



Assessment of the Nutritional Status and Associated Factors of Orphans and Vulnerable Preschool Children on Care and Support from Nongovernmental Organizations in Hawassa Town

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ASSESSMENT OF THE NUTRITIONAL STATUS AND ASSOCIATED FACTORS OF ORPHANS AND VULNERABLE PRESCHOOL CHILDREN ON CARE AND SUPPORT FROM NONGOVERNMENTAL ORGANIZATIONS IN HAWASSA TOWN

Strictly as per the compliance and regulations of:



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Objective: To assess the nutritional status and associated factors among orphans and vulnerable preschool children on care and support from a nongovernmental organization.

Methods: Community based Cross-sectional study was conducted on 364 orphan and vulnerable preschool children who were on care and support from Non Governmental Organization in Hawassa town, Southern Ethiopia. The data collection instruments were a structured pretested questionnaire, 24 dietary recall and anthropometric measurements. Data were entered using EPI-info software and exported to SPSS for analysis. The prevalence of malnutrition among Orphans and Vulnerable preschool Children was assessed by calculating the percentages using ENA for SMART 2007 software and analysis was made using WHO Standard cut off point below- 2 S.D using z-scores. Logistic Binary and multivariate analysis were carried out to see the effect of each independent variable on nutritional status explained as stunting ,wasting and underweight. Logistic regression was used to control any confounders at p value 0.05 with 95% CI.

Results: This study revealed that, 35.1%, 8.9 % and 7.5 % of orphans and vulnerable children were stunted, underweight and wasted, respectively. The main associated factors of stunting were found to be children who have parents (AOR 3.717; 95% CI 1.405, 9.804), single care takers (AOR.259; 95% CI .751, .089) and Educational status secondary and above (AOR 2.777; 95% CI 1.272, 6.063), first complementary food were milk (AOR 2.463; 95% CI 1.328, 4.568).Cough prior to 2 weeks of this survey (AOR 2.272; 95% CI 1.997, 5.181), HH food security (AOR 2.667; 95% CI 1.072,6.667)and food and nutritional support from NGO's. (AOR.6.251; 95% CI. 1.427, 9.778)) Were variable associated with wasting. Underweight

was associated with family size < 5 (AOR 2.778; 95% CI 1.148, 6.721) and duration of breast feeding (AOR 3.257; 95% CI 1.344, 7.891).

Conclusion and recommendation: from the findings of this study, can be concludes that malnutrition is still an important problem among Orphans and vulnerable preschool Children on care and support from NGO's and more attention needed to be given by stakeholders.

Keywords: nutritional status, orphans and vulnerable preschool children, care and support, hawassa.

I. INTRODUCTION

a) Background

An estimated 24 million children across the world live without their parents, and numbers of children live outside parental care are. The effects of the loss of parental care on children can be devastating. Children without parental care find themselves at greater risk of discrimination, inadequate care, abuse and exploitation. Inadequate care can impair children's education, emotional and physical development and health. It is widely recognized that the most preferable form of such alternative care is usually care within a family setting such as kinship care or foster care, and that large scale institutional care should be avoided where possible (1).

Poverty and deprivation have a major impact on children's ability to stay with their parents, and may also affect the ability of extended or other families to offer homes for children. Poverty also interacts with other determinants of children's care choices, such as HIV, migration and abuse or neglect in the home (2).

Historically, the fostering of children by extended family members, including aunts, uncles, grandparents, and other relatives, is common throughout sub-Saharan Africa. Extended family members have fostered children for a variety of reasons including the deaths of mothers in childbirth (3). The tradition of fostering by extended family continues today and is a vital coping mechanism in nations with high HIV prevalence and growing orphan populations. Throughout sub-Saharan Africa, an estimated 90% of

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orphaned children in households live with extended family members (4). The advantages of extended-family fostering are that it is culturally acceptable and assumed to be sustainable throughout a child's development, partially because communities will band together to support these households. In most cases, children can find stability, love, and emotional support in relatives' homes (5).

United Nation Children's Fund estimates that as of 2010 there were 153 million orphaned children and adolescents living in the world. While 13% of the world's children under the age of 18 years live in Sub-Saharan Africa, 36% of the world's orphans live in Sub-Saharan region (6). Approximately 27% of these orphans were orphaned due to HIV/AIDS (7).

With a total population projection of over 86 million, Ethiopia is the second most populous country in Africa. More than half (55.5%) of the population is constituted by children below the age of 18 years (8). Though the national prevalence of HIV in Ethiopia, estimated to be 1.3%, is considerably lower than rates in other sub-Saharan African countries, As of 2012, Ethiopia is estimated to have 1,988,731 Orphans of whom 530,630 are orphans due to HIV/AIDS, one of the largest populations of Orphan and vulnerable children (OVC) in Africa (9).

A number of factors have been suggested to affect both the level of food security at household level and the children's nutritional status, some of which are independently associated with households in which orphans live. These can broadly be classified into child characteristics (e.g., age and gender), household characteristics (e.g., household income, and number of children in the household), parental characteristics (e.g., occupation, education level and age of the household head) and community factors (e.g., water supply and sanitation) (7).

b) *Statement of the problem*

Despite being highlighted as one of the priority development issues under the Millennium Development Goals framework, malnutrition remains an important public health concern and one of the main causes of early child morbidity and mortality in developing countries (10). Many OVC suffer from cycles of poverty as a result of the illness and death of their parents and they are especially vulnerable and are at an increased risk of malnutrition and ill-health (11).

Communities and families in sub-Saharan Africa have been faced with a growing challenge of providing care for orphans and vulnerable children. Over 90% of all orphans not living with a surviving parent are cared for by extended families (12). Malnutrition is among the most serious health problem facing in Ethiopia. The prevalence of child malnutrition that is stunting, wasting and under weight is 44.1%, 7.6% and 28.3% respectively for SNNPR. However, there is little information about the

effect of orphan hood and child vulnerability on child nutritional status in study setting and only few evidence examining the nutritional status of Orphans and vulnerable children (OVC) who are on care and support from NGO while children 6 to 59 month is one of the critical window of opportunity for intervention to address under-nutrition through the Lifecycle Approach as stated in the National Nutrition Program and moreover OVC are potentially at greater risk of poor health and nutrition because they are more likely to be extremely poor, may receive less care and may themselves be HIV-infected via parent-to-child transmission.

Therefore, this study will address the information gap by estimating the magnitude and identifying the potential factors affecting the nutritional status of OVC who are on care and support from NGO.

c) *Significance of the study*

Information regarding the nutritional status of orphan and vulnerable children is limited in the study setting and most studies mainly focus on the general population than these segments of population. Currently a number of Non Governmental Organization in Ethiopia are providing different types of care and support to OVC based on the Guideline developed by the Ministries Of Women's Affairs on care and support for orphan and vulnerable children, However; little is known about their nutritional status and therefore determining the magnitude and associated factors affecting the nutritional status of the Orphans and Vulnerable Children will be helpful to provide information for policy maker, NGO's and other stakeholders and the information can be used as a baseline for further research.

II. LITERATURE REVIEW

a) *Prevalence of malnutrition in Orphans and Vulnerable Children*

Malnutrition is a leading cause of morbidity and mortality among children in the developing world, contributing to more than half of all child deaths (13). Worldwide, nearly one in four children under five ages are stunted, an estimated 101 million children of under five age are underweight and 52 million children are moderately or severely wasted (14).

In Sub-Saharan Africa, Malnutrition is a leading cause of morbidity and mortality. More than one third of countries in sub-Saharan Africa with high prevalence rates 40% of children are stunted, 25% of children are underweight and wasted (14).

A study conducted on influence of socio-economic factors on nutritional status of children in a rural community of Osun state, Nigeria revealed that the prevalence rates of underweight, wasting and stunting were 23.1%, 9% and 26.7% respectively (15).

Nationally, The National Demographic Health Survey conducted by Central Statistic agency (CSA) in Ethiopia in 2011 showed that the prevalence of stunting,

wasting, and underweight was 44%,10% and 29% and varies from region to region (8).

A cross sectional study conducted in North West Ethiopia shows prevalence of malnutrition in the community with 28.5% of the children underweight, 24 % stunted and 17.7% wasted (16). A community based cross-sectional survey conducted in West Gojam zone revealed that 49.2 % children were found to be underweight, 43.2 % of the children under age five were suffering from chronic malnutrition and 14.8 % acutely malnourished (17). The cross sectional survey conducted in rural communities of Tigray region also revealed that, the levels of stunting, under weight and wasting were 42.7%, 38.3% and 13.4%, respectively (18). A cross sectional study conducted in Aynalem village in Tigray region, the overall prevalence of stunting, underweight and wasting were 45.7%,43.1% and 7.1% ,respectively (19). According to research conducted in Gimbi district, Oromia region indicated that, 32.4 % stunted, 23.5 % underweight and 15.9% of the children were wasted. Prevalence of severe stunting, severe underweight and severe wasting respectively were 15.7%, 8.0 % and 5.7% (20). A community-based cross-sectional study conducted in rural kebeles of Haramaya district revealed, the prevalence of stunting, underweight, and wasting were 42.2%, 36.6%, and 14.1%, respectively (21).

The prevalence of stunting, wasting, and underweight reported for SNNPR is 44.1%, 7.6% and 28.3% respectively (8).

b) *Factors affecting the nutritional status of an OVC*

i. *Inadequate Dietary intake*

Globally, 39 per cent of infants less than 6 months old were exclusively breastfed and only 60 per cent of children aged 6-8 months receive solid, semi-solid or soft foods, highlighting deficiencies in the timely introduction of complementary foods in 2011 (14). The study conducted in Nairobi, Kenya prevailed that orphans living in households in informal settlements in Nairobi are indeed more vulnerable with regards to food security than non-orphaned children, most particularly paternal orphans. In preliminary studies completed by UNICEF in Malawi and Jamaica, the percentage of *non*-orphans who were food insecure was 15%, compared to 39% among paternal and double orphans in the same region (22).

ii. *Disease and Malnutrition*

It is clear that Infection and nutritional status of children are interrelated where malnutrition can accelerate disease progression, and Infection worsens malnutrition by weakening the immune system and hindering nutrient intake, absorption, and storage. Globally, between 1995 and 2005, one in three preschool-age children were deficient in vitamin A due to inadequate dietary intake. A study conducted by FAO shows that one in four had experienced symptoms of

illness including fever, cough, and/or diarrhea in the previous two weeks; and 55% had been ill during the previous 6 months. Four percent were reported to have tested HIV positive, and HIV infection was suspected in another 2.0 % (23).

In sub-Saharan Africa, AIDS is the leading cause of death among those aged 15-59 years old and 80.0% of them who have lost a parent by AIDS in the developing world are living in this region. Even once the HIV infection rates stabilize or begin to decline, the number of orphans will continue to grow or remain high for many years due to the time lag between HIV infection and death. Orphaned children are at an increased risk for malnutrition and illness in addition to a lack of access to health care (24).

A study conducted in Angolela tera Woreda north Ethiopia revealed that One-third of the participants were found to have a protozoan infection, while 7.1% were found to have a helminthic infection. Approximately 11% of the students were stunted, 19.6% were wasted, and 20.8% were underweight. (25).

iii. *Child care and OVC*

Care affects nutritional status in three ways: through feeding practices such as breast-feeding and the preparation of nutritious foods for weaned infants and others in the household; through health and hygiene practices both within the family and within the community; and through support to the mother, both by the family and by the community, so that she has sufficient time to care for the child. (1)

A study conducted about attributes of care giving Reveled that, Caregivers, whose mean age at enrolment was 42.9 (S.D 13.3) years, were predominantly female (87%), and 25% per cent were married. Fifty-five percent were biological parents of the child participants. Forty-five percent of caregivers were known to be illiterate, and the mean number of years of education was 4.9 (S.D 3.7). Forty-five percent of caregivers reported their own health to be fair, poor, or very poor; 24% reported symptoms in the previous two weeks; and 56% reported illness in the previous 6 months (26).

iv. *Socio demographic variables*

A study conducted about poor health in less wealthy country showed the median age at enrolment was 10 (standard deviation, S.D 2.1) years. Fifty-seven percent of the OAC were paternal orphans; 16% were maternal orphans, and 17% were double orphans (27).

Vulnerable children who live in household sizes of 4-6 members and vulnerable children who live with non-relatives had greater odds of inadequate immunization (OR = 1.51, 95% CI: 1.13-2.01, OR = 9.02, 95% CI: 4.62-17.62). Paradoxically, vulnerable children living with non-relative caregivers were at lower risk for inadequate food (OR = 0.19, 95% CI 0.07-0.33). Single orphans with an HIV positive parent were less

likely to be fully immunized than single orphans with an HIV negative parent (28).

v. *Environmental and hygiene and OVC*

Unsafe water, poor sanitation and unhygienic conditions claim many lives each year. An estimated 1.2 million children die before the age of 5 years from diarrhea. Poor urban areas where insufficient water supply and sanitation coverage combine with overcrowded conditions tend to maximize the possibility of fecal contamination (29). Globally, urban dwellers enjoy better access to improved drinking water sources (96 per cent) than do people living in rural areas (78 per cent). Even so, improved drinking water coverage is barely keeping pace with urban population growth; access to an improved water source does not always guarantee adequate provision. Without sufficient access to safe drinking water and an adequate water supply for basic hygiene, children's health suffers (29).

vi. *Impact of malnutrition in OVC*

Malnutrition prevents children from reaching their full physical and mental potential. Health and

physical consciences of prolonged states of malnourishment among children are: delay in their physical growth and motor development; lower intelligent quotient (IQ), greater behavioral problems and deficient social skills; susceptibility to contracting disease. Under nutrition and micronutrient deficiencies contribute substantially to the global burden of disease. Under nutrition reduces immunological capacity to defend against diseases, and diseases deplete and deprive the body of essential nutrients. Under nutrition and infectious diseases further exacerbate poverty through lost wages, increased health care costs, and most insidiously impaired intellectual development that can significantly reduce earning potential (30).

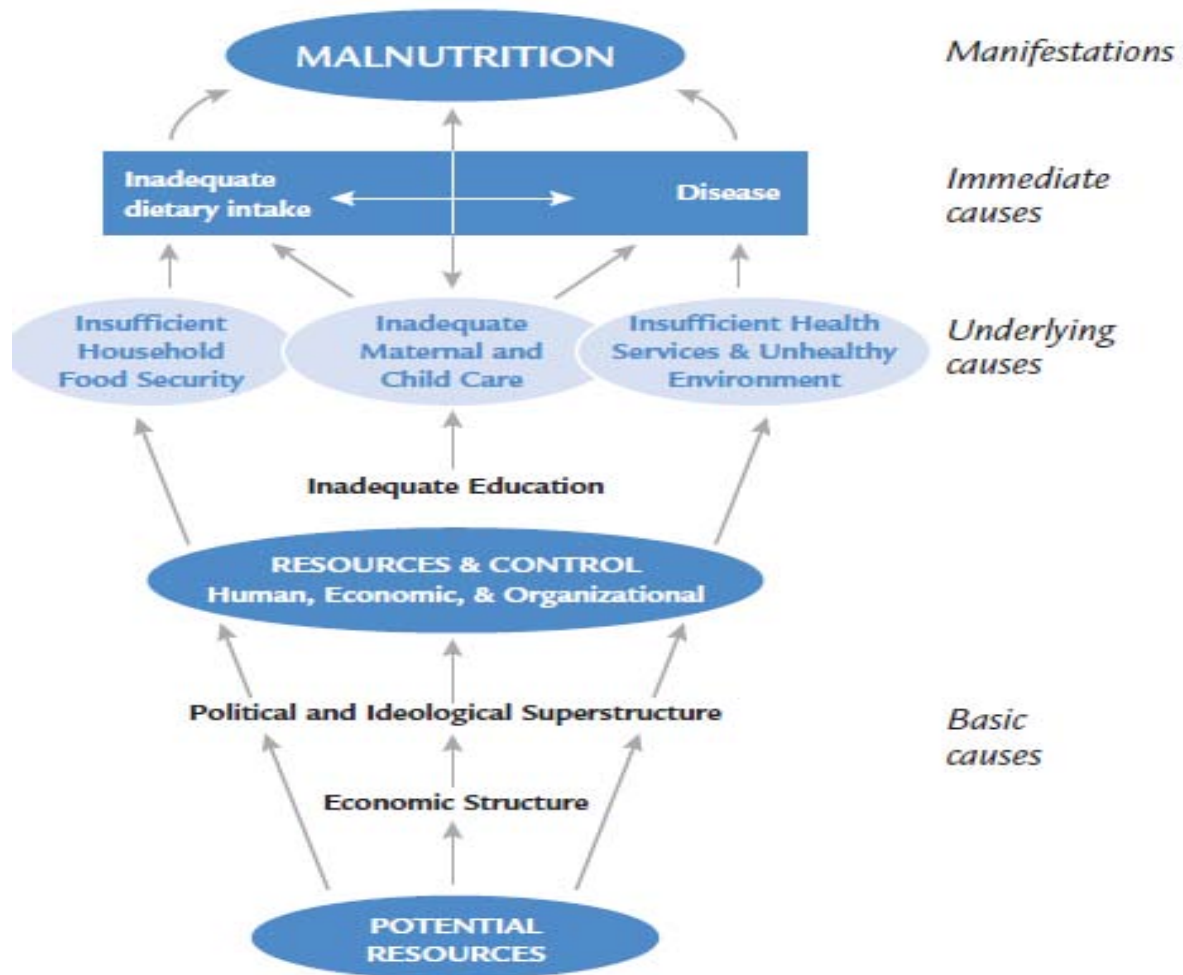


Figure 1: Conceptual framework adopted from UNICEF, 1990

The immediate causes of malnutrition are inadequate food intake and infectious diseases, which in turn, result from a combination of three underlying causes that relate to the nutrition, social and health environment of the child. Inadequate household food security, inadequate maternal and child care, insufficient services and unhealthy environment are the underlying causes, which in turn, result from basic causes; Formal and non-formal institutions, political and ideological superstructure economic structure and potential resources (Figure 1) (31).

III. STUDY OBJECTIVES

a) General objective

To assess the nutritional status and associated factors of orphans and vulnerable preschool children on care and support from a nongovernmental organizations in Hawassa town, Southern Ethiopia.

b) Specific objectives

- To estimate prevalence of malnutrition among orphans and vulnerable children on care and support from nongovernmental organization based on anthropometric measurement
- To identify associated factors for malnutrition among orphans and vulnerable children on care and support from nongovernmental organization

IV. METHODS AND MATERIALS

a) Study period and Setting

The study was conducted from January 27 to April 1, 2014 in Hawassa town administrative council, which is the capital of Southern Nation Nationalities People's Regional state. Hawassa town is found 273 km south of Addis Ababa, the capital city of Ethiopia. Its boundaries are Shashmene town in the north, WondoGenet district in the east, Malga district in the South-east and Hawassa Lake in the west. It has a projected population for 2013/14 was 316,842 people, out of this 163,039 are males and 153,803 are females with the annual population growth rate 4.02. The municipality has 8 sub-city and 32 kebeles (32).

The potential health coverage of the City administration was 92 % in 2013 G.C. There are one referral hospital, one district hospitals, three private hospitals, 10 health centers, 15 health posts, 47 private clinics, 49 drug stores, 11 diagnostic laboratories and 12 pharmacies in the City administration. The total number of OVC on care and support in Hawassa Town was 10,693 and out of this 3000 was under five and there were 28 NGO's that provide care and support for OVC (33).

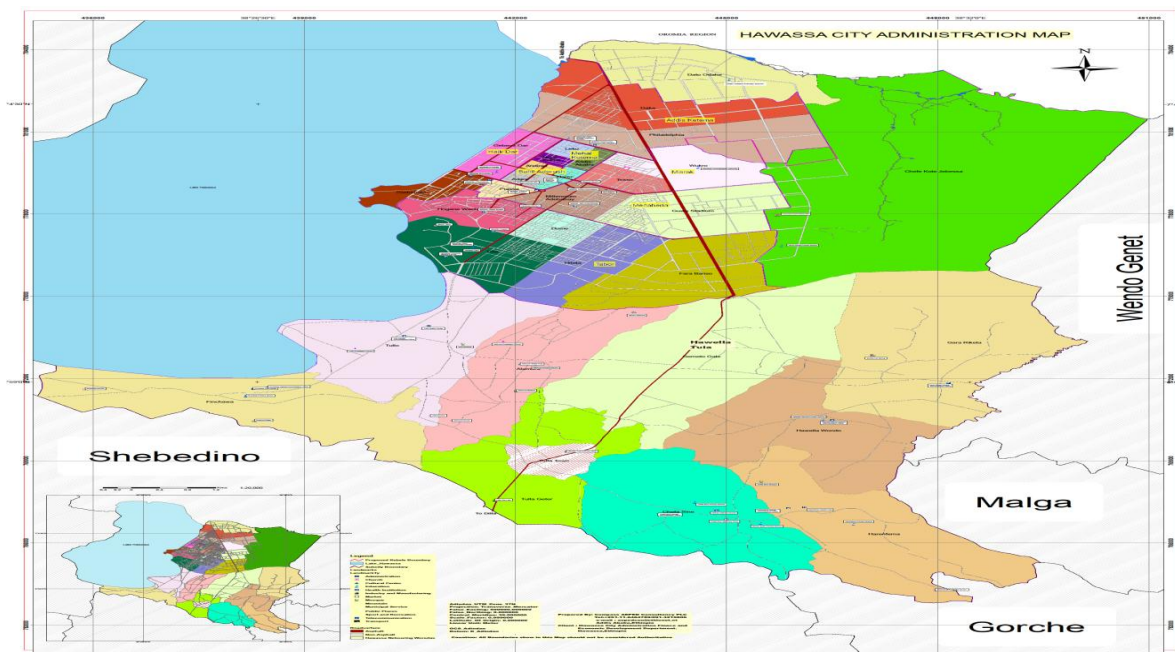


Figure 2: Map of the study area

b) Study Design

Community based cross-sectional study was conducted.

c) Source population

All Orphans and vulnerable children aged 6-59 month on care and support from Nongovernmental Organizations in Hawassa town.

i. Study population

orphan and vulnerable children aged 6-59 month on care and support in selected sub cities

Exclusion criteria

- Orphans 6-59 month of age who were severely ill or with disability

d) *Sample size determination*

To determine the number of Orphan and Vulnerable Children to be included in the study, the single population formula was used to calculate the

sample size for first specific objective and for this proportion the most prevalent form of malnutrition (44.1%) was taken from EDHS 2011GC (8).

Assumption

n= sample size

Z α /2=1.96 level of significant

P= Proportion of the most prevalent form of malnutrition 44.1%

D= degree of precision 0.05

The sample size is calculated using

$$\frac{(Z_{1-\alpha/2})^2 * P * (1-P)}{d^2} = \frac{(1.96)^2 * 0.441(1 - 0.441)}{0.05^2} = \frac{3.8416 * 0.441 * 0.559}{0.0025} = 372$$

372 with 90% response rate = 372*1/0.9= 414

- ❖ Since the total population is < 10,000 correction was made and n final was calculated as n final=n/(1+n/N)=414/(1+414/3000)=364

This is the Main Factors affecting the nutritional status of Children from literature and then the second objective is calculated using OPEN EPI 2.3 version as follows with the (20,21).

Sample size for second objective

Assumption 95% CI, power of 80% and Ratio of case to controls 1:4

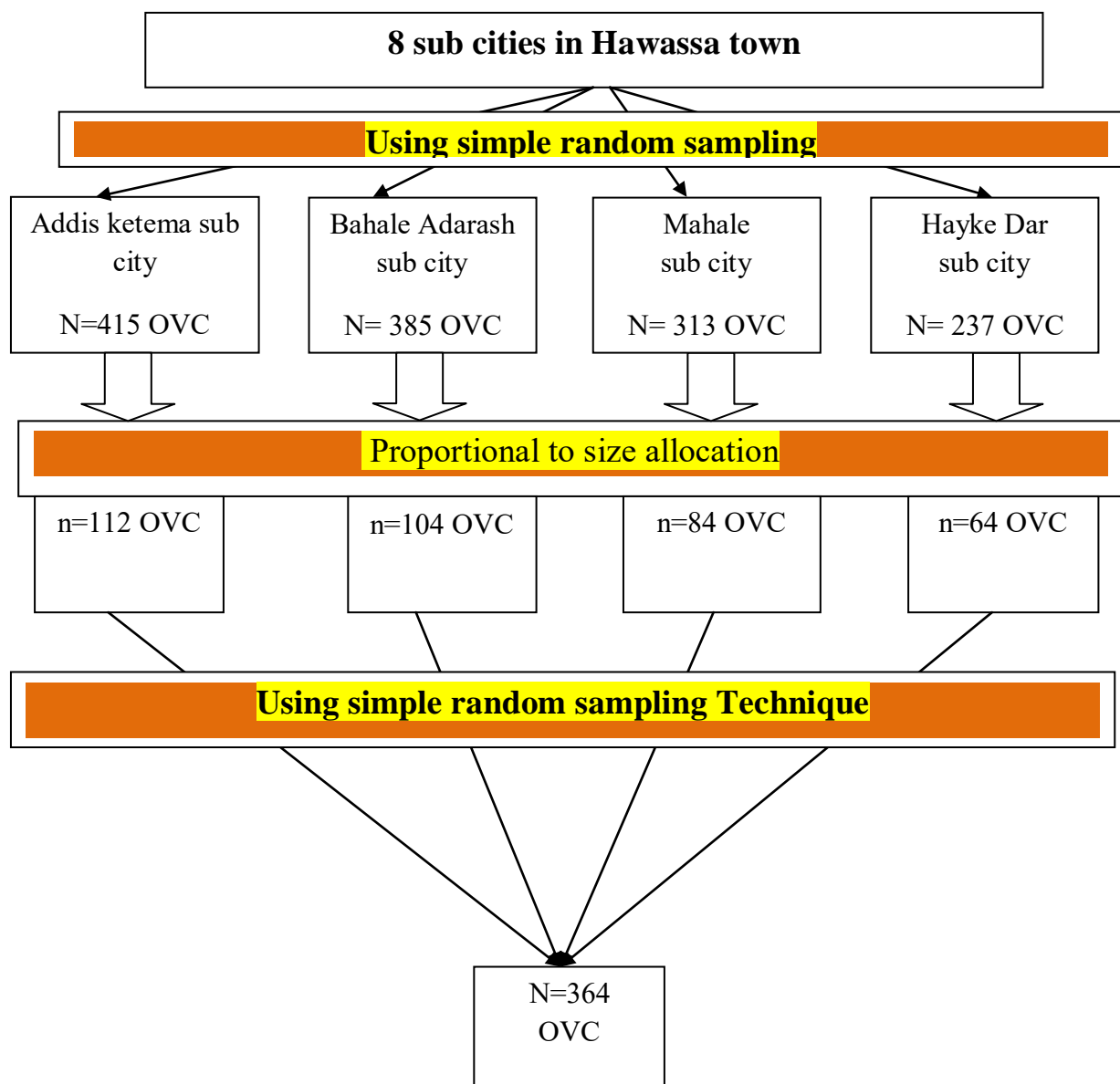
| | HH income in birr | Employment status | Education of mother/caretaker | N^o orphan children cared for |
|-------------------------------|--------------------------|--------------------------|--------------------------------------|--|
| % cases exposed | ≥ 1000 33.4% | Employed 38% | Literate 13% | 17% caring for 3 or more orphans |
| % controls exposed | <1000 66.6% | Unemployed 62% | No Education 44% | 54% caring for 1 |
| Sample Size for cases | 25 | 47 | 25 | 19 |
| Sample size for controls | 98 | 186 | 99 | 75 |
| Total Sample size with 90% RR | 137 | 264 | 137 | 104 |

- ❖ Since the sample size calculated for the first objective could accommodate the second objectives 364 was selected due to representativeness.

e) *Sampling procedures*

All sub cities in Hawassa town were identified by name and then using simple random sampling technique by lottery Methods 4 sub city was selected and the sample size for the sub city was proportionally allocated. The sampling frame was prepared for selected sub city in Hawassa town depending on registration from sub city and then by using simple random sampling method using random number table subjects were identified and household survey was

conducted using mother child supporting groups as a guiders at each sub cities who know house the selected orphan and vulnerable children were located.



Proportional to size allocation =total number of OVC in each selected sub cities/ the sum of OVC in selected sub cities *total sample size

Figure 3: Schematic presentation of sampling procedure

f) Study variable

Dependent Variable

Nutritional status– stunting, wasting, underweight

Independent Variables

Demographic factors (age, sex, ethnicity, education, number of children in HH, marital status), Socio economic variables (income, employment), Child health care (immunization, sickness), Environmental /sanitation factors (source of water, latrine, domestic waste disposal), food in security variables, Dietary intake (breast feeding, Individual Dietary Diversity Score).

g) Data collection procedures and measurements

The data collection instruments were a structured pretested interviewer administered

questionnaire, 24 hours dietary recall measurements at individual level and anthropometric measurements. Questionnaire was adapted from different relevant studies and standards and was prepared originally in English language and then it was translated into Amharic language for data collection purpose and then back to English for reconsideration. Data were collected from mother/caretakers and measurements from orphan and vulnerable preschool children aged 6-59 month who were on care and support in NGO's during the time of data collection

h) Data quality control

The pretest of the instrument was carried out in Tula Sub city which was not selected for this study in 5%

of the sample and pretest ensures validity of the instrument. The pre-tested data were not included as part of the main data of the study.

The data collections were facilitated by 4 enumerators who are diploma nurses and two health officers as supervisors. Enumerators and supervisors were given one day training by principal investigator in Hawassa health center on the objectives of the study, on the contents of the questionnaire, on the methodology of the study, on the issues of the confidentiality of the responses, on the use of instruments and on the procedures how to take anthropometric measurement. All measurements were carried out using standard procedures by explaining the procedure to the mother /care takers.

Anthropometric measurements

Age: were collected from the mother/caretakers and looking up age in official registers for counter check. The 15th day of the month was used when the date of birth is unknown and if the month of birth was unknown, the midpoint of the year of birth was used.

Sex: Was recorded as male and female.

Length/Height: were measured using Wooden board in recumbent position while the child barefooted and free of head wearing in children <2 years old to the nearest 0.1 cm and height was measured using Wooden board in standing-up position while the child being barefooted and free of any head wearing in children >2 years old and was recorded to the nearest 0.1 cm.

Weight: weight was measured using a 25 kg hanging spring scale graduated by 100 g for children while clothes are removed and was recorded to the nearest 0.1 kg. The scale was calibrated immediately before and during each session by placing standard calibration weights of 5 kg iron on the scale to ensure accuracy.

MUAC: were measured for children >65cm in height using color coded standard MUAC tape meter by calculating the midpoint of the child's left upper arm by first locating the tip of the child's shoulder and the tip of the elbow through right angle position and measurement was taken in the mid point by straighten the child's arm and read the measurement to the nearest 0.1cm.

Households Food Insecurity Access scale

Based on the responses given to the nine questions and frequency of occurrence over the past 30 days, households are assigned a score that ranges from 0 to 27. A higher HFIAS score is indicative of poorer access to food and greater household food insecurity. The lower the score, the most food secured a household was. A score of <17 was classified as food secured and a score of ≥17 classified as food insecure. Household Food Security was assessed during the site assessment using the household level component of HFIAS (34).

Individual dietary diversity score

Was Calculated on the basis of the number of food groups consumed within the 24 hours recall period from the total of 11 food groups. The food group consumption frequency score (FGFS) was calculated by assigning a score of 0 if not consumed during the previous 24 hours, 1 if consumed. For children 6 months to 5 years was scored as high DDS if the score out of the 9 is ≥4 and as low DDS if < 4 (35).

i) Data Management

First code was given to the completed questionnaire and then data was entered and clean up using EPI-info version 3.5.1 software and SPSS analysis statistical package to check for frequencies, accuracy, outliers, and consistencies and missed values and variables and Anthropometric measurement data was entered, clean up using ENA SMART. Any error was identified and corrected.

j) Data Analysis and Presentation

The prevalence of malnutrition among OVC was assessed by calculating the percentages of children 6–59 months using ENA SMART and analysis was made using WHO Standard cut off point below - 2 S.D to determine nutritional status as stunting, wasting or underweight using z-scores. Odds ratio with 95%confidence interval was computed to assess the strength of the association and statistical significance and Data were then exported to SPSS and Binary and multivariate Logistic analysis was carried out to see the effect of each independent variable on nutritional status. Logistic regression was used to control any confounders at p value 0.05. . Bar graph was used for diagrammatic summarization of categorical variables and tables were used for summarization variables.

k) Operational Definition

An orphan: was a child aged 6 to 59 month whose mother, father, or both have died.

Social orphans: one or both their parents may still be alive but who have been unable to perform parental duties because of illness or acute poverty among other reasons.

Vulnerability: high probability of a negative outcome which results from risky or uncertain events and lack of appropriate means to deal with them.

Vulnerable children: were defined as being under the age of 59 month and currently at high risk of lacking adequate care and protection.

Standard Definition

Stunting which is below -2 S.D from median height for age of reference population,

Wasting which is below -2 S.D from median weight for height of reference population

Underweight which is below -2 S.D from median weight for age of reference population.

l) Ethical consideration

The study proposal was submitted to the ethical Review Board of Mekelle University College of health sciences and was approved. Following the endorsement by ethical Review Board, official permission was secured from Hawassa city administration department Women’s, children and youth Affairs through a support letter from the department of public health, college of health sciences, Mekelle University. Selected Sub cities were informed about the objective and purpose of the study through a support letter from the Hawassa city administration department Women’s, children and youth Affairs. The participants were informed about the objective and purpose of the study and parental informed written consent was obtained from each participant during data collection and anthropometric measurement. Introduction of the study, method of the questioning and confidentiality letters was attached to the cover page of the questionnaires.

The participants were informed that they have a full right to participate or decline from participating in the study and information was collected anonymously. There was no serious harm to the participants and children who were malnourished using MUAC tape meter during data collection was notified to the respected service providing organization for management of malnutrition and the result of this study will help us to know the nutritional status of orphans and vulnerable preschool children and to improve services provided by NGO’s for Orphans and vulnerable preschool children.

m) Dissemination of Information

The results of this study will be communicated to Mekelle University, college of health sciences, the

Bureau of women’s affairs, the Regional Health Bureau and other concerned bodies through hard copy and presentation. Publication on an appropriate journal will also be attempted.

V. RESULTS

a) Socio-demographic characteristics

A total of 359 aged OVC 6-59 months were participated in the study with an age category 48-59 month accounted 161(44.8%) followed by 36-47 month 85(23.7%) with a mean age of 39.25 month and the response rate was 98.6%. Non response rate was due to refusal to participate in the study. Regarding sex, 187(52.1%) of the study participants were males and 172 (47.9%) were females. The number of Under five children in household two and above was 65(18.1%). protestant and orthodox was the dominant religion in this study which was 181(50.4%) and 161(44.8%), respectively. Wolyita was the dominant ethnicity 249(69.4%). Double orphan in this study was 22(6.1%) and maternal orphan was about 69(19.2%) and paternal orphan 7(1.9%).over half of the respondents 281(78.3%) were parents and female parents constituted 347(96.7%) were females and among the care takers 168(46.8%) were attended primary education. Concerning the occupation of care takers, majority 216(60.2%) was unemployed and majorities of the care takers were married 323(90%) and almost half of them the households were headed by husband/wife of husband (Table-1).

Table 1: Socio demographic characteristics of the study participants in selected sub city, Hawassa town, Ethiopia, 2014

| Variable | Frequency | Percent (%) |
|---|------------------|--------------------|
| Age of the child in Month (n= 359) | | |
| 6 - 11 | 10 | 2.8 |
| 12 - 23 | 42 | 11.7 |
| 24 - 35 | 61 | 17.0 |
| 36 - 47 | 85 | 23.7 |
| 48 - 59 | 161 | 44.8 |
| Mean age (SD) | | |
| Sex of the child (n=359) | | |
| Male | 187 | 52.1 |
| Female | 172 | 47.9 |
| Under 5 children in HH (n=359) | | |
| <2 | 294 | 81.9 |
| >=2 | 65 | 18.1 |
| Family members in HH (n=359) | | |
| <5 | 162 | 45.1 |
| >= 5 | 197 | 54.9 |

| Religion of parents/care takers (n=359) | | |
|--|-----|------|
| Orthodox | 161 | 44.8 |
| Muslim | 12 | 3.3 |
| Protestant | 181 | 50.4 |
| Others * | 5 | 1.4 |
| Ethnic group (n=356) | | |
| Welyta | 249 | 69.9 |
| Sidama | 27 | 7.6 |
| Amhara | 41 | 11.5 |
| Guragie | 25 | 7.0 |
| Others ** | 14 | 3.9 |
| Parental status (n=359) | | |
| Alive | 337 | 93.9 |
| Not alive | 22 | 6.1 |
| Orphan status (n=337) | | |
| Alive | 261 | 20.5 |
| Paternal | 7 | 2.1 |
| Maternal | 69 | 77.4 |
| Sex of the caretaker (n=359) | | |
| Male | 12 | 3.3 |
| Female | 347 | 96.7 |
| Education of mothers (n=359) | | |
| Illiterate | 140 | 39 |
| Primary | 168 | 46.8 |
| Secondary and above | 51 | 14.2 |
| Occupation of care takers (n=359) | | |
| Unemployed | 143 | 39.8 |
| Employed | 216 | 60.2 |
| Marital status (n=359) | | |
| Single | 36 | 10 |
| Married | 323 | 90 |
| Head of the family (n=359) | | |
| Care taker | 160 | 44.6 |
| Husband/wife of care takers | 186 | 51.8 |
| Others *** | 13 | 3.6 |

*Catholic

**Kenbata, Hadiya

*** uncles, Grand parents

b) Water, sanitation and hygiene characteristics

The source of water for the 200(55%) of the OVC is public stand and the amount of water used per day which was >15L was 323(90%).Majorities 344(95.8%) used Container as a means of water storage. Furthermore, 355(98.9%) of the household had

hand washing facilities. Three hundred and forty four (95.8%) of the house hold had access for latrine and nearly half (47%) of latrine was pit type. Over half (57.1%) used municipality service for domestic waste. Hundred and one (28.1%) of the house hold have separated kitchen for cooking (Table 2).

Table 2: Water, sanitation and hygiene characteristics of the study subject sin the selected sub city, Hawassa town, Ethiopia, 2014

| Variable | Frequency | Percent (%) |
|---------------------------------|------------------|--------------------|
| Source of water (n= 359) | | |
| Pipe | 157 | 43.7 |
| Public stand | 200 | 55.7 |

| | | |
|--|-----|------|
| Protected spring /well | 2 | 0.6 |
| Amount of water used per day (n= 359) | | |
| <=15L | 36 | 10.0 |
| >15L | 323 | 90.0 |
| Method of water storage n= 359) | | |
| Pot | 15 | 4.2 |
| Container | 344 | 95.8 |
| Hand washing while feeding (n= 359) | | |
| Yes | 355 | 98.9 |
| No | 4 | 1.1 |
| Latrine availability(n=359) | | |
| Yes | 344 | 95.8 |
| No | 15 | 4.2 |
| Type of latrine(n=344) | | |
| Pit | 162 | 47.0 |
| VIP | 143 | 41.6 |
| Water carriage | 24 | 7.0 |
| Others | 15 | 4.4 |
| Waste disposal system (n= 359) | | |
| Pit | 104 | 29.0 |
| Open | 18 | 5.0 |
| Municipality service | 205 | 57.1 |
| Separated Kitchen (n= 359) | | |
| Yes | 101 | 28.1 |
| No | 258 | 71.9 |

c) *Feeding practice and Dietary intake*

Three hundred and forty two (95.3%) of the OVC were ever breast fed. Similarly, 285(81.9%) initiated BF within the first hour after delivery. Majorities 91.7% of the OVC exclusively breast feeding. And 249 (69.4%)

introduced complementary food within 6 to 12 month. Furthermore, 74(74.4%) of the OVC first complementary food was milk and over half 56.3 % used cup and spoon as means of child feeding. (Table 3)

Table 3: Feeding practice and Dietary intake reported by mothers/caretakers of 359 under five children subjects in selected sub city, Hawassa town, Ethiopia, 2014

| Variable | Frequency | Percent (%) |
|---|-----------|-------------|
| Ever breastfeed(n = 359) | | |
| Yes | 342 | 95.3 |
| No | 11 | 3.1 |
| Not known | 6 | 1.7 |
| Initiation of breast feeding (n = 348) | | |
| Within First hour | 285 | 81.9 |
| Within eight hour | 29 | 8.3 |
| 2-3 day | 26 | 7.5 |
| Not known | 8 | 2.3 |
| Age ceased breast feeding (n = 339) | | |
| < 6 month | 14 | 4.1 |
| 6-11 month | 76 | 21.2 |
| >=12 month | 249 | 69.4 |

| | | |
|--|-----|------|
| Age Started complementary feeding (n = 359) | | |
| Immediately after birth | 20 | 5.6 |
| Within 1-6 month | 75 | 20.9 |
| 6-12 month | 249 | 69.4 |
| 12 month latter | 15 | 4.2 |
| First complementary food child received (n = 359) | | |
| Milk | 74 | 74.4 |
| Adult food | 30 | 8.4 |
| Porridge | 54 | 15 |
| Means of child feeding (n = 359) | | |
| Hand | 49 | 13.6 |
| Cup and spoon | 202 | 56.3 |
| Bottle | 108 | 30.1 |

Table 4: Proportion of the OVC who consumed specific food items within 24 hours reported by mothers/care takers of 359 under five children subjects in selected sub city, Hawassa town, Ethiopia, 2014

| Food item consumed | frequency | Percentage (%) |
|------------------------------|-----------|----------------|
| Cereals | | |
| Yes | 291 | 81.1 |
| No | 68 | 18.9 |
| Roots and Tubers | | |
| Yes | 210 | 58.5 |
| No | 149 | 41.5 |
| Vegetables | | |
| Yes | 224 | 62.4 |
| No | 135 | 37.6 |
| Fruits | | |
| Yes | 134 | 37.3 |
| No | 225 | 62.7 |
| Meat | | |
| Yes | 19 | 5.3 |
| No | 340 | 94.3 |
| Eggs | | |
| Yes | 37 | 10.3 |
| No | 322 | 89.7 |
| Poultry | | |
| Yes | 22 | 6.1 |
| No | 337 | 93.9 |
| Pulses and Nuts | | |
| Yes | 155 | 43.2 |
| No | 204 | 56.8 |
| Milk and Milk product | | |
| Yes | 90 | 25.1 |
| No | 269 | 74.9 |
| Oils and Fats | | |
| Yes | 186 | 48 |
| No | 173 | 52 |

Table 5: Distribution of responses to household's food security module items reported by mothers/caretakers of 359 under five children subjects in selected sub city, Hawassa town, Ethiopia, 2014

| Variable | Frequency | Percent (%) |
|--|------------------|--------------------|
| Worry that not having enough food (n= 359) | | |
| Never | 69 | 19.2 |
| Rarely | 206 | 71.0 |
| Sometimes | 38 | 13.0 |
| Often | 46 | 15.8 |
| Not able to eat the kinds of food you preferred | | |
| Because of lack of resources? (n= 359) | | |
| Never | 59 | 16.4 |
| Rarely | 191 | 63.6 |
| Sometimes | 56 | 18.6 |
| Often | 53 | 17.6 |
| Eat just a few kinds of food day after | | |
| Day due to lack of resources ? (n= 359) | | |
| Never | 45 | 12.6 |
| Rarely | 212 | 67.5 |
| Sometimes | 55 | 17.5 |
| Often | 47 | 15.0 |
| Eat food that you preferred not to eat | | |
| Because Of lack of resources? (n=359) | | |
| Never | 81 | 22.6 |
| Rarely | 192 | 69.0 |
| Sometimes | 53 | 19.0 |
| Often | 43 | 15.4 |
| Eat a smaller because there were not enough | | |
| Food? (n=359) | | |
| Never | 63 | 17.5 |
| Rarely | 201 | 67.9 |
| Sometimes | 62 | 20.9 |
| Often | 33 | 11.1 |
| Eat a fewer meal because there were not | | |
| enough food? (n= 359) | | |
| Never | 43 | 12.0 |
| Rarely | 222 | 70.2 |
| Sometimes | 54 | 17.0 |
| Often | 40 | 12.6 |
| No food at all because there were Not enough | | |
| resources? (n= 359) | | |
| Never | 147 | 69.3 |
| Rarely | 151 | 71.2 |
| Sometimes | 49 | 22.2 |
| Often | 12 | 5.6 |

Sleep at night hungry because There was not enough food? (n= 359)

| | | |
|-----------|-----|------|
| Never | 97 | 27.0 |
| Rarely | 183 | 69.8 |
| Sometimes | 54 | 20.6 |
| Often | 25 | 9.5 |

Whole day eating anything because There was not enough food? (n= 359)

| | | |
|-----------|-----|------|
| Never | 174 | 48.5 |
| Rarely | 133 | 71.8 |
| Sometimes | 42 | 22.7 |
| Often | 10 | 5.4 |

d) *Maternal and child care characteristics*

Three hundred and sixteen (88%) care takers had ANC follow up during their previous pregnancy and Two hundred and seventy three (76%) of them gave

birth at health facilities. over three fourth (76.6%) of the OVC had ever received vaccination and majorities (86.2%) of the OVC were received vitamin A supplementation (Table 4).

Table 6: Maternal and child care characteristics in selected sub city, Hawassa town, ethiopia, 2014

| Variable | Frequency | Percent (%) |
|--|-----------|-------------|
| ANC follow -up (n= 359) | | |
| Yes | 316 | 12.0 |
| No | 43 | 88.0 |
| Place of deliver (n= 359) | | |
| Home | 86 | 24.0 |
| Health facility | 273 | 76.0 |
| Who attend the deliver (n= 359) | | |
| TBA | 84 | 23.4 |
| Health personnel | 275 | 76.6 |
| Child received Vaccination (n= 359) | | |
| Yes | 333 | 92.8 |
| No | 25 | 7.0 |
| Not known | 1 | .30 |
| Type Vaccination received (n= 315) | | |
| BCG | 62 | 19.7 |
| Polio | 64 | 20.3 |
| Measles | 11 | 3.5 |
| All | 178 | 56.5 |
| Vitamin A supplementation (n= 359) | | |
| Yes | 311 | 13.4 |
| No | 48 | 18.6 |
| Measles Infection(n= 359) | | |
| Yes | 52 | 14.5 |
| No | 307 | 85.5 |
| Cough in 2 weeks (n= 359) | | |
| Yes | 78 | 21.8 |
| No | 281 | 78.3 |

| | | |
|-------------------------------------|-----|------|
| Diarrhea in 2 weeks (n= 359) | | |
| Yes | 54 | 15.0 |
| No | 305 | 85.0 |
| Fever in 2 weeks (n= 359) | | |
| Yes | 98 | 27.3 |
| No | 261 | 72.7 |

e) *OVC care and support characteristics in selected sub city, Hawassa town, Ethiopia, 2014*

Seventy one percent of the OVC get nutritional support from nongovernmental organization through direct assessment and supplementation as a main means of support which was 51%. About 170 (47.4%) of the OVC had health care support from the supportive organization through free health care access as a main means of support (52.6%). About 170 (46.5%) of the OVC had economic strengthening support from supportive organization through income generating

activities and access to credit 111(30.9%) and 86 (24%) respectively. About 221(61.6%) of the OVC had educational support from supportive organization through direct assistance 99 (27.6%). About 232(64.6%) of the OVC had Psychological support from supportive organization through Training of Psycho social support 86 (24.0%). About 153(42.6%) of the OVC had legal support from supportive organization and About 142(42.6%) of the OVC had shelter and care support from supportive organization (Table 5).

Table 7: OVC care and support characteristics in selected sub city, Hawassa town, Ethiopia, 2014

| Variable | Frequency | Percent (%) |
|--|-----------|-------------|
| Food and nutrition support (n= 359) | | |
| No | 103 | 28.7 |
| Through Assessment and supplementation | 183 | 51.0 |
| Through Link to health center | 59 | 16.4 |
| Through Training | 31 | 8.6 |
| Health care (n=359) | | |
| No | 189 | 52.6 |
| Through free access | 131 | 36.5 |
| Through Home visit | 48 | 13.4 |
| Through Training | 18 | 5.0 |
| Economic strengthening (n=359) | | |
| No | 192 | 53.5 |
| Through Vocational training | 79 | 22 |
| Through Income generating activities | 111 | 30.9 |
| Through Access to credits | 86 | 24.0 |
| Education support (n=359) | | |
| No | 138 | 38.4 |
| Through Direct assistance | 99 | 27.6 |
| Through Identifying and promoting | 91 | 25.3 |
| Through Training | 61 | 17 |
| Psychological support (n=359) | | |
| No | 127 | 35.4 |
| Through Training of Psycho social support | 86 | 24.0 |
| Through Support | 129 | 35.9 |
| Through Parenting | 41 | 11.4 |



| | | |
|------------------------------------|-----|------|
| Legal protection (n=359) | | |
| No | 206 | 57.4 |
| Through Protection | 82 | 22.8 |
| Through Link to | 89 | 24.8 |
| Shelter and care (n=359) | | |
| No | 218 | 60.7 |
| Through Support family | 98 | 27.3 |
| Through Assessment | 29 | 8.1 |
| Through Improve shelter | 29 | 8.1 |
| Duration of support (n=359) | | |
| < 6 month | 41 | 11.4 |
| >= 6 month | 318 | 88.6 |
| Adequacy of support (n=359) | | |
| Adequate | 108 | 30.1 |
| Not adequate | 248 | 69.1 |
| No answer | 3 | .8 |

f) *Prevalence of malnutrition among OVC*

The prevalence of stunting 35.1% (95%CI: 30.3, 40.2), wasting 7.5 % (95% C.I 5.2 - 10.7) and underweight 8.9 % (95% C.I 6.4 - 12.3) among orphans and vulnerable children. (Figure 3)

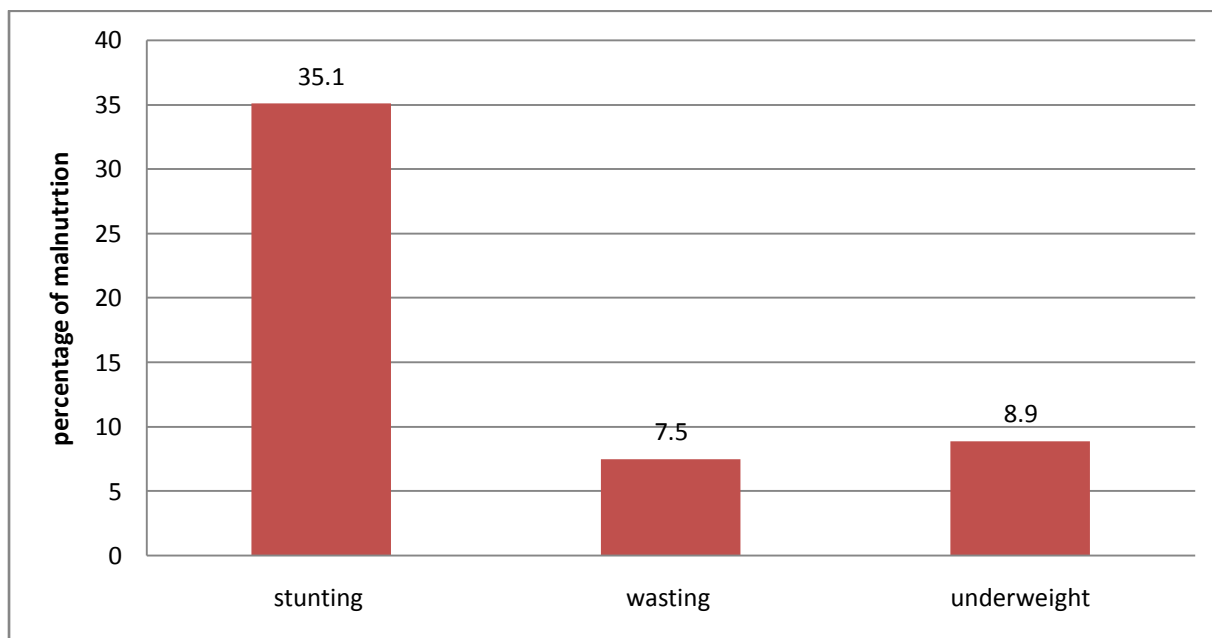


Figure 4: Magnitude of Malnutrition among orphans and vulnerable children aged 6-59 month on care and support from NGO in Hawassa town, Ethiopia, 2014.

g) *Factors associated for malnutrition among OVC*

i. *Factors associated for stunting*

The multivariate logistic regression analysis identified children who have parents, marital status and educational status of the care takers, first complementary food the child received as determinant factors for stunting. The odds of stunting among OVC whose either parent were alive were 3.717 times an increased risk than those who were not alive (AOR 3.717; 95% CI 1.405, 9.804). OVC of married care taker

were 74.1% at reduced risk to be stunted than those OVC of single care takers (AOR .259; 95% CI .751, .089). The odds of stunting among OVC care takers whose educational status primary were 2.777 times at an increased risk when compared to OVC of care takers their educational status were secondary and above (AOR 2.777; 95% CI 1.272, 6.063). The odds of stunting among OVC whose first food porridge were 2.463 times an increased risk than OVC whose first complementary food were milk (AOR 2.463; 95% CI 1.328, 4.568) (Table 8).

Table 8: Logistic regression analysis showing associated factors for stunting among OVC aged 6-59 month on care and support from NGO in Hawassa town, Ethiopia, 2014

| Variable | stunting | | COR (95% CI) | | AOR (95% CI) | |
|------------------------------|--------------|-------------|------------------------|---|------------------------|----|
| | Yes N (%) | No N (%) | | | | |
| Parental status | | | | | | |
| Alive | 123 (97.6 %) | 214 (91.8%) | 1 | | 1 | |
| Not alive | 3 (2.4%) | 19 (8.2%) | 3.861(1.332,11.234) | * | 3.717(1.405 ,9.804) | ** |
| Marital status | | | | | | |
| Married | 121 (96.0%) | 202(86.7%) | 1 | | 1 | |
| Single | 5 (4.0%) | 31(13.3%) | .269(.711, .102) | * | .259(.751, .089) | ** |
| Educational status | | | | | | |
| Illiterate | 45 (35.7 %) | 95 (40.8%) | 1.942 (.893 , 4.224) | * | 1.804 (.813 , 4.003) | |
| Primary | 71(56.3%) | 97(41.6%) | 3.001(1.409, 6.391) | * | 2.777 (1.272, 6.063) | ** |
| Secondary and above | 10 (7.9 %) | 41 (17.6%) | 1 | | 1 | |
| First comp. Food | | | | | | |
| Milk | 84 (66.7 %) | 191 (81.9%) | 1 | | 1 | |
| Adult food | 14 (11.1 %) | 16 (6.9%) | 2.082(.970, 4.470) | * | 1.671(.758, 3.683) | |
| Porridge | 28(22.2%) | 26(11.2%) | 2.563(1.414, 4.646) | * | 2.463(1.328,4.568) | ** |
| Health and care supp | | | | | | |
| Ye s | 53(31.2%) | 117(68.8%) | 1 | | 1 | |
| No | 73(38.6%) | 116(61.4%) | 1.05 3 (0.74 2,1.48 3) | * | 1.00 (0.91 ,1.10) | |
| Vitamin A supp | | | | | | |
| Yes | 113(36.3%) | 198(63.7%) | 1 | | 1 | |
| No | 13(27.1%) | 35(72.9%) | 6.750(3.212,14.187)* | | 2.558 (.923, 7.090) | |
| IDDS | | | | | | |
| Highly DD | 34(29.8%) | 153(62.4%) | 1 | | 1 | |
| Less DD | 92(37.6%) | 80(70.2%) | 1.67 1 (0.78 2,3.613) | * | 1.09 4 (0.52 1,2.28 3) | |
| HFIAS | | | | | | |
| Food secured | 113(36.8%) | 194(63.2%) | 1 | | 1 | |
| Food in secured | 13(25%) | 39(75%) | 2.09 2 (0.67,6.52) | * | 2.07 5 (0.74 4,5.74 1) | |
| Eco . strengthen supp | | | | | | |
| Yes | 52(31.1%) | 115(68.9%) | 1 | | 1 | |
| No | 74(38.5%) | 118(61.5%) | 1.01 6 (0.99 6,1.03 2) | * | 0.99 1 (0.97 7,1.01 9) | |

* P-value < 0.25 in the bivariate analysis

** P-value < 0.05 in the multivariate analysis

ii. *Factors associated for Wasting*

The multivariate logistic regression analysis identified cough prior to 2 weeks of this survey, HH food security and food and nutritional support from NGO were identified as determinant factors for Wasting. The odds of wasting among OVC who were have cough prior to 2 weeks of this survey were 2.272 times an increased risk than OVC who were not have cough (AOR 2.272; 95% CI 1.997, 5.181) The odds of wasting among OVC from food in secured HH were 2.667 at increased risk than to be those who were from food secured (AOR 2.667; 95% CI 1.072, 6.667). The odds of wasting among OVC who have no food and nutritional support from NGO were 6.251times at increased risk to

be wasted when compared to OVC who do have food and nutritional support.(AOR.6.251; 95% CI. 1.427, 9.778).(Table 9).

Table 9: Logistic regression analysis showing associated factors for wasting among OVC aged 6-59 month on care and support from NGOs in Hawassa town, Ethiopia, 2014

| Variable | Wasting | | COR (95% CI) | AOR (95% CI) |
|----------------------------|-----------|------------|-----------------------|-----------------------|
| | Yes N (%) | No N (%) | | |
| Cough | | | | |
| Yes | 10(37.0%) | 68(20.5%) | 2.421(1.072, 6.667) * | 2.272(1.997,5.181) ** |
| No | 17(63.0%) | 263(79.5%) | 1 | 1 |
| HH food security | | | | |
| Food secured | 19(70.4%) | 287(86.7%) | 1 | 1 |
| Food in secured | 8(29.6%) | 44(13.3%) | 2.747(1.134,6.667) * | 2.667(1.072,6.667) ** |
| Food and nut. Supp. | | | | |
| Yes | 25(92.6%) | 230(69.5%) | 1 | 1 |
| No | 2(92.6%) | 101(30.5%) | 5.495(1.277,13.811)* | 6.251(1.427,9.778) ** |
| Fever | | | | |
| Yes | 10(10.2%) | 88(89.8%) | 2.917(1.314,6.468) * | 1.62(0.93,2.82) |
| No | 17(6.5%) | 244(93.5%) | 1 | 1 |
| Diarrhea | | | | |
| Yes | 6(11.1%) | 48(88.9%) | 1.334 (0.662,2.682) * | 0.997 (0.966,1.014) |
| No | 21(6.9%) | 284(93.1%) | 1 | 1 |
| IDDS | | | | |
| High DD | 16(6.5%) | 229(93.5%) | 2.079 (0.745,5.744) * | 1.014(0.873,1.175) |
| Less DD | 11(9.6%) | 103(90.4%) | 1 | 1 |
| Measles Vaccination | | | | |
| Yes | 6(11.5%) | 46(88.5%) | 1.018 (0.982,1.038) * | 0.824(0.492,1.355) |
| No | 21(6.8%) | 286(93.2) | 1 | 1 |

iii. *Factors associated for under weight*

The multivariate logistic regression analysis identified family size and duration of breast feeding as determinant factors for underweight. The odds of underweight among OVC from ≥ 5 family size were 2.78 times at an increased risk than those who family

size < 5 (AOR 2.778; 95% CI 1.148, 6.721), the odds of underweight among OVC who were breast feed for 6-12 month were 3.26 times at an increased risk when compared to OVC who were breast feed for ≥ 12 month (AOR 3.257; 95% CI 1.344, 7.891). (Table10).

Table 10: Logistic regression analysis showing associated factors for underweight among OVC aged 6-59 month on care and support from NGO in Hawassa town, Ethiopia, 2014

| Variable | Under weight | | COR (95% CI) | AOR (95% CI) |
|--------------------------------|--------------|-------------|-----------------------|-------------------------|
| | Yes N (%) | No N (%) | | |
| Family size | | | | |
| < 5 | 21(65.6%) | 141(43.1%) | 1 | 1 |
| ≥ 5 | 11(34.4%) | 186(56.9%) | 2.518(1.176, 5.394) * | 2.256 (1.148, 6.721) ** |
| Duration breast feeding | | | | |
| < 6 month | 2(7.1%) | 12(3.9%) | 3.285(.623,17.317) * | 3.026(.612, 14.952) |
| 6-11 month | 13(46.4%) | 63(20.3%) | 3.746(1.654, 8.484) * | 3.257(1.344, 7.891) ** |
| ≥ 12 month | 13(46.4%) | 23.6(75.9%) | 1 | 1 |
| Vitamin A supp | | | | |
| Yes | 2(4.2%) | 46(95.8%) | 1 | 1 |
| No | 30(9.6%) | 281(90.4%) | 1.47 5(0.52,4.21) * | 1.37 2(0.39 1,4.87 6) |

| | | | | |
|------------------------------|-----------|------------|-------------------------|-----------------------|
| cough | | | | |
| Yes | 1(1.3%) | 77(98.7%) | 1.55 2 (1.05 ,2.30 2) * | 1.28 3(0.85 5,1.90 2) |
| No | 31(11.0%) | 250(89.0%) | 1 | 1 |
| Food and Nut. Support | | | | |
| Yes | 27(10.5%) | 229(89.5%) | 1.63 4(1.07 2,2.49 3) * | 1.27 3(0.87 6,1.87 4) |
| No | 5(4.9%) | 98(95.1%) | 1 | 1 |

* P-value < 0.25 ** P-value < 0.05

VI. DISCUSSION

The present study investigated nutritional status and associated factors of orphans and vulnerable preschool children on care and support from nongovernmental organizations in Hawassa town, southern Ethiopia 2014GC.

a) Stunting

In this study, the prevalence of stunting is a bit higher than the studies done among orphans and vulnerable children in Zambia (29%), Nigeria (23.1%), Mongolia (15.6%), Gumberiti (24%) respectively (15,16,36,37). This might be due to the difference in study period, socioeconomic characteristics, health service delivery, study area and age difference.

However, the magnitude of stunting in the present study was found to be a bit lower than a studies conducted among similar age groups in west Gojjam (43.2%), Tigray (42.7%), Haramaya (42.7%), EDHS (44% & 44.1%) Bangladesh (42%) respectively (8, 17, 18, 21, 38). The variation might be due to involvement of special segments of the study subject who are on care and support.

The magnitude of stunting was found to be consistent with the regional prevalence of Dire Dawa (36.3%), Harari (29.8%), Nepal (37%) (8, 39). This might be due to similarities in socio economic characteristics and age categories.

The analysis of this study indicated that children who have parents, marital status and educational status of the care takers, first food the child received were identified as determinant factors.

Although it is generally held that maternal orphans are at greater risk for health problems because of the loss of their primary caregiver, children who had lost a father were more likely to be malnourished than non-orphans, indicating that loss of a father may be at least as significant as loss of a mother. As to the finding of this result, The odds of stunting among OVC whose either parent were alive were 3.717 times an increased risk than those who were not alive (AOR 3.717; 95% CI 1.405, 9.804). More ever, A study conducted on poorer health and nutritional outcomes in orphans and vulnerable young children not explained by greater exposure to extreme poverty in Zimbabwe showed that OVC aged 6-59 months were more likely to be stunted than non-OVC (36).

Concerning marital status, there was significant association between the marital status of the care takers and stunting, OVC of married care taker were 74.1% at reduced risk to be stunted than those OVC of single care takers (AOR .259; 95% CI .751, .089). This could be due to the reason that married caretaker have an opportunities to have economic strengthen and other support from their partner than single caretakers and will have an impact on nutritional status of orphan and vulnerable children.

Regarding educational status, there was significant association between the educational status of the care takers and stunting, The odds of stunting among OVC care takers whose educational status primary were 2.777 times at an increased risk when compared to OVC of care takers their educational status were secondary and above (AOR 2.777; 95% CI 1.272, 6.063). Similar findings are reported in other studies in Garhiwali Himalyas and Bostwana respectively (40, 41). This could be due to the reason that as the educational level of the caretakers of OVC increase their knowledge to different nutritional program and adherence to nutritional education given by supportive NGOs will increase. So, they can apply it to their children in order to make their children well nourished.

Concerning first complementary food the child received, there was significant association between first complementary food the child received and stunting, The odds of stunting among OVC whose first food porridge were 2.463 times an increased risk than OVC whose first complementary food were milk (AOR 2.463; 95% CI 1.328, 4.568). This could be due to the fact that in the first six month of life, all the infant's nutritional needs are met by the mother's breast milk, but from the age of six month onwards breast milk alone can't provide the entire nutrient. In the current study it was found that children who began complementary feeding with milk were significantly at reduced risk to being stunted compared to those children who began complementary feeding with porridge. This could be due to the reason that the process of making porridge make the porridge less content in nutrients and May exposes the Orphan and vulnerable children to the risk of infection and malnutrition than making milk.

b) Wasting

The magnitude of wasting was found to be more or less consistent with the regional prevalence of

Amhara (9.9%), oromia (9.7%) and Harar (9.1%) and among orphans and vulnerable children in Zambia (5%) were wasted respectively (8,32). The figure in this study is however bit higher than Addis Ababa (4.6%). And lower than Dire Dawa (12.3%), Gambella (12.3%), Afar (22.2%) and Southern Sudan (22%) (8,42). This difference also probably the difference in due to study period, study area, study subjects, socioeconomic characteristic. There was significant association between children who have cough prior to 2 weeks of this survey and wasting, The odds of wasting among OVC who were have cough prior to 2 weeks of this survey were 2.272 times an increased risk than OVC who were not have cough (AOR 2.272; 95% CI 1.997, 5.181). This is due to the fact that Infection and nutritional status of children are interrelated where malnutrition can accelerate disease progression, and Infection worsens malnutrition by weakening the immune system and hindering nutrient intake, absorption, and storage which further affect the nutritional status of the child according to the vicious cycle of malnutrition. There was also a significant association between Household food insecurity and Wasting, The odds of wasting among OVC from food in secured HH were 2.667 at increased risk than to be those who were from food secured (AOR 2.667; 95% CI 1.072, 6.667). This could be due to the reason previously demonstrated that household food insecurity is increased among orphans living in households (43). And that orphans are more vulnerable to food insecurity than non-orphans (44). It has also been demonstrated that orphaned children in sub-Saharan Africa tend to have more malnutrition compared to non orphans (45). A similar study conducted in Nigeria revealed that food-insecure households were five times more likely to have wasted children than food secure households (46). Concerning food and nutrition support from NGO, there was significant association between food and nutrition support from NGO and Wasting. The odds of wasting among OVC who have no food and nutritional support from NGO were 6.251 times at increased risk to be wasted when compared to OVC who do have food and nutritional support. (AOR.6.251; 95% CI.1.427, 9.778). This could be due to the reason that food and nutrition support along with other support from the supportive organization make Orphan and Vulnerable Children will have the access for food and nutrition which enable them to have adequate intake and prevent from being wasted.

c) Underweight

The prevalence of Underweight in OVC was 8.9 % (95% C.I 6.4 - 12.3) in this survey. The magnitude of Underweight was found to be consistent with the regional prevalence of DireDawa, Harari and Somalia and significantly varied from other region and might be due similarities in the nature of study setting and involvement of special segments of the study subject

respectively (8). The prevalence of Underweight in the current study is lower than a study done among orphans and vulnerable children in Zambia prevailed (19%) (36). this could be due to the difference in the study subject. Where use study was from a town, receiving care and support form NGO and this might contributed to lower underweight compared to national and regional figure by EDHS 2011. . Regarding associated factors of malnutrition, analysis of this study indicated that family size in households and duration of breastfeeding were identified as determinant factors for Underweight. There was also a significant association between family size households and Underweight. The odds of underweight among OVC from ≥ 5 family size were 2.778 times at an increased risk than those who family size < 5 (AOR 2.778; 95% CI 1.148, 6.721). This could be due to the reason that Orphans and Vulnerable Children could not be able to get adequate and balanced food required for their growth and development as the number of family size increase. Thus, larger family sizes have adverse effect on the nutritional status of a child. Moreover when economically inactive members in a household increases relative to the number of economically active members of a household, the limited available food resources will be depleted without satisfying the required nutrition (47).

As to duration of breast feeding, there was significant association between duration of breast feeding and Underweight. the odds of underweight among OVC who were breast feed for 6-12 month were 3.257 times at an increased risk when compared to OVC who were breast feed for ≥ 12 month (AOR 3.257; 95% CI 1.344, 7.891). Currently recommended and preferred infant feeding option in the context of HIV by WHO as well as national ministries of health of most developing countries is; during the first six months of life exclusive breastfeeding; then after appropriate complementary foods should be introduced at six months of age with continued breastfeeding until nutritionally adequate diet without breast milk can be provided. Early cessation and abrupt weaning of breastfeeding should be avoided (48). In line with this facts, in this study the longer the OVC on breast feeding, the decreased risk to be underweight.

VII. STRENGTH

- ✓ using standardized, validated tools
- ✓ community based study

VIII. LIMITATION

- ✓ Cross sectional nature of the study
- ✓ Not triangulated with qualitative study

IX. CONCLUSION

This study revealed that, 1. Prevalence of malnutrition was high and it was the top list among the

health problems in orphans and vulnerable children who were in care and support from nongovernmental organization in Hawassa town, Ethiopia. 2. Parental status, marital status, educational status, and first food the child received was significantly associated with stunting. 3. Identified cough prior to 2 weeks of this survey, HH food security and food and nutritional support from NGO Households were associated with wasting. 4. Having more (≥ 5) Family size in the household and duration of breast feeding Orphan of Vulnerable children were associated with underweight among orphans and vulnerable preschool children in this study.

X. RECOMMENDATION

1. Community based nutrition program targeting Orphan and Vulnerable Children should be established to tackle the problem of malnutrition at community level depending on the severity of malnutrition identified
2. Nutrition education by supportive organization in coordination with health extension workers should be strengthening to improving the child feeding practice of parents on appropriate infant and young children feeding.
3. Nutritional Intervention by supportive organization to improve the food security and care of orphaned and vulnerable children in the community
4. Integrating Food and nutrition support by supportive organization is mandatory to improve the nutritional status of orphans and vulnerable children
5. Continued attention should mandatory to duration of breast feeding practices mothers/caretakers to avoid malnutrition among orphans and vulnerable by supportive organization.

XII. ACRONYMS/ABBREVIATIONS

AIDS Acquired immune Deficiency Syndrome
CSA Central Statistics Agency
DHS Demographic and Health Survey
EDHS Ethiopia Demographic and Health Survey
ENA Emergency Nutritional Assessment
ETB Ethiopian Birr
FANTA Food and Nutrition Technical Assistance
FAO Food and Agricultural Organization
MDG Millennium Development Goal
MPH Master of Public Health
MSF Medicines Sans Frontiers
MUAC Mid Upper Arm Circumference
NGO Non Governmental organization
NNP National Nutritional Programme
OR Odds Ratio
OVC Orphan and vulnerable children
SMART Standardized Measuring Assessment for Relief and Transition
SNNPR Southern Nation Nationality People Regional State
UNICEF United nation children Fund
WHO World Health Organization

6. Woreda health office should be collaborated with BOWA and supportive organization to improve access health facilities having special attention to Orphan and Vulnerable Children.
7. Further comparative study should be done to see OVC from other segments of population in the study setting that were not included in the present study

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Annex I: Information sheet

Hello my Name is ----- I am a data collector for public health nutrition master's student project at Mekelle University .The objective of this study is to assess the nutritional status and associated factors among orphans and vulnerable preschool children on care and support from nongovernmental organization in Hawassa town. The information collected from you will be useful for the health care provider, Bureau of women's affairs, the Regional Health Bureau and other concerned bodies to improve the service given to OVC. An interview question will present to you and anthropometric measurement will be taken from your child. Your child has been selected randomly in this study and you and your child name will not be mentioned in the questionnaire and the information you have given will be kept in confidence. You can quit at any point of interview or you can skip questions. We would like to thank you in advance for participating in our study. For additional information you can contact the principal investigator with the following address: Name of principal investigator: Mr.Bisrat Getaneh Mobile. Cell phone: +251(0)911881252. Email:bisratlove@gmail.com.

Annex I: Consent form

As to the information given ahead, I have been informed that the objective of this study is to assess the nutritional status and associated factors among orphans and vulnerable preschool children aged 6-59 months. I have understood that participation in this study is entirely voluntarily and study has no any risk. My name will not be written on this form and the information I give will never be shared to others. I may not answer any questions that I don't want to answer and I may end this interview at any time I want therefore I am giving my written consent to participate in this study in titled "Nutritional status and associated factors among Orphans and vulnerable preschool children aged 6-59 months on care and support from nongovernmental organization Hawassa town..

Please Check box (✓) to that show the respondent's commitment to participate in this study

1. Agree

2. Disagree (End the interview)

Signature of Participant _____ Date _____

Annex III: Interviewer Administered Questionnaire in English

Data collection tools for Mekelle University, college of health sciences, department of public health MPH/PHN research project on Nutritional status and

associated factors among Orphans and vulnerable preschool children on care and support from nongovernmental organization Hawassa town. The following Questionnaire classified in to 5 parts as socio Demographic factors, Socio economic variables, Child health care, Environmental /sanitation factors, food

insecurity variables, Dietary intake and anthropometric measurements.

CODE OF THE QUESTIONNAIRE _____

Name of the interviewer _____

Signature _____

Date of interview (dd/mm/yyyy) _____

Result of interview:

- 1- Completed
- 2- Partially completed
- 3- Refused
- 4- Respondent not available

Checked by supervisor;

Name Signature Date

Part I: Demography and socioeconomic characteristics

| Code | Questions | Coding categories | Skip to |
|--------|--|---|-----------------------------|
| Q. 101 | Address of the child | sub -city _____ Kebele _____ | |
| Q. 102 | Age of the child in Month | _____ month | |
| Q. 103 | Sex of the child | <input type="checkbox"/> 1. Male <input type="checkbox"/> 2. Female | |
| Q. 104 | Number of children in under Five in HH | _____ | |
| Q. 105 | How many members are present in the HH now | _____ | |
| Q. 106 | Religion of parents/caretaker | <input type="checkbox"/> 1. Orthodox <input type="checkbox"/> 2. Muslim <input type="checkbox"/> 3. Catholic <input type="checkbox"/> 4. Protestant <input type="checkbox"/> 5. Other, Specify _____ | |
| Q. 107 | Ethnicity of the mother/caretakers | <input type="checkbox"/> 1. Sidama <input type="checkbox"/> 2. Wolayita <input type="checkbox"/> 3. Gurage <input type="checkbox"/> 4. Amhara <input type="checkbox"/> 5. Tigre <input type="checkbox"/> 6. Other, Specify _____ | |
| Q. 108 | Are the parents of the child alive | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | If no, skip to Q. 110 |
| Q. 109 | If, yes, who is alive | <input type="checkbox"/> 1. Mother <input type="checkbox"/> 2. Father <input type="checkbox"/> 3. Both <input type="checkbox"/> 4. Not Known | |

| | | | |
|-------|---|---|-------------------------------|
| Q.110 | The respondent ,s relation with the child | <input type="checkbox"/> 1. Parents <input type="checkbox"/> 2. Brother <input type="checkbox"/> 3. Sister <input type="checkbox"/> 4. Grand parents <input type="checkbox"/> 5. other relative <input type="checkbox"/> 6. neighbour hood | |
| Q.111 | Age of the care takers/ Guardian | _____ years | |
| Q.112 | Sex of the care taker / Guardian | <input type="checkbox"/> 1. male <input type="checkbox"/> 2. female | |
| Q.113 | Educational status of care taker | <input type="checkbox"/> 1. No formal education <input type="checkbox"/> 2. Read & write <input type="checkbox"/> 3. Grade 1 -8 <input type="checkbox"/> 4. Grade 9 -10 <input type="checkbox"/> 5. Grade 10+2 & above | |
| Q.114 | Occupation of the care taker/Guardian | <input type="checkbox"/> 1. House wife <input type="checkbox"/> 2. Private employee <input type="checkbox"/> 3. Government employee <input type="checkbox"/> 4. Daily laborer <input type="checkbox"/> 5. Merchant <input type="checkbox"/> 6. Other, Specify_____ | |
| Q.115 | Marital status of the care taker/Guardian | <input type="checkbox"/> 1. Single <input type="checkbox"/> 2. Married <input type="checkbox"/> 3. Divorced <input type="checkbox"/> 4. Widowed <input type="checkbox"/> 5. Separated | If not married, skip to Q.117 |
| Q.116 | Occupation of the husband /wife | <input type="checkbox"/> 1. Private employee <input type="checkbox"/> 2. Government employee <input type="checkbox"/> 3. Daily laborer <input type="checkbox"/> 4. Merchant <input type="checkbox"/> 5. Other, Specify_____ | |
| Q.117 | Who is the head of the family? | <input type="checkbox"/> 1. care takers <input type="checkbox"/> 2. Husband /wife of care takers <input type="checkbox"/> 3. other ,Specify_____ | |
| Q.118 | What is your family total monthly income? | _____ Eth. Birr | |

Part II: Sanitation and Hygiene related question

| | | | |
|-------|--|--|---------------------|
| Q.119 | Where is your Source of water? | <input type="checkbox"/> 1. Pipe <input type="checkbox"/> 2. public stand <input type="checkbox"/> 3. protected spring /well <input type="checkbox"/> 4. Other, Specify _____ | |
| Q.120 | How much water used per day ? | _____ L/day | |
| Q.121 | What Method used for water storage ? | <input type="checkbox"/> 1. Pot <input type="checkbox"/> 2. Jeri Can <input type="checkbox"/> 3. Bucket <input type="checkbox"/> 4. Other, Specify _____ | |
| Q.122 | Do you wash your hands with soap and water Whenever you feed your child? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | |
| Q.123 | Do you have latrine? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | If no skip to Q.125 |
| Q.124 | What type of latrine available | <input type="checkbox"/> 1. pit latrine <input type="checkbox"/> 2. Ventilated Improved latrine <input type="checkbox"/> 3. Water carriage type <input type="checkbox"/> 4. Other | |
| Q.125 | Where do You dispose domestic waste | <input type="checkbox"/> 1. Pit <input type="checkbox"/> 2. Open <input type="checkbox"/> 3. Municipality Service <input type="checkbox"/> 4. Other, Specify _____ | |
| Q.126 | Do you have separated kitchen | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | |

Part III: Dietary intake

| | | | |
|--------|--|--|---------------------------|
| Q. 201 | Did the child Breast feed | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/> 3. Don't know | If not yes, skip to Q.206 |
| Q.202 | When did mother/caretakers first put the child on breastfeeding? | <input type="checkbox"/> 1. With in first hour of delivery <input type="checkbox"/> 2. Within the first 8 hour of delivery <input type="checkbox"/> 3. After 2 -3 days <input type="checkbox"/> 4. Don't Know | |

| | | | |
|-------|---|--|--|
| Q.203 | Did the child exclusively breastfeed ? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/> 3. Don't know | |
| Q.204 | For how long the child Breastfeed? | _____ month | |
| Q.205 | At what age did you start to give food in Addition to your breast milk? | <input type="checkbox"/> 1.Immediately after birth <input type="checkbox"/> 2.Within 1 to 6 months <input type="checkbox"/> 3.Within 6 to 12 months <input type="checkbox"/> 4.Twelve month later | |
| Q.206 | What is the first food mother/caretakers used to feed the child? | <input type="checkbox"/> 1. Milk <input type="checkbox"/> 2. Adult food <input type="checkbox"/> 3. Porage <input type="checkbox"/> 4.Other specify | |
| Q.207 | What do Mother/caretakers use d to feed the child? | <input type="checkbox"/> 1. Hand <input type="checkbox"/> 2. Cup and spoon <input type="checkbox"/> 3. Bottle <input type="checkbox"/> 4. Don't know | |
| Q.208 | Did the child eat any flat bread, biscuits, or any other foods made from cereal (maize, sorghum, millet, wheat, barely or teffe) yesterday? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | |
| Q.209 | Did the child eat any pumpkin, carrots, y/orange flesh sweet potatoes irish potato, white sweet potato, onion, white yam, cassava, enset and other foods made from roots yesterday? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | |
| Q.210 | Did the child eat any dark green leafy vegetables (kale, Swiss chard, cabbage) and other vegetables (tomato, onion) yesterday? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | |
| Q.211 | Did the child eat any fruits like ripe mango, papaya, banana, avocado and lemon and orange...) and other fruits yesterday? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | |
| Q.212 | Did the child eat any flesh meat (beef, lamb, goat, chicken) and any organ meat (liver, kidney, heart) yesterday? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | |
| Q.213 | Did the child eat any eggs yesterday? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | |
| Q.214 | Did the child eat any fresh or dried fish yesterday? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | |



| | | | |
|-------|---|---|--|
| Q.215 | Did the child eat any food made from beans like kidney beans, haricot beans, field peas, cow peas, chick peas, nuts, lentils or others yesterday? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | |
| Q.216 | Did the child drink milk and milk products yesterday? (milk, cheese, yogurt or other milk products) | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | |
| Q.217 | Did the child eat any food with oil, fat or butter yesterday? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | |
| Q.218 | Did the child eat any sugar or honey, sweet/soft drink yesterday? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | |
| Q.219 | Did the child eat any spices (black pepper, salt), condiments (soy sauce, hot sauce), and coffee, tea yesterday? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | |

Part IV: Morbidity variables

| | | | |
|-------|---|---|---------------------|
| Q.301 | Has mother ever attended ANC during her pregnancy of this child? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | |
| Q.302 | Where did mother give birth to the child? | <input type="checkbox"/> 1. Home <input type="checkbox"/> 2. Health facility <input type="checkbox"/> 3. Other, Specify _____ | |
| Q.303 | Who attended the delivery? | <input type="checkbox"/> 1. TBA <input type="checkbox"/> 2. Health personnel <input type="checkbox"/> 3. Other, Specify _____ | |
| Q.304 | Did the child receive vaccination? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/> 3. Don't know | |
| Q.305 | Do you have vaccination card | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | If no skip to Q.307 |
| Q.306 | What is the vaccination status? | <input type="checkbox"/> 1. BCG <input type="checkbox"/> 2. Polio <input type="checkbox"/> 3. Measles <input type="checkbox"/> 4. Other, Specify _____ | |
| Q.307 | Is the child received vitamin A supplementation? (in the last 6 months) | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | |
| Q.308 | Had the child suffer from infections like measles? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | |
| Q.309 | Fever for the past 2 weeks? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | |
| Q.310 | Cough for the past 2 weeks? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | |

| | | | |
|-------|--|---|--|
| Q.311 | Diarrhea for the past 2 weeks? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | |
| Q.312 | Bilateral pitting oedema on clinical examination | <input type="checkbox"/> 1. 0 <input type="checkbox"/> 2. + <input type="checkbox"/> 3. ++ <input type="checkbox"/> 4. +++ | |

Part IV: Food insecurity and malnutrition

| | | | |
|-------|--|--|----------------------|
| Q.401 | Did you worry that your household would not have enough food? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | If no, skip to Q.403 |
| Q.402 | If yes, how frequent? | <input type="checkbox"/> 1. rarely <input type="checkbox"/> 2. sometimes <input type="checkbox"/> 3. often | |
| Q.403 | Were you or any household member not able to eat the kinds of food you preferred because of lack of resources? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | If no, skip to Q.405 |
| Q.404 | If yes, how frequent? | <input type="checkbox"/> 1. rarely <input type="checkbox"/> 2. sometimes <input type="checkbox"/> 3. often | |
| Q.405 | Did you or any household member eat just a few kinds of food day after day due to lack of resources? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | If no, skip to Q.407 |
| Q.406 | If yes, how frequent? | <input type="checkbox"/> 1. rarely <input type="checkbox"/> 2. sometimes <input type="checkbox"/> 3. often | |
| Q.407 | Did you or any household member eat food that you preferred not to eat because of lack of resources to obtain other types of food? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | If no, skip to Q.409 |
| Q.408 | If yes, how frequent? | <input type="checkbox"/> 1. rarely <input type="checkbox"/> 2. sometimes <input type="checkbox"/> 3. often | |
| Q.409 | Did you or any household member eat a smaller meal than you felt you needed because there was not enough food? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | If no, skip to Q.411 |
| Q.410 | If yes, how frequent? | <input type="checkbox"/> 1. rarely <input type="checkbox"/> 2. sometimes <input type="checkbox"/> 3. often | |
| Q.411 | Did you or any household member eat fewer meals in a day because there was not enough food? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | If no, skip to Q.413 |
| Q.412 | If yes, how frequent? | <input type="checkbox"/> 1. rarely <input type="checkbox"/> 2. sometimes | |



| | | | |
|-------|---|---|-----------------------|
| Q.413 | Was there ever no food at all in your household because there were not enough resources to get more ? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | If no, skip to Q.41 5 |
| Q.414 | If yes, how frequent? | <input type="checkbox"/> 1.rarely <input type="checkbox"/> 2.sometimes <input type="checkbox"/> 3.often | |
| Q.415 | Did you or any household member go to sleep at night hungry because there was not enough food ? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | If no, skip to Q.41 7 |
| Q.416 | If yes, how frequent? | <input type="checkbox"/> 1.rarely <input type="checkbox"/> 2.sometimes <input type="checkbox"/> 3.often | |
| Q.417 | Did you or any household member go a whole day without eating anything because there was not enough food? | <input type="checkbox"/> 1. Yes <input type="checkbox"/> 0. No | If no, skip to Q.501 |
| Q.418 | If yes, how frequent? | <input type="checkbox"/> 1.rarely <input type="checkbox"/> 2.sometimes <input type="checkbox"/> 3.often | |

Part V: OVC Care and support

| | | |
|-------|--|--|
| Q.501 | What type of Support Provided by NGO? (more than one answer is possible) | 1.Food and Nutrition 2.Health Care 3.Economic Strengthening 4.Education 5.Psychosocial Support 6.Legal Protection 7.Shelter and Care |
| Q.502 | If Food and Nutrition, what services provided? | <input type="checkbox"/> 1.Nutritional assessment and supplementary feeding <input type="checkbox"/> 2.links to other health and nutrition interventions <input type="checkbox"/> 3.training on nutrition, diet, and food preparation for care takers |
| Q.503 | If Health Care, what services provided? | <input type="checkbox"/> 1.free access to health services for OVC and guardians <input type="checkbox"/> 2.Regular home visits to assess health status of the child <input type="checkbox"/> 3.training to caregivers on the importance of immunization, malaria prevention, hygiene and sanitation, optimal nutrition |

| | | |
|-------|--|---|
| Q.504 | If Economic Strengthening, what services provided? | <input type="checkbox"/> 1.vocational training for caregivers <input type="checkbox"/> 2.income-generating activities involving small business <input type="checkbox"/> 3.access to credit |
| Q.505 | If Education ,what services provided | <input type="checkbox"/> 1.Direct assistance to subsidize school costs <input type="checkbox"/> 2.Identifying and promoting educational opportunities <input type="checkbox"/> 3.Training caregivers to OVC who are not enrollment in school |
| Q.506 | If Psychosocial Support, what services provided? | <input type="checkbox"/> 1. providing regular training to care givers on psychosocial support for OVC <input type="checkbox"/> 2.develope psychosocial support groups to provide support to OVC and caregivers <input type="checkbox"/> 3.parenting and communication skills for caregivers, support during illness |
| Q.507 | If Legal Protection, what services provided? | <input type="checkbox"/> 1. protect children about the legal rights of children <input type="checkbox"/> 2.link OVC and caretakers to legal services and child protection bodies when required |
| Q.508 | If Shelter and Care, what services provided? | <input type="checkbox"/> 1.Supporting families with home visits <input type="checkbox"/> 2.Regularly assess and identify the shelter and care needs of OVC <input type="checkbox"/> 3.Improve shelter and care for OVC in the community |
| Q.509 | For how long supported by the NGO? | -----month |
| Q.510 | Please, express your View as to the adequacy of support? | <input type="checkbox"/> 1.Adequate <input type="checkbox"/> 2.Not adequate <input type="checkbox"/> 3.No answer |

Part VI: Anthropometric Measurements

| | | |
|-------|---|---------------|
| Q.601 | Age the child | ----- (month) |
| Q.602 | Weight of the child (if no bilateral pitting edema) | ----- (kg) |
| Q.603 | Height of the Child | ----- (cm) |
| Q.604 | MUAC of the child (Ht>65cm) | ----- (mm) |

የመረጃ ቅጽ

ሰላምታ! ስሜእኔ ቃለ መጠይቅ አድራጊ በመቻለ ዩኒቨርሲቲ በማህበረሰብ ጤና የስነ ምግብ የድህረ-ምረቃ ተማሪ የመመረቂያ ጽሑፉን በመሰብሰብ ላይ እገኛለሁ። ይህ ጥናት ሊሰራ የታቀደው በሀዋሳ ከተማ ሲሆን የጥናቱ ዋና ዓላማም ወላጅ ያጡና ተጋላጭ የሆኑ ሕጻናትን የሥነ-ምግብ ሁኔታ ይተመልከተ ጥናት ሲሆን፤ ከዚህ ጥናት የሚገኘው ውጤት በእነኚህ ወላጅ ያጡና ተጋላጭ ህጻናት ድጋፍና እንክብካቤ ላይ ለተሰማሩ ድርጅቶች ስራቸውን እንዲገመገሙና ማሻሻል ያለባቸውን ለማሻሻል፤ ለወደፊቱ ስልት እንዲነድፉ ያስችላቸዋል። የአንትሮ ፓሞትሪክ ልኬት የሚወሰደው ከህጻኑ/ኗ ሲሆን ቃለ-መጠየቅ የሚቀርበው ለርስዎ ነው። በዚህ ጥናት ላይ የእርሶ እና የህፃኑ ተሳትፎ በጣም ጠቀሜታ አለው። እርስዎም ሆኑ ህጻን ወደ ጥናቱ የተካተታችሁት በእጣ ሲሆን የምታደርጉትም ተሳትፎ በፈቃደኝነት ላይ የተመሰረተ ነው። ያልተስማማዎት ጥያቄ ሲኖር አለመመለስ፤ በማንኛውም ሰዓት ቃለ መጠይቁን የማቋረጥ መብትዎ የተጠበቀ ነው። የሰጡኝ መረጃ በሙሉ በሚስጥር ስለሚያዝ ማንም ሰው ሊያገኘው አይችልም። ለበለጠ መርጃ ጥናቱን የሚያካሂደው ስም፡ ብስራት ጌታነህ ፣ የሞ.ስልክ ቁ. +251(0)911881252 ፣ ኤሜል፡ bisratlove@gmail.com.

የመተማመኛ ቅጽ

እኔ ከለይ በተሰጠኝ መርጃ መሰርት ፣ የጥናቱ ዋና ዓላማም ወላጅ ያጡና ተጋላጭ የሆኑ ሕጻናትን የሥነ-ምግብ ሁኔታ ይተመልከተ ጥናት መሆኑ የተገለጸልኝና የምናደርግው ተሳትፎ በፈቃደኝነት ላይ የተመሰረተ መሆኑን ፣ያልተስማማኝ ጥያቄ ሲኖር አለመመለስ፤ በማንኛውም ሰዓት ቃለ መጠይቁን የማቋረጥ መብቴ የተጠበቀ መሆኑ። የምስጠው መረጃ በሙሉ በሚስጥር ስለሚያዝ ለማንም ሰው ሊያገኘው አንደማይችል በ መርዳት ለ ወላጅ ያጡና ተጋላጭ የሆኑ ሕጻናትን የሥነ-ምግብ ሁኔታ ለሚመልከተው ጥናት እኔ የጥናቱ ተሳታፊ ለመሆን የመተማመኛ ፈርማ ከዚህ በታች አኑሪያለሁ ።

ይህን ምልክት (✓) በሳጥን ውስጥ በማሰይት ይጥናት ተሳታፊው ፈቃደኝነታቸውን ያመልክቱ፡

- 1. እስማማለሁ
- 2. አልተስማማሁም (አመስግነህ/ሽ መጠይቁን አቋርጥ/ጩ)

ቃለ መጠይቅ ተደራጊው ፊርማ _____ ቀን _____

የሥነ-አመጋገብ ሁኔታ ለማጥናት የተዘጋጀ ቃለ መጠይቅ በአማርኛ

በመቐለ ዩኒቨርሲቲ በማህበረሰብ ጤና የስነ ምግብ የድህረ-ምረቃ ክፍል ስር የመመረቂያ ጽሑፉን ሲሆን ይህ ጥናት ሊሰራ የታቀደው በሀዋሳ ከተማ ነው። የጥናቱ ዋና ዓላማም ወላጅ ያጡና ተጋላጭ የሆኑ ሕጻናትን የሥነ-ምግብ ሁኔታ ይተመልከተ ጥናት ሲሆን፤ ከዚህ በታች ይሚገኙ መጠይቆች በ 6 ክፍል የተከፋፍሉ ናቸው። እንዚህም የማህበራዊና የሥነ-ምግብ ፣ የአካባቢና የግል ንጽህናን በተመለከተ፣ የአመጋገብ ሁኔታን ሚመለከት ጤና ነክ፣ የቤተሰብም የምግብ ዋስትና የሚፈትሹ መጠይቆችና የአንጎሮ ፖሞትሪክ ልኬትናቸው።

መለያ.ቁ _____

የቃለ መጠይቅ አድራጊው ስም _____

ፊርማ _____

ቀን _____

የቃለ መጠይቅ ውጤት:

- 1- የተጠናቀቀ
- 2- በክፍል የተጠናቀቀ
- 3- ያልተሰማመ
- 4- በቃለ መጠይቅወቅት ያልተገኘ

የተቆጣጣሪው ስም _____ ፊርማ _____ ቀን _____

| ክፍል I: ማህበራዊና የሥነ-ምግብ መጠይቆች | | | |
|-----------------------------|--|---|-----|
| ተ.ቁ | ጥያቄ | መልስ | ይለፍ |
| Q.101 | የህፃን/ኗ አድራሻ? | ክ/ከ _____ ቀበሌ _____ | |
| Q.102 | የህፃን/ኗ እድሜ (በወራት) ? | _____ ወር | |
| Q.103 | የህፃን/ኗ ጾታ? | <input type="checkbox"/> 1. ወንድ <input type="checkbox"/> 2. ሴት | |
| Q.104 | በቤት ውስጥ ከአምስት አመት በታች ያሉ ህጻናት ስንት ናቸው? | _____ | |
| Q.105 | በቤት ውስጥ ስንት ሰው ይኖራል? | _____ | |
| Q.106 | የህፃን/ኗ ሃይማኖት? | <input type="checkbox"/> 1.ኦርቶዶክስ <input type="checkbox"/> 2.ሙስሊም <input type="checkbox"/> 3.ካቶሊክ <input type="checkbox"/> 4.ፕሮቴስታንት <input type="checkbox"/> 5.ሌላ ካለይጥቀሱ | |

| | | | |
|-------|--|--|--------------------------|
| Q.107 | የህፃኑ/ኗ ብሔር? | <input type="checkbox"/> 1. ሲዳማ <input type="checkbox"/> 2. ወላይታ <input type="checkbox"/> 3. ጉራጌ <input type="checkbox"/> 4. አማራ <input type="checkbox"/> 5. ትግሬ <input type="checkbox"/> 6. ሌላ ካለይጥቀሱ | |
| Q.108 | የህፃኑ/ኗ ወላጆች በሕይወት አሉ? | <input type="checkbox"/> 1. አዎ <input type="checkbox"/> 2. የለም | የለም ከሆነ ወደ ጥያቄ ቁጥር110 |
| Q.109 | አዎ ካሉ ማን? | <input type="checkbox"/> 1. እናት ብቻ <input type="checkbox"/> 2. አባት ብቻ <input type="checkbox"/> 3. ሁለቱም በሕይወት አሉ <input type="checkbox"/> 4. አይታወቅም | |
| Q.110 | ቃለ መጠየቅ የሚደረግለት ሰው ከህፃኑ/ኗ ጋር ያለው ዝምድና? | <input type="checkbox"/> 1. ወላጅ <input type="checkbox"/> 2. ወንድም <input type="checkbox"/> 3. እህት <input type="checkbox"/> 4. አያት <input type="checkbox"/> 5. ሌላ ዘመድ <input type="checkbox"/> 6. ሌላ ካለ ይጥቀሱ | |
| Q.111 | የሞግዚቱ/ቷ እድሜ? | _____ ዓመት | |
| Q.112 | የሞግዚቱ/ቷ ጾታ? | <input type="checkbox"/> 1. ወንድ <input type="checkbox"/> 2. ሴት | |
| Q.113 | የሞግዚቱ/ቷ የትምህርት ደረጃ? | _____ | |
| Q.114 | የሞግዚቱ/ቷ ስራ? | <input type="checkbox"/> 1. የቤት እመቤት <input type="checkbox"/> 2. የግል ተቀጣሪ <input type="checkbox"/> 3. የመንግስት ሰራተኛ <input type="checkbox"/> 4. የቀን ሰራተኛ <input type="checkbox"/> 5. ነጋዴ <input type="checkbox"/> 6. ሌላ ካለ ይጥቀሱ | |
| Q.115 | የሞግዚቱ/ቷ የጋብቻ ሁኔታ? | <input type="checkbox"/> 1. ያላገባ/ች ከሆነጥ.ቁ 117 <input type="checkbox"/> 2. ያገባ/ች <input type="checkbox"/> 3. የተፋታ/ች <input type="checkbox"/> 4. ባል/ሚስት የሞተባት <input type="checkbox"/> 5. የተለያየ/ች | ያላገባ/ች ከሆነ ጥ.ቁ 117 |

| | | | |
|-------|-----------------------------|--|--|
| Q.116 | የባል/የሚስት ስራ? | <input type="checkbox"/> 1. የግል ተቀጣሪ <input type="checkbox"/> 2. የመንግስት ስራተኛ <input type="checkbox"/> 3. የቀን ስራተኛ <input type="checkbox"/> 4. ነጋዴ <input type="checkbox"/> 5. ሌላ ካለ ይጠቀስ | |
| Q.117 | የቤተሰቡ ሃላፊ ማን ነው? | <input type="checkbox"/> 1. ሞግዚቷ/ቱ <input type="checkbox"/> 2. የሞግዚቷ/ቱ ባል/ሚስት <input type="checkbox"/> 3. ሌላ ካለ ይጠቀስ | |
| Q.118 | የቤተሰብ የገቢ መጠን በወር ስንት ይሆናል? | _____ ብር | |

ክፍል II : የአካባቢና የግል ንጽህናን በተመለከተ

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| Q.119 | የመጠጥ ውሃ ከየት ታገኛላችሁ? | <input type="checkbox"/> 1. ከቧንቧ <input type="checkbox"/> 2. ከህዝብ ቧንቧ <input type="checkbox"/> 3. ከምንጭ <input type="checkbox"/> 4. ሌላ ካለ ይጠቀስ | |
| Q.120 | በቀን ምን ያህል ውሃ ይሆናል? | _____ ሊ/በቀን | |
| Q.121 | ውሃ የማስቀመጫ መንገድ? | <input type="checkbox"/> 1. እንስራ <input type="checkbox"/> 2. ጂሪካን <input type="checkbox"/> 3. ሳፋ <input type="checkbox"/> 4. ሌላ ካለ ይጠቀስ | |
| Q.122 | የህፃኑ/ኗ ምግብ ከመስጠጥሽ/ህ በፊት እጅሽን በሳሙናና ውሃ ትታጠቢያለሽ/ህ? | <input type="checkbox"/> 1. አዎ <input type="checkbox"/> 2. የለም | |
| Q.123 | መጠጫ ቤት አላችሁ? | <input type="checkbox"/> 1. አዎ <input type="checkbox"/> 2. የለም | |
| Q.124 | አዎ ካሉ ምን አይነት? | <input type="checkbox"/> 1. የግል ጉድጉዋድ <input type="checkbox"/> 2. ጉድጉዋድ <input type="checkbox"/> 3. በውሃ የሚሰራ <input type="checkbox"/> 4. ሌላ ካለ ይጠቀስ | |
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| Q.125 | የቤት ቆሻሻ የት ታስውግዳላችሁ? | <input type="checkbox"/> 1. ጉድጉዋድ <input type="checkbox"/> 2. ሜዳ <input type="checkbox"/> 3. የመዘጋጃ አገልግሎት <input type="checkbox"/> 4. ሌላ ካለ ይጠቀስ | |
| Q.126 | ለብቻዎ የተለየ የምግብ ማብስያ አላችሁ? | <input type="checkbox"/> 1. አዎ <input type="checkbox"/> 0. የለም | |



ክፍል II : የአመጋገብ ሁኔታን በሚመለከት

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| Q.201 | ህፃኑ/ኗ ጡት ጠብቷል/ታለች? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 2.የለም <input type="checkbox"/> 3.አላውቅም |
| Q.202 | ለመጀመርያ ጊዜ ህፃኑ/ኗ ጡት የጠባው/ችው ከተውለደ/ች በስንት ጊዜ ውስጥ ነበር? | <input type="checkbox"/> 1. በአንድ ሰዓት ውስጥ <input type="checkbox"/> 2. በስምንት ሰዓት ውስጥ <input type="checkbox"/> 3. 2-3 ቀን <input type="checkbox"/> 4. አላውቅም |
| Q.203 | ህፃኑ/ኗ ለመጀመሪያ 6 ወር ጡት ብቻ ጠብቷል/ታለች? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 2.የለም <input type="checkbox"/> 3.አላውቅም |
| Q.204 | ህፃኑ/ኗ ጡት ለምን ያህል ጊዜ ጠብቷል/ታለች? | _____ በወር |
| Q.205 | ተጨማሪ ምግብ ለህፃኑ/ኗ መመገብ የተጀመረው መች ነበር? | <input type="checkbox"/> 1.ልክ አንደተወለደ/ች <input type="checkbox"/> 2.ከ 1አስክ 6 ወር ባለው ጊዜ <input type="checkbox"/> 3.ከ 6 አስክ12 ወር ባለው ጊዜ <input type="checkbox"/> 4.ከ 12 ወር በላይ <input type="checkbox"/> 5.አላውቅም |
| Q.206 | ህፃኑ/ኗ ለመጀመርያ ጊዜ የተመገበው ምግብ ምን ነበር? | <input type="checkbox"/> 1.ወተት <input type="checkbox"/> 2.የአዋቂ ምግብ <input type="checkbox"/> 3.በስሎ የተዘጋጀ ገንፎ <input type="checkbox"/> 4.አላውቅም |
| Q.207 | ህፃኑ/ኗ ለመመገብ የሚጠቀሙበት ምን ነበር? | <input type="checkbox"/> 1.በእጅ <input type="checkbox"/> 2.በሲኒና ማንኪያ <input type="checkbox"/> 3.በጡጦ <input type="checkbox"/> 4.ሌላ ካለ ይጠቀስ |
| Q.208 | ትናንት ዳቦ(ቂጣ)፣ ከበቆሎ፣ ከማሻሻ፣ ከዳጉሳ፣ ከስንዴ፣ ከገብስ ወይም ከጤፍ የተሠራ ምግብ በልቶል/ለች? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም |
| Q.209 | ትናንትከአትክልቶች፣ዶባ፣ከሮት፣ቢጫስኩዋርድንች፣ብርቱካናማ ድንች ፣ከድቡልቡል ድንች፣ ከስኳር ድንች፣ ከሽንኩርት፣ ከሀረግ ቦቦ፣ ኮባ፣ ከአንስትና ከሌሎች ስራስሮች የተሠራ ምግብ በልቶል/ለች? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም |
| Q.210 | ትናንት ከአረንጓዴ አትክልቶች የተሠራ ለምሳሌ ጎመን፣ ቆስጣና ጥቅልል ጎመን ቲማቲም፣ሽንኩርት የተሠራ ምግብ በልቶል/ለች? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም |
| Q.211 | ትናንት ከፍራፍሬ ለምሳሌ ማንጎ፣ ፓፓያ፣ ሙዝ፣ ዘይቶን፣አቮካዶ፣ ሎሚ፣ ብርቱክን በልቶል/ለች? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም |

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| Q.212 | ትናንት ከስጋ ወጤቶች ለምሳሌ የበሬ ስጋ፣ የበግና ይፍየል ስጋ፣ የዶሮ ስጋ እና ከሆድ ወስጥ ስጋ ምሳሌ ጉበት፣ ኩላልት፣ ልብ በልቶል/ለች? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም | |
| Q.213 | ትናንት ዕንቁላል በልቶል/ለች? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም | |
| Q.214 | ትናንት ጥሬ ወይም የበሰለ ዓሣ በልቶል/ለች? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም | |
| Q.215 | ትናንት ቦሎቄ፣ ከባቄላ፣ ከአተር፣ ከአኩሪ አተር፣ ከሽምብራ እና ከመሳሰሉት በልቶል/ለች? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም | |
| Q.216 | ትናንት ወተትና የወተት ወጤቶች ለምሳሌ አይብ፣አርጎ በልቶል/ለች? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም | |
| Q.217 | ትናንት በዘይት/በቅቤ የተሰራ ምግብ/ ሌሎች ቅባት ነገሮችን በልቶል/ለች? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም | |
| Q.218 | ትናንት ከጣፋጭ ነገሮች ለምሳሌ ስኳር፣ ማር፣ ሸንኮራ አገዳ፣ ለስላሳ መጠጦችን ወስዶል/ለች? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም | |
| Q.219 | ትናንት ቅመማ-ቅመም፣ ቡና፣ ሻይ፣ ወስዶል/ለች? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም | |
| ክፍል III: ጤና ነክ ጥያቄዎች | | | |
| Q.301 | የህፃኑ/ኗ እናት የቅድመ ወሊድክትትል ነበራቸው? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም | |
| Q.302 | ህፃኑ/ኗ የተወለደው/ችው የት ነበር? | <input type="checkbox"/> 1.ቤት ውስጥ <input type="checkbox"/> 2.በጤና ተቸም <input type="checkbox"/> 3.ሌላ ካለ ይጠቀስ | |
| Q.303 | ህፃኑ/ኗ ያዋለደው ማነ ነበር? | <input type="checkbox"/> 1.የልምድ አዋላጅ <input type="checkbox"/> 2.የጤናባለሙያ <input type="checkbox"/> 3.ሌላ ካለ ይጠቀስ | |
| Q.304 | ህፃኑ/ኗ ክትባት ወስዶል/ለች? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም → | ጥ.ቁ 307 |
| Q.305 | የህፃኑ/ኗ የክትባት ካርድ አለ? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም | |
| Q.306 | ህፃኑ/ኗ የወሰዳቸው የክትባት ዓይነት? | <input type="checkbox"/> 1.ቢ.ሲ.ጂ <input type="checkbox"/> 2.ፖ.ሊ.ዮ <input type="checkbox"/> 3.ሚዚልስ <input type="checkbox"/> 4.ሌላ ካለ ይጠቀስ | |
| Q.307 | ህፃኑ/ኗ የ ቫይታሚን ኤ እንክብል ባለፎት 6 ወራት ወስዶል? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም | |
| Q.308 | ህፃኑ/ኗ በ ኩፍኝ ተጠቅቶ/ታ ነበር? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም | |

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| Q.309 | ባለፉት ሁለት ሳምንታት ህፃኑ/ኗ ትኩላት ነበረው/ራት? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም | |
| Q.310 | ባለፉት ሁለት ሳምንታት ህፃኑ/ኗ ሳል ያለው ህመም ነበረው/ራት? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም | |
| Q.311 | ባለፉት ሁለት ሳምንታት ህፃኑ/ኗ ተቅማጥ ይዞት/ይዟት ነበር? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም | |
| ክፍልIV: የቤተሰብ የምግብ ዋስትና የሚፈትሹ ጥያቄዎች | | | |
| Q.401 | ባለፉ 30 ቀናት ቤታችን በቂ ምግብ የለም ብለው ተጨንቀው ያውቃሉ? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም → | ጥ.ቁ 403 |
| Q.402 | መልሶ አዎ ከሆነ ፣ምንያህል ግዜ? አልፎአልፎ፣(በወር1 ወይም 2ግዜ)፣ የተወሰነ ግዜ(በወር ከ 3 እስከ 10 ግዜ) ፣አብዛኛው ግዜ (በወር ከ10 ግዜበላይ) | <input type="checkbox"/> 1.አልፎ አልፎ <input type="checkbox"/> 2.የተወሰነ ጊዜ <input type="checkbox"/> 3.አብዛኛው ጊዜ | |
| Q.403 | ባለፉ 30 ቀናት ገቢዎ በማነሱ ምክንያት እርስዎና የቤተሰብዎ አባል የሚፈልጉትን የምግብ አይነት ያልበሉበት ግዜ አለ? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም → | ጥ.ቁ 405 |
| Q.404 | መልሶ አዎ ከሆነ ፣ምንያህል ግዜ? አልፎአልፎ፣(በወር1 ወይም 2ግዜ)፣ የተወሰነ ግዜ(በወር ከ 3 እስከ 10 ግዜ) ፣አብዛኛው ግዜ (በወር ከ10 ግዜበላይ) | <input type="checkbox"/> 1.አልፎ አልፎ <input type="checkbox"/> 2.የተወሰነ ጊዜ <input type="checkbox"/> 3.አብዛኛው ጊዜ | |
| Q.405 | ባለፉ 30 ቀናት ገቢዎ በማነሱ ምክንያት እርስዎና የቤተሰብዎ አባል ትንሽ ምግብ የበሉበት ግዜ አለ? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም → | ጥ.ቁ 407 |
| Q.406 | መልሶ አዎ ከሆነ ፣ምንያህል ግዜ? አልፎአልፎ፣(በወር1 ወይም 2ግዜ)፣ የተወሰነ ግዜ(በወር ከ 3 እስከ 10 ግዜ) ፣አብዛኛው ግዜ (በወር ከ10 ግዜበላይ) | <input type="checkbox"/> 1.አልፎ አልፎ <input type="checkbox"/> 2.የተወሰነ ጊዜ <input type="checkbox"/> 3.አብዛኛው ጊዜ | |
| Q.407 | ባለፉ 30 ቀናት የሚፈልጉትን የምግብ አይነት ለማግኘት ገቢዎ በማነሱ ምክንያት እርስዎና የቤተሰብዎ አባል የማይፈልጉትን የምግብ አይነት የበሉበት ግዜ አለ? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም → | ጥ.ቁ 409 |
| Q.408 | መልሶ አዎ ከሆነ ፣ምንያህል ግዜ? አልፎአልፎ፣(በወር1 ወይም 2ግዜ)፣ የተወሰነ ግዜ(በወር ከ 3 እስከ 10 ግዜ) ፣አብዛኛው ግዜ (በወር ከ10 ግዜ በላይ) | <input type="checkbox"/> 1.አልፎ አልፎ <input type="checkbox"/> 2.የተወሰነ ጊዜ <input type="checkbox"/> 3.አብዛኛው ጊዜ | |
| Q.409 | ባለፉ 30 ቀናት በቂ ምግብ ባለመኖሩ እርስዎና የቤተሰብዎ አባል መአድ ላይ ምግብ ያነሰበት ጊዜ ነበር? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም → | ጥ.ቁ 411 |
| Q.410 | መልሶ አዎ ከሆነ ፣ምንያህል ግዜ? አልፎአልፎ፣(በወር1 ወይም 2ግዜ)፣ የተወሰነ ግዜ (በወር ከ 3 እስከ 10 ግዜ) ፣አብዛኛው ግዜ (በወር ከ10 ግዜ በላይ) | <input type="checkbox"/> 1.አልፎ አልፎ <input type="checkbox"/> 2.የተወሰነ ጊዜ <input type="checkbox"/> 3.አብዛኛው ጊዜ | |
| Q.411 | ባለፉ 30 ቀናት በቂ ምግብ በለመኖሩ እርስዎና የቤተሰብዎ አባል ትንሽ ምግብ የበላችሁበት ቀን ነበር? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም → | ጥ.ቁ 413 |
| Q.412 | መልሶ አዎ ከሆነ ፣ምንያህል ግዜ? አልፎአልፎ፣(በወር1 ወይም 2ግዜ)፣ የተወሰነ ግዜ (በወር ከ 3 እስከ 10 ግዜ) ፣አብዛኛው ግዜ (በወር ከ10 ግዜ በላይ) | <input type="checkbox"/> 1.አልፎ አልፎ <input type="checkbox"/> 2.የተወሰነ ጊዜ <input type="checkbox"/> 3.አብዛኛው ጊዜ | |

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| Q.413 | ባለፉ 30 ቀናት ገቢዎ በማነሱ ምክንያት ቤታችሁ ውስጥ ፈፅሞ ምግብ ያልነበረበት ጊዜ ነበር? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም → | ጥ.ቁ 415 |
| Q.414 | መልሶ አዎ ከሆነ ፣ምንያህል ግዜ? አልፎአልፎ፣(በወር1 ወይም 2ግዜ)፣ የተወሰነ ግዜ (በወር ከ 3 እስከ 10 ግዜ) ፣አብዛኛው ግዜ (በወር ከ10 ግዜ በላይ) | <input type="checkbox"/> 1.አልፎ አልፎ <input type="checkbox"/> 2.የተወሰነ ጊዜ <input type="checkbox"/> 3.አብዛኛው ጊዜ | |
| Q.415 | ባለፉ 30 ቀናት በቂ ምግብ ባለመኖሩ እርስዎና የቤተሰብዎ አባል የተራበበት ጊዜ ነበር? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም → | ጥ.ቁ 417 |
| Q.416 | መልሶ አዎ ከሆነ ፣ምንያህል ግዜ? አልፎአልፎ፣(በወር1 ወይም 2ግዜ)፣ የተወሰነ ግዜ (በወር ከ 3 እስከ 10 ግዜ) ፣አብዛኛው ግዜ (በወር ከ10 ግዜ በላይ) | <input type="checkbox"/> 1.አልፎ አልፎ <input type="checkbox"/> 2.የተወሰነ ጊዜ <input type="checkbox"/> 3.አብዛኛው ጊዜ | |
| Q.417 | ባለፉ 30 ቀናት በቂ ምግብ ባለመኖሩ እርስዎና የቤተሰብዎ አባል ሙሉ ቀን ምግብ ያልበሉበት ጊዜ ነበር? | <input type="checkbox"/> 1.አዎ <input type="checkbox"/> 0.የለም → | ጥ.ቁ 501 |
| Q.418 | መልሶ አዎ ከሆነ ፣ምንያህል ግዜ? አልፎአልፎ፣(በወር1ወይም 2ግዜ)፣ የተወሰነ ግዜ (በወር ከ 3 እስከ 10 ግዜ) ፣አብዛኛው ግዜ (በወር ከ10 ግዜ በላይ) | <input type="checkbox"/> 1.አልፎ አልፎ <input type="checkbox"/> 2.የተወሰነ ጊዜ <input type="checkbox"/> 3.አብዛኛው ጊዜ | |

ክፍልIV: እንክብካቤና ድጋፍን የተመለከተ

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| Q.501 | ከእርዳታ ድርጅቶች የተደረገልዎት ድጋፍ ምን ምን ነበር? | <input type="checkbox"/> 1.የምግብ <input type="checkbox"/> 2.የሕክምና <input type="checkbox"/> 3.የገንዘብና የገቢ ማስገኛ <input type="checkbox"/> 4.የትምህርት ቁሳቁስ <input type="checkbox"/> 5 የምክር አገልግሎት <input type="checkbox"/> 6. የህግ ክለላ <input type="checkbox"/> 7.የመጠልያና እንክብካቤ |
| Q.502 | የምግብ የሚያገኙ ከሆነ፣በምን መንገድ ድጋፍን ያግኙ ነበር? | <input type="checkbox"/> 1 የምግብ እጥረት በመዳሰስ የአልሚ ምግብ አርዳታ በ ማድርግ <input type="checkbox"/> 2.በሕክምናምግብ ድጋፍ ግንኙነት በማጠናከር <input type="checkbox"/> 3.ለ አሳዳጊዎቹ የስነምግብ አያያዝና አዘገጃጀት ስልጠና መስጠት |
| Q.503 | የሕክምናድጋፍየሚያገኙ ከሆነ፣በምን መንገድ ድጋፍን ያግኙ ነበር? | <input type="checkbox"/> 1.ነፃ የሕክምና አገልግሎት በመስጠት <input type="checkbox"/> 2.ቤት ለቤት በ መሄድ የህፃን/ፈ ጤንነት በማየት <input type="checkbox"/> 3.ለአሳዳጊው ስለ ክትባ፤ውባ መከላከልና ስለግል ንጽና ስልጠና በመስጠት |
| Q.504 | የገንዘብና የገቢ ማስገኛ ድጋፍ የሚያገኙ ከሆነ፣በምን መንገድ ድጋፍን ያግኙ ነበር? | <input type="checkbox"/> 1.አጫጭር ስልጠና በ መስጠት <input type="checkbox"/> 2.የገቢ ማስገኛ ስራዎችን በ መፍጠር ብድር በማመቻቸት |
| Q.505 | የትምህርት ቁሳቁስ ድጋፍ የሚያገኙ ከሆነ፣በምን መንገድ ድጋፍን ያግኙ ነበር? | <input type="checkbox"/> 1.በቀጥታ የትምህርት ውጭን በመቻል <input type="checkbox"/> 2.የትምህርት እድል በመፍልግና በማመቻቸት <input type="checkbox"/> 3.ለአሳዳጊው ህፃን/ፈ በትምህርት ገበታ ለይ እንዲገኙ ስልጠና በ መስጠት |

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| Q.506 | የምክር አገልግሎት የሚያገኙ ከሆኑ፣ በምን መንገድ ድጋፉን ያግኙ ነበር? | <input type="checkbox"/> 1. በቀሚንት ስነልቦናዊና ማህበራዊ ድጋፍ ስልጠና በመስጠት <input type="checkbox"/> 2. ድጋፍ ስጭ አካላትን በማቀቀም ለህፃኑ/ኗ እና ለ አሳዳጊዎቿ የምክር አገልግሎት በመስጠት <input type="checkbox"/> 3. ቤተሰባዊ ግንኙነት እንዲኖር በማድረግ |
| Q.507 | የህግ ክለሳ ድጋፍ የሚያገኙ ከሆኑ፣ በምን መንገድ ድጋፉን ያግኙ ነበር? | <input type="checkbox"/> 1. የህፃኑ/ኗ ህጋዊ መብት በመጠበቅ <input type="checkbox"/> 2. ለ ህፃኑ/ኗ እና ለአሳዳጊው የህግ ክለሳ አገልግሎት አደረገ አካላት በማገናኘት አገልግሎት በመስጠት |
| Q.508 | የመጠልያና እንክብካቤ ድጋፍ የሚያገኙ ከሆኑ፣ በምን መንገድ ድጋፉን ያግኙ ነበር? | <input type="checkbox"/> 1. ቤት ለቤት በ መሄድ የቤተሰብ ድጋፍ <input type="checkbox"/> 2. በቀሚነት የመጠልያ እንክብካቤ ፍላጎትን በማየት <input type="checkbox"/> 3. በህብርተስቡውስጥ የመጠልያ እንክብካቤ በማሻሻል |
| Q.509 | ለምን ያህል ጊዜ ድጋፍ ተደረገሎት? | _____ በወር |
| Q.510 | በእርሶ አስተያየት የሚደረግሎት ድጋፍ እንዴት ያዩታል? | <input type="checkbox"/> 1. በቂ ነው <input type="checkbox"/> 2. በቂ አይደለም <input type="checkbox"/> 3. መልስ የለም |
| አንትሮ ፖሞትሪክ ልኬት | | |
| Q.601 | የህፃኑ/ኗ አሁን የደረሰችበት/በት እድሜ | _____ በወር |
| Q.602 | የሆለትዮሽ ወደ ውስጥ የሚሰረጎድ የግር እብጠጥ ሆኔታ በምርመራ? | <input type="checkbox"/> 1. 0 <input type="checkbox"/> 2. + <input type="checkbox"/> 3. ++ <input type="checkbox"/> 4. +++ |
| Q.603 | የህፃኑ/ኗ አሁን ያለው/ላት ቁመት | _____ (ሴ.ሜ) |
| Q.604 | የህፃኑ/ኗ አሁን ያለው/ላት ክብደት | _____ (ኪ.ግ) |
| Q.605 | የህፃኑ/ኗ አሁን ያለው/ላት የክንድ ልኬት | _____ (ሚ.ሜ) |