብ ምንጭ ምንድን ነው? የአካባቢው የምግብ ዋጋ ምን ይመስላል?

3.3. የግብርና ግብዓቶች ተደራሽነት /ምርመራ፤ ማህበረሰቡ የዘመናዊ የግብርና ግብዓቶችን ተጠቃሚ ነው? በአካባቢው የመስኖ አገልግሎት አለ? የግብርና ኤክስቴንሽን አገልግሎት ትሰጣላችሁ?

አባሪ መ. ከእናቶች፣ አባውራዎች የሀገር ሽማግሌዎችና የሀይማኖት መሪዎች፣ እንዲሁም ከጤና ኤክስፔንሽን ባለሙያዎች ጋር ለሚደረግ የቡድን ውይይት የተዘጋጀ የመጠይቅ መምሪያ፡-

እንዴት አደራችሁ/ዋላችሁ! ስሜ ምስጋናው ጌታቸው ይባላል። በአዲስ አበባ ዩኒቨርሲቲ የድህረ-ምረቃ ፕሮግራም ተማሪ ነኝ። በአሁኑ ሰዓትም ለህፃናት መቀንጨር ምክንያት የሆኑ ማህበረ-ኢኮኖሚያዊ ነገሮች ላይ ለሁለተኛ ዲግሪ ማሟያ ጥናት እየሰራሁ እገኛለሁ። እርስዎ ከጥናቱ ጋር ቀጥተኛ ግንኙነት ስላለዎት ለጥናቱ ተሳታፊ እንዲሆኑ ተመርጠዋል። በውይይታችንም የማህበረሰቡን የጤና አገልግሎት ተደራሽነትና የአጠቃቀም ባህሪ፣ የእናቶችን የአቅም መጎልበት/የመብቃት ሁኔታ፣ እና የአካባቢውን የአመጋገብ ልማድና ምርጫን የሚወስኑ ባህላዊና ማህበራዊ ጉዳዮች ዙሪያ ውይይት እናደርጋለን። ውድ ጊዜዎን መስዋት አድርገው እዚህ ስለተገኙልኝ እጅግ በጣም አመሰግናለሁ።

የውይይቱ መነሻ ነጥቦች

- እናቶች ለወሊድ ከትትል ወደ ጤና ተቋማት ይሄዳሉ?
- የጤና አገልግሎት ለመጠቀም ዋና ችግር የሚሉት ምንድነው?
- ሴቶች የመሬት ባለቤት ናቸው? በስማቸው ከብቶች፣ በጎጦች እና ሌሎችም በስማቸው ይመዘገባሉ?
- ሴቶች ከባሎቻቸው ፍቃድ ውጪ ወደ ገበያ ወይም ጤና ተቋማት መሄድ ይችላሉ?
- ሴቶች ገንዘብና ገንዘብ ነክ ጉዳዮች ላይ መወሰን ይችላሉ?
- ህፃናት ከወላጆች ጋር አብረው ይመገባሉ?
- ህፃናት የወደዱትን ምግብ መመገብ ይችላሉ?
- ለህፃናት የተከለከለ የምግብ ዓይነት አለ?
- እርጉዝ እናቶች ይገኛሉ? መገም አለባቸው ብለው ያምናሉ?
- በአካባቢው ከሴቶችና ህፃናት አመጋገብ ጋር በተያያዘ የሚነገሩ አባባሎች ቢነግሩኝ
- ሴቶች ከወንዶች ጋር እኩል ይመገባሉ?