

**ADDIS ABABA UNIVERSITY**  
**COLLEGE OF HEALTH SCIENCES**  
**SCHOOL OF ALLIED HEALTH SCIENCES**  
**DEPARTMENT OF NURSING AND MIDWIFERY**

**ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PRACTICE OF  
MOTHERS OF CHILDREN UNDER 2 YEARS OF AGE TOWARDS THE  
WEANING PROCESS, NORTH WEST ETHIOPIA, AMHARA NATIONAL  
REGIONAL STATE, EAST GOJJAM ZONE, AMANUEL TOWN, JUNE 2014**

**BY: ZEBENAY WORKNEH (BSc)**

A Thesis Submitted to the School of Graduate Studies of Addis Ababa  
University in Partial fulfillment of the requirements for the Degree of  
Masters of Science in Child Health Nursing

**June, 2014**

**Addis Ababa, Ethiopia**

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**A Thesis Proposal Submitted to The School of Graduate Studies, Addis Ababa  
University For Partial Fulfillment of The Requirements For The Degree of Master  
Child Health Nursing.**

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**Addis Ababa, Ethiopia**

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## **ACKNOWLEDGEMENT**

First of all, I would like to thank Addis Ababa University for sponsoring my thesis research. I would like to extend my deepest gratitude to my advisor Mr Bazie Mekonnen who has put his unreserved advice and encouragement from the development of the proposal to the completion of this final paper. My grateful thanks also goes to my colleagues who has supported me by materials during title selection and review of some scientific literatures as well as during proposal preparation and during the analysis.

I would like to extend my special thanks to Department of Nursing and Midwifery, Planning and Economy Bureau of Amanuel town for their cooperation by giving up to date demographic information.

My thanks also goes to the data collectors who help me with feeling any tiredness.

Above all, I would like to thank the Almighty for giving me hope and strength to accomplish this work.



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## Acronyms and Abbreviations

AAU	Addis Ababa University
AOR	Adjusted Odds Ratio
BF	Breast feeding
BFHI	Baby Friendly Hospital Initiative
COR	Crude Odds Ratio
EDHS	Ethiopian Demographic and Health Survey
EPI -info	Epidemiological Information
FMOH	Federal Ministry Of Health
ETB	Ethiopian Birr
GOE	Government Of Ethiopia
HEWs	Health Extension Workers
HSDP-IV	Health Sector Development Program-IV
IYCN	Infant and Young Child Nutrition
KAP	Knowledge, Attitude and Practice
MCH	Maternal and Child Health
MOH	Ministry Of Health
SD	Standard Deviation
SPSS	Statistical Package for Social Science
UNICEF	United Nations International Children's Fund
WHO	World Health Organization

## Abstract

Weaning is a gradual process of the introduction of complementary foods to the infant's diet as per the WHO recommendations. The weaning practice in developing countries is affected by attitudinal, knowledge, cultural, economical, and social and other demographic factors.

This was a cross sectional with the purpose of assessing the weaning knowledge, attitudes and practices among mothers with children's of age under 2 years in Amanuel town, east Gojjam Zone, Amhara National Regional State, North West Ethiopia. The major objectives of this study were: to determine the level of weaning knowledge among mothers with children's of age under 2 years; to identify the attitudes of mothers towards the weaning process: to identify the practices of mothers during the weaning process; and to investigate the cultural beliefs and traditions and factors influencing the weaning process.

The data was collected using an interview schedule, which was carried out by the data collectors from 374 mothers with children of under 2 years of age. The structured questionnaire was used for interviewing study subjects and the data was collected from March to April (2014). The subjects were selected by simple random sampling, particularly lottery method from the source population and those who have children of under 2 years.

Statistical analyses were done using percentage, Chi-Square test, Odds Ratio(OR), 95% confidence interval(CI) and inferences were drawn. It was observed that majority of the respondents(53.4%) knew that weaning should be initiated by the age of 4-6 months but 52.7% initiated by this age.40.6% mothers preferred cow's milk for weaning. It was also found out that the most common source of information on weaning was the hospitals/MCH. Majority of respondents-had neutral attitude towards weaning. Results from the Chi-square test also revealed some of the significant relationships, which were between education level and weaning practice ( $X^2=22.9, P=0.012$ , income and weaning practice( $X^2=28.86, P=0.04$ , information & weaning practice( $X^2=26.86, P=0.018$ ), and knowledge and weaning practice ( $X^2=13.4, P=0.033$ ). There was also an association between attitude and weaning practice of respondents( $X^2=8.8, P=0.013$ ).

It was concluded that most mothers have had some form of information on weaning but few of them were practicing the correct weaning practices. Majority of mothers had neutral attitude towards weaning . It is recommended that all mothers should be educated about the basic principles of weaning and the literacy rate should be increased. The health extension workers should also be trained about the weaning guidelines.

**Key words:** Weaning, Attitude, Knowledge, Practice, Weaning foods.



## 1. Introduction and Statement of The Problem

All the nourishment infants need during the first four to six months comes from either breast milk or infant formula milk. Between four and six months infants should begin taking a wider variety of foods to allow them to grow and develop - this process is called weaning. Weaning before four to six months is not recommended as most infants' digestive systems and kidneys are not fully developed.(1,10).

The term weaning comes from the Anglo-Saxon word "wenian" meaning "to become accustomed to something different". It is the process of expanding the diet to include foods and drinks other than breast milk or infant formula. Weaning from the breast is a natural, inevitable stage in a child's development . It is a complex process involving nutritional, immunological, biochemical and psychological adjustments. Weaning may mean the complete cessation of breastfeeding ('abrupt' or final wean) or, the beginning of a gradual process of the introduction of complementary foods to the infant's diet. The very first introduction of foods other than breast milk is, by definition, the true beginning of weaning (2, 3).

In developing countries, the age at introduction of weaning foods is of public health importance because of the risk of diseases, particularly diarrheal diseases from contaminated weaning foods, and the risk of growth faltering and malnutrition from delayed weaning. The age at introduction of weaning foods varies and is influenced by the tradition of the different ethnic populations in the country, urbanization and the socioeconomic status of households. In urban areas, the tendency is early weaning, but in some rural areas weaning is delayed up to one year or more( 4). Breast milk is the natural first food for infants and should be fed alone for the first 4 to 6 months of life. After 6 months however, breast milk alone is not sufficient, in quantity and quality, to maintain the growth and development requirements of the infant. Appropriate foods, referred to

as weaning or complementary foods, need to be introduced while continuing breast feeding up to 24 months. The introduction of supplementary foods is often accompanied by stress and ill health for infants in developing countries, mostly because the foods are not properly tailored to the infant needs(5).

There is a cultural variation in the type and time of introduction of other foods i.e. weaning foods). In rural Thailand the introduction of weaning foods occurs early; babies may be given pre-chewed rice or gruel from a few days after birth. In the Philippines, 37% of urban infants and 19% of rural infants receive supplementary foods by the age of 2 months. In a study of infants in Soweto, 39% were given gruel, 22% commercial porridges, and 27% mashed vegetables and fruit at four months of age. But India it is believed that children should not receive solids until they have 'cut some teeth, while in Ethiopia weaning is initiated at a mean age of 9.2 months.

Both too early and too late introduction of weaning has negative effects like malnutrition, weight loss, & iron deficiency anemia and other micronutrient deficiencies ,like zinc & vitamins (3, 6).

The weaning period is most crucial period in child development. During the weaning process children are particularly exposed to the deleterious synergistic interaction of malnutrition and infection. If not done properly is often followed by diarrhea, kwashiorkor and marasmus.

Knowledge of weaning foods and practices is an important aspect of child health & development(7).

Even though most mothers in Ethiopia breastfeed their babies, they do not always follow the recommendations of the "National Strategy for Infant and Young Child Feeding'," the guidelines established by the FMOH for optimum breastfeeding. Many newborns don't exclusively breastfed during their first six months. Instead, they are given liquids and complementary food at an early age. These practices may expose them to infectious diseases, and therefore have a

negative impact on their growth and development. There are several reasons for poor breastfeeding or weaning practices in Ethiopia, including traditional and cultural beliefs, low education levels, heavy workload of mothers and poor sanitary conditions and poverty(8). When compiling weaning guidelines the following recommendations should be particularly considered: Meat or iron fortified weaning foods should be introduced early to increase iron intake ; Meat, pulses, dairy products, wheat, and rice should be included as appropriate to increase zinc intake; The change from breast milk/formula to cows' milk should be delayed until after 1 year of age; Drinks, other than breast milk, formula, and water, should be discouraged; and egg and fish could be offered to the child at 9months of age(9).

The WHO/UNICEF global strategy on infant and young child feeding practices aims to promote optimal breastfeeding and complementary feeding practices, through various initiatives for example the Baby Friendly Hospital Initiative (BFHI) and interventions promoting optimal complementary feeding could prevent another 6% of deaths in countries with high mortality rates(10).

WHO recommends exclusive breastfeeding during the first six months of life for optimal growth, development and health. Breastfeeding should continue up to two years or more and nutritionally adequate, safe, and appropriately-fed complementary foods should be introduced at the age of six months to meet the evolving needs of the growing infant. Little evidence exists about practices in urban slums in sub-Saharan Africa and Ethiopia is one from those countries where little is known about weaning(10,11).

Exclusive breast feeding for the first four to six months, with appropriate complementary feeding for at least the first year of life, could prevent the death of an additional estimated 1.3 million infant each year. An exclusive breast feeding infant is about 14 times less likely to die from

diarrhea, nearly 4 times less likely to die from respiratory disease and almost 3 times less likely to die from other infections than the non breast fed infants (12).

In Ethiopia, the most important nutritional problems in weaning foods consumed by the children in many parts are protein energy malnutrition and deficiency in essential macronutrients and micronutrients. Malnutrition in children results in growth retardation limited, intellectual abilities that diminish their working capacity during adulthood, decreased resistance to disease and infections and ultimately ill health and death. It also delays in motor and mental development and exposes to frequency attacks of diarrheal disease, most importantly it can interfere with attainment of full human potential(12).

In Ethiopia the prevalence malnutrition which is mainly as a result inappropriate weaning process(12). The EDHS(2011) report revealed that 44 % (stunted), 21 % (severely stunted), 10 % (wasted), 3 % (severely wasted), 29 % (underweight) , and 9 % underweight in under 5 children with remarkable regional variation. For instance the prevalence of stunting in my study area( Amhara national regional state) is the highest (52%) as compared to the lowest prevalence(22%) in Addis Ababa(13).

Though the aforementioned problems are still prevalent in Ethiopia ,little has been done for knowing the rationale behind those problems , specifically the knowledge, attitude and practice of mothers during the commencement of weaning. The current study done in Derashe district, Southern Ethiopia revealed that (38.7%) of the interviewed caregivers had started giving complementary foods or drinks other than breast milk (mostly water, gruel and other semisolid cereal-based preparations) to their infants before they reached 6 months of age and for half of the caregivers, the reason for introducing foods/drinks too early was the belief that breast milk alone is not sufficient at that age. The study also found that mean ( $\pm$  SD) complementary feeding

frequency was  $4.6 \pm 1.3$ ,  $5.1 \pm 1.4$  and  $6.2 \pm 1.6$  times per day for study children 6-8, 9-11 and 12-24 months of age, respectively(14).This indicates how much the gap is in this country.

In Ethiopia there is no any research which has been done on the knowledge, attitude and practice of mothers in the past 10 years. The aim of this study was to assess the knowledge, attitude & practices of mothers of children under the age of 2 years on weaning in Amanuel town, Northern Ethiopia with reference to WHO recommendations. The study also tried to assess the common foods which are used at the commencement of complementary feeding and compare them in light of WHO recommendations and the national guidelines of Ethiopia. Exactly when to wean, how to wean and what to wean with was a subject of great importance in this study.

## **SIGNIFICANCE OF THE STUDY**

This study is intended to extract out the knowledge ,attitudes and actual practices of mothers during the commencement of complementary feeding or weaning, and filling the gaps for the discrepancies from WHO recommendations. The findings of this study will serve as a reference for giving intervention accordingly by the HEWs and due clinicians; for conducting further researches; and it may serve as a supplementary information during the review of HSDP-IV of GOE of which increasing the proportion of infants of 6 -9 months introduced to complementary food & continuation of breastfeeding from 51% to 65% is of its target. The findings of this study will have special importance for low level clinicians because it will serve as base line for filling gaps of the actual practices of mothers from the WHO recommendations. The findings with relevant recommendations will be also submitted to the woreda health bureau, zonal health bureau, and in advance to the MOH.

## 2. Literature Review

Both the World Health Organization (WHO) (1) and the American Academy of Pediatrics (15) have recommended exclusive breastfeeding for the first four to six months of life, with continued breastfeeding up to 12 months of age or longer up to 2 years along with the introduction of solid foods( complementary foods for weaning) . But the pattern and style of feeding mothers are influenced by multiple factors including knowledge, attitudes and beliefs as well as socio-cultural and physiological factors(15). Even though mothers those who have good knowledge and attitude are suspected to practice weaning in line with the standards, there is a difference in their level of knowledge, attitude and practice towards weaning.

The cross sectional study comprising of 110 lactating mothers in rural Tumkur , Karnataka, India was done to assess KAP of weaning of lactating mothers and it was found that 48 mothers (43.63%) had the knowledge on initiation of weaning food after six months of age and weaning was already started by 61 mothers during the study. Forty two mothers (68.85%) had started before six months. The weaning foods were Ragi sari (57.35%), Cerelac (9.83%), Biscuits (8.19%), Cow's milk (34.91%), Farex ( 3.27%), and Goat milk (1.63%).Twenty eight mothers (45.9%) were giving weaning food twice daily and 19 mothers (31.14%) were giving only once a day. Fifty five mothers (90.16%) followed the clockwise scheduled pattern and only 6 mothers (9.83%) were giving on demand. For 41 mothers (67.21%) grandmother and for 15 mothers (24.59%) mother-in-law were the major decision makers on weaning. Fifty six mothers (91.8%) preferred to use freshly prepared foods. There was delay in initiation of weaning by 11 mothers (18%) and the reason was belief of having sufficient milk in 7 mothers (63.63%) and food cannot be digested by the baby in 4 mothers (36.36%). Forty two mothers (68.85%) had not introduced fruits and 38 mothers (62.29%) had not introduced vegetables as weaning foods during the study(16).From the other study done in India, rural parts of Karimnagar on KAP of 500 mothers regarding weaning, it was found that majority of subjects(62%) revealed knew that weaning should be initiated by 4-6 months of age and only 35% initiated by this age.81% of them prefer liquid foods for weaning and many (85%) of them agreed that the baby should take solid foods by 1 year(17)

The results of the study done at Dhaka ,Dhamrai to determine the feeding practice of infants among 320 mothers found that 239 (91.6%) weaned their babies at correct times that means within 6 months of life and 68.1% of them had the knowledge of starting weaning food . Among

them 269(84.1%) were aware about the knowledge on complementary foods. Out of 320 respondents 50% did not know the reasons for not giving exclusive breastfeeding, 28.1% were ill, Cesarean Section (6.3%) and 15.6% due to insufficient breast milk. The common weaning foods were solids (22.6), semisolid (33.7%), liquid(24.9%,of which milk accounts 27.4%),and others(18.7%) (7).

The weaning practice of mothers is affected by different factors. The study done in Hong Kong showed that different factors are associated with early weaning including: younger maternal age(aOR = 1.84; 95% CI 1.05 to 3.21), being a first time mother, living in Hong Kong for  $\geq 5$  years(aOR = 2.56; 95% CI 1.50 to 4.38), the mother not having been breastfed herself, the husband's preference for infant formula or mixed feeding, having an emergency caesarean section, and returning to work post-partum(aOR = 1.75; 95% CI 1.25 to 2.46). In this study maternal education and family income showed a more complex interaction with weaning time. Participants in both the middle education and family income levels had earlier weaning than participants with low and high levels of both education and family income. The most common reason for weaning, "insufficient milk," was identified almost equally across the first year. The second most common reason for weaning, "returning to work," was identified much more frequently by women who weaned from 1 to 3 months or from 3 to 6 months. Other reasons for weaning early were, "baby is always hungry," "maternal illness," "sucking and latching problems," "fatigue and stress," "nipple and/or breast pain," and "infant illness." Participants who weaned later than 6 months were more likely to cite "right time to wean" as their main reason for weaning. From this study there were factors associated with continuation of breastfeeding(with weaning) including having a university degree (aOR = 0.36; 95% CI 0.27 to 0.50) or a post-graduate degree (aOR = 0.44; 95% CI 0.21 to 0.90), planning to exclusively breastfeed (aOR = 0.66; 95% CI 0.50 to 0.86), previous breastfeeding experience (aOR = 0.36; 95% CI 0.22 to 0.61), mothers who were breastfed themselves (aOR = 0.74; 95% CI 0.57 to 0.95) and those whose husbands preferred breastfeeding (aOR = 0.71; 95% CI 0.51 to 0.98) (18). Mothers use different foods and have different rationales during the commencement of complementary feeding. The results of the study done at Shah Di Khohi, Lahore to assess the knowledge and weaning practices of 100 mothers of infants revealed that working women (97%) started weaning at 6 months and 45% house wives started weaning at 4-6 months. From study subjects 58% used commercial formulae and 20% used homemade foods for weaning.. Thirty

nine percent of the mothers gave weaning diet for improving growth while 27% gave it as a tradition and it was concluded that weaning practices were not adequate due to a number of reasons, including poverty, poor educational status of mother and lack of knowledge about how, when and what to give(19).Whereas the study done in Cameroon, okala district on the weaning practice of mothers revealed that 63% of women practice mixed feeding before the age of 3 months with the reason of inadequate milk to satisfy the need of the child. In this study the common complementary food was pap made from maize flour either soya beans, ground nuts, rice or fermented maize paste, and the number of meals was ranged from 1-3 meals per day(20). A survey-based study which was conducted on a group of 500 mothers from island of Mauritius in 2011 to elicit information about infant feeding practices of mothers revealed that complementary feeding was more commonly initiated around 4–6 months (75.2%) and partial weaning (when baby is breastfed once or twice per day while receiving complementary foods) was the most common type of weaning practiced by mothers (62.8%). During complementary feeding, both home-made and commercially available foods (cereals, ready-made pots) are given to the infants (69.2%). It has been found that weaning started with mashed vegetables or fruits (66.9%) and the main reasons are due to the freshness of home-made food and it is also more hygienic (93.5%). Additionally, 86.4% of the participants reported that the nutritional quality of home-made food is superior to that of commercial food, while 84.9% of the women stated that food prepared at home provides room for more choices for a balanced meal. With regard to the commercially available baby foods, it was noted that mothers prefer cereals (34.1%) to ready-made pots (7.80%). It has also been found that 68.7% of mothers did not encounter any difficulty with their infants during the weaning period. Moreover, the other respondents (21.7%) highlighted that their children were unwilling to take solid foods, while 19.6% of them reported that their infants prefer drinking to food(21).

From the qualitative study on "a qualitative exploration of rural feeding and weaning practices, knowledge and attitudes on nutrition" which was done in South Africa, it was found that solid food was introduced early (at 2–3 months) and a mixed family diet at 7–9 months. Weaning diets were compromised due to poor food choices, preparation practices and limited variety. The participant's nutrition knowledge regarding specific foods, their functions and recommended quantities was poor and the also had poor attitude to nutrition because the women adhered to their cultural beliefs regarding food choices and preparation practices. Bottle-feeding was given

for both justifiable (illness and breast illness) and unjustifiable (own choice, perceived lack of milk, low milk production) reasons, and avoided for hygienic reasons. Cow's milk was seldom used owing to its perceived unsuitable nutritional composition and it sometimes being unpasteurized. Formula and full-cream milk powders were frequently used. Soft porridge in addition with margarine (for energy content) and formula powder (for protein and micronutrient content) was given to babies for its soft texture, satiety value, perceived nutritional value and availability. Children were eating three or more meals daily for reasons of hunger and satiety, stomach capacity and adequate growth(22).

The discrepancy between the WHO recommendations on weaning and the actual practices of mothers is also the main problem in East Africa and this may come as a result of sociodemographic, cultural and economical factors. A cross-sectional study conducted in Uganda to assess and document the foods what are fed to infants and young children, the weaning practices and the influencing factors in mothers/caretakers of 261 young children aged 3-28 months revealed that though breast feeding was universal at birth, early weaning with watery, energy- and nutrient-poor staples was widespread in the study area. The negative weaning practice of introducing complementary foods too early was highly prevalent with almost half of the children (44.1%) having started complementary feeding before the age of four months. Older mothers significantly ( $p \leq 0.0001$ ) breast fed their children for longer periods than the younger mothers. Over half of the children (62.1%) commenced the weaning process with cow's milk. The weaning foods were dominated by the green cooking banana (matooke) which is known to be bulky with low nutrient content. Children from the rural areas consumed significantly more papaya ( $p=0.014$ ), pumpkin ( $p \leq 0.0001$ ) and matooke ( $p=0.007$ ) than children from the urban areas while urban children consumed significantly more cows' milk ( $p=0.005$ ), rice ( $p=0.008$ ), sweet potatoes ( $p=0.018$ ) and pineapples ( $p \leq 0.0001$ ) than rural children. In this study consumption of animal protein, fruit and vegetables was found to be very low among this cohort of children, a possible risk factor for the high levels of micronutrient malnutrition among under-five children(5).

The results of the research done in Kenya on KAP of mothers on weaning indicated that most common source of information on weaning was the hospitals/MCH and the weaning practices by mothers in Makuyu (study area) showed that most mothers had started weaning very early before the recommended age (4 - 6 months). The cultural practices and beliefs seemed to

influence the mothers, weaning practices. Most of the respondents agreed with the community on the forbidden and recommended food for infants. The most common forbidden foods for infants mentioned were avocado and eggs. The most recommended food for infants mentioned by respondents was raw bananas. Results from the Chi-square test also revealed some of the significant relationships, which were between education level and weaning practices of respondent ( $\chi^2=4.6$   $p=0.03$ ), income and weaning practices of the respondent ( $\chi^2=4.2$   $p=0.04$ ) and age and weaning attitude of respondent ( $\chi^2=7.9$   $p=0.02$ )(23).

In Ethiopia little has been done to assess the knowledge, attitude and practice of mothers on weaning of infants, specifically in this study area nothing has been done on it. The studies which has been done before the past ten years revealed that there is a gap between the recommendations and feeding practices as well as knowledge's of mothers. A descriptive cross sectional study on mothers' knowledge and practice related to weaning was conducted in Butajira in 1994. A total of 1543 mother-child pairs were included in the study, of which 1052 (68%) children were on weaning diet and 491 (32%) were exclusively breast-feeding. Among children who were already weaned, 40% were reported to have been started on weaning food at the age of 4-6 months. Of the children who were reported to be exclusively breast-feeding, 34% were beyond the age of 7 months. The most commonly used weaning food were cow's milk, adult food, sorghum water and cereal gruel in descending order and the most important reasons for mother to start weaning were reduction of the amount of breast milk and mothers' belief that the child is at the right age to start weaning food. The majority of the mothers used "swallow or suffocate" method in feeding their children, though cups and bottles were also mentioned as important feeding methods. The study demonstrated the presence of inappropriate weaning practice in the area, which needs appropriate intervention.(24).

A community-based cross-sectional survey was conducted on 334 mother-child pairs of 0-2 year old children in a semi-urban sub-district of Adigrat, Tigray, Ethiopia to determine the determinants of weaning practice. The results revealed 188 (71.2%) children were receiving supplementary feeding besides breast milk with the mean age of 3.3 (SD±0.79) months which ranges from 1-6 months. The age of weaning was classified into three groups: early, correct and late. Mothers having a better educational status tended to wean early in contrast to illiterate or lower educational status of mothers ( $\chi^2$ trend=12.78,  $p=0.0003$ ). A larger proportion of mothers

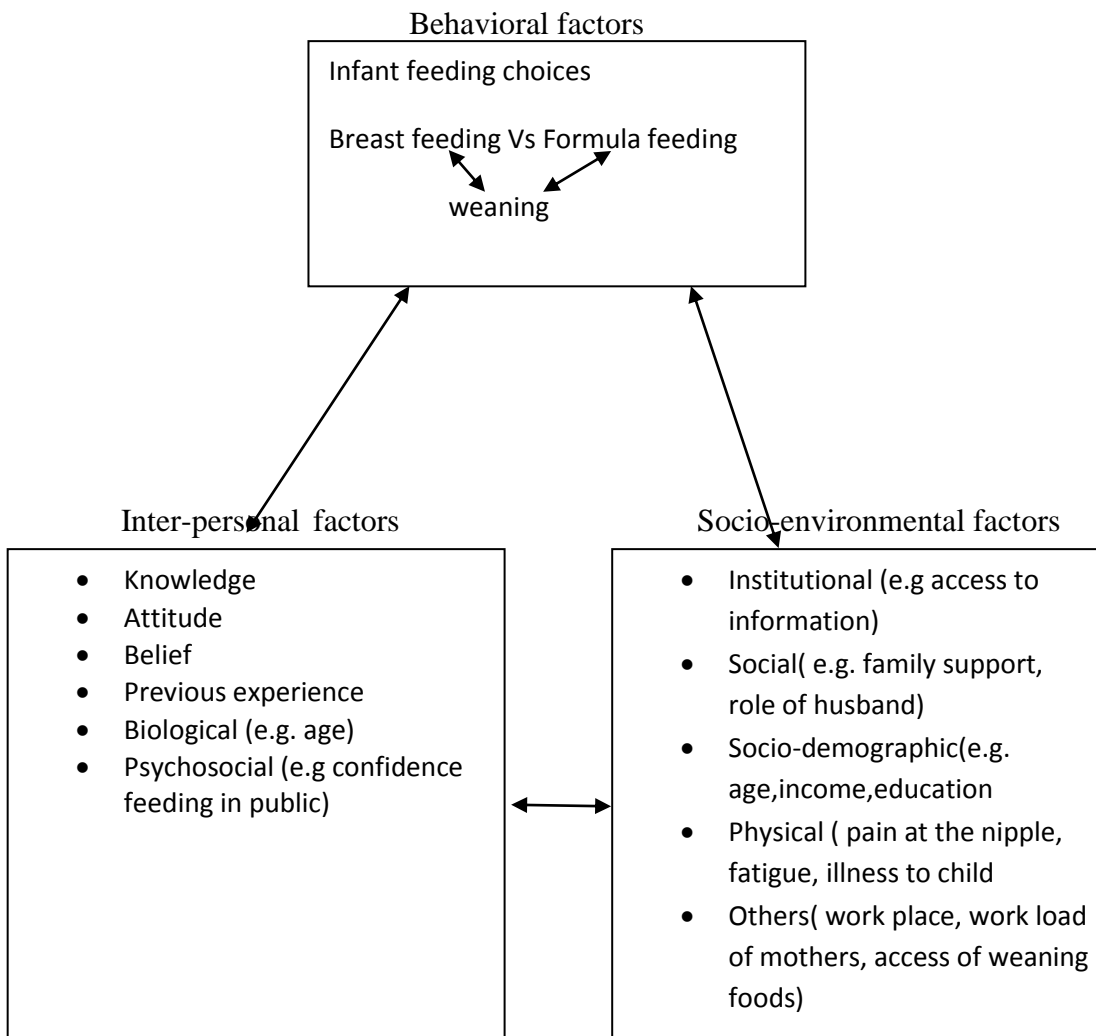
who worked outside home started weaning early compared to housewives ( $\times 2=11$ ,  $p=0.001$ ). Mothers who had one birth formed early weaning compared to mothers who had more than one birth ( $\times 2=11$ ,  $p=0.0194$ ). Similarly children of fathers of better educational status were found to weaned early compared to their counterparts ( $\times 2$  trend 7.38,  $p=0.006$ ). Children of better income families weaned early compared to their counterparts ( $\times 2$  11,  $p=0.008$ ). Only mothers occupation and family income were significantly associated with early weaning. Mothers working outside home had 3.5 times higher chance of early weaning compared to house wife. mothers ( $p=0.0025$ ). Similarly, mothers of better income had two times higher chance of early weaning compared to poor mothers ( $p=0.0145$ ). The most commonly and frequently used food for child feeding was the adult diet(39.8%) ,followed by porridge/gruel(semisolids, 29.6%), egg (21.1%), cow's/ formula milk(11.8%) , meat(6.2%),and pasta (5.1%)(4).

Appropriate infant and young child feeding (IYCF) practices include timely initiation of feeding of solid and semi-solid foods from age 6 months and improving the quality of foods consumed as the child gets older, while maintaining breastfeeding (WHO, 2008). WHO has established guidelines with respect to IYCF practices for children age 6-23 months (transition period). Ethiopia has adopted those recommendations and has integrated a course which is called "Infant and Young Child Feeding Counseling", Produced by WHO/UNICEF (2006, Geneva) to implement those guidelines. Ever since, the Ethiopian government is trying to implement the nutritional programs, but there is a gap as shown in the 2011 EDHS and IYCN- Ethiopia report. The report revealed that complementary feeding is uncommon in Ethiopia; only 3 percent of children age 0-1 months receive complementary food, and only 10 percent of infants under six months are given complementary foods in addition to breast milk, indicating that very young children are mostly fed breast milk, as recommended. All children age 6-9 months, in contrast, should receive complementary foods. However, only half of children age 6-9 months (51 percent) received complementary foods. Sixteen percent of infants under six months are fed using a bottle with a nipple, a practice that is discouraged. Of children aged 6-23 months and still breastfeeding, only 29 percent were given complementary foods with minimum and adequate dietary diversity . More children aged 6-23 months, who were not breastfeeding, tended to receive an adequate mix of foods (38 percent) than those who were breastfeeding (29 percent). Non-breastfeeding children who either lived in urban areas (47 percent) or had more educated

mothers (65 percent) were more likely to receive an adequate mix of foods than those living in rural areas with less educated mothers(13,25). So this study has tried to find the gaps between the national and international recommendation and actual knowledge, attitude and practices of mother during weaning process.

### Conceptual frame work

The weaning practice of mothers is influenced by so many factors like attitudes and knowledge of mothers, income, socio-demographic factors ( e.g. age, societal view towards weaning), cultural factors, and others. The factors which are speculated as the influencing factors of the weaning practices of mothers are schematically represented as in the following frame work which is adapted from Bandura (1986)(25).



**Figure. 1.** A conceptual framework for understanding factors that influence mother's infant feeding choices. Adapted from Bandura (1986)

### **3. OBJECTIVES**

#### **3.1 General objective**

To assess the knowledge, Attitude and Practice of mothers of children under the age of 2 years on weaning in Amanuel town.

#### **3.2 Specific objectives**

- (1) Determine the level of weaning knowledge among mothers with children aged less than 2 years
- (2) Identify the attitudes of mothers towards the weaning process
- (3) Identify the practices of mothers during the weaning process t.
- (4) Investigate the cultural beliefs and traditions and factors influencing the weaning process.

## **4. Methods**

### **4.1. Study design**

Descriptive cross sectional study was carried out to describe the knowledge, attitude and practice of mothers of children under the age of 2 years on weaning in Amanuel, Machakel district, East Gojjam zone, Amhara region. The study was conducted from march to april,2014 based on the conceptual frame work of Bandura (1986) to explain the effect of demographic factors (income, educational status, occupation), and others like knowledge, attitude, and belief as well as socio cultural/environmental factors towards weaning practice of mothers.

### **4.2. Study area**

Amanuel town is one from the towns which are found in East Gojjam Zone, Amhara regional state, North West Ethiopia. It is the center of Machakel District and is found 28 kilometers far from Debremarkose, the capital of the zone, and 328 kilometers from Addis Ababa. The town is bounded by Debremarkos in the east, Debre Elias in the south, Gira Kidamin in the west, and Dembecha in the north. In this town there are 6 villages. There are also immigrants from the nearby rural areas who have created new villages which has been out of the plan of the town municipality. According to the planning and economy bureau of the town the total population in 2013/2014 was expected to be 11621. Out of the total population 5853(50.37%) were females and the rest(49.63%) were males. The number of population between the age of 0-4 years accounts of 440 males and 390 females, and the number of female population who are at the child bearing age (15-49 years) is 3741(32.2% of the total population).

The social institutions which are found in the town includes one governmental health center, two medium private clinics, and one bank(commercial bank of Ethiopia).

### 4.3. Source population

All mothers who were in the reproductive age group were the source population.

### 4.4. Study units

All mothers who are in the reproductive age range (15-49 years) having children of under 2 years of age.

### 4.5. Inclusion & exclusion criteria

All mothers of children under 2 who were available at the time of data collection included in the study, but those who were available and having hearing and vision problem were excluded from the study. Mothers who didn't adopt the consent were also excluded.

### 4.6. Sample size determination

The required sample size was determined by using single population proportion formula considering the following assumptions:

Proportion of 51% considering the practice of mothers on complementary feeding which was taken from EDHS 2011 report that revealed the prevalence of children aged from 6-9 months and who took complementary foods was 51%.

Level of significance,  $\alpha = 0.05$ ,

proportion, 'P' = 0.51

Margin of error = 5%, and

Non-response rate = 10%

The formula for calculating the sample size was,

$$n = \frac{(z_{\alpha/2})^2 P(1-P)}{d^2}$$

$d^2$

With the above assumptions, the sample size was calculated and the overall sample size was found to be =384 (child bearing mothers under the target age group). But the source population was below 10,000 and the correction formula was used for determining the final sample size. i.e.  $nf = n / (1 + (n/N))$ ,

Where  $nf$ =final sample size,  $n$ =the calculated sample size(384) sample size of population above 10,000 and  $N$  is the total female population in the study area(3741 females).

So the final sample size  $nf = 348 + 48(10\% \text{ non response rate}) = \underline{396}$

All mothers of children under 2 years of age who was available at the time of data collection was included in the sample unit. Probability sampling method specifically simple random sampling method was used for selecting the sample population from households ( sampling units).

#### **4.7. Data collection instruments**

The data collection instrument was anonymous closed-ended questions interviewed by data collectors, which consists of different parts like socio-demographic variables, clients' beliefs and attitudes towards weaning, and knowledge and practice of clients during the weaning process.

#### **4.8. Questionnaire development and data collection**

The questionnaires was developed based on the conceptual frame work which was adapted from Bandura(1986) and after reviewing some important literatures (23,26,27). A number of questions that could address the objective of this study were gathered and adapted. The format of questionnaire for exit interview consists of likert type , and open ended types. Likert type approach was used to identify clients' attitude towards weaning process with a statement asking them to indicate how strongly they agree, not sure or disagree (having a scale of range 1 disagree to 3 agree).

The data was collected through house to house visit and households served as a sampling unit. Before conducting the actual data collection survey was made to identify the no of households those who have eligible child and each house was marked by chalk to prevent double counting. Here the data collectors were trained to mark the houses with eligible child and 400 mother were found with the target child. Then mothers were asked their consensus about their involvement in the study subjects and only 10 were involuntary mothers were found ,who were excluded from the very beginning. After that, 390 mothers were used as a reference and each house has been given an identification number. Finally, the sample population was selected by lottery method from those who were available at the time of survey. During the time of data collection, there were more than three visits if the respondent were absent at the due time and this This was done after the survey which was conducted to determine the number of mothers who had eligible child for the study. Here the data collectors were trained to mark the houses with eligible child and 400 mother were found with the target child. Then mothers were asked about their consensus about their involvement in the study subjects and only 10 were involuntary mothers were found ,who were excluded from the very beginning. After that 390 mothers were used as a reference and each house has been given an identification number. Finally, the sample population was selected by lottery method from those who were available at the time of survey and this was done to decrease non response rate.

#### **4.9. The study variables**

##### **A. Dependant variable:-**

- ✓ Knowledge of mothers on the time of commencement of weaning, the frequency of feeding and the foods they are giving during the weaning process.
- ✓ Attitude of mothers towards the weaning process

- ✓ Practice of mothers during weaning, including time, food types, and frequency

**B. Independent variables are: -**

- ✓ Age
- ✓ Educational status of the mother and the husband
- ✓ parity (the effect of previous experience)
- ✓ Occupation
- ✓ Income
- ✓ Illness( child or mother)
- ✓ Children's behavior( crying, hunger)
- ✓ socio cultural back ground
- ✓ Accessibility of information and supplies

**4. 10. Data management and analysis:-**

Dummy tables that consider the main research questions were drafted after designing the questionnaire. The completed questionnaire was checked for completeness, consistency and coded by the principal investigator. The data was entered in to the EPI info version3.5.4 and SPSS version 20. The knowledge, attitude and practice of mothers during weaning was assessed. The mean score of the level of knowledge and attitudes was calculated based on the predesigned criteria and the weaning practices including factors influencing practices was also verified. Then the findings were cross- tabulated using chi-square test to look at an association between variables. Odds ratio both crude and adjusted were also used to determine the strength of association of selected variables.

#### 4. 11. Data quality assurance

The first draft of English questionnaire was produced and valuable comments were received from different sources to improve the quality of instrument. After extensive revision of the English questionnaire, the final English version was translated to Amharic language and again commented by those who have good command on both English and Amharic languages. This was done because the local language for the study area was Amharic and this made easier for data collectors to communicate with the due population(sample population) at the time of data collection. The questionnaire was also pre-tested before the actual data collection for its validity and reliability.

Data collectors were recruited and training was given based on the guide that was developed by principal investigator for data collectors which clarified how to interview based on the questionnaire. Each part of the questionnaire was clearly revised with the data collectors. Data collectors were instructed to check the completeness of each questionnaire at the end of each interview. The principal investigator and the supervisors had strictly follow the overall activities for each activity to ensure the completeness of questionnaire, to give further clarification and to give support for data collectors. Recheck of the completeness of the questionnaires was done immediately after interview at field level and during submission.

#### 4.12. Operational definitions

**Weaning:-**

Weaning is the process of introducing semi-solid or solid foods to the breast or formula-fed child to meet extra nutritional needs for rapid growth and development.

**Knowledge:** Is the information in which an individual is aware of. In this study it was measured based on the ability of the client to correctly identify and respond to knowledge questions related to the weaning process. The level of knowledge was determined on a knowledge index. The

highest possible score was 9 points. Weaning Knowledge was categorized as either low (0-3 points), average (4-6 points) or high (7-9 points).

**Attitude:** This referred to the feelings and beliefs of mothers related to weaning process. It was measured by putting the responses in the attitude statements (from the interview schedule) in form of a likert scale: 3=2=1: (Disagree, Not sure, Agree, respectively).

**Practice:** the overt behavior, habit or custom that a person does, or carry out in his/her daily life. In this study it was measured based on question which measure the actual practices of study subjects based on predefined parameters like( time, frequency, food type).

**Income:** in this context it is the amount of money an individual obtains within a month in Ethiopian birr(ETB). The income is classified in to three which is classified based on quartiles:

**Low income:** Is when an individual obtains below 800 birr/month which is below the first quartile (800).

**Medium income:** Is when respondents income belongs between the first quartile and the third one (from 800-1525 birr/month) or the middle 50%.

**High:** Is when an individual obtains above 1525birr/month which above the third quartile.

#### **4. 13.Ethical clearance**

Before the fieldwork, ethical clearance was obtained from Ababa University Research Review Committee. Then formal letter of cooperation was requested from Amhara Regional Health Bureau to East Gojjam zone department of health and then to Machakel District Health Bureau and other concerned bodies. Response of clients was anonymous and data collectors informed to clients that they had full right to discontinue or refuse to participate in the study. A letter of agreement was also attached to questionnaire to obtain the permission of each individual.

Beside this, the data collectors were trained on their responsibilities for describing the purpose of the study, giving orientation, telling importance of honest and sincere reply, on responding to questions.

#### **4. 14. Dissemination of results**

After analysis, conclusion and recommendation were drawn from the results and 2 copies were submitted to Nursing Department, AAU to make final thesis defense. The copies will be also submitted to machakel woreda health department and east Gojjam Zone health bureau. Attempts will be made for the publication in scientific journals.

## 5. RESULT

### 5.1 SOCIO-DEMOGRAPHIC CHARACTERISTICS

A total of three hundred and seventy four female clients were interviewed. The rest twenty clients were not volunteer to participate in the interview. Thus the response rate was 374(95%). The age of respondents (mothers ) ranges from 15-45 years with the mean age of 32 years. The highest category of age represented was between 25 - 29 years age, where 27.5% of the respondents fell and the lowest category of age represented was between 45-49, where 1.1% respondents fell.

Results indicated that slightly more than a fourth (20.6% of the children were aged between 18-23 months and less than ten percent (7.8%) belongs to less than 1 month. The mean age of children was 4.4 months with  $SD \pm 1.94$  months. Most (79.7%) of the respondents were married. Those mothers who were unmarried accounted for 2.1%. Combined, less than fifth of respondents were either widowed or divorced. Most (81.6%) of respondents had additional child and less than a forth (18.4%) of them didn't have it. Findings indicate that more than four fifth (89.3%) of the respondents were living as nuclear families and the rest (10.7%) of the respondents were living as extended families of which majority live with aunt/uncles (31.71%). In this study the level of education of respondents and their husband was assessed, and it was found that respondents had varied levels of education ranging from no schooling to university level. Majority (40.1% & 36.1%) of mothers and their husbands respectively, had attended primary education. Small number of mothers and their husbands had attended technical/vocational trainings (3.2%,3.7% respectively). Respondents were asked to indicate their occupation and their source of income. Majority of the respondents 172(46%) were house wives, where as unskilled laborers accounted smallest percentage (1.1% ).

The participants were asked to mention their monthly income per Ethiopian birr(ETB) and it ranges from 400ETB-4000ETB with the mean of 1257.62ETB and  $SD \pm 648.748$ . It was found that 178(47.6%) had medium income with the rest 103(27.5%),93(24.9) who had low and high monthly income respectively. Half(50.3%) of the respondents revealed husband as a source of income and but few of them have mentioned Sons/daughters(2.4%) as a source.

**Table 1: Socio- demographic characteristics of respondents, Amanuel Town , April, 2014**

Demographic variables (N=374)		
<b>AGE ( IN YEARS)</b>	<b>No</b>	<b>%</b>
15-19	33	8.8
20-24	88	23.5
25-29	103	27.5
30-34	86	23.0
35-39	35	9.4
40-44	25	6.7
45-49	4	1.1
<b>Children's Age (in month)</b>		
less than 1	29	7.8
2-3	53	14.2
4-5	38	10.2
6-8	66	17.6
9-11	56	15.0
12-17	55	14.7
18-23	77	20.6
<b>MARITAL STATUS</b>		
Married	298	79.7
Divorced	36	9.6
Widowed	32	8.6
Unmarried	8	2.1
<b>No of Children</b>		
No other child	69	18.4
1	79	21.1
2	145	38.8
3	54	14.4
4	19	5.1
5	8	2.1
<b>Family Structure</b>		
Nuclear	334	89.3
Extended	40	10.7

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**If Extended Relative You  
Live with (N=41)**

grand parents	12	29.27
aunt/uncles	13	31.71
Cousins	2	4.88
nephew/neices	8	19.51
sister/brother	6	14.63

**Educational status of mom**

Primary	150	40.1
Secondary	87	23.3
technical/vocational	12	3.2
college/university	31	8.3
no formal education	94	25.1

**Educational Status of the  
Husband**

Primary	135	36.1
Secondary	97	25.9
technical/vocational	14	3.7
university/college	51	13.6
no formal education	77	20.6

**Occupation**

house wife	172	46.0
farmer/peasant	14	3.7
business/ shopkeeper	116	31.0
professional like teacher	45	12.0
white collar( clerk)	15	4.0
skilled laborer	8	2.1
unskilled laborer	4	1.1

**Income (In Quartile)**

Low	103	27.5
Medium	178	47.6
High	93	24.9

**Main Source of Income**

self	177	47.3
husband	188	50.3
sons/daughters	9	2.4

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## 5.2 .WEANING KNOWLEDGE AND SOURCE OF INFORMATION

The researcher asked the respondents if they had gotten any education ( information) specifically on weaning by the time of the research. The respondents were then evaluated by asking specific questions regarding weaning.

### 5.2.1 Weaning information and its source

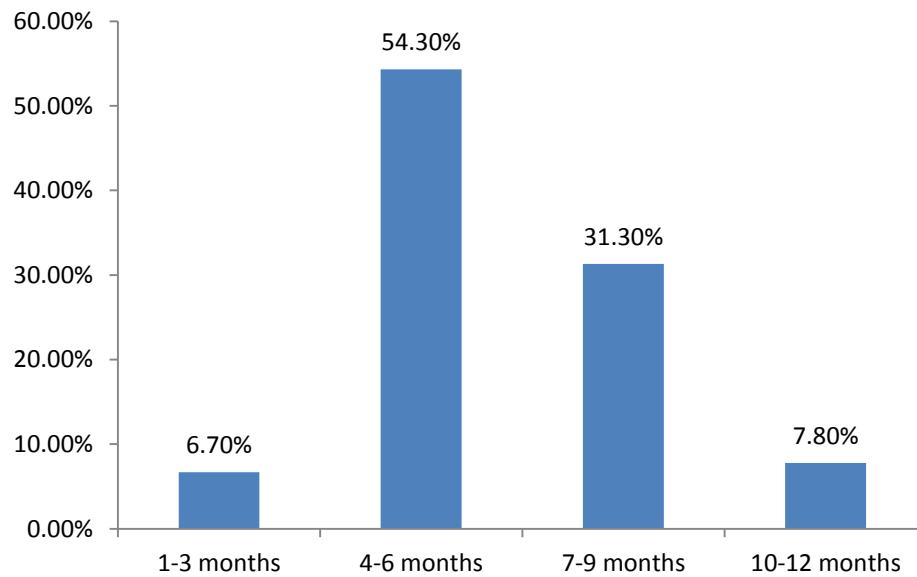
Regarding the source of information towards weaning , many (79.9%) of the participants had some form of education on weaning. Only 75(20.1%) of the respondents had not received any education on weaning. Various sources of weaning education has been reported by mothers. The highest percentage, slightly more than a three fourth (77.26%) of the respondents obtained information from the health care setups. 39(13.04%) of respondents obtained information on weaning from the mass media (Newspapers, television, radio, e.t.c), whereas 16(5.35%) of them obtained information on weaning from friends/relatives, close to four percent from relatives/friends.

**Table 2: Distribution of mothers based on information on weaning and its source.**

Education on weaning (N=374)	Frequency	%
yes	299	79.9
no	75	20.1
Source of information (N=299)		
school	13	4.35
friends/relatives	16	5.35
health care setups	231	77.26
Mass media	39	13.04

### 5.2.2 Commencing Age for Weaning

Weaning initiated at different times in different communities or at different times with same community. Infants are not developmentally ready for solid foods until 4-6 months of age. As shown in the following figure more than half of the (54.3%) of respondents have revealed that weaning should be initiated at 4-6 months of age and more than quarter (31.3%) at 7-9 months. The rest thought that weaning should be started at 10-12 months and 1-3 months (7.8% , 6.7% respectively).The following graph indicates the knowledge of mothers on the time of commencement of weaning.



**Figure 2: Distribution of respondents knowledge on age of introduction of food other than breast milk.**

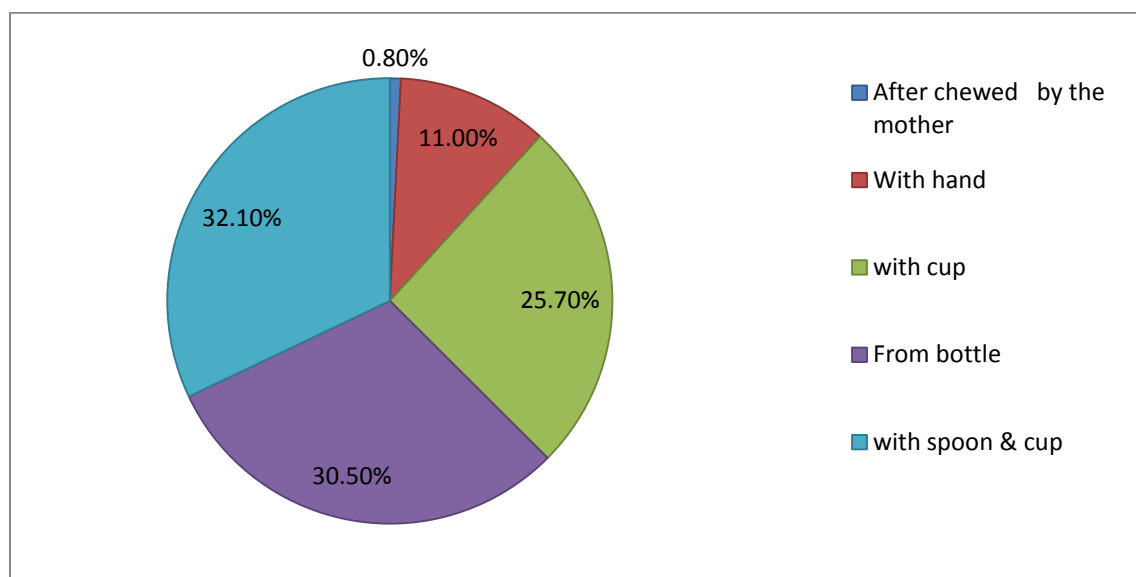
### **5.2.3 Meal for a 4 -6 month old baby and amount to give during first meal of an infant**

Respondents were asked to mention three food items that could be included in a meal for a 4-6 month old baby. The most( 66%) common food item that was mentioned was soup which was made from sorghum, oat , bean, pea, 'teff' and maize. More than a quarter (29.1%) of respondents have mentioned porridge, which is made from maize, 'teff', wheat, sorghum, and milk, as an appropriate meal for infants at this age. The rest 18(4.8%) of participants have mentioned different food items like 'mitad shiro', 'Fifit' ,shiro, banana, potato, egg, injera,and other adult diets like spaghetti and macaroni. 'Mitad shiro' is a local food which was prepared from the flour of roasted bean mixed with small amount of water and is baked like injera to make ready for eating. ' Shiro', is a specially prepared diet for children with small amount of additives like salt ,red paper and other spices. When weaning commences, an infant should be started by giving 1-2 small spoonfuls of food and gradually increase to one-quarter and to one half cup as the infant gets older. As shown in the table below,117 (31.3%) of participants have revealed 1-5 spoon is enough during commencement of weaning where as the smallest 52 (13.9%) number of participants have mentioned as the baby should commence with 1.5 cup of food.

**Table 3: Distribution of mothers based the type and amount of food to be introduced during weaning**

Variables	Frequency	%
<b>Type of meal (N=374)</b>		
soup	247	66.0
porridge	109	29.1
others	18	4.8
<b>Amount ( N=374)</b>		
1-5 spoon	117	31.3
6-10 spoon	102	27.3
1.5 cup	52	13.9
1 cup	103	27.5

The knowledge mothers was also assessed about the recommended feeding style. Even though, the recommended feeding style of babies is with a spoon and cup as these utensils are easy to clean and are much safer, the respondents have mentioned different methods as an appropriate to give supplementary foods to children. Majority 120(32.1%) of the participants have mentioned feeding babies with cup and spoon as a best method. Of the participants, 114(30.5%) revealed that feeding from bottle as best, and around a quarter(25.7%) of respondents mentioned with cup. The rest 41(11%),3(0.8%) has mentioned hand and feeding after chewing by the mother, respectively as appropriate methods of feeding babies.



**Figure 3: Pie chart showing respondents preferences of best ways of feeding babies in Amanuel town, April 2014**

#### 5.2.4 Respondents knowledge on weaning practices

Mothers were asked various questions related to complementary foods to test their knowledge on weaning. Respondents were also asked to test their knowledge of weaning practice and when asked if it is advisable to give cow milk to a one-month-old baby, more than half (53.7%) of respondents agreed, denoting they were not aware about cow's milk since it is not the best for a one-month-old baby. It may cause gastrointestinal bleeding, and its solute load is too heavy for the infants renal system to handle. When asked if introducing other foods in addition to breast milk before 3 months was advisable, majority (57.8%) of the respondents disagreed. This indicated they were knowledgeable, as breast milk alone is adequate for the first three months. Three quarters (74.9%) of the respondents said breastfeeding should continue even after 1 year. This indicated they were aware on the importance of continuing to breastfeed even after weaning had begun which consistent with WHO recommendation. On the other hand, when asked if it was advisable to give foods like liver, kidney, greens, porridge (which are rich in iron) to a 4 - 6 month old baby, less than half (42.8%) of the respondents disagreed which also indicates majority are knowledgeable about the iron source foods. The findings also show that majority (73.3%) of the respondents disagreed with giving only 3 meals a day to an infant. This showed they were knowledgeable about the number of meals adequate for a 6 month old baby in a day. A 6 month or older infant requires more small frequent feedings in a day, probably three-meal-plus-two-snack schedule.

**Table 4: Frequency distribution showing the level of weaning knowledge (N=374)**

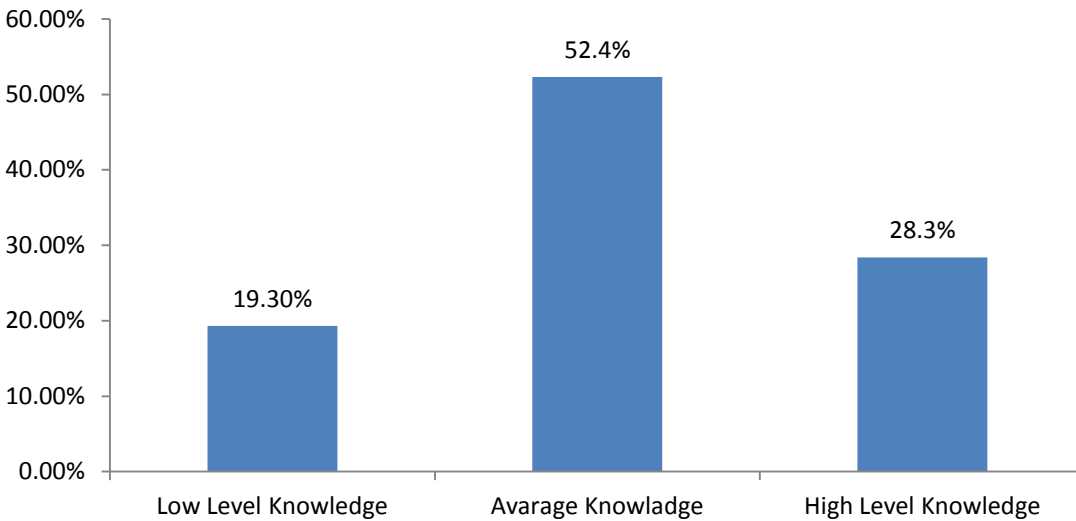
Question	True (%)	False (%)	Total(%)
<b>It is advisable to give a one-month-old baby cow's milk so that he or she can become stronger</b>	201(53.7)	173(46.3)	100.0
<b>Introducing other foods before three months of infancy will make the baby healthy</b>	158(42.2)	216 (57.8)	
<b>Breastfeeding should continue even after one year of infancy</b>	280(74.9)	94(25.1)	100.0
<b>It is advisable to introduce foods such as green leafy vegetables, soup, sorghum porridge, e.t.c at 4-6 months to the infant.</b>	214(57.2)	160(42.8)	100.0
<b>A 6-month-old baby should be given 3 meals a day only.</b>	100 (26.7)	274(73.3)	100.0

### 5.2.5 Weaning knowledge index

After the respondents answered all the above knowledge questions regarding weaning, a knowledge index was made. For each correct answer, a respondent was awarded a score of 1 point. The responses were summed up to acquire the knowledge index. The highest possible score was 9 points and the lowest was a 0. The results were further categorized as follows:

- 0 - 3 **points** as low level of knowledge on weaning.
- 4 - 6 **points** as average level of knowledge on weaning.
- 7 - 9 **points** as high level of knowledge on weaning.

As shown in the following figure, more than a quarter (28.4%) of the respondents had a high level of knowledge on weaning while more than a half(52.3%) of the respondents had an average level of knowledge. Only 19.3% of the respondents had a low level of knowledge on weaning.



**Figure 4: Graph representing the level of knowledge of respondents towards the weaning process**

### 5.3 MATERNAL ATTITUDES TOWARDS WEANING

The attitude inventory included five items eliciting responses on a 3-point likert scale. Points ranged from Disagree (1) to Agree (3). The items with differing response format assessed the respondents' opinion towards weaning.

#### 5.3.1 Attitudes towards weaning

When asked if introduction of other foods was necessary before 4 months to supplement breast milk, slightly less than three quarter (71.4%) of the respondents disagreed. This shows a positive attitude of the respondents because breast milk alone can be enough until four months.

More than half (58.6%) of the respondents disagreed with the following statement- "breastfeeding is not necessary after introduction of other foods". This also showed a positive attitude. When asked if it was fashionable to give milk to the infant from the bottle, over a third (40.6%) of the respondents agreed. This shows that the respondents had a negative attitude. Less than twenty percent (19.5%) of respondents also agreed on breastfeeding a 6-month-old infant twice a day only. This showed a positive attitude because an infant should be breastfed on demand day and night. A small percentage (18.4%) of the respondents felt that prolonged breastfeeding up to one year, was not good as it made breasts ugly, which indicates a negative attitude. This might come because of false perception of some mothers as breastfeeding makes breasts "sag".

**Table 5: Distribution of mothers by attitudes towards weaning(N=374)**

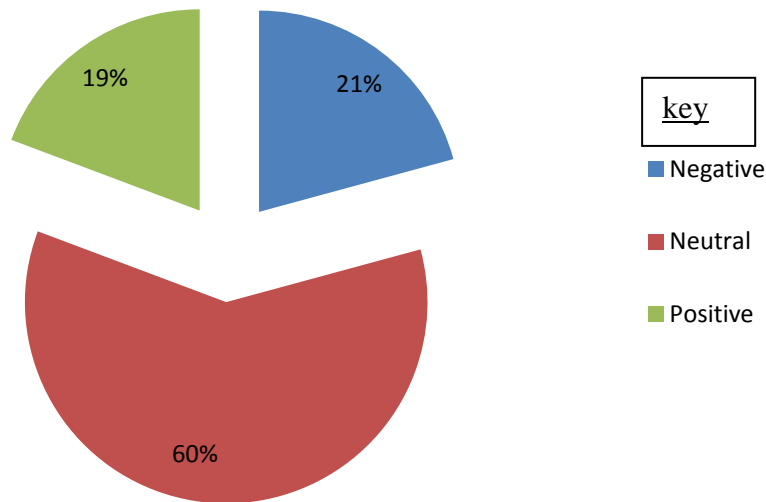
Statement	Disagree (%)	Not sure(%)	Agree(%)	Total (%)
<b>It is advisable to introduce foods other than breast milk, before 4 months, as breast milk alone is not enough.</b>	71.4	22.2	6.4	100.0
<b>After introduction of other foods other than breast milk, breastfeeding is not necessary because the baby will get satisfied from the other foods</b>	58.6	33.4	8.0	100.0
<b>It is fashionable to give milk to the infant from the bottle when one has gone away from home (for example visiting)</b>	24.6	34.8	40.6	100.0
<b>An infant who is 6 months old should only be breastfed in the morning and afternoon because he will not be interested with other foods if breastfed more than twice a day.</b>	45.2	35.3	19.5	100.00
<b>Prolonged breastfeeding up to one year and above is not good as this makes breasts ugly.</b>	46.0	35.6	18.4	100.0

### 5.3.2 Weaning attitude index

After the respondents answered all the above attitude questions regarding weaning, an attitude index was made. For each correct answer, a respondent was awarded a score of 1 point. The responses were summed up to acquire the attitude index. The highest possible score was 5 points and the lowest score was a 0. The scores were further categorized as follows:

- 0 -1 **points** as negative attitude towards weaning.
- 2 - 3 **points** as neutral attitude towards weaning.
- 4 -5 **points** as positive attitude towards weaning.

As shown in the figure below, majority(59.9%) of respondents have neutral attitude towards the weaning process whereas 21% of them had negative attitude. The rest (19%) had positive attitude.



**Figure. 5: Frequency distribution showing mother's attitude towards weaning in Amanuel town, April 2014.**

## **5.4 WEANING PRACTICES AND PROBLEMS FACED DURING WEANING**

### **5.4.1 Duration of exclusive breast feeding (EBF) and first food supplement given**

Table 6 shows that, more than half 197 (52.7%) of the mothers practiced EBF up to between 4-6 months and another small percentage (1.1% ) below 1 month.

The respondents were asked about reasons for initiating weaning at the given age and over a half (54.5%) of the respondents said it was because the baby was crying too much and thought breast milk was not enough. Almost a fifth (19.4%) of the respondents made a personal decision to do so, while slightly more than fifteen percent (16.2%) of the respondents said the babies were suckling too much and there was need to give additional food, as they didn't seem satisfied with breast milk alone. Less than ten percent (9.4%) of the respondents said it was because of lack of enough breast milk. Combined, a small percentage (10.4 %) of respondents gave other reasons

such as taking the clinicians advice, hard to report to work, infant refusal to breastfeed(5%, 3%,2.4%, respectively).

Regarding first food supplements given to the infant, majority 152(40.6%) of mothers have favored cow's milk as the first supplement and only 11 (2.9%) of respondents have given other foods like honey, adult diets , banana, and ' mitad shiro'. Mothers reporting fortified porridge as a first supplement were referring to porridge with additives such as, oil, sugar and milk added to it. Semi-solids in the context of supplementary feeding were cooked foods such as fortified semisolid food ('muk') which is made from the flour of 'teff', wheat, sorghum, bean, pea ,and oat.

**Table 6: Distribution of mothers based on their response towards duration of EBF and first food supplement given (N=374)**

Variable	Frequency	%
<b>Duration of EBF ( in months)</b>		
below 1 month	4	1.1
1-2	8	2.1
3-4	31	8.3
4-6	197	52.7
7-8	92	24.6
9-10	13	3.5
11-12	29	7.8
<b>First food supplement</b>		
Milk other than breast (cow)	152	40.6
Commercial infant formula	54	14.4
Porridge/maiz,wheat,Sorghum, teff	40	10.7
Fortified porridge (porridge with milk, fat, egg, added).	11	2.9
Semisolids (e.g mashed potatoes, bananas beans).	15	4.0
soup	90	24.1
tea with bread	1	0.3
others	11	2.9

### 5.4.2 Average length of breastfeeding

In this study majority 348 (93%) of the respondents were feeding breast at the time of data collection and with the mean duration of 27.4 months , $SD\pm 7.4$ . From these majority (49.4%) of the mothers intended to stop breastfeeding at 2 years. 32.4% of the mothers intended to stop at 3 years. A small percentage( 0.3%) intended to stop at 9 month and 42 months each.

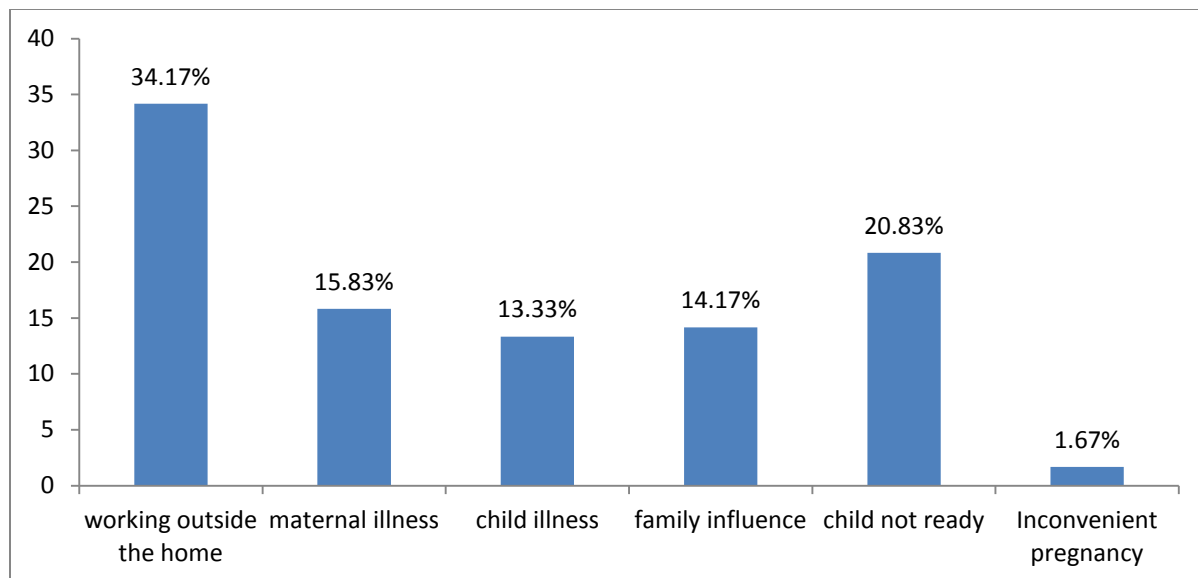
From those who stopped breast feeding 26(7%) at the time of data collection, more than half 14(53.8%) of them stopped breast feeding at one year. Others stopped breast feeding in different times as mentioned in the following table.

**Table 7: Distribution of respondents based on duration of breast feeding (BF).**

Variables	Frequency	%
<b>Duration of breast feeding (in month) N=348</b>		
9	1	0.3
10	2	0.6
12	25	7.2
18	8	2.3
24	172	49.4
30	18	5.2
36	119	34.2
40	1	0.3
42	2	0.6
<b>Duration of breast fed (in months) N=26</b>		
≤6 months	6	22.9
9	2	7.7
12	14	53.8
14	1	3.8
18	3	11.5

### 5.4.3 Problems encountered during weaning

Most (67.9%) of mothers did not have problems during weaning. The rest 120 (32.1%) revealed as they have faced problems during weaning. Combined, working outside the home and child's lack of readiness accounted more than fifty percent (34.17% and 20.83%, respectively) of the problems. Of the participants 19(15.83%) were hindered as a result of their own and child illnesses (13.33%) , where as 14.17% of them were influenced by the family. The rest(1.67%) were hindered by inconvenience pregnancy.



**Figure 6: Distribution of mothers by problems encountered during weaning (N=120)**

#### **5.4.4 Foods consumed on a 24-hour-recall method**

270 respondents who already start feeding were asked to mention the meals they have given to babies within the past 24 hours, prior to the interview day. As shown in the following table, the commonly used foods at the time of breakfast, midmorning, lunch, mid afternoon, and at supper were: tea with bread (31.48%), adult diet (17.9%), adult diet (28.9%), soup (27%), and adult diet (53%), respectively. Adult diets as explained by study participants were those which have similar dietary composition with what adults apparently consume and also these are diets which were prepared in the same manner with adult diets. 'Shiro', was also a common diet that was mentioned by study participants. The other foods (as shown in the table) that were mentioned by the respondents were honey, mitad shiro, 'fitifit', fruits and vegetables, and 'kita' (usually made of teff and wheat flour).

**Table 8 : Frequency distribution showing response of the food given based on the 24-hour-recall method (N=270)**

<b>Food given</b>	<b>Tea with bread (%)</b>	<b>Porridge (%)</b>	<b>Shiro (%)</b>	<b>Cow's milk(%)</b>	<b>Egg (%)</b>	<b>Soup (%)</b>	<b>Adult diet(%)</b>	<b>Commercial infant formula(%)</b>	<b>Others (%)</b>
<b>Break fast</b>	85 (31.48%)	36 (13.33%)	23 (8.52%)	30 (11.11%)	27 (10%)	21 (7.78%)	27 (10%)	14 (5.2%)	7 (2.3%)
<b>Mid morning</b>	15 (5.56%)	44 (16.3%)	38 (14.1%)	39 (14.44%)	21 (7.78%)	43 (15.9%)	48 (17.9%)	12 (4.4%)	10 (3.7%)
<b>Lunch</b>	0 (0.00%)	28 (10.37%)	74 (27.4%)	21 (7.78%)	15 (5.56%)	43 (15.9%)	78 (28.9%)	6 (2.2%)	5 (1.85%)
<b>Mid afternoon</b>	8 (2.96%)	28 (10.37%)	31 (11.5%)	33 (12.2%)	21 (7.78%)	73 (27%)	66 (24.4%)	9 (3.3%)	1 (0.4%)
<b>Supper</b>	0 (0.00%)	23 (8.52%)	51 (18.9%)	14 (5.18%)	7 (2.3%)	19 (7%)	143 (53%)	8 (3%)	5 (1.85%)

## 5.5 CULTURAL PRACTICES AND BELIEFS INFLUENCING WEANING

### 4.5.1 Forbidden and/or Recommended food for children

Various individuals in the study community have different beliefs regarding different foods. Those foods that are believed to have a negative effect on the infant are not given to them and are known as forbidden foods. The participants asked whether there were any forbidden food or not and majority (89.8%) have revealed that no food was forbidden in the community. The rest (10.2%) responded that there are some food which are not abided by the community and almost all, 35 out of 38 (92%) of them agree with the community. half of them (50%) mentioned alcohol as a forbidden food. Different reason has been given to the question about why those foods are forbidden and rationales includes : foods affect the brain(alcohols); causes heart failure (butter), bring amoebiasis and other diarrheal diseases and affects the function of the heart because of its coldness( vegetables & fruits, specially banana); compromises the intellect of children which affects their level of educational acceptance (linseed/"telba").

Regarding the recommended foods, more three-quarters (81%) of the respondents revealed that no food was specially recommended for children. The rest 71 (19 %) respondents indicated as there were recommended foods for children of which the community gave special attention.

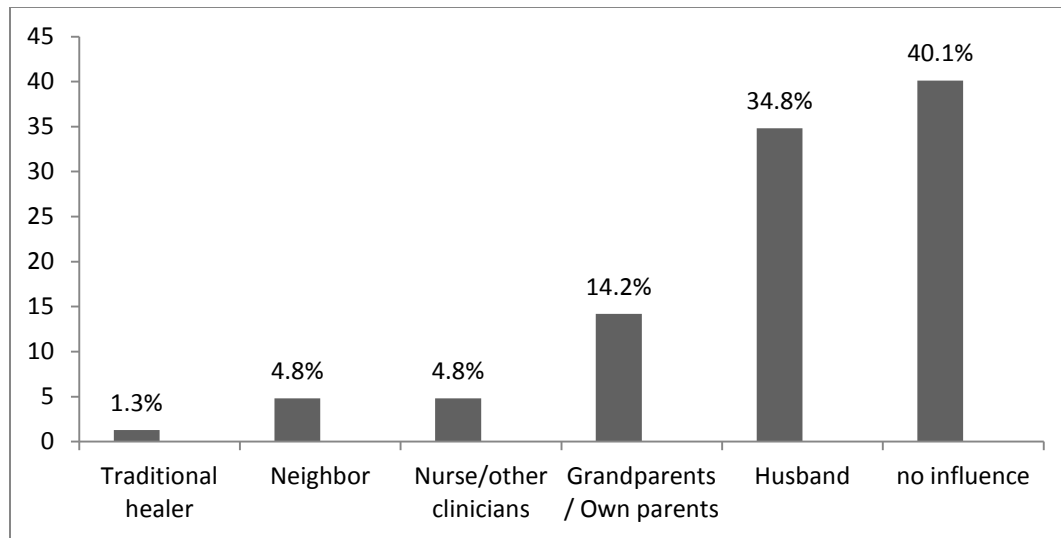
The most commonly (by 40.8%) accepted food mentioned was milk which is believed to help children in growth and development, and also its accessibility and affordability were the means for its acceptance. The other food were egg, honey, 'mitad shiro', soup, and porridge. The following reasons has been suggested by participants: milk, egg and porridge were considered as body builders; while honey as a source of heat and energy as well as for preventing childhood illnesses. The rationale behind soup and porridge is similar of which they were perceived as something which children can easily take. 'Mitad shiro' was preferred because respondents believe that it can prevent diarrheal diseases.

**Table 9 : Distribution of mothers by response on forbidden and/or recommended foods for infants foods**

<b>Variables</b>	<b>Frequency</b>	<b>%</b>
<b>Forbidden foods (N=38)</b>		
Butter	5	13.2
Fruits & vegetables	8	21
Linseed/"telba"	6	15.8
Alcohol	19	50
<b>Recommended foods (N=71)</b>		
Porridge	6	8.5
Milk	29	40.8
Egg	12	16.9
'Mitad shiro'	8	11.3
Honey	9	12.7
Soup	7	9.8

### **5.5.2 Person influencing weaning practice of mothers**

The child's well being can be influenced by relatives and others in the community through their knowledge, practices and attitudes (UNICEF,1998).Figure 5.6 below shows, majority (40.1%) of the respondents were not influenced during weaning practices. About a third (34.8%) of the respondents were influenced by their husbands on weaning process while less than fifteen percent (14.1%) were influenced by Grandparents / Own parents. The rest, about five percent (4.8%) each were hindered by Neighbor and nurse/other clinicians. A small percentage (1.3%) of respondents were influenced by traditional healers.



**Figure 7 : figure showing distribution of Person/(s) influencing mothers weaning practice in Amanuel Town, April 2014 (N=374)**

### **5.5.3 Whether the baby eats the same food as family's**

Mothers were asked about whether the baby eats the same food or not, and slightly more than half (52.4%) of the respondents reported their baby was not eating the same food as the one eaten by the family members. The meals were cooked separately because the babies were too young to eat and chew family food or the family food had too many additives (oil, salt, and spices) or food for the infant was prepared earlier than the family foods. The remaining respondents, slightly less than half (47.6%) reported that the babies ate the same food as the family. The commonly given reasons were: the baby was old enough to eat with family; or it was convenient to give the same food; or the baby had refused to eat his/her food. Economical problem which hinders mothers to prepare baby foods in special kitchen was also the other reason reported by mothers that obliges them to give family food. The time of commencement of family food ranges from infants' age of 6-19 months with mean 10.37 months  $SD \pm 2.95$  (6.7%, 1.1% respectively). Majority (39.9%) of respondents reported that they started giving family foods at 1 year while about a third (30%) of them have reported as they have started at 9 months of age. The smallest percentage (0.6%) revealed as they commence at 17 months of age.

**Table 10; Distribution of mothers based on the time of commencement of family food to babies (N=178)**

<b>Age of introduction to family food (in month)</b>	<b>Frequency</b>	<b>%</b>
6	12	<b>6.7</b>
7	22	<b>12.4</b>
8	21	<b>11.8</b>
9	30	<b>16.9</b>
10	6	<b>3.4</b>
12	71	<b>39.9</b>
14	2	<b>1.1</b>
16	6	<b>3.4</b>
17	1	<b>0.6</b>
18	5	<b>2.8</b>
19	2	<b>1.1</b>
Total	178	<b>100.0</b>

#### **5.6 RELATIONSHIPS BETWEEN DEMOGRAPHIC VARIABLES, WEANING KNOWLEDGE, ATTITUDES AND PRACTICES.**

The researcher sought to find out the various demographic variables having an influence on weaning knowledge, attitudes and practices. This section also deals with the relationship between weaning knowledge, attitudes and practices. To find out the relationships between selected demographic variables (e.g. education, age and income), weaning knowledge, attitudes and practices, chi-square was used at alpha level of  $< 0.05$ .

##### **5.6.1 Factors Affecting weaning Knowledge and Practice.**

Cross tabulations between demographic variables and weaning knowledge, attitudes and practices (KAP) were done to find out whether the demographic variables were associated with weaning KAP.

The weaning knowledge (mothers response to the question " when do you think is the right time to wean) practice (when the respondent actually began or intended to begin weaning) were used as a benchmark. The first outcome variable that was cross tabulated was mothers knowledge about the due age to start additional food other than breast milk. The respondent are classified in to two groups i.e. those who gave the right answer (weaning should commence at 4-6 months) are considered knowledgeable whereas those who didn't give the right answer ( early and late weaners, 1-4 months & above 6 months respectively) were nominated as not knowledgeable.

Results showed no significant relationship between marital status , number of additional children (which is used to know the effect of previous experience), type of family and knowledge of mothers about the exact age of weaning infants (  $X^2 = 15.4, p > 0.05$ ;  $X^2 = 0.22, p = 0.68$ ;  $X^2 = 2.5, P = 0.11$  respectively). There was also no significant association between age of mothers and weaning knowledge(  $X^2 = 4.8, P = 0.57$ ).

The only significant association that was obtained was between knowledge and educational status of mothers, knowledge and educational status of husbands, and knowledge and income of respondents, knowledge and occupation of respondents.

Cross tabulations between weaning KAP were also done. The weaning knowledge index, attitude index , teaching about weaning and one knowledge (what the respondents think about the right time to wean) was used for correlation. Results showed that there was significant relationship between weaning knowledge and attitude, weaning knowledge and teaching about feeding, weaning practice and attitude, weaning practice and weaning knowledge, weaning practice and information on weaning.

Finally multiple logistic regression analysis was done to control confounding effect variables that determine the weaning knowledge and practice of mothers towards the weaning process.

There were six factors that affect the knowledge of mothers towards the weaning process which had statistically significant association with the weaning process , but only two variables (high income,  $P = 0.001$ ,  $AOR = 3.62, (CI = 1.71-7.68)$  & information about weaning ( $P < 0.001$ ,  $AOR = 3.85, CI = 1.96-7.55$  ) were significant.

As shown in the table below, the odds respondents with higher income are 3.62 times higher than that with lower income. Information about feeding was also a factor affecting the knowledge of respondents and when confounders are controlled mothers who got teaching were knowledgeable of the exact time of supplementation as compared to those who didn't.

The educational status of mothers and their husbands, occupation and attitude were not factors affecting the knowledge of mothers towards the time of weaning in multiple regression.

**Table 11 : Factors Affecting mothers knowledge of age at weaning (N= 374)**

variable	Mothers knowledge on Age of weaning		COR 95%CI	AOR95%CI
	Not Knowledgeable	Knowledgeable		
<b>Educational status of mom (X<sup>2</sup>=25.5, df=3)</b>				
Illiterate	56 (59.6%)	38(40.4%)	1	
primary	75(50.0%)	75(50.0)	1.47(0.87-2.48)	0.86(0.40-1.83)
Secondary	33 (37.9%)	54 (62.1%)	2.41(1.33-4.38)*	1.05(0.44-2.50)
Higher	7 (16.3%)	36 (83.7%)	7.58(3.06-18.80)*	1.30(0.31-5.51)
<b>Educational status of Husband (X<sup>2</sup>=21.8 df=3)</b>				
Illiterate	45 (58.4%)	32 (41.6%)	1	
primary	71(52.6%)	64(47.4%)	1.27(0.72-2.23)	0.85(0.39-1.88)
Secondary	40(41.2%)	57(58.8%)	2.0(1.09-3.68)*	1.16(0.48-2.82)
Higher	15 (23.1%)	50 (76.9%)	4.69(2.51-9.76)*	1.04(0.35-3.09)
<b>Information about weaning (X<sup>2</sup>=34.7, df=1)</b>				
No	57(76.0%)	18(24.0%)	1	
yes	114(38.1%)	185( 61.9%)	5.14(2.88-9.17)*	3.85(1.96-7.55)**
<b>Income (X<sup>2</sup>=31.2,df=2)</b>				
low	61(59.2%)	42(40.8%)	1	
medium	90(50.6%)	88(49.4%)	1.42(0.87-2.32)	1.32(0.74-2.35)
High	20(21.5%)	73(78.5%)	5.3 (2.82-9.97)*	3.62(1.71-7.68)**

<b>Occupation (X<sup>2</sup>=17.9, df =3)</b>				
House wife	78 (45.3%)	94 (54.7%)	1	
Farmer and/or laborer	18 (69.2%)	8 (30.8%)	0.37(0.15-0.89)	0.55(0.21-1.44)
Business	60 (51.7%)	56 (48.3%)	0.77(0.48-1.24)*	0.61(0.36-1.03)
Governmental worker	15 (25.0%)	45 (75.0%)	2.49(1.30-4.80)*	1.49(0.56-3.99)
<b>Attitude ( X<sup>2</sup>=9 df=2)</b>				
Negative	42 (53.8%)	36 (46.2%)	1	1
Neutral	107 (47.8%)	117 (52.2%)	1.28(0.76-2.14)	1.33(0.75-2.35)
Positive	22 (30.6%)	50 (69.4%)	2.65(1.36-5.18)*	1.90(0.88-4.07)

\*= statistically significant in binary logistic regression

\*\*=statistically significant in multiple logistic regression

The second outcome that was tested by binary logistic regression with the demographic variables was mothers practice on weaning. Their responses were classified in to two groups of which those who practiced or mention the right time of complementing were classified under correct weaners (4-6months), whereas those who did not under incorrect weaners (either before 4 months or after 6 months). The outcome of cross tabulation revealed that there were no significant association between age, occupation, previous experience of feeding, family structures and the actual practice of mothers on time of weaning( $X^2=9.3, P=0.156$ ;  $X^2=8.8, P>0.05$ ;  $X^2=0.4, P=0.51$  and  $X^2=0.48, P=0.488$ , respectively).

The statistically significant variables affecting weaning practice under binary logistic regression were: educational status of mothers, educational status of husbands, income and marital status.

There was also a significant relationship between knowledge, attitude and teaching/information about feeding with weaning practice (when the respondent actually began weaning).

Multiple logistic regression analysis was also done to control confounding effect variables affecting the weaning practice.

As indicated in the table below, when the effect of other variables controlled, the following variables showed significant association: educational status of mom (secondary=0.044 & higher,

p=0.12), income (higher, p=0.04), information about feeding(p=0.18), knowledge level (average p=0.033),and attitude (neutral p=0.013).

Educated mothers were more likely than illiterates in commencing weaning at the right time. when other variables were controlled, the odds of correctly weaning by respondents at secondary level was 2.48 (CI=1.03-5.97) times higher than illiterates, whereas the odds of highly educated ones was 4.73(CI=1.41-15.84) times higher than illiterates.

When income increases the probability supplementing additional diets at right time increases (AOR= 2.90, CI=1.41-5.93).Mothers having higher income level were more likely to practice weaning than those with lower income level.

Information about feeding was also one factor that affects the weaning practice of mothers in which 176(58.9%) out of 299 respondents who got information has practiced weaning correctly. When the confounders are controlled the odd of mothers who get teaching about feeding were 2.28(CI=1.15-4.49) times higher than those who are not taught in correctly practicing weaning. Level of knowledge, specifically average knowledge, was also a factor that affects the weaning process as compared to low level knowledge(AOR=1.96 , CI=1.06-3.66).

Respondents who had neutral attitude towards the weaning process were commencing weaning at the right time than those who had negative attitude( AOR= 2.08, CI=1.16-3.72).So attitude can't affect the practice of mothers.

Marital status of respondents and the educational status of their husbands cannot be factors affecting the practice of mothers under the control of confounding variables.

**Table 12: Factors Affecting weaning practice of mothers (N=374).**

variable	Mothers practice on weaning		COR 95%CI	AOR95%CI
	Incorrect	correct		
<b>Educational status of mom (X<sup>2</sup>=22.9, df=3)</b>				
Illiterate	62 (66.0%)	32 (34.0%)	1	
primary	71(47.3%)	79 (52.7%)	2.16(1.26-3.68)*	1.86(0.85-4.04)
Secondary	35 (40.2%)	52 (59.8%)	2.88(1.57-5.27)*	2.48 (1.03-5.97) **
Higher	9 (20.9%)	34 (79.1%)	7.32(3.13-17.12)*	4.73(1.41-15.84)**
<b>Educational status of Husband (X<sup>2</sup> =15.03, df=3)</b>				
Illiterate	46 (59.7%)	31 (40.3%)	1	
primary	65 (48.1%)	70 (51.9%)	1.60(0.91-2.82)	0.68(0.30-1.55)
Secondary	48 (49.5%)	49 (50.5%)	1.52(0.83-2.77)	0.45(0.18-1.12)
Higher	18 (27.7%)	47 (72.3%)	3.88(1.91-7.87)*	0.50(0.17-1.49)
<b>Income (X<sup>2</sup>=28.86 ,df=2)</b>				
low	64 (62.1%)	39 (37.9%)	1	
medium	90 (50.6%)	88 (49.4%)	1.60(0.98-2.63)	1.26(0.72-2.22)
High	23 (24.7%)	70 (75.3%)	4.99(2.70-9.25)*	2.90 (1.41-5.93) **
<b>Information about weaning (X<sup>2</sup>=26.86, df=1)</b>				
No	54 (72.0%)	21 (28.0%)	3.68(2.11-6.40)*	2.28(1.15-4.49)**
yes	123 (41.1%)	176 (58.9%)		

<b>Marital status (<math>X^2=4.74, df=2</math>)</b>				
Married	134 (45.0%)	164(55.0%)	1	
Widowed	23 (63.9%)	13 (36.1%)	0.46(0.22-0.95)*	0.63(0.29-1.40)
Divorced	16 (50%)	16 (50%)	0.82(0.39-1.70)	1.04(0.47-2.32)
Unmarried	4 (50%)	4 (50%)	0.82(0.20-3.33)	1.73(0.35-8.45)
<b>Knowledge (<math>X^2=13.4, df=2</math>)</b>				
low	47 (65.3%)	25(34.7%)	1	
Average	90 (45.9%)	106 (54.1%)	2.21(1.26-3.88)*	1.96 (1.06-3.66)**
High	40 (37.7%)	66 (62.3%)	3.1 (1.66-5.79)*	1.75(0.83-3.70)
<b>Attitude (<math>X^2=8.8, df=2</math>)</b>				
Negative	48 (61.5%)	30 (38.5%)	1	
Neutral	101 (45.1%)	123 (54.9%)	1.95(1.15-3.30)*	2.08 (1.16-3.72) **
Positive	28 (38.9%)	44 (61.1%)	2.51(1.30-4.85)*	2.05(0.96-4.40)

\*= statistically significant in binary logistic regression

\*\*=statistically significant in multiple logistic regression

## 6. DISCUSSION

### Weaning Knowledge and Source of Information

Almost eighty percent (79.9%) of respondents has got information about weaning of which majority has got it from health care setups. This is similar with the study done in Cameroon (okola health district) (20) but slight difference from the study done in Kenya where the major source was health (23). This significance difference might indicate the effect of health extension program in Ethiopia.

Majority(54.3%) of the respondents were knowledgeable towards the time of commencement of weaning. Even if the number of mothers who were knowledgeable was high, it was relatively smaller than other researches like the researches done in Ethiopia (Butajira in 1994)(24), in rural Karimnagar(India)(17), Dahrami(7) where 68%,62%,& 68.1% respectively were knowledgeable. But this finding was relatively high as compared to the research done in rural Tumkur, india which found that 43.63% knowledgeable mothers (16). As mentioned before most (79.9%) has been taught about weaning their knowledge was below the aforementioned percentage and this might happen because of lack of attention by mothers and also it indicates as the teaching strategy is under quotation.

When weaning commences, an infant should be started by giving 1-2 small spoonfuls of food and gradually increase to one-quarter and to one half cup as the infant gets older. Only 117(31.3%) has given the right answer (1-5 teaspoon) which means the amount of food at the commencement of weaning. This finding was incomparable with the research done in Kenya in which majority (85.6%) has given the correct amount(23). Around a third (32.1%) of mothers mentioned feeding with cup and spoon as the best method which was recommended by WHO as these utensils are easy to clean and are much safer. Some mentioned feeding after chewing by the mothers a better method. These findings indicated that how much the gap is as compared to the standards, specially feeding after chewing which might expose the child to contagious diseases. The normal floras which are found in the buccal region of the mother might even affect the health of infants because of immature immunity infants had at this stage.

From the knowledge index slightly less than a third of respondents have high level knowledge which is almost similar with the findings in Kenyan research (23).

Regarding the maternal attitudes towards weaning, it was found that only 20% had positive attitude which comparable with findings in India where 29% from 500 subjects were having positive attitude (17).

### **Weaning Practices and Problems Faced During Weaning**

Regarding the weaning practices of subjects, 197(52.7%) out of 374 has introduced complementary feeding at the recommended time. The rest 11.5% and 55.9% were, early(birth-4moths) and late (7-12 moths) weaners, respectively. The correct weaners were higher as compared to the previous studies showing that 40% in butajira (Southern Ethiopia) (24) and 35.5% in karimnagar( India) (17). But it was smaller relative to the study findings in Sah Dikhohi-lahore(18), Dahka(Dhamarai) (7) , and Mauritius(21) where the percentage of correct weaners were: 97%, 91.6%, &75.2% respectively. These remarkable differences might be because of lack of commitment of the clinicians as well as the study subjects during implementation. Even the proportion of knowledgeable respondents was 53.4% , only 52.7% has commenced at the right time. This difference might also come as a result of child's illness and lack of readiness to take complementary foods and other factors.

The commonest reason for weaning was baby crying which was different from the findings Dahamari (7) and Hong Kong (18) where the major reasons were maternal illness& mothers perception of insufficient breast milk respectively. The study done in Derashe, Southern Ethiopia revealed that the major reason perception insufficient breast milk (14). This might come as a result of difference in socio-cultural difference.

Regarding the first food given at the commencement of weaning, majority of respondents has initiated by cow's milk followed by soup and commercial formula. This result coincides with the findings in Uganda (5) ,Tumkur (16), and Dahmrai (7). But is different from the findings in South African where milk was perceived as inappropriate (22) and Cameroon where mashed vegetables were commonly used (20). It is also different from the findings in Derashe where the major weaning foods were semisolids, water, and gruels(14). As mentioned above the commonest food at time of first weaning was cow's milk which is not recommended until after 1 year because it might probe to diarrheal diseases (9).

It has been found that most (67.9%) mothers didn't face problem during weaning while the rest has faced different problems of which majority (34.17%) was due to working outside followed

by lack of readiness of the child(20.83%).This was almost similar the study done in Mauritius where 68.7% of mothers did not encounter(21).

### **Cultural Practices and Beliefs Influencing Weaning**

From the mothers who mentioned as there were some forbidden foods , half mentioned alcohol due to its effect on the neural function. Others mentioned that fruits and vegetables ( specially banana), linseed/'telba' , and butter were forbidden with the due reasons(table 9).Different from findings of kenyan research in which Avocado & egg were the forbidden ones (23).

The most commonly accepted food mentioned was milk which is believed to help children in growth and development. Others were egg, honey, 'mitad shiro', soup, and porridge. Mitad shiro was perceived as an antidote for diarrheal diseases which might come secondary to weaning.

These findings were different from those found in South Africa where cow's milk was seldom used owing to its perceived unsuitable nutritional composition and being unpasteurized(22).

Regarding persons influencing the weaning process, majority were influenced by their husbands. The finding in Tumkur was different where the major decision makers were grandmothers(16). This might be because most respondent in this study had nuclear family.

From subjects who initiated family food for the baby, majority gave at 12 months of age, and 30.9% below the age of 9 months. This finding contradicts the weaning standards which depicts that the right time to commence family food is from 9-12 months of infant's age(11).

### **Determinants of the Mother's Knowledge and Practice Towards Weaning**

Regarding the determinant of knowledge of mothers, information about weaning and income were the major factors affecting the knowledge of mothers towards weaning (AOR=3.85,95% CI=1.96-7.55 and AOR=3.62,95% CI=1.71-7.68, respectively).

Regarding the determinants of weaning practices, it was found that mothers who are literate were more likely to wean correctly as compared to illiterates . Mothers having higher income were also more likely in practicing correct weaning. This finding was different from the findings in Adigrat(Northern-Ethiopia, done in 2000) where mothers with higher income wean early(4).This difference might come as a result of information accessibility at this time since media is one source of information about weaning as compared to the previous ones.

Information and knowledge were also the major determinant of weaning practice of mothers. These findings were also comparable with study done in Hong Kong in which mothers having higher education and higher income wean at the recommended time(18).

## **7. Strengths and Limitations of the Study**

### **Strengths of the Study**

1. Qualified data collectors used for observation of client/provider interaction
2. Data collectors had exposure before this time and were well experienced for exit interview
3. Privacy was maintained as far as possible during observation and exit interview. This might make clients feel free to give information about weaning process
4. Well structured questionnaire used
5. Full information was given about the objective of the study and agreement was obtained from clients, before data collection, and daily checkup made for the completeness of the questionnaire at field level and during data collection time.
6. There is lack of adequate literatures in our country, this study has identified the level of knowledge and practice of mothers towards weaning in Amanuel town and I hope this study would be an input in this regard.

### **Limitations of the study**

1. During interview there might be courtesy bias by data collectors
2. Since the study was cross sectional, the actual practice of mothers was not observed.
3. The effect of early and late introduction of weaning diets, early and late introduction of family foods as well as the effect of weaning diets was studied.
4. There might be a recall bias about the type and time of commencement of complementary foods
5. The nutritional compositions of diets were not assessed.
6. It was not a comparative study which means it doesn't compare the KAP of men and women towards the weaning process.

## **8. Conclusions and Recommendations**

### **Conclusions**

Based on the findings of this study the following conclusions have been arrived at:

1. Women aged 20 years and above in the study area are likely to be married and having children. Most mothers in have primary level education only, with very few getting to the university level education. Most mothers are house wives with the average income of medium income level.
2. Most mothers have had some form of education on weaning but few of them are practicing the correct weaning practices.
3. Majority of the participants start weaning at the recommended age (4 - 6 months) and the commonly used diet during weaning was cow's milk. The most common reason for weaning was baby crying.
4. Breastfeeding even after weaning begins, continues up to over one year for most mothers.
5. The cultural practices and beliefs on weaning influenced some mothers in the study area  
The culture in Amanuel town, for example, believed that there are some forbidden and recommended foods for infants.

### **Recommendations**

Based on the findings of this study, the following recommendations are made:

1. Weaning education should be given to all mothers and HEWs should emphasize in this area.
2. The woreda health bureau in the study area should start income generating projects for women, to enhance their monthly income and prevent inappropriate weaning which comes as a result of poor income
3. Clinical set ups(health centers and health posts), as well as the health field workers in Amanuel town should teach and sensitize the mothers with infants, on proper and good weaning practices. They should also emphasize on commencing weaning at the recommended age (4 - 6 months of infancy).
4. The clinicians in the study area should discourage all mothers with infants from negative influences of cultural practices and beliefs on weaning.
5. The government should also support infant nutrition programs (financially and materials) in to ensure correct infant weaning.

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## ANNEXES

### Annex-1

#### Structured English Questionnaire(English version)

Id No-----

**Addis Ababa University Medical Faculty, College of Allied health Sciences, Department of Nursing and Midwifery**

Survey questionnaire to assess the knowledge, attitude and practice of mothers of children under the age of 2 years towards weaning process Amanuel town, East Gojjam Zone, Amhara National Regional State, North West Ethiopia.

Informed Consent Sheet

#### 1. Study information sheet

##### **Introduction**

Hello. My name is \_\_\_\_\_, and I am working in research team which is conducted by Addis Ababa University . We are conducting a survey on the KAP of mothers as well as the factors that may affect the practice of mothers during the weaning process. I would like to ask you about the health of your youngest child and the questions which are not difficult to answer. This information will help the health managers and policy makers in the town and to those NGOs who are working in averting child hood problems of the town. There is no any problem that you will face by participating in the interview. We keep your confidentiality and your name will not be written in this form and will never be used in connection with any of information you tell me. You don't have to answer any of the questions that you don't want to answer. However, your honest answer will help us to identify the gaps during child feeding and for giving appropriate recommendations based on the findings. We would appreciate your help in responding the survey questions, and the survey usually takes 30 minutes to complete. If you have any question, you can contact the principal investigator Zebenay workneh by Phone number 0912808923, or Email [wzebenay@gmail.com](mailto:wzebenay@gmail.com)

2. Consent form

I, the participant, heard the information from the consent sheet and understood what is required from me and what will happen if I take part in the study. I understand that all the information regarding me will not be transferred to the third party. I also understand that I can withdraw from the study at any time without giving reason and without me or my families routine health service utilization is being affected by my refusal.

Interviewer agreement

I certify that I have taken verbal consent from the respondent that she has agreed to participate in the study and I have confirmed the agreement is correct.

Interviewer Name \_\_\_\_\_ Signature \_\_\_\_\_  
\_\_\_\_\_|\_\_\_\_\_|\_\_\_\_\_.

Date

Supervisor Name -----Signature-----  
-----/-----/-----.

Date

Result of the interview: 1. completed    2. partially completed    3. Refused

**SECTION I. SOCIO-DEMOGRAPHIC INFORMATION**

1. What is your actual age? (Tick one)

- 1. 15-19
- 2. 20-24
- 3. 25-29
- 4. 30-34

- 5. 35-34
- 6. 40-44
- 7. 45-49

2. What is the child's age in month ? (Tick one)

- 1. 0-1
- 2. 2-3
- 3. 4-5
- 4. 6-8

- 5. 9-11
- 6. 12-17
- 8. 18-23

3. What is your marital status? (Tick one)

- 1. Married
- 2. Divorced

- 4. Single
- 5. Widowed

4. How many other children do you have? .....

5. (1.) What type is your family? (Tick one)

- 1. Nuclear

- 2. Extended

(2.) If extended, which relatives do you live with? (Tick one)

- 1. Grandparents / own parents
- 2. Auntie' s/Uncles
- 3. Cousins

- 4. Nephews/Nieces
- 5. Sister / brother
- 6. Others (Specify) -----

6. What is your educational status? (Tick one)

- 1. Primary
- 2. Secondary
- 3. Technical/Vocational

- 4. College/University
- 5. No formal education

7. What is the educational status of your husband? (Tick one)

- 1. Primary
- 2. Secondary
- 3. Technical/Vocational

- 4. College/University
- 5. No formal education

8. What is your occupation? (Tick one)

- 1. Unemployed / housewife
- 2. Farmer / peasant
- 3. Skilled laborer (driver/mechanic)
- 4. Unskilled laborer (bartender, e.t.c)

- 5. Business (shopkeeper, e.t.c)
- 6. Professional (teacher, e.t.c)
- 7. White collar (clerk, secretary)
- 88 Other (specify) .....

9. (1.) What is your total income per month( Ethiopian Birr).....?

(2.) Who is the main source of income?(Tick one)

1. Self

3. Sons / Daughters

2. Husband

4. Others (Specify)

**SECTION II. MATERNAL KNOWLEDGE AND SOURCE OF INFORMATION, ATTITUDES AND PRACTICES**

*Knowledge! Source of information*

10. (1). Have you ever heard any teaching on how to feed your child? (Tick one)

1. No

2. Yes

(2). If yes, where did you get the teaching? (Tick one)

1. School

2. Friends/ Relatives

3. Hospital! MCH/ Social community health workers

5. Mass media (radio, television, newspapers, posters)

6.Others (Specify) -----

11. At what age should the first food other than breast milk, be introduced to the baby? (Tick one)

1. 1-3 months

3. 7-9 months

2. 4-6 months

4.Othres specify.....

12. If you are asked to prepare a meal for a 4-6 month old baby, what 3 food items would you include, excluding water if food was available? Specify.....

13. What amount of food should be introduced to the baby during his/her first meal?(Tick one)

1. 1-5 teaspoonfuls

3. 1.5 cup

2. 6-10 teaspoonfuls

4. 1 cup

14. Which is the best way to give the additional fluid/feed to your child on his /her first meal?

1. From a bottle

4. Hand

2. From a cup

5. Chewing by the mother

3. With a cup and spoon

6. Other (Specify) -----

15. Tick one of the following below: either False or True

	True	False
<b>Example:</b> A 6 month old baby should be given junk food ./ such as crisps, ice-cream, injera , e.t.c	✓	
1. It is advisable to give a one-month-old baby cow's milk so that he or she can become stronger.		
2. Introducing other foods before three months of infancy will make the baby healthy.		
3. Breastfeeding should continue even after one year of infancy		
4. It is advisable to introduce foods such as green leafy vegetables, soup, sorghum porridge, e.t.c at 4-6 months to the infant.		
5. A 6-month-old baby should be given 3 meals a day only.		

**Attitudes**

16. Tick the appropriate answer below using the Likert-Scale: 1=2=3 (Disagree, Not sure, Agree).

	Disagree (1)	Not sure(2)	Agree (3)
<b>Example:</b> During a baby's meal, he should not be given the additional food before breastfeeding, because he might get satisfied and take less breast milk, which is more nutritious.			✓
1. It is advisable to introduce other foods other than breast milk, before 4 months, as breast milk alone is not enough.			
2. After introduction of other foods other than breast milk, breastfeeding is not necessary because the baby will get satisfied from the other foods.			
3. It is fashionable to give milk to the infant from the bottle when one has gone away from home (for example visiting)			
4. An infant who is 6 months old should only be breastfed in the morning and afternoon because he will not be interested with other foods if breastfed more than twice a day.			
5. Prolonged breastfeeding up to one year and above is not good as this makes breasts ugly.			

**Practices**

17. For how long did you/are you going breastfeed the baby without giving any other thing, even water?

(Tick one)

1. below 1 month

4. 5-6 months

2. 1-2 months

5. 7-8 months

3. 3-4 month

5. Others (Specify) -----

18. (1.) What is the first food /supplement that you gave/are you going to give the baby? (Tick one)

1. Milk other than breast (cow)

2. Commercial infant formula

3. Porridge/maiz,wheat,Sorghum, tesff

4. Fortified porridge (porridge with milk, fat, egg, added).

5. Semisolids (e.g mashed potatoes, bananas beans, e.t.c).

6. Water and sugar

7. soup

8. Other (Specify) -----

(2.) Why did you give/are you going to give the baby other foods around this age? (Tick one)

1. Baby crying after feeding

5. lack of enough breast milk

2. It was correct time

6. Hard to report to work

3. Suckling to much

7. Infant refusal to BF

4. Clinicians advice

8. Others(specify)-----

19. (1.) Are you still breastfeeding? (Tick one)

1. No

2. Yes

(2.) If yes, when do you intend to stop breastfeeding? Give the age) -----

(3.) If no, when did you stop breastfeeding? Give the age) -----

20. (1.) Where do you get the food that you give your baby from? (Tick one)

1. Buying from the market/shop

2. Locally available foods from the garden/farm

3. Others (Specify)-----

(2.) List some of these foods-----

21. (1.) After you had your baby, is there anything that hinders or limits your weaning practices?

1. No

2. Yes

(2.) If yes, give the reason (e.g. Working outside the home)-----

22. Please tell me the foods you gave to the baby yesterday, starting with the first meal to the last.

TIME	DISH	INGREDIENTS
Breakfast		
Mid morning		
Lunch		
Mid-afternoon		
Supper		

SECTION III. CULTURAL PRACTICES AND BELIEFS INFLUENCING WEANING PROCESS

23. (1.) Are there some foods that are forbidden to give infants in your community? (Tick one)

1. No

2. Yes

(2.) If yes, do you agree with your community? (Tick one)

1. No

2. Yes

(3.) What are some of the forbidden foods and what is/are the reason/(s) (Fill in below).

Food Not Eaten	Reason

24. (1.) Are there some special foods that are recommended for infants in your community? (Tick one)

1. No

2. Yes

(2.) If yes do you agree with the community? (Tick one)

1. No

2. Yes

(3.) What are some of the recommended foods and what is/are the reason/(s) for giving these foods? (Fill below)

Food Recommended	Reason

25. Did any of the following persons influence your decision on when to start weaning(introducing other foods other than breast milk)? (Tick the appropriate one)

1. Husband

2. Grandparents / Own parents

3. Uncles/Auntie's/cousins

4. Traditional healer

6. Neighbor

7. Nurse/Nutritionist/TBA (Traditional Birth Attendant)

8. Other (specify) -----

26. (1.) Does the child eat the same food (e.g. potatoes, eggs meat,) with the other members of the family?

1. No

2. Yes

(2.) If yes, When does the child start eating adult diet (give the reason)-----

ANNEX-2

QUESTIONNAIRE- AMHARIC VERSION

መለያ ቁጥር-----

በአዲስ አበባ ዩኒቨርሲቲ ሕክምና ፋክልቲ፣ጤና ሳይንስ ኮሌጅ

የነርስ እና አዋላጅ ነርስ ትምህርት ቤት

በአማራ ብሄላዊ ክልላዊ መንግስት በምስረቅ ጎጃም ዞን በምትገኘው አማኑኤል ከተማ የሚኖሩ ከ ሁለት አመት በታች ልጅ ያላቸው እናቶች ስለ ልጆቻቸው አመጋገብ ያላቸውን ግንዛቤ፣አመለካከት እና ተግባር ለማዎቅ የተዘጋጀ መጠይቅ

ሀ. የመጠይቅ ተሳታፊዎች የመረጃ ቅጽ

መግቢያ

ጤና ይስጥልኝ ፤ እኔ-----እባላለሁ። እዚህ የመጣሁት በአዲስ አበባ ዩኒቨርሲቲ አማካኝነት በሚካሄደው ጥናት ላይ ለመሳተፍ ነዉ። የጥናቱ ዋና አላማ የእናቶችን የአመጋገብ ግንዛቤ፣አመለካከት እና ተግባራት እንዲሁም በአመጋገብ ወቅት ሊያጋጥሙ የሚችሉ ችግሮችን ለማዎቅ ነዉ። ይህን ጥናት ለማስኬድ የሚያስፈልጉ መረጃዎችን ለማግኘት ቀላልና ግልጽ ጥያቄዎችን ልጠይቅዎት እፈልጋለሁ። እመርስዎ የሚሰጡን መረጃ ለህግ አዉጭዎች እንዲሁም መንግስታዊና መንግስታዊ ላለሆኑ ደርጅቶች ስራቸውን በከተማንዉ ላይ ባሉ ህጻናት ችግሮችን ለመፍታት ላደረጉ ጠቀሜታዉ የጎላ ነዉ።በመጠይቅ ወቅት ስም መናገር አይመጠበቅዎትም፣በሚሰጡት መረጃም ምንም አይነት ችግር እንደማይደርስብዎት እና ምስጢር እንደምጠብቅልዎት ላረጋግጥልዎት እዉዳለሁ።ሁሉንም መጠይቆች መመለስ አይጠበቅብዎትም ነገር ግን የእርስዎ መሳተፍ ለስራችን አስፈላጊ ስለሁኑ እንዲሁም ያሉትን የአመጋገብ ችግሮች ለማዎቅ እና አስፈላጊዉን ጠቆሚ ሀሳብ ለመስጠት ስለሚጠቅሙን የእርስዎን መሳተፍ በጥብቅ እንፈልገዋለን። ስለዚህ እርስዎ ለዚህ ተግባር ለሚያደርጉ አስተዋፆ የላቀ ምስጋናየን አቀርባለሁ ለዘህ ቃለ መጠይቅ ለ 30 ደቂቃ ከእኔ ጋር እንዲቆዩ በ አክብሮት አጠይቅዎታለሁ። ያልገባዎት ጥያቄ ካለ መጠየቅ ይችላሉ። ተጨማሪ ጥያቄ ካለዎት ዋና አጥኝዉን አቶ ዘበናይ ወርቅነህን በሚከተሉት አደራሻዎች ማግነት ይችላሉ ስልክ ቁጥር (0912808923). ኢ-ሜል: wzebenay@gmail.com.



ክፍል-1፡ አጠቃላይ የግልና የቤተሰብ መረጃ

1. እድሜዎ ስንት ነው?

- 1. 15-19
- 2. 20-24
- 3. 25-29
- 4. 30-34

- 5. 35-34
- 6. 40-44
- 7. 45-49

2. የልጅዎ እድሜ ስንት ነው?

- 1. 0-1
- 2. 2-3
- 3. 4-5
- 4. 6-8

- 5. 9-11
- 6. 12-17
- 8. 18-23

3. የጋብቻ ሁኔታ?

- 1. ያገባች
- 2. አግብታ የፈታች

- 3. ባለ የሞተባት
- 4. ያላገባች

4. ተጨማሪ ስንት ልጆች አሉዎት-----

5. (1). የቤተሰብ ሁኔታ?

1. ከአንድ ባልና መሚስት የተመሰረተ ቤተሰብ

2. ከተለያዩ ባልና ሚስት የተመሰረተ ቤተሰብ

(2). ከተለያዩ ባልና ሚስት የተመሰረተ ቤተሰብ ከሆነ በአሁኑ ሰአት የሚኖሩት ከማን ጋር ነው?

- 1. ከአያት/ከሌላ ቤተሰብ
- 2. ከአጎት/አክሱት
- 3. ከአጎት/አክሱት ልጅ

- 4. ከወንድም/እህት ልጅ
- 5. ከወንድም/እህት
- 6. ሌላ ካለ ይግለጹ-----

6. የትምህርት ሁኔታ?

- 1. የመጀመሪያ ደረጃ
- 2. የሁለተኛ ደረጃ
- 3. ሙያ እና ቴክኒክ

- 4. ኮሌጅ/ዩኒቨርሲቲ
- 5. ያልተማረች

7. የባል የትምህርት ሁኔታ?

- 1. የመጀመሪያ ደረጃ
- 2. የሁለተኛ ደረጃ
- 3. ሙያ እና ቴክኒክ

- 4. ኮሌጅ/ዩኒቨርሲቲ
- 5. ያልተማረ

8. የስራ ሁኔታ?

- 1. የቤት እመቤት
- 2. ግብርና
- 3. ንግድ
- 4. የመንግስት ተቀጣሪ
- 5. የቀን ስራተኛ

6. አስተናጋጅ ( የካፌ፣ የምግብ ቤት፣ የሆቴል፣ ወዘተ... )

7. ሌላ ካለ ይግለጹ-----

9. (1). የወር ገቢዎ በብር ምን ያህል የሆነው?-----?

(2). ዋና የገቢ ምንጭዎ ሰው ማን ነው?

1. እኔ እራሴ

3. ልጆቻችኛል

2. ባለቤቱ

4. ሌላ የገቢ ምንጭ ካለዎት ይገለጹ-----

**ክፍል-2: የእናቶችን የእወቀት ሁኔታ፣አመለካከት እና ተገባር የተመለከቱ ጥያቄዎች እወቀትን የተመለከቱ ጥያቄዎች**

10. (1). ልጆቻችን እንዴት መመገብ እንዳለብዎት ሰምተዎት ያወቃሉ?

1. አልሰማሁም

2. አዎ ሰምቻለሁ

(2). መልስዎ አዎ ከሆነ የአመጋገብ ትምህርቱን ከየት ሰሙት?

1. ከትምህርት ቤት

2. ከዘመድ/ከኋዲኛ

3. ከጤና ባለሙያዎች

4. ከመገናኛ ድርጅቶች ( ሬዲዮ፣ ቴሌቪዥን፣ ጋዜጣ፣ ፖስተር)

5. ሌላ ካለ ይግለጹ-----

11. ተጨማሪ ምግብ መቼ መጀመር አለበት ብለዎት ያስባሉ?

1. 1-3 ወራት

3. 7-9 ወራት

2. 4-6 ወራት

4. ሌላ ካለ ይግለጹ-----

12. ከ 4-6 ወር እድሜ ላለዎት ህፃን ከሦስት አይነት ምግቦች እንዲያዘጋጁ ቢታዘዙ ምን ምን ምግቦችን ይጠቀማሉ(ከወጋ በስተቀር)? ምግቦችን ይዘዝሩ--

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13. ለመጀመሪያ ጊዜ ህፃናት ምግብ መብላት ሲጀምሩ ምን ያክል ያስፈልጋል ብለዎት ያስባሉ?

1. 1-5 ማንኪያ

3. 1.5 ሰዓት

2. 6-10 ማንኪያ

4. 1 ሰዓት

14. ለመጀመሪያ ጊዜ ለልጅዎ ምግብ ሲጀምሩ ከሚከተሉት ጥሩ ነው ብለዎት የሚያስቡት የትኛው ነው?

1. በጡጦ

4. በእጅ

2. በሰን

5. እናትዎ ካንኸች በኩል መመገብ

3. በማንኪያ እና ሰን

6. ሌላ መንገድ ካለ ይግለጹ-----

15. የሚከተሉትን ጥያቄዎች ካነበቡ በኋላ እወቁት ከሆነ አወቁት ላይ ሀሰት ከሆነ ሀሰት ላይ የ(✓) ምልክት ያድርጉ::

	እወቁት	ሀሰት
ምሳሌ: የ 6 ወር ህፃን ትርፍራፊ ምግቦችን ለምሳሌ ትርፍራፊ እንጀራ መመገብ አለበት::	✓	
1. አንድ ወር እድሜ ላለዎት ህፃን የላም ወተት መመገብ ህፃኑ ጠንካራ እንዲሆን ይረዳዋል::		
2. ከሦስት ወር እድሜ በታች ላሉ ህፃናት ምግብ መስጠት ህፃናት ጠንካራ እንዲሆኑ ያግዛቸዋል::		
3. ጡት ማጥባት ከአንድ አመት በላይ መቀጠል አለበት::		
4. ከ አራት እስከ ስድስት ወር እድሜ ላላቸው ህፃናት እንደ ገንፎ፣አጥሚት፣አተክልት ነክ ምግቦችን መስጠት ተገቢ ነው::		
5. የ 6 ወር ህፃን በቀን 3 ጊዜ ብቻ መመገብ አለበት::		

**አመለካከትን የተመለከቱ ጥያቄዎች**

16. ለሚከተሉት ጥያቄዎች ትክክለኛው መልስ ላይ ምልክት ያድርጉ ( 1፣2፣3 አልስማማም፣አርግጠኛ አይደለሁም፣አስማማለሁ እንደቅደምተከተላቸው)፡፡

	አልስማማም (1)	አርግጠኛ አይደለሁም (2)	አስማማለሁ (3)
ምሳሌ፡ ህፃናት በአመጋጋባቸው ወቅት ከጡት በፊት ተጨማሪ ምግብ መስጠት የሚወስዱትን በንጥረ ነገር የዳበረ የጡት መጠን ይቀንሰዋል ምክንያቱ ምግቡ ቀደም ስለሚያረካቸው፡፡			
1. ከአራት ወር በታች ለሆኑ ህፃናት የፍት ጡት ወተት ብቻ በቂ ስላልሆነ ተጨማሪ ምግብ መስጠት ተገቢ ነው፡፡			
2. ህፃናት ምግብ መብላት ከጀመሩ በኋላ ተገቢውን እርካታ ከምግቡ ስለሚያገኙ ጡት ማጥባት አስፈላጊ አይደለም፡፡			
3. ከበትዎ ርቀው ሲሄዱ ህፃኑን ጡጦ ማጥባት አስፈላጊ ነው፡፡			
4. አንድ የሰድስት ወር ህፃን ጠዋትና ማታ ጡት ብቻ መጥባት አለበት ምክንያቱም በቀን ከ ሁለት ጊዜ በላይ ከጠባ ለሌላ ምግብ ፈላጎት ስለማይኖረው፡፡			
5. ለብዙ ጊዜ ሙት ማጥባት ለምሳሌ አንድ አመትና ከዚያ በላይ አያስፈልግም ምክንያቱም የጡትን ገፅታ ስለሚያበላሽው፡፡			

**የአመጋገብ ተግባራትን የተመለከቱ ጥያቄዎች**

17. ልጆዎትን ካለምንም ተጨማሪ ምግብ እና ውሀ ለምን ያክል ጊዜ ጡት ብቻ አጠቡት?

- 1. ከአንድ ወር በታች
- 2. 1-2 ወራት
- 3. 3-4 ወራት
- 4. 5-6 ወራት
- 5. 7-8 ወራት
- 6. ሌላ ካለ ይገለጹ -----

18. (1). ለመጀመሪያ ጊዜ ለልጅዎት የሰጡት ተጨማሪ ምግብ ምንድን ነው?

- 1. የላም ወተት
- 2. የተገዛ የህፃናት ወተት
- 3. የቡቆሎ፣የሰንዴ፣የአጃ ወይም የጤፍ ገንፎ
- 4. ከወተት ተዘጋጀ እንቁላል የትገንፎ
- 5. ከድንች፣ሙዝ፣ባቄላ እና ከሌሎች የምግብ አይነቶች ከተዘጋጀ ለስለስ ያለ ምግብ
- 6. ውሀ በስካር
- 7. አጥሚት
- 8. ሌላ ካለ ይገለጹ -----

19. (1). እስካሁን ጡት እያጠቡ ነው?

- 1. አይደለም
- 2. አዎ

(2). መልስዎ አዎ ከሆነ መቸ ለማቆም አስበዋል (በሚያቆሙበት ወቅት የሚኖረውን የህጻኑን እድሜ)-----

(3). መልስዎ አይደለም ከሆነ መቸ አቆሙ ( ያቆሙበት ወቅት የነበረዉ የህጻን እድሜ)-----

20.(1). ለህጻኑ የሚሰጡትን ምግብ ከየት ነዉ የሚያገኙት?

- 1. ከሱቅ በመግዛት
- 2. በአካባቢ ከሚመረቱ ምግቦች
- 3. ሌላ ካለ ይግለጹ-----

(3). ከምግቦቹ ጥቂትቶችን ይግለጹ-----

21. (1). ለልጅዎት ተጨማሪ ምግብ እንዳጀምሩ የሚያደርጉ መሠናክሎች ገጥሞዎት ያዉቃል

- 1. የለም
- 2. አዎ

(2). መልስዎ አዎ ከሆነ ምክንያቶችን ይናገሩ ( ለምሳሌ ለስራ ከቤት ዉጭ መሄድ)-----

22. እባክዎት ትናንት ለልጅዎት የሰጡትን ምግቦች በቅድም ተከተል ይንገሩኝ::

ምግቡን የሰጡበት ሰዓት	የምግቡ አይነት	ምግቡ ከምን ምን ተዘጋጀ
ቁርስ		
ከምሳ በፊት		
ምሳ		
ከምሳ በኋላ		
አራት		

**ክፍል ሦስት: የእናቶችን የአመጋገብ ሁኔታ የሚያፃረሩ ባህላዊ ተግባራት እና አመለካከቶችን የተመለከቱ ጥያቄዎች:-**

23.(1). በህብረተሰቡ የተወገዙ ለህፃናት የማይሰጡ ምግቦች አሉ?

- 1. የለም
- 2. አዎ

(2). መልስዎ አዎ ከሆነ እረስዎ በህብረተሰቡ ሀሳብ ይሰማማሉ?

- 1. የለም
- 2. አዎ

(3). እነዚህ ምግቦችን ከነምክንትዎ በሚከተለዉ ሰንጠረዥ ይዘርዝሩ

ለህፃናት የማይሰጡ ምግቦች	ምክንያት

24. (1). በሚኖሩበት ህብረተሰብ ለየት ያለ ተቀባነት ላቸዉ ምግቦች አሉ?

- 1. የለም
- 2. አዎ

(2). መልስዎ አዎ ከሆነ እረስዎ በህብረተሰቡ ሀሳብ ይሰማማሉ?

- 1. የለም
- 2. አዎ

(3). እነዚህ ምግቦችን ከነምክንትዎ በሚከተለዉ

ሰንጠረዥ ይዘርዝሩ:

ለህፃናት የሚሰጡ ምግቦች(ከሌሎች ምግቦች በተለየ መንገድ)	ምክንያት

25. ከሚከተሉት ሰዎች መካከል ለልጅዎት ተጨማሪ ምግብ በሚጀምሩበት ወቅት ተፅኖ የፈጠረብዎት አለ?

1. ባል

2. አዎት/አናት አባት

3. የአጎት፣የአክስት ወይም የአህት/ወንድም ልጅ

4. ባህላዊ ሀኪሞች

6. ጎረቤት

7. ነርስ/የሥነምግብ ባለሙያ/የልምድ የልምድ አዋላጅ)

8. ሌላ ካለ ይግለጹ

26. (1). ልጅዎት ከቤተሰብ ጋር ተመሳሳይ ምግብ ለምሳሌ ከወተት፣ድንች፣ስጋ እና ሌሎች ምግቦች በልቶ ያውቃል?

1. የለም

2. አዎ

(2). መልስዎ አዎ ከሆነ መቶ ጀምሮ መብላት እንደጀመረ ከነምክንትዎ ይግለጹ-----

## DECLARATION

I, the undersigned, declare that this thesis is my original work, has not been presented for a degree in this or another university and that all sources of materials used for this thesis have been fully acknowledged.

Name: - Zebenay Workneh (BSc.)

Signature \_\_\_\_\_

Place: Addis Ababa University, Ethiopia

Date of submission: 6/6/2014

This thesis work has been submitted for examination with my approval as university advisor.

Name: Mr. Bazie Mekonnen (BSc,MSc)

Signature \_\_\_\_\_

Date \_\_\_\_\_