# Predictors of Intended Infant Feeding Options among HIV Positive Pregnant Women at Health Institutions In Addis Ababa, Ethiopia

**By:**

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**Thesis report to be submitted to the department of Health Education and Behavioral Science, college of Public Health and Medical Sciences, Jimma University; in partial fulfillment for the requirements for degree of Masters of Public Health in Health Education and Health Promotion (MPH/HE&HP).**

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**Jimma, Ethiopia**

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## Abstract

**Background**: In Sub-Saharan African countries, studies have shown that in the absence of intervention, the rate of mother-to-child transmission is estimated at between 15 and 30% when the infant is not breastfed and can increase to 40% when breastfeeding is practice. World Health Organization recommended that Exclusive Breast-Feeding (EBF) during the first six months of life or Replacement Feeding and the promotion of these practices are crucial in prevention of mother to child transmission of the virus. Nevertheless intended infant feeding options among HIV positive pregnant women was not studied well in our country.

**Objective:** To determine intended infant feeding option and to identify the predictors of intended infant feeding options of HIV positive pregnant mothers.

**Methods:** A cross sectional study supplemented with qualitative data were conducted in randomly selected health institutions with ART and PMTCT facilities in Addis Ababa town during March 15- April 15/2011. A total of 194 HIV positive pregnant mothers who were on PMTCT follow up in the respective health institutions was recruited to assessed for their intention to infant feeding options based on the constructs of theory of planned behavior. The qualitative data were collected through in-depth interview with PMTCT service providers and Mothers support group coordinators. The data were entered and analyzed by STATA. Descriptive, multinominal regression analyses were done and the qualitative and quantitative results were triangulated.

**Result:** the study showed that 159(81.12%) of the 196 mothers intend to use Exclusive Breast Feeding (EBF); 25(12.76%) intend to use Replacement -Feeding (RF); 12(6.12%) intend to use mixed feeding (MF). In the gross effect of direct and indirect TPB constructs, control belief (weighted) to exclusive breast feed had negative effect on intention to replacement feeding.

**Conclusion**: This study shows that more than one third of the women who participated in this study intended to use EBF which indicates that the recommended feeding option might have the chance to be practiced by most of them. Health institutions and health professionals should develop strategic communication HIV positive pregnant women to increase their behavioral belief and control belief to use EBF in the first six month.

## Acknowledgements

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## Table of contents

## List of Figure



## List of Tables

## Acronyms

AIDS: Acquired Immunodeficiency Syndromes

ART: Anti Retroviral Therapy

ANC: Anti Natal Care

EBF: Exclusive Beast Feeding

EDHS: Ethiopia Demographic Health Survey

FGD: Focus Group Discussion

FHAPCO**:** Federal HIV/AIDS Prevention and Control Office

HIV: Human Immunodeficiency Virus

HC: Health Center

HCT: Health Counseling and Testing

NGO: Non Governmental Organization

PICT: Provider Initiated Counseling and Testing

PMTCT: Prevention of Mother to Child Transmission

WHO: World Health Organization

UNICEF: United Nations Children's Fund

UN: United Nation

VCT: Voluntary Counseling and Testing

# 1 Introduction

## Background

HIV epidemic reversed gains made in child survival; infant and child mortality rates are estimated one-third to two-thirds higher due to HIV/AIDS (1)

Widespread promotion of exclusive breastfeeding could prevent child mortality by 8% (2). However, transmission of HIV through breast milk has made breastfeeding counseling more complicated in low-income countries where HIV is prevalent.

Every year, more than half a million infants become infected with HIV. These infection rates are disproportionately distributed geographically; mother-to-child-transmission, in the context of antiretroviral prophylaxis is below 1% in Europe and the USA, but exceeds 30% in many poorly resourced countries, with Sub-Saharan Africa carrying the highest burden (3,4).

Every year, approximately 40% of HIV-infected children worldwide become infected through breastfeeding, making breastfeeding the most prevalent mode of mother-to-child transmission (MTCT) of HIV (5).

In many countries where HIV is prevalent, the infant mortality rate is high. Considering the risks of both infant mortality and HIV transmission, breastfeeding is strongly correlated with a higher HIV-free child survival rate compared to formula feeding where the infant mortality rate is above 4% (6, 7).

Mixed feeding is associated with a higher morbidity and mortality risk than exclusive breastfeeding for infants of both HIV-positive and HIV negative mothers, and with increased HIV transmission from HIV-positive mothers (7, 8, 9-14).

## Statement of the Problem

In 2006, 2.3 million children aged less than 15 years worldwide were living with HIV. An estimated 530,000 children aged less than 15 years were newly infected in 2006. There were also an estimated 380,000 deaths due to AIDS among children. Africa has the highest prevalence: 90% of both new infections and AIDS-related deaths among children occur there (15, 16).

In most cases, the infection is transmitted from mother to child before, during, or after childbirth (17). In Sub-Saharan African countries, mother's milk causes between 30% and 40% of the cases of pediatric HIV infection (18). Studies have shown that in the absence of intervention, the rate of mother-to-child transmission is estimated at between 15 and 30% when the infant is not breastfed and can increase to 40% when breastfeeding is practice (19).

Since the end of the 1980s, international recommendations for HIV and infant feeding in these countries have been progressively developing to find a balance between the risk of HIV transmission and the risks of infant morbidity and mortality linked with replacement feeding (20).

The 2010 recommendation reflect the fact that HIV positive women were confused about feeding methods and mixed feeding continued to be widespread (21).

As extended breastfeeding and mixed feeding is only safe when antiretroviral drugs are taken, there is now an emphasis on using antiretroviral drugs to prevent the baby becoming infected as well as an emphasis on breastfeeding. If an HIV positive mother is breastfeeding, she will be advised to exclusively breastfeed for 6 months that is to feed only breast milk and nothing else (22, 23, 24).

Unfortunately, encouraging mothers to practice exclusive breastfeeding is far from easy. In many societies, especially in sub-Saharan Africa, it is normal for a baby to be given water, teas, porridge or other foods as well as breast milk, even during the first few weeks of life (25, 26). In addition, many women are concerned that their breast milk is not sufficient for their infant; because they are malnourished (26).

Replacement feeding is the only 100% effective way to prevent mother to child transmission of HIV after birth, but the risk of infant mortality from other illnesses such as diarrhea must be taken into account. (27).

Ethiopia has a national adult HIV prevalence of 2.1% (7.7% in urban and 0.9% in rural areas). 977,394 Ethiopians are living with HIV/AIDS (41% males, 59% females); an estimated 75,420 HIV-positive pregnant women are anticipated in 2007 (28).

Amhara, Oromia, Addis Ababa, and SNNPR share 86.7% of the total estimated HIV positive pregnancies, 85.3% of new infections, 87.9% of new AIDS cases, and 88.2 % of AIDS deaths that occurred in Ethiopia in 2005 (29).

Ethiopia has adopted the WHO/UNICEF/UNAIDS 4-pronged PMTCT strategy as a key entry point to HIV care for women, men and families. Technical interventions, including antiretroviral medications, essential obstetric care, health system management and resource allocation, and gender bias are part of the national comprehensive PMTCT program (28, 29).

MTCT of HIV due to using different feeding options is a reasonable well-defined problem caused by factors that are potentially modifiable and the costs of preventing them are well within reach, even in developing countries like Ethiopia. It is therefore imperative to identify predictors of intended infant feeding options in order to come up with feasible intervention strategies to minimize the problem. In Ethiopia, statistics are available, national surveys are carried out and 317 HIV-positive women were at risk of transmitting the virus and an estimated 130 infant infections could have been *av*erted if all HIV positive women had received SDNVP (30). This shows that this group of women is at risk of transmitting the virus to their child, therefore preventable risk factors among this group need to be assessed. It would be especially beneficial to identify factors that are modifiable among this group of women.

There has, up to my knowledge, been no research done on predictors of intended infant feeding options among HIV positive pregnant women who get counseling on infant feeding. This group is biologically at high risk of transmitting the disease after birth

through utilization of different feeding option and recommended infant feeding choices are introduced to them antinataly, intended infant feeding options of this group need to be assessed. It would be especially beneficial to identify factors that are modifiable among this group of women.

In addition behavioral risk factors associated with maternal infant feeding choice made antinataly are not studied. Furthermore, many of the studies were on infant feeding practice. A detailed cross sectional study using behavioral model on predictors of intended infant feeding options among HIV positive pregnant women in Addis Ababa region is necessary.

# 2 Literature Review

Several studies reported the practice of feeding infants in the context of HIV positive mothers (31, 32, 33). A study conducted in Zambian showed that 35% of them Exclusively Breast Feed (EBF) their infants below 4 months (34).

**Predictors and factors associated with intended infant feeding options among HIV positive pregnant mothers**

Researchers found that intention was a very strong indicator of actual behavior (35). Many factors affect the mother's intention on different feeding options. They relate to the mother or the social environment and play an important role in determining the intended infant feeding option. The major predictors and factors of intended infant feeding options by HIV positive pregnant mothers identified by previous researchers are discussed below.

**Social determinants of infant feeding in HIV positive mothers**

A facility based study conducted in South Africa shows that 74% of the 293 study participants intended to formula feed their babies, while 26% planned to breastfeed or mixed feed. The women who intended to breastfeed had lower active coping ability, were less likely to have disclosed their status to partners or husbands, were twice as likely to be married and were twice as knowledgeable about HIV transmission through breastfeeding (36).

**Knowledge towards ways of Mother to Child transmission**

Ethiopian Demographic and Health Survey has found Increasing knowledge of ways in which HIV can be transmitted from mother to child and the fact that the risk of transmission can be reduced by using antiretroviral drugs. Although 69 percent of women and 75 percent of men know that HIV can be transmitted by breastfeeding, only slightly more than around one-fifth of women and one-fourth of men know that the risk of MTCT can be reduced through the use of certain drugs during pregnancy. Twenty percent of women and 26 percent of men are aware of both aspects of MTCT transmission (37).

A study conducted in china carried out in three antenatal clinics of three hospitals showed that transplacental route, vaginal delivery and breastfeeding were identified as

routes of transmission from mother to child by 85%, 60% and 20% of respondents, respectively (38).

**Mothers feeding intention towards recommended feeding**

A cluster-randomized trial based on the Theory of Planned Behavior showed Mothers' intention towards recommended feeding behaviors was positively associated with mothers' attitudes, subjective norms and self-efficacy at baseline, and was associated with their attitudes, self-efficacy, and knowledge at post-intervention evaluation. Intervention, mothers' knowledge, intention and subjective norm of villagers were independent predictors of their feeding behaviors after intervention (39).

Another longitudinal study on HIV positive and negative pregnant mothers to assess their infant feeding intention and appropriateness of their choice in KwaZulu Natal, South Africa, the antenatal feeding intentions of 1253 HIV-infected women were: exclusive breastfeeding 73%; replacement feeding 9%; undecided 18%. 3% had access to all four resources, of whom 23% chose replacement feeding. (40).

Similarly in a study evaluating infant feeding intent and attitudes of parents of breastfed infants and those of formula fed infants, researchers found that intent was a very strong indicator of actual behavior. For example, 95.5% of the women who indicated the intent to formula feed actually formula fed at hospital discharge, while 72.7% of women who intended to breastfeed actually breastfed at discharge. The study also demonstrated that parents who chose to breastfeed their infants had more positive breastfeeding attitudes and were more knowledgeable about the health benefits and nutritional superiority of breastfeeding. Finally, studies among socio-economically disadvantaged pregnant women have revealed that a woman's social support network is one of the most influential factors in the infant feeding decision. Hearing about the benefits of breastfeeding from a number of different sources, including the father, a family member, or even a health professional, was positively correlated with breastfeeding intent. This was particularly true for mothers with no experience of breastfeeding (41).

The TPB has emerged as one of the most influential and popular conceptual frameworks for the study of human behavior, and much support have been obtained for the efficacy of the theory as a predictor of both intentions and behavior (42). It is also

recognized as having the potential to shape behavior change interventions, (43) with the result that some guidelines regarding the operational manipulation of the theoretical constructs are beginning to emerge in the literature and infant feeding is a human social behavior. Mother's decision making has been shown to be a result of intra and inter personal processes, thus it seems appropriate to use a behavioral theory to examine this behavior. The theory of planned behavior was proposed by Ajzen (1985) as an extension of the theory of reasoned action to account for the performance of behaviors which are not completely under the subject's control.

The theory of planned behavior applies to HIV positive pregnant mothers for the following reasons. First, Meta-analytic reviews of the TPB and the TRA provide impressive support for the predictive power of the TPB in terms of the percentage of variance explained in intentions and behavior (44). Second, in general it has been shown that mother's intention to use different feeding options is the result of both intrapersonal and interpersonal process (45) and finally, in Ethiopia, although there is guideline on recommended infant feedings for mothers of known HIV status, the mothers take the major part to decide on which feeding options to use.

Nonetheless, information on intended feeding options of HIV positive pregnant mothers in Ethiopia, particularly in Addis Ababa, by using theory of planned behavior has not been documented. Because of such a gap in information on the extent of the problem, this study was necessitated to identify the gap between intended infant feeding options and the recommended infant feeding option in a context where the social expectations to breastfeed are high, and where kin and neighbors are part of the decision-making team surrounding infant feeding choice.

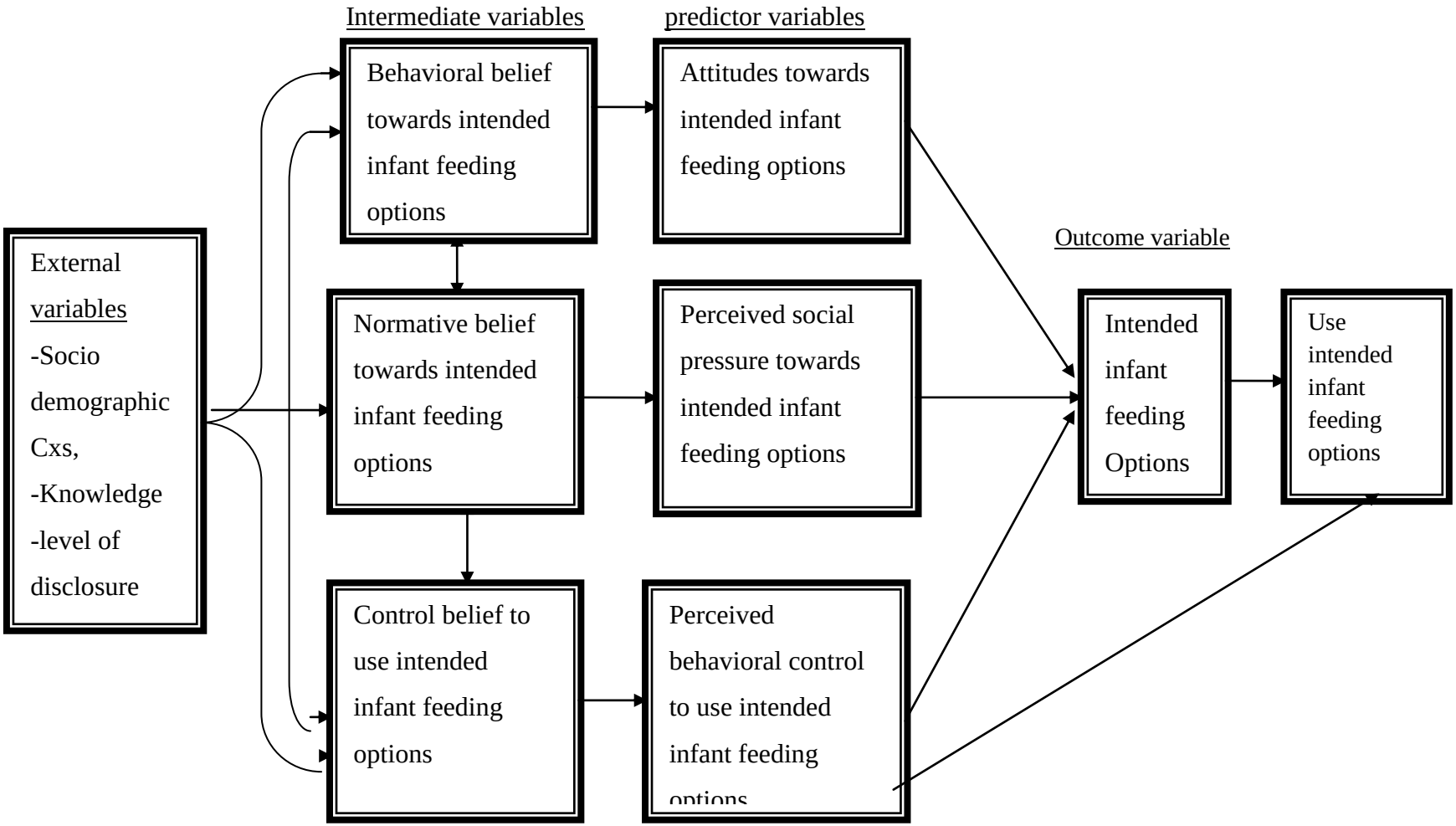


**Figure 1: constructs of theory of planned behavior and socio demographic and psychological variables and their interaction with intention to use different infant feeding options in the study.**

## 2.1 Significance of the study

The findings of the study may help the health management at a higher level particularly those looking after the health institutions in Addis Ababa region to understand the extent of the problem in public hospitals and health centers. The study will enhance the capacity to look for possible alternative solutions to health service with regard to PMTCT and infant health and associated factors for intended infant feeding options in collaboration with the health institutions and relevant stake holders. It will also contribute to increase in the knowledge about predictors associated with intended infant feeding options in the areas by concerned bodies including the health institution staffs so as to develop strategies to alleviate this problem. In addition, the paper insists researchers for further studies.

It is expected that identifying predictors of intended infant feeding option will enable to reverse the increasing trend of HIV transmission from mother to child in Ethiopia particularly in Addis Ababa and there by its immediate and long term consequences.

# 3 Objectives

## 3.1 General objective

To determine intended infant feeding options and to identify predictors of intended infant feeding options among HIV positive pregnant mothers attending governmental health institutions in Addis Ababa Town.

## 3.2 Specific objectives

1. To determine intended infant feeding options among HIV positive pregnant women.
2. To determine mother's attitude towards intended infant feeding options.
3. To assess the perceived social pressure on intended infant feeding options.
4. To assess the perceived behavioral control on intended infant feeding option in HIV positive pregnant women.
5. To identify factors associated with intended infant feeding options among HIV positive pregnant women.

# 4 Methods and Materials

## 4.1 Study area and period

The study was conducted in Addis Ababa city. Addis Ababa is the capital city of Ethiopia and is composed of 10 sub-cities and 100 kebele with an estimated population of 2,975,609. It has a total of 36 hospitals (5 public and 31 private), 29 health centers (26 public and 3 private), and 450 private clinics. There are a total of 93 General practitioner, 59 specialist doctors, 1616 nurses, 107 health officers and 181 laboratory technician and technologist and 150 other health professionals who work under the governmental health institution and there were a total of 2279 HIV positive pregnant mothers in 2009/2010 fiscal year visiting health institutions in Addis Ababa town and all of them get counseling on PMTCT and infant feeding, 1766 get prophylaxis and 966 were attached to ART, 74 infants were newly diagnosed HIV positive and 2994 were on ART at the same year. From the 31 public health institutions (5 hospitals and 26 health centers), 3 public hospitals and 26 public health centers give services on PMTCT, infant feeding counseling and ART services (45). The study was conducted from March 15- April 15/2010.

## 4.2 Study design

A facility based cross sectional study using both quantitative and qualitative methods of data collection was conducted.

## 4.3 populations

### 4.3.1 Source population

The source population was all HIV positive pregnant women of any age visiting the respective health institutions for ANC/PMTCT services during the study period.

### 4.3.2 Study population

The study population was sampled HIV positive pregnant women who get PMTCT Counseling services in the respective health institutions during the study period.

### 4.3.3 Inclusion criteria

Those who get PMTCT counseling prior to days of data collection were included to avoid emotional disturbance among newly diagnosed participate in the study.

### 4.3.4 Exclusion criteria

Those who are newly diagnosed on the days of data collection were excluded.

## 4.4 Sample size determination and sampling procedure

### 4.4.1 Sample size determination

**For quantitative part of study**

The sample size was determined using a formula for single population proportion taking prevalence rate of 26% prenatal intention to breastfeed Or mixed feed taken from longitudinal study on Psychosocial and Economic determinants of Infant feeding intent by pregnant HIV-infected Women in South Africa (36) assuming mothers of the two countries have close similarity, with 95% confident level, 5% precision and a non-response rate of 10 %.

The sample size was

$$n = \frac{(\frac{z\alpha}{2})^2 \times p\,(1-p)}{d^2}$$

Where

n= the minimum sample size

$\frac{z\alpha}{2}$ =1.96 (standard normal distribution value at 0.05 level of significance)

P= 26% [a prevalence rate of 26% prenatal intention to breastfeed Or mixed feed] (36).

d= margin of error (5%)

Therefore the value of n was calculated as follows

$$n = \frac{(1.96)^2 x 0.26(1-0.26)}{(0.05)^2}$$

**n=296**

Taking the first quarter of 2010/2011 record, the number of HIV positive pregnant women were 431 which is < 10,000 and to get the final sample size population correction formula was used and the final sample size was

n = n/1+n/N

=296/1+296/431

=176

Considering 10% non-response rate, the final sample size was **194 HIV** positive pregnant mothers.

Sample size for qualitative part of the study

Three PMTCT counselors/service providers were purposively (judgmental) selected one from each health institutions (one hospital and two health centers) and three mothers support group coordinators from the above three health institutions were participated in key informant in-depth interview. The three participants from service providers were purposively selected based on their year of experience on working PMTCT counseling, currently working on PMTCT counseling, and coordinator of the service. And three participants from mothers support group were selected based on their experience and responsibility (coordinators was selected). A total of 6 individuals were participated in in-depth interview.

Sampling technique and procedure

Nineteen governmental health institutions (2 hospitals and 17 health centers) providing PMTCT services were selected by simple random sampling technique. Health institutions which did not render PMTCT service were excluded. Private health institutions were excluded due to the assumed socio demographic difference between those who utilize private health institutions and public health institution.

From 31 governmental health institutions, 19 health institutions (17 health centers and 2 hospitals) were randomly selected. Based on previous two months client flow before starting of data collection, the average numbers of individuals who came for PMTCT follow up was determined and used for proportional allocation of the sample size to each institution. A total of 19 institutions were included in the study. The selection was stratified for Hospitals and health centers for the reason that clients from hospitals came from health centers by referral for high risk and they differ from clients from health centers and to assure the selection of hospitals in the sampling procedure. The health institutions selected and the number of participants recruited from each institutions were kolfa HC 10 participants, Arada HC 11 participants, Gulela HC 13 participants, Yeka HC 10 participants, Beletshachew HC 8 participants, Koteba HC 10 participants, A/ketema HC 8 participants, T/haymanot HC 6 participants, N/lafto HC 14 participants, Kirkos HC 11 participants, Bola 17 HC 13 participants, Kazanchis HC 2 participants, Wereda 7 HC 9 participants, Wereda 9 HC 5 participants, Sheromeda HC 35 participants, Meshualkia HC 14 participants, Entoto HC 5 participants, Yekatit 12 Hospital 9 participants and Zewditu Hospital 3 participants. This institution constituted the sample and the sample size was distributed proportionally based on client flow in the previous two months and all who come to this health institutions for ANC/PMTC follow up during days of data collection were included in the study. The days of data collection in each institution were on working days.

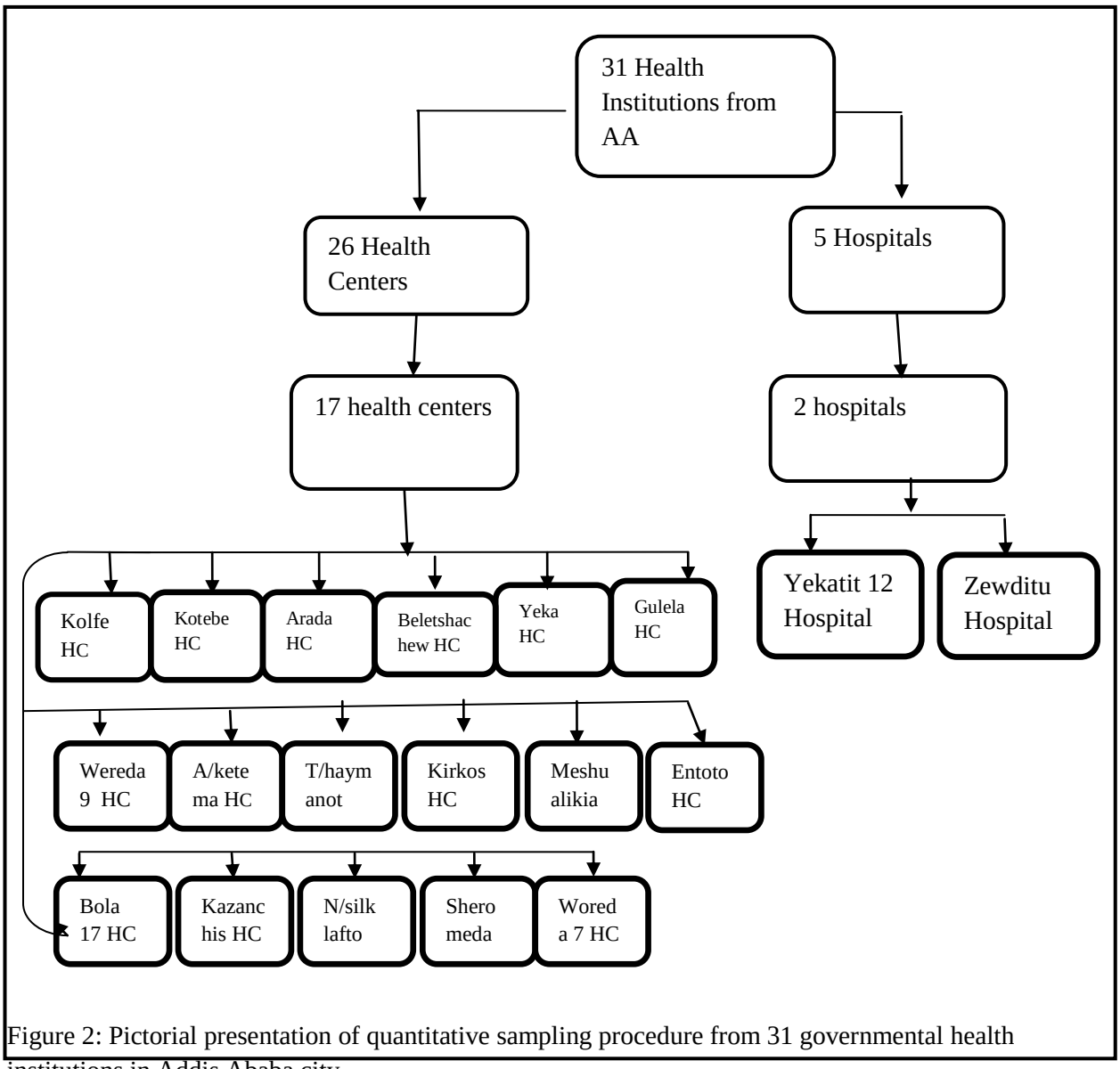


Figure 2: Pictorial presentation of quantitative sampling procedure from 31 governmental health institutions in Addis Ababa city.

**For qualitative study**

Six in-depth interview participants were purposively selected. Three health facilities (1 hospital and 2 health centers) were selected on the base of providing the services for long time, having large client flow and having mothers support group. Based on this Zewditu hospital was selected and from 17 public health centers which were included in the study Beletshachew HC and Arada HC were selected.

## 4.5 Variables in the study

Dependent variable

Intended infant feeding option

Independent variables

External variables

1. Socio demographic characteristics (age, sex, educational status, marital Status, income, family size)
2. Knowledge about HIV transmission and different feeding options

Level of disclosure

3. Previous feeding experience

Intermediate variables

1. Behavioral belief
2. Normative belief
3. Control belief

Predictor variables

1. Attitude towards the behavior
2. Subjective norm
3. Perceived behavioral contro

## 4.6 Data collection and measurements

### 4.6.1 Data collection instruments

Questionnaires was developed by using the guideline for the construction of standard theory of planned behavior questionnaire (48) and after conducting elicitation study to understand their expression of different feeding option advantages and disadvantage,

source of social pressure and controllability of the behavior to develop the direct and indirect measures for all the predictor constructs in the TPB model (attitude; subjective norm; and perceived behavioral control). One FGD was conducted with 8 HIV positive pregnant women in Jimma specialized hospital by assuming that the two populations have similar characteristics. Participants were asked about their infant feeding options and their beliefs about the consequences of using or not using different options (EBF, Mixed feeding, replacement feeding) for their baby. They were also asked to describe factors that make it easier or more difficult for them to use different feeding options and to indicate the individuals or groups that would support or oppose their choice. Response to these questions was identified through their content to develop the indirect measure for attitude, subjective norm, and perceived control respectively. Separate measures of model constructs are developed for intended infant feeding options with each type of feeding options(EBF, Mixed feeding, Replacement feeding).

Model component measures and computation was as follows.

Socio demographic data were measured by using 14 items and it included age, sex, etc. Past experiences, level of disclosure, information received from counselor about feeding options, frequency of visit, previous breastfeeding history and knowledge about HIV transmission through breastfeeding was assessed by 8 items.

**Intention:** intention to use different feeding options( EBF, Mixed feeding, Replacement Feeding) was measured on 5-point likert scale with end point "strongly agree" and "strongly disagree" by using 9 items, 3 items for EBF, 3 items for mixed feeding and 3 items for replacement feeding.

**Attitude:** Direct measures of attitude towards different infant feeding options( EBF, Mixed feeding, Replacement feeding) was assessed on 15 items using 5-point Likert scale with end point "strongly agree" and "strongly disagree". 5 items was for EBF, 5 for mixed feeding and 5 for replacement feeding. The attitude scores were computed as the sum of these items.

An indirect measure of attitude towards different feeding options (EBF, replacement feedings, mixed feeding) was constructed from belief and evaluation items. Behavioral belief measures was developed for each feeding options using 5-point likert scale with end point "strongly agree" to "strongly disagree" and a total of 9 items, 3 for each

feeding options was used. Evaluation to each behavioral belief was rated on 5-point likert scale with end point “strongly agree” and “strongly disagree” and assed by 3 items and attitude scores was computed by summing the products of beliefs and evaluation after recoding the negatively ended items.

**Subjective norms-** Direct measures of subjective norms with respect to each type of infant feeding options was assessed by having participants rate whether “most people important to me think that I should use EBF or Mixed feeding or Replacement Feeding for my baby after birth”. Rating was made on a 5-point likert scale with end point “strongly agree” and “strongly disagree”. There was a total of 12 items, 4 items for each feeding options and the direct measure was computed by summing the items.

Indirect measures of subjective norm (weighted normative beliefs) was obtained by having participants rate normative beliefs about whether three different referents (health professionals, husband, family) think they should use and approve that they use one of the 3 infant feeding options(EBF, RF, MF) and their motivation to comply with those referents. Normative beliefs ratings for each of sources of influence was made on 5-point likert scale with end point “strongly agree” and “strongly disagree” and coded 5 to 1. Ratings of motivation to comply with each sources influence were made on 5-point likert scale with end point “strongly agree” to “strongly disagree” coded 5 to 1. There were a total of 18 items, 9 for normative belief and 9 for motivation to comply. Subjective norm scores were calculated by summing the products of each normative belief and motivation to comply.

**Perceived behavioral control-** Direct measures of perceived control was obtained by 5-point likert scale with end point “strongly agree” and “strongly disagree” for each feeding options. There were 17 items and the result scores was computed as the sum of these items.

Indirect measures of perceived control (weighted control beliefs) were constructed from 9 control belief and 9 perceived power items. The elicitation study identified 3 conditions, knowing the advantage and disadvantage of different feeding options, being told by health professionals, and being the baby protected from getting the virus that facilitate or impede choice of different infant feeding options (EBF, RF, and MF). Measures of control belief was assessed by using a 5-point likert scale with end point

"strongly agree" to "strongly disagree" coded 5 to 1 on 9 items, 3 for each feeding options and control belief power of each condition was rated on a 5-point likert scale with end point "strongly agree" and "strongly disagree" coded 5 to 1. Perceived control scores was computed by summing the products of control belief and perceived power ratings. A total of 113 items was used.

To assure the reliability of each measure cronbach coefficient Alpha was calculated and a cut-off 0.7 0r higher score was accepted for all the scales below was rejected.

For in-depth interview a topic guide with semi structured questionnaire was developed by the principal investigator for the subsequent line of question.

From in-depth interview information was collected from providers on the presence of trained professionals on PMTCT, presence of guideline on infant feeding, perceived factors that affect mothers infant feeding options and from mothers support group coordinators information was collected on factors that affect HIV positive pregnant women choice of infant feeding options, perceived social pressure and factors that affect their perceived control of intended infant feeding options.

### 4.6.2 Data collection procedure and data quality

Data were collected through face to face interview and in-depth interview. Interviews were made using semi-structured questionnaire, prepared in English and translated in to Amharic by local language speaker in the study area. In-depth interview was conducted on covenant time selected by participants. In-depth interview was conducted by the principal investigator. Interviews were handwritten and tape-recorded and transcribed.

## 4.7 Data Quality

In order to assure the quality of data; Pre test was done by asking 5 % of the sampled population (10 individuals) by asking the respondents to respond to the questionnaire and comment on the items and the pre-test was done in wereda 24 health center in Addis Ababa.

Data were collected by trained health professional (diploma nurses). The data collectors and supervisors were trained for 2 day on the questionnaire and techniques of data collection and common understanding was reached on the questionnaire and Supervisors strictly supervise data collectors and the principal investigator reviewed all questionnaires for completeness.

**Data collectors: -** 19 nurses who were providing services on PMTCT were selected from all sampled institutions.

**Supervisors: - 5** supervisors were recruited based on their experience of participating in data collection in other research.

## 4.8 Operational definition

1. **Exclusive breastfeeding: -** giving the infant no other food or drink, not even water, apart from breast milk (including expressed breast milk), with the exception of drops or syrups consisting of vitamins, mineral supplements or prescribed medicines for the first 6 months (47).
2. **Replacement feeding: -** the process of feeding a child who is not receiving breast milk with a diet that provides all the nutrients the child needs, until the child is fully fed on family foods (47).
3. **Mixed feeding: -** giving a baby some breast milk and also any other fluid or feeds, even a teaspoon of water (47).
4. **Attitude: -** Attitude toward the behavior is a person's overall evaluation of the behavior (48). Direct measures of Attitude towards each feeding options were assessed on 4 items for each feeding options by using a 5-point Likert scale from 1(strongly disagree) to 5 (strongly agree).
5. **Behavioral belief: -** beliefs that behavioral performance is associated with certain attributes or outcomes and was measured on 9 items, 3 for each feeding options, by using a 5-point likert scale and was used to rate attitude.
6. **Evaluation: -** value attached to a behavioral outcome or attribute and outcome evaluation was measured on 3 items by 5-point likert scale from 1(strongly disagree) to 5(strongly agree) was used to compute attitude.
7. **Subjective norms: -** Subjective norms are a person's own estimate of the social pressure to Perform or not perform the target behavior (48). The direct

measure of subjective norm with respect to each feeding options were assessed on 12 items, 4 for each feeding options (EBF,RF and MF) by using a 5-point Likert scale from 1(strongly disagree) to 5(strongly agree).

8. **Normative beliefs:-** beliefs about whether each referent approves or disapproves of the behavior and was assessed on 9 items, 3 for each feeding options on a 5-point likert scale from 1(strongly disagree) to 5(strongly agree) and was used to rate subjective norms.
9. **Motivation to comply: -** motivation to do what each referent thinks and was measured on 3 items used for each feeding options on a 5-point likert scale from 1(strongly disagree) to 5(strongly agree) and subjective norm was computed by summing the product of normative belief and the motivation of the subject's to comply.
10. **Perceived behavioral control:** - Perceived behavioral control is the extent to which a person feels able to enact the behavior (48). The direct measure of perceived behavioral control was assessed on 18 items, 6 for each feeding options by using a 5-point Likert scales from 1 (strongly disagree) to 5 (strongly agree).
11. **Control belief:** - perceived likelihood of occurrence of each facilitating or constraining condition (48).
12. **Perceived control power: -** perceived effect of each condition in making behavioral performance difficult or easy (48).
13. **Intention: -** A person's motivation in the senses of his or her conscious plan to exert effort to carry out a behavior (48) and Intention was computed by using the total score for items measuring Exclusive Breast Feeding (EBF), Replacement Feeding (RF) and Mixed Feeding (MF). Women who have high score in the items that measures EBF than scores for items of MF and RF were taken as intenders of EBF, women who have higher score for RF than EBF and MF were taken as intenders of RF and also women who have high score for MF than RF and EBF were taken as intenders of MF.
14. **Knowledge: -** awareness on the ways of mother to child transmission and item analysis was used.
15. **Infant**: - The first years of life from birth (From 1 month to 1 year).

## 4.9 Data analysis

Data were entered and after cleaning the data analyzed using STATA. The analysis for identifying the determinants of HIV positive pregnant women's infant feeding intention was as follows.

The analysis proceeded in three steps. First frequencies and percentage of external variables were done. Second multinomial regression was used to see the level at which socio demographic factors contributed to predicting intended infant feeding option. Third, correlation and multinomial regression were used to assess the level at which the direct measures of attitude, direct measure of subjective norms and perceived behavioral control contributed to the prediction of intention. Fourth, correlation and multinomial regression were used to determine which behavioral belief (weighted), normative belief (weighted) and control belief (weighted) contribute to the prediction of intention and finally all significant direct and indirect measures were entered in the model.

A p-value of below 0.05 is denoted significance in differences. Qualitative data were transcribed and narrated on thematic area and presented triangulated with quantitative findings.

### 4.10 Ethical clearance

Letter of ethical clearance was obtained from Research Ethics Committee of Jimma University. Letter for cooperation from each level is expected and written consent was obtained from each client for participation in the study. Privacy and confidentiality was ensured during the interview through conducting the interview by professionals working on PMTCT counseling, conducting the interview in counseling room, and name and address of the interviewee will not be recorded in the questionnaire. The study may cause emotional disturbance on the mother but there is no other risk they may face by participating in the study.

### 4.11 Dissemination plan

The result of the study will be disseminated to relevant bodies such as department of Health Education and Behavioral science, Federal Ministry of Health, Addis Ababa Regional health bureau, zonal and district health offices and district administration of the study area.

# 5. Result

**Socio demographic characteristics of participants**

Socio demographic characteristics of the study participants were assessed and presented in table 1 below. Accordingly a total of 196 HIV positive pregnant women attending ANC/PMTCT follow up were participated in the study producing response rate of 100%. Concerning ANC/PMTCT visit, 98 (50.00%) and 70 (35.71%) of them had 2$^{nd}$ and 3$^{rd}$ visit respectively

More than half 122(62.24%) of the women were housewife. The median per capita monthly income in the households was 600 birr. And also majority of them 149 (76.02 %) were married and 24(12.24%) were single. Concerning educational level, 87(44.39%) of the participants attended primary education and 80(40.82%) were attended secondary and above. In terms of ethnicity, the majority were Amhara in ethnicity 102(52.04%) followed by Oromo which account 49(25.00%).

**Table 1: Socio Demographic Characteristics of The Participants, Addis Ababa, Ethiopia May 2011.**

| Socio-demographic characteristics(N=196) | Frequency | % |
|---|---|---|
| **Age of participant** | | |
| 17-25 | 58 | 29.59 |
| 26-30 | 98 | 50.00 |
| 31-35 | 24 | 12.24 |
| 36-40 | 16 | 8.16 |
| **Educational status** | | |
| No formal education | 29 | 14.80 |
| Primary education | 87 | 44.39 |
| Secondary education and above | 80 | 40.82 |
| **Religion** | | |
| Orthodox | 157 | 80.10 |
| Muslim | 25 | 12.76 |
| Others | 14 | 7.14 |
| **Occupation** | | |
| Housewife | 122 | 62.24 |
| Others | 74 | 37.76 |
| **Marital status** | | |
| Married | 149 | 76.02 |
| Single | 24 | 12.24 |
| Widowed/divorced | 23 | 11.73 |
| **Ethnicity** | | |
| Amhara | 102 | 52.04 |
| Oromo | 49 | 25.00 |
| Others(Gurage, Tigira) | 45 | 22.95 |

**Knowledge about ways of mother to child transmission, number of ANC/PMTCT visit.**

The women's knowledge about ways of mother to child transmission and if they know there is a medication to prevent mother to child transmission was assessed and presented in table 2. Accordingly, similar proportion of women, 182(92.86%) knew that HIV can be transmitted during pregnancy and delivery. Similarly, 187(95.47%) of the women knew that the virus can be transmitted during breast feeding. And the majority

168 (85.71%) have ever heard about infant feeding options during their ANC/PMTCT visit and 28(14.29%) of them did not hear about infant feeding options during ANC/PMTCT visit. The result of qualitative study also supported this finding. For instance, *a 30 years old female mother's support group coordinator said "we are working on infant feeding education. We tell them ways of mother to child transmission and recommended feeding options"*

**Table 2: Respondents knowledge on ways of mother to child transmission of HIV, Addis Ababa, Ethiopia May 2011.**

| Knowledge dimensions(N=196) | | Frequency | Percent (%) |
|---|---|---|---|
| Can the virus that causes aids be transmitted during pregnancy | Yes | 182 | 92.86 |
| | No | 14 | 7.14 |
| Can the virus that causes AIDS be transmitted during Delivery | Yes | 182 | 92.8 |
| | No | 14 | 7.14 |
| Can the viruse that causes aids be transmitted during breast feeding | Yes | 187 | 95.41 |
| | No | 9 | 4.59 |
| Is there any medication to reduce MTCT | Yes | 182 | 92.86 |
| | No | 14 | 7.14 |

**Previous Breast Feeding Experience, Disclosure of Sero Status and Future Infant Feeding Intention.**

The participants were asked about their previous breast feeding experience, whether they have told their test results to others and to whom did they told and their future intention and the result presented in Table 3. Of which, 169 (86.22%) of the women had disclosed their HIV status to others. Of those who disclosed, only 97(49.49%) had

disclosed to their partners/husband only, while 56(28.57%) had disclosed to their neighbor, mother and family members including their husband/partner and 16(8.16%) disclosed to others and 27(13.78%) did not disclose their status. With regard to breastfeeding experience, 93 (47.45 %) of the mothers had exclusively breast fed and 22(11.22%) of them had children but did not breastfed and 67(34.18%) had no children/did not breastfed. Exactly 159 (81.12%) of the participants intended to use Exclusive Breast Feeding (EBF); 25(12.76%) intended to use Replacement -Feeding (RF) and the remaining was intended for mixed feeding. The result of the qualitative study support this finding that Key informants in qualitative study who work as mothers support group coordinator mention that HIV positive pregnant women are also supported in the group by giving them advice to disclose their status to their husbands and family. Related with the women's future intention, a 30 years old key informant from mother's support group said that *"we have coffee ceremony and we discuses on infant feeding options with HIV positive pregnant women and most of them want to use EBF which is recently recommended and the mothers like it because others will not ask them why they don't breast feed their baby anymore"*

**Table 3: Respondents Breast Feeding Experience, Disclosure of Sero Status and Intention, Addis Ababa, Ethiopia May 2011**

| Variables | Frequency | % |
|---|---|---|
| **Breast feeding experience** | | |
| Did not have children | 67 | 34.18 |
| Exclusively breast feed | 93 | 47.45 |
| Had child/ren but did not breast fed | 22 | 11.22 |
| Other(mixed feeding, replacement feeding) | 14 | 7.14 |
| **Discloser** | | |
| Disclosed to my husband | 97 | 49.49 |
| Disclosed for all my family and neighbor | 56 | 28.57 |
| Not disclosed | 27 | 13.78 |
| Others(to sister, friends, brother) | 1 6 | 8.16 |
| **Intention** | | |
| Exclusive breast feeding | 159 | 81.12 |
| Replacement feeding | 25 | 12.76 |
| Mixed feeding | 12 | 6.12 |

**Predicting intention of infant feeding options from external variables.**

The effects of external variables on infant feeding intention were assessed and the result was presented in Table 4. Unlike educational status and knowledge on ways of mother to child transmission, number of ANC/PMTCT visit, age of the women, marital status and monthly income were not significantly predicting infant feeding intention. Women's educational status had a negative effect on intention to mixed feeding. For example, women with primary and secondary level of education were less likely to intend to use mixed feeding than exclusive breast feeding as opposed to women without formal education (AOR=0.64, 95% CI= 0.01-0.07 & 0.71, 95% CI= 0.14-3.73) respectively, however, the latter was not significantly associated. Similarly, educational attainment of women had an inverse relation with intention to replacement feeding but the result was not significant. On the other hand, women with higher score on

knowledge about MTCT had a reduced likelihood of both intention to replacement and mixed feeding than exclusive breast feeding as compared to women with smaller score. A unit increase in the score of knowledge about MTCT significantly reduced the likelihood of intention to mixed feeding by 58% (AOR=0.42, 95% CI=0.22-0.82) and replacement feeding by 49% (AOR=0.51, 95% CI=0.29-0.91). This regression model explained 11.3% of the variance ($R^2$=0.113) and the model was not significant at Log likelihood = 104.803 and p=0.21.

**Table 4: Socio-Demographic/External Variables Predictors of Infant Feed Options Addis Ababa, Ethiopia May 2011.**

| Variables | Infant feeding options (predicted ) | | | |
|---|---|---|---|---|
| | Replacement feeding | | Mixed feeding | |
| | Crude OR | Adjusted OR (95%CI) | Crude OR | Adjusted OR (95%CI) |
| **Age** | | | | |
| **17-19** | 1.00 | | 1.00 | |
| 20-25 | 1.23 | 0.86(0.86-8.72) | 0.46 | 0.19(0.01-2.77) |
| 26-30 | 0.92 | 0.71(0.07-6.66) | 0.29 | 0.14(0.01-1.86) |
| 31-35 | 0.65 | 0.61(0.04-8.51) | 0.61 | 0.48(0.30-7.72) |
| 36-40 | 0.46 | 0.25(0.01-5.76) | 0.92 | 0.30(0.015-6.10) |
| **Educational status** | | | | |
| No formal education | 1.00 | | 1.00 | |
| Primary education | 0.38 | 0.33(0.097-1.18) | 0.08* | 0.064(0.01-0.78)* |
| Secondary education | 0.53 | 0.41(0.12-1.43) | 0.86 | 0.71(0.14-3.73) |
| **Marital status** | | | | |
| Single | 1.00 | | 1.00 | |
| Married | 0.70 | 0.73(0.20-2.65) | 1.57 | 1.33(0.13-13.20) |
| Dissolved | 0.75 | 0.70(0.12-4.02) | 1.00 | 0.54(0.02-15.54) |
| **ANC/PMTCT visit** | 1.25 | 1.22(0.74-1.99) | 0.94 | 0.87(0.38-1.99) |
| Monthly income | 1.00 | 1.00(0.99-1.00) | 1.00 | 1.00(0.99-1.00) |
| **Knowledge about ways of MTCT** | 0.58* | 0.51(0.29-0.91)* | 0.45* | 0.42(0.22-0.82)* |

*Reference category for outcome variable=intention to exclusive breastfeeding*

**(***_ indicates significantly associated variables)

**Predicting intention of infant feeding option from direct measures of TPB components (attitude, subjective norms and perceived behavioral control)**

The mean score for attitude towards exclusive breast feeding was 16.72 (± 0.23) and in the regression model explain 23.80% ($R^2$=0.2380) of variance in the prediction of intention, mean score of attitude towards mixed feeding was 14.92 (± 0.22) and mean score of attitude towards replacement feeding was 11.30 (± 0.29). Likewise, after summing the score of each items for subjective norms, the mean score of subjective norm towards exclusive breast feeding was 15.5 (± 0.25), mean score of subjective norms towards mixed feeding was 8.94 (± 0.22) and mean score of subjective norms towards replacement feeding was 9.86 (± 0.29). Likewise, the mean score of perceived control towards exclusive breast feeding was 18.80 (± 0.23), mean score of perceived control towards mixed feeding 13.90 (± 0.27) and mean score of perceived control towards replacement feeding was 14.15 (± 0.29).

The effect of direct measures of TPB variables on infant feeding intention was evaluated and the result is presented in Table 5.

Accordingly, attitude toward exclusive breast feeding, subjective norms to EBF and perceived behavioral control to exclusively breast feed directly associated with exclusive breast feeding, however the result for subjective norm to EBF is not statistically significant. For instance, a unit increase in score of attitude toward exclusive breast feeding will reduce the likelihood of intention to replacement feeding by 26% (AOR=0.74, 95% CI=0.58-0.95). Likewise, a unit increase in score of attitude toward exclusive breast feeding will reduce the odd of intention to mixed feeding by a factor of 0.74 as compared to exclusive breast feeding.

Attitude toward RF and subjective norm and perceived behavioral control to RF are positively associated with intention to replacement feeding. However, only the result for perceived behavioral control to replacement feeding had a statistically verified positive effect on intention to replacement feeding. A unit increase in score to this scale also increased the Possibility of intention to replacement feeding (OR=1.04, 95% CI=1.05-

1.87).This regression model explained 47.3% of the variance ($R^2$=0.473) and the model was significant at Log likelihood = 62.357 and p=0.001.

**Table 5: predicting infant feeding intention from direct TPB constructs, Addis Ababa, Ethiopia May 2011(N=196).**

| Direct measures of TPB | Infant feeding options (predicted ) | | | |
|---|---|---|---|---|
| | Replacement feeding | | Mixed feeding | |
| | Crude OR | Adjusted OR (95%CI) | Crude OR | Adjusted OR (95%CI) |
| Attitude to EBF | 0.62* | 0.74 (0.58-0.95)* | 0.69* | 0.74 (0 .56-0.97)* |
| Attitude to RF | 1.44* | 1.23 (0.92 -1.63) | 1.32* | 1.27 (0.92-1.76) |
| Attitude to mixed | 0.83* | 1.20 (0.89 -1.62) | 0.71* | 0.93(0.69-1.26) |
| Subjective norm to EBF | 0.66* | 0.91 (0.73-1.15) | 0.79* | 0.96 (0.74-1.24) |
| Subjective norm to RF | 1.33* | 1.19 (0.93-1.51) | 1.23* | 1.06 (0.83-1.35) |
| Subjective norm to MF | 1.20* | 0.86 (0.65-1.14) | 1.36* | 1.01 (0.73-1.38) |
| perceived control to EBF | 0.74* | 0.63 (0.45-0.86)* | 0.91 | 0.95 (0 .66-1.37) |
| Perceived control to RF | 1.31* | 1.40 (1.05-1.87)* | 1.47* | 1.06 (0.79-1.43) |
| Perceived control mixed | 1.18* | 1.39 (0.96-2.01) | 1.30* | 1.18 (0 .83-1.67) |

*Reference category for outcome variable=intention to exclusive breastfeeding*

**(***_ indicates significantly associated variables)

**Predicting intention of infant feeding option from indirect measures of TPB constructs (weighted behavioral belief, normative belief and control belief).**

The mean of behavioral belief (weighted) towards exclusive breast feeding was 61.69 (± 1.02) and in the regression model it explain 25.55 % of the variance in the prediction of intention, the mean score of behavioral belief towards mixed feeding is 28.15 (± 0.87) and the mean score of behavioral belief replacement feeding is 31.25 (± 0.10). The mean score of normative belief towards exclusive breast feeding is 51.40 (± 1.19), the mean score of normative belief towards mixed feeding is 26.31 (± 0.70) and the mean score of normative belief towards replacement feeding is 29.71 (± 0.88). Likewise, the mean score of control belief towards exclusive breast feeding is 55.76 (± 1.30), mean score of control belief towards mixed feeding is 19.67 (± 1.32) and the mean score of control belief towards replacement feeding is 23.43 (± 1.07).

In line with the expectation of TPB, the indirect measures of subjective norm (weighted normative belief) towards exclusive breast feeding and the direct measure had strong correlation (r=0.73) and the indirect measure of attitude (weighted behavioral belief) towards exclusive breast feeding had moderate correlation with the direct measure (r= 0.62).

Contrary to the expectations of TPB, the correlation between the indirect measures of attitude (weighted behavioral belief), subjective norm (weighted normative belief) and perceived control (weighted control belief) towards RF and the direct measure had weak (r=0.48, 0.47 and 0.41) respectively. Similarly, the indirect measures of subjective norm (weighted normative belief) towards MF and the direct measure and the indirect measure of perceived control (weighted control belief) towards MF and the direct measure had weak correlation (r=0.49 and 0.42) respectively and the indirect measures of perceived control (weighted control belief) towards EBF and the direct measure also had weak correlation (r=0.39) but the indirect measures of attitude(weighted behavioral belief) towards MF had negative correlation with the direct measure (r=-0.50) suggesting that these two measures (the direct and indirect) of the above constructs may be assessing different psychological constructs that may independently contribute to the prediction of intention. In view of that, effect of indirect measures of the TPB variables on infant feeding intention was assessed separately.

Behavioral belief toward replacement feeding had positive effect on intention to replacement feeding; a unit increase on score to this scale also increases the likelihood of intention to replacement feeding (AOR=1.11, 95%CI= 1.03-1.21). Whereas, control belief to exclusive breast feed detracts the odd of intention to replacement feeding (AOR=0.89, 95% CI=0.84-0.95) as compared to intention to exclusive breast feeding. Although the results are not significant, behavioral and normative beliefs towards EBF also operate to the detriment of the odd of intention to replacement feeding as opposed to EBF. On the other hand, control belief to mixed feeding had a direct relation with intention to mixed feeding (AOR=1.12, 95% CI= 0.04-1.21). This regression model explained 57.9 % of the variance ($R^2$=0.579) and the model was significant at Log likelihood = 49.695 and p=0.001 and presented in Table 6 below. This result was supported by qualitative findings. The key informant also mentioned that the women's

will plane to use what they believe they can use it. For example, One key informant from PMTCT coordinator said that *"if a women believe she can use EBF, nothing will stop her from using it"* and she said *"ke leb kalekesu enba aygedem".* This means "if there is a will, there is a way".

**Table 6: Predicting Infant Feeding Intention from Indirect TPB Constructs, Addis Ababa, Ethiopia May 2011(N=196).**

| Indirect measures of TPB | Infant feeding options (predicted ) | | | |
|---|---|---|---|---|
| | Replacement feeding | | Mixed feeding | |
| | Crude OR | Adjusted OR (95%CI) | Crude OR | Adjuster OR (95%CI) |
| Behavioral belief to EBF | 0.88* | 0.97 (0.90-1.05) | 0.91* | 0.92 (0.83-1.01) |
| Behavioral belief to RF | 1.10* | 1.11 (1.03 -1.21)* | 1.05* | 1.03 (0.95-1.12) |
| Behavioral belief to mixed | 1.06* | 1.02 (0.93 -1.11) | 1.08* | 1.06(0.97-1.15) |
| Normative belief to EBF | 0.89* | 0.93 (0.83-1.04) | 0.94* | 0.97 (0.89-1.07) |
| Normative belief to RF | 1.02 | 1.04 (0.92-1.18) | 1.03 | 1.03 (0.94-1.12) |
| Normative belief to mixed | 0.98 | 0.89 (0.78-1.02) | 1.05* | 0.91 (0.80-1.02) |
| Control belief to EBF | 0.89* | 0.89 (0.84-0.95)* | 0.94* | 1.00 (0 .93-1.07) |
| Control belief to RF | 1.07* | 1.05 (0.98-1.12) | 1.04* | 0.96 (0.0.89-1.03) |
| Control belief to mixed | 1.04* | 1.03(0.97-1.10) | 1.10* | 1.12(0 .04-1.21)* |

*Reference category for outcome variable=intention to exclusive breastfeeding*

**(***_ indicates significantly associated variables)

**Predictor of intention of infant feeding options from direct and indirect measures of TPB constructs.**

The effect of significant direct and indirect measures of TPB variables on infant feeding intention was measured and the result was presented in Table 7. Accordingly, control belief (weighted) to exclusive breast feed had negative effect on intention to replacement feeding (AOR=0.91, 95% CI= 0.86-0.97). However, behavioral belief

(weighted) towards replacement feeding had positive effect on intention to replacement feeding (AOR=1.10, 95%CI= 1.03-1.16). Likewise, control belief (weighted) towards

mixed feeding significantly predicted intention to mixed feeding (AOR=1.08, 95% CI=1.03-1.14). This regression model explained 53.7% of the variance ($R^2$=0.537) and the model was significant at Log likelihood = 54.74 and p=0.001.

**Table 7: Predicting Infant Feeding Intention from Direct and Indirect TPB Constructs , Addis Ababa, Ethiopia May 2011(N=196).**

| Direct and Indirect measures of TPB | Infant feeding options (predicted ) | | | |
|---|---|---|---|---|
| | Replacement feeding | | Mixed feeding | |
| | Crude OR | Adjusted OR (95%CI) | Crude OR | Adjusted OR (95%CI) |
| Attitude to EBF | 0.62* | 0.89(0.68-1.17) | 0.69 * | 0.83(0.62-1.09) |
| Perceived control to EBF | 0.74* | 0.85(0.62-1.16) | 0.91* | 0.89(0.66-1.21) |
| Perceived control to RF | 1.31* | 1.32(1.03-1.69)* | 1.47* | 1.11(0.85-1.44) |
| Behavioral belief to RF | 1.10* | 1.10(1.03-1.16)* | 1.05* | 1.03(0.97-1.09) |
| Control belief to EBF | 0.89* | 0.91(0.86-0.97)* | 0.94* | 0.98(0.92-1.04) |
| Control belief to mixed | 1.04* | 1.02(0.96-1.07) | 1.10* | 1.08(1.031.14)* |

**Reference category for outcome variable=intention to exclusive breastfeeding**

**(***_ indicates significantly associated variables)

**Predicting intended infant feeding options, from direct and indirect measures of TPB constructs and External variables.**

The effect of significant direct and indirect measures of TPB variables with external variables on infant feeding intention was measured and the result is presented in Table 8. Accordingly, after controlling the effect of knowledge on ways of MTCT and educational status, control belief (weighted) to exclusive breast feed had negative effect on intention to replacement feeding. A unit increase on score to these scales significantly reduced intention to replacement feeding. For instance, a unit increase in score of control belief towards exclusive breast feeding will reduce intention to replacement feeding by 90% (95% CI= 84% to 96%) compared to intention to exclusive

breast feeding. However, behavioral belief (weighted) towards replacement feeding had positive effect on intention to replacement feeding; a unit increase on score of behavioral belief towards replacement feeding increased intention to replacement feeding (OR=1.11, 95%CI= 1.03-1.19). Likewise, control belief (weighted) towards mixed feeding significantly predicted intention to mixed feeding (OR=1.10, 95% CI=1.03-1.17). This regression model explained 59.1% of the variance ($R^2$=0.591) and the model was significant at Log likelihood = 48.27 and p=0.001.

**Table 8: Predicting Infant Feeding Intention from Direct and Indirect TPB Constructs and Selected External Variables, Addis Ababa, Ethiopia May 2011(N=196).**

| Direct and Indirect measures of TPB and external variables | Infant feeding options (predicted ) | | | |
|---|---|---|---|---|
| | Replacement feeding | | Mixed feeding | |
| | Crude OR | Adjusted OR (95%CI) | Crude OR | Adjusted OR (95%CI) |
| **Knowledge about ways of MTCT** | 0.58* | 1.70(0.47-6.05) | 0.45* | 0.80(0.28-2.26) |
| **Educational status** | | | | |
| No formal education | 1.00 | 1.00 | 1.00 | 1.00 |
| Primary education | 0.38* | 1.92(0.24-15.04) | 0.08* | 0.10(0.00-1.95) |
| Secondary education | 0.53 | 0.30(0.03-2.58) | 0.86* | 1.32(0.19-9.11) |
| **Direct measures of TPB** | | | | |
| Attitude to EBF | 0.62* | 0.82(0.59-1.14) | 0.69* | 0.81(0.60-1.10) |
| Perceived control to EBF | 0.74* | 0.85(0.62-1.16) | 0.91* | 0.84(0.59-1.19) |
| Perceived control to RF | 1.31* | 1.31(0.98-1.75) | 1.47* | 1.05(0.77-1.43) |
| **Indirect measures of TPB** | | | | |
| Behavioral belief to RF | 1.10* | 1.11(1.03-1.19)* | 1.05* | 1.00(0.94-1.07) |
| Control belief to EBF | 0.89* | 0.90(0.84-0.96)* | 0.94* | 1.00(0.93-1.08) |
| Control belief to mixed | 1.04* | 1.03(0.97-1.10) | 1.10*’ | 4.10(1.03-1.17)* |

Reference category for outcome variable=intention to exclusive breastfeeding

**(***_ indicates significantly associated variables)

## 6. Discussion

A woman's decision to Exclusively Breastfeed (EBF), Mixed Feeding (MF) or Replacement-feeding (RF) is influenced by their attitude and the perceived control over the behavior. This study assessed attitude, social norms and perceived behavioral control regarding intention to use different infant feeding options, using the TPB as a conceptual framework and the findings indicated that TPB is a predictor of women infant feeding intention and this finding is similar with cluster-randomized trial based on the Theory of Planned Behavior which showed Mothers' intention towards recommended feeding behaviors was positively associated with mothers' attitudes, subjective norms and self-efficacy(38).

Four in five of women (81%) intended to use Exclusive Breast Feeding (EBF); 25(13%) intended to use Replacement -Feeding (RF); 12(6%) intended to use mixed feeding (MF). This is different from a study conducted in South Africa which showed that 74% of the 293 study participants intended to formula feed their babies, while 26% planned to breastfeed or mixed feed (36). This difference may be because of the new guideline on infant feeding counseling which recommends EBF in the first six months which is currently in use at health institutions in our country and might show the effectiveness of counseling on infant feeding options by health facilities. This was supported by qualitative finding on which key informants mentioned that the women's choice would be recommended infant feeding option after they know the benefit, for instant, One key informant said that *"most mother's are volunteer to use the recommended infant feeding options if we tell them that they can prevent their baby from getting the virus by using particular feeding options".*

Majority (93%) of the women know that HIV can be transmitted during pregnancy, during delivery, also know that there is medication to prevent MTCT and about (95%) know that the virus can be transmitted during breast feeding. This is similar with a study conducted in china but higher than findings of Ethiopian demographic and health survey (37). This might be because this group of women has more access to information on ways of mother to child transmission and about medication.

Women who knows that HIV can be transmitted during pregnancy, delivery, breast feeding and who knows that there is medication to prevent mother to child transmission (MTCT) chose Exclusive Breast Feeding (EBF). This was similar with findings from qualitative study which also indicates women who know about ways of mother to child transmission will choose EBF. For example, a 30 years old mother's support group coordinator said that "*we work on infant feeding education with HIV positive pregnant women"* and she said that *"we tell them ways of mother to child transmission and to prevent their baby using only breast feeding for the first six months and almost all of them knows this".* This might be because the women's are well informed about ways of mother to child transmission and recommended feeding options.

Majority of the women 182 (93%) know all routs (during pregnancy, delivery and breast feeding) of mother to child transmission. Lack of understanding around transmission was therefore an unlikely cause of planning mixed feeding in this study population. In other populations where knowledge may be lower, however, it is possible that this would be a more important factor and in this study of women who intended to use EBF (94.3%) answered the question 'can the virus that cause AIDS be transmitted from MTC during breast feeding correctly more cases than those intending to use Replacement Feeding (RF) (88%) and intending to use Mixed Feeding (MF) (83.3%), it must be noted that the rest from each category answered the question incorrectly and there is only a slight difference in their knowledge on each specific ways of mother to child transmission. It may therefore be that knowledge on HIV transmission during breast feeding alone is insufficient in some cases to influence the choices that women make to use a particular feeding option.

In contrast to knowledge on ways of MTCT and educational status, level of disclosure, number of ANC/PMTCT, income, marital status and family size did not have an impact on feeding intention of the women in this study. This might show that if a woman knows how to prevent her baby from getting the virus and if she has a better understanding of MTCT then she will prefer to use EBF. This is different from qualitative findings, in which participants mentioned discloser as one of the factor in choosing infant feeding options. For instance, one key informant said that *"a woman is most likely to use mixed feeding if she doesn't tell her status to her husband".*

Attitude toward exclusive breast feeding, subjective norms to EBF and perceived behavioral control to exclusively breast feed directly associated with exclusive breast feeding, however the result for subjective norm to EBF is not statistically significant. However, Attitude toward RF and perceived behavioral control to RF are positively associated with intention to replacement feeding. This is similar with the theory of planed behavior assumption that when attitude and perceived control become positive toward the behavior the likely hood of performing the behavior is high.

The simultaneous predictive power of direct measures of TPB (attitudes, subjective norms and perceived behavioral control) on intended infant feeding option in terms of the adjusted R square was 0.473 (i.e., explained only 47.3% of variance).

In multinominal regression analysis on the indirect predictors of intention, behavioral belief (weighted) towards replacement feeding had positive effect on intention to replacement feeding. However, control belief (weighted) towards exclusive breast feeding was significant reduced intention to RF. Control belief towards mixed feeding significant increased intention to mixed feeding compared to exclusive breast feeding. This was supported by qualitative findings that the key informants mentioned the women's belief of their ability to use a particular feeding option as one factor that determine their choice, for instance, a 30 years old key informant said that *"a women can use a particular feeding option if she believe she can use it in recommended ways and duration."* . This is also similar with the assumption of TPB assumption.

The simultaneous predictive power of weighted behavioral belief, normative belief and control belief on intention in terms of the adjusted R square was 0.579 (i.e., explained 57.9% of variance).

## Strength of the study

The study was conducted in 19 health institutions which covers more than half of health institutions under Addis Ababa regional health bureau which makes it more representative. This study was supported by qualitative study.

## Weakness/Limitation of the study

While health professional/PMTCT counselor collected the data, it was expected that there would be social desirability bias and interviewer biases in these data.

These limitations notwithstanding, the results of this study can be used to inform interventions targeting feeding counseling among HIV-infected pregnant women.

**Conclusion**

This study shows that more than one third of the women who participated in this study intended to use EBF which indicates that the recommended feeding option might have the chance to be practiced by most of them.

This study also indicated that counseling on feeding choices for HIV- positive pregnant women should be extremely sensitive to the numerous internal and external factors impinging on that decision. For example, internal factors like attitude and perceived behavioral control. The finding from this study showed that HIV positive pregnant women who knows ways of MTCT of HIV and have more education tended to choose EBF.

This study further emphasizes the importance of support by health professionals and mothers support groups to HIV positive women in their infant feeding decisions. Health professionals have a crucial role in communicating positive views on exclusive breastfeeding to HIV positive pregnant women.

Replacement feeding is intended by few HIV-positive pregnant mothers. Further efforts are needed to optimize infant feeding counseling and to increase the feasibility of the recommendations.

**Recommendation**

Addis Ababa Health bureau, Health institutions and health professionals should develop strategic communication to HIV positive pregnant women,

To increase their control belief that to use EBF in the first six month or not is up to them and under their control.

To increase their behavioral belief that if they use EBF in the first six months, they can prevent their baby from getting the virus and

To increase their behavioral beliefs that if they use EBF in the first six months, they will help their baby get important nutrients.

Health institutions should considered how to enhance the support that health professionals provide to HIV positive pregnant women in their infant feeding choice. Future interventions to Promote exclusive breastfeeding could adopt a broad social approach, encouraging positive norms for existing and potential HIV positive pregnant mothers and fathers, families and people in general.

Councilors should target the women's individual attitude and perceived behavioral control concerning their intended feeding options and recommended feeding options which will make intervention strategy on prevention of mother to child transmission (PMTCT), particularly during breast feeding effective, by creating enough awareness to the women's about recommended feeding option.

Researchers should give attention for further study on determinants of intended infant feeding options.

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# 8. Annexes

Elicitation study

Questionnaires were developed after conducting elicitation study to develop the indirect measures for all the predictor constructs in the TPB model (attitude; subjective norm; and perceived behavioral control).

Sample size for elective study

There were 8-10 purposively selected individuals in one FGD.

## Sample procedure for elective study

From Jimma university hospital PMTCT follower HIV positive pregnant mothers 8-10 of them was selected purposively based on their duration of counseling for infant feeding options that is those who get the counseling prior to days of data collection was selected to reduce their emotional disturbance. There for FGD was conducted by the counselor in PMTCT room in Jimma hospital and two other health professionals working in PMTCT in the hospital other than counseling room arranged by the staff. The discussion takes 11/2 hours. The participants was informed by PMTCT counselor two days prior to data collection and written consent was taken to assure their voluntary involvement and ethical issue and the data was collected by asking them to respond for the belief based questions based on the guideline ideas was probed to get hidden information. DATA was written and tape recorded.

Two researchers (those who collect the data) will independently analyze the content of the responses by labeling the themes and listing them in order of frequency for Behavioral beliefs, Sources of social pressure (reference individuals or groups) and control belief strength.

A questionnaire item was developed to assess each theme (attitude, subjective norm, perceived behavioral control and intention) that was emerged from the analysis. At this point, there was a draft for questions to assess Behavioral beliefs, Sources of social pressure (reference individuals or groups) and control belief strength. The first draft of the questionnaire includes:

A set of demographic questions which provide information about the sample, Questions which provide direct measures of all three predictor variables. In the questions developed from the elicitation study, which are belief-based measures of the same three predictor variables (attitude, subjective norm and perceived behavioral control) was included and a set of questions to assess behavioral intention. Each construct was measured using a minimum of three items. In addition to the demographic questions, this will result in a minimum of 12 items for intentions and direct measures of the predictor variables and a further 18 items for belief-based measures. Thus, the questionnaire should consist of a minimum of 40 items, plus 8 demographic items.

Pre test was done by asking about 10 respondents to complete the questionnaire and comment on the items.

To assure the reliability of each measure cronbach coefficient Alpha was calculated and a cut-off 0.7 0r higher score was accepted for all the scales below was rejected.

For in-depth interview a topic guide with semi structured questionnaire was developed by the principal investigator for the subsequent line of question. Result

Table 1: Socio demographic characteristics of participants

| Participants' code | Age | Educational level | Remark |
|---|---|---|---|
| P1 | 27 | 5$^{th}$ grade | |
| P2 | 30 | 3$^{rd}$ grade | |
| P3 | 28 | 8 " | |
| P4 | 26 | 5 " | |
| P5 | 24 | 9 " | |
| P6 | 30 | 7 " | |
| P7 | 20 | Diploma | |
| P8 | 25 | Illiterate | |

TABLE 2. Results of elicitation interviews pertaining to HIV positive pregnant women infant feeding behavioral beliefs.

| My breast feeding the baby for the first six months after birth | no. of resp. | Discloser of status |
|---|---|---|
| Advantage to the baby | | |
| Helps the baby get important nutrients ----6<br>It express my love to the baby-----8<br>Makes the baby strong -------8 | | I first tell to my Mather--------2<br>I first tell to my husband --------3<br>I first tell to my brother ----------1 |
| Advantage to me | | |
| I cannot afford replacement feeding -------4<br>So I can give my baby breast only --------3<br>I will eat neutrsiouse foods and then<br>I will give the baby EB----------3<br>It protects me from breast pain ------1 | | |
| My mixed feeding the baby | | |
| Advantage to the baby | | |
| No advantage | | |
| Disadvantage | | |
| Transmission of the virus -------8 | | |
| My using of Replacement feeding | | |
| | | |

Advantage to the baby

| Prevents HIV transmission -------8 |
|---|

Disadvantage to the baby

| Cannot give all the neutrants important<br>For him -----1 |
|---|
| Advantage to the mother |

Table 2 continued

| |
|---|
| I can be sure that my baby will not get the virus----6 |
| Disadvantage |
| Not affordable---- 4 |

Patients' source of normative influence and patients' control beliefs.

Source of influence

Health professionals ----8

Mother's support group--- 8

My husband ---8

My family---8

Control belief

Knowing the advantage and disadvantage ----8

If health professionals tell me ---8

If I can protect my baby------- 8

## 1. Semi Structured Questionnaire for Exit Interview

I **Written Consent Form for HIV positive pregnant women**

**Date**: _____

**Research title**: Predictors of intended infant feeding options among HIV positive pregnant mothers.

**Principal investigator**: Bezawit Temesgen

**Sponsors**: Jimma University

Introduction: HIV infection among children under 15 is a growing problem in the world, and nearly 90% of infected children live in Sub-Saharan Africa. Despite substantial progress in reducing child morbidity and mortality and promoting family health in recent decades, there are still unacceptable disparities in maternal and child health Worldwide. While child mortality has declined in the past Decades in many regions, progress on key indicators has begun to slow down.

**Purpose of the Research: -**this study aimed to describe the infant feeding choices made antenatally by pregnant HIV-positive women after the counseling process and to establish the behavioral and psychological determinants.

**What You will be Asked to Do in the Research**:

**Risks and Discomforts**: We do expect some emotional discomfort but no any risk from your participation in the research.

**Benefits of the Research and Benefits to You**:

**Confidentiality**: All information you supply during the research will be held in confidence and your name will not appear in any report or publication of the research.

**Voluntary Participation**: Your participation in the study is completely voluntary and you may choose to stop participating at any time. Your decision not to volunteer will not influence the *[treatment you may be receiving] [nature of the ongoing relationship you may have with the researchers or study staff]* either now, or in the future.

**Withdrawal from the Study**: You can stop participating in the study at any time, for any reason, if you decide so.

**Consent form**

I have been fully informed about this research study, and its aim is to assess the intention of HIV positive pregnant mothers on recommended infant feeding options. I also told that I will take part in the study organized for this purpose which may take a maximum of ----- minutes. I have been informed and also given written information that the study does not harm but may be associated with minimal discomfort. I am aware that information acquired from the study/discussion not be shared outside the research group. In addition, I understand that the data will be stored in lockable cabinet and access to the records will be restricted to the principal investigator and authorized members of the study team. The data will be stored for a maximum of 10 years.

I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to participate in this research study and understand that I have the right to withdraw from the discussion at any time without in affecting my right.

**Signature or thumb impression of participant _____**

**Date_____**

Data collector

Name_____ signature_____

Date _____

| | | | |
|---|---|---|---|
| | | | **Date /____/___/___/20010** |
| Note the inclusion criteria:<br>• Is she you newly diagnosed?<br>• Didn't she get counseling for infant feeding options previously?<br>If "yes" to any of the questions, thank the mother and stop the interview | | | |
| Interviewer's name_____ | | | Interviewer's code_____ |
| Time at beginning of Interview ____:_____ | | | |
| **S. no** | Questions and filter | Coding categories | **Skip/ Remark** |
| **Section I. socio demographic Characteristics of mothers** | | | |
| 201 | How old are you | Age in completed years_____ | |
| 202 | Have you ever attended school? | Yes-------1<br>No--------2 (if no skip) | 205 |
| 203 | What is the highest grade you completed? | Grade ___ ___<br>Tech./Voc.certificate -----13<br>University/college diploma-14<br>University/college degree or higher --15 | |
| 204 | What is your religion? | Orthodox ----------1<br>Catholic ---------- ---2<br>Protestant ----------3<br>Muslim ----------4<br>Other(Specify) _____ | |
| 205 | What is your occupation?<br>That is, what kind of work you mainly do? | Farmer ----------1<br>Student ----------2<br>Trader ----------3<br>Housewife ----------4<br>Government employee-----5<br>Private sector employee----6 | |

| | | | |
|---|---|---|---|
| | | Self employed -------7<br>Others<br>(Specify)_____8 | |
| 206 | What is your current marital status? | Single/never married------ 1<br>Married/living together---- 2<br>Divorced/separation--------3<br>Widowed ----------4 | |
| 207 | What is your ethnicity | Oromo ___ ___13<br>Amhara --------- 14<br>Tigira -- -—------15<br>Gurage -------- --16<br>Other specify----- 17 | |
| 208 | Family size | Female _____<br>Male_____ total _____ | |
| 209 | How much is your average family income per month. | Monthly income _____ | |
| 210 | What was your previous breast feeding experience? | No previous children-------1<br>Breastfeed previous children---2<br>Had other children but did not breast feed them -------3<br>Other specify _____ | |
| 211 | Did you tell your test result to any one | Yes-------1<br>No -------2 | 213 |
| 212 | To whom did u tell | Your husband--------1<br>Your mother----------2<br>Your neighbor--------3<br>Other specify _____ | |
| 213 | How many times did you receive ANC and PMTCT counseling during this Pregnancy? | Number of times_____<br>Do not know_____ | |
| 214 | During any of the antenatal visits for this pregnancy, did you hire about infant feeding options from professionals? | Yes ----------1<br>No ----------2 | |

| | | | |
|---|---|---|---|
| 215 | Can the virus that causes AIDS be transmitted from a mother to her baby: During<br>1. Pregnancy<br>2. Delivery<br>3. Breast feeding | Yes No<br>1 2<br>1 2<br>1 2 | |
| 216 | Are there any special medications that a doctor or a nurse can give to a woman infected with the AIDS virus to reduce the risk of transmission to the baby? | Yes ----------1<br>No ----------2<br>Don't know---------3 | |
| **Section II: Measuring behavioral intention** | | | |
| | | | |
| 301.1 | I expect to exclusively breast feed my baby for the first 6 months after birth | Strongly agree----------5<br>Agree----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree-------1 | |
| 301.2 | I want to exclusively breast feed my baby for the first six months after birth | Strongly agree---------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree ----1 | |
| 301.3 | I intend to exclusively breast feed my baby for the first six months after birth | Strongly agree--------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree----1 | |
| 301.4 | I expect to use mixed feeding after birth | Strongly agree----------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree -------1 | |
| 301.5 | I want to use mixed feeding after birth | Strongly agree----------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--------1 | |
| 301.6 | I intend to use mixed feeding after birth | Strongly agree----------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2 | |

| | | | |
|---|---|---|---|
| | | Strongly disagree--------1 | |
| 301.7 | I expect to use replacement feeding for my baby after birth | Strongly agree----------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--------1 | |
| 301.8 | I want to use replacement feeding for my baby after birth | Strongly agree----------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--------1 | |
| 301.9 | I intend to use replacement feeding for my baby after birth | Strongly agree----------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--------1 | |
| **Section III: Measuring attitude** | | | |
| 401.1 | Exclusively breast feeding my baby in the first six month is harmful | Strongly agree----------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree -------1 | |
| 401.2 | Exclusively breast feeding my baby in the first six month is good | Strongly agree----------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--------1 | |
| 401.3 | Exclusively breast feeding my baby in the first six month is pleasant | Strongly agree----------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--------1 | |
| 401.4 | Exclusively breast feeding my baby in the first six month is worthless | Strongly agree----------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--------1 | |

| | | | |
|---|---|---|---|
| 401.5 | Mixed feeding in the first six month is harmful | Strongly agree----------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---------1 | |
| 401.6 | Mixed feeding in the first six month is good | Strongly agree----------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---------1 | |
| 401.7 | Mixed feeding in the first six month is pleasant for me | Strongly agree----------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---------1 | |
| 401.8 | Mixed feeding in the first six month is worthless | Strongly agree----------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---------1 | |
| 401.9 | Replacement feeding after birth is harmful | Strongly agree----------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---------1 | |
| 401.10 | Replacement feeding after birth is good | Strongly agree----------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---------1 | |
| 401.11 | Replacement feeding after birth is pleasant for me | Strongly agree----------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---------1 | |
| 401.12 | Replacement feeding after birth is worthless | Strongly agree----------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---------1 | |
| | | | |

| **Section IV: Measure subjective norms** | | | |
|---|---|---|---|
| 501.1 | Most people who are important to me think that I should EBF my baby for the first six months. | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree----1 | |
| 501.2 | It is expected of me that I exclusive breast feed my baby for the first 6 months | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree----1 | |
| 501.3 | I feel under social pressure to exclusively breast feed my baby for the first six months | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 501.4 | People who are important to me want me to exclusively breastfeed my baby for the first six months. | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 501.5 | Most people who are important to me think that I should use mixed feeding for my baby after birth | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 501.6 | It is expected of me that I use mixed feeding for my baby for the first 6 months | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 501.7 | I feel under social pressure to use mixed feeding for my baby after birth | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 501.8 | People who are important to me want me to use mixed feeding for my baby after birth | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |

| | | | |
|---|---|---|---|
| 501.9 | Most people who are important to me think that I should use replacement feeding for my baby after birth. | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 501.10 | It is expected of me that I use replacement feeding for my baby starting from birth | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 501.11 | I feel under social pressure to use replacement feeding for my baby starting from birth | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 501.12 | People who are important to me want me to use replacement feeding for my baby starting from birth | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| | **Section V: Measuring perceived behavioral control** | | |
| 601.1 | I am confident that I could use EBF for my baby for the first six months | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 601.2 | I am confident that I could use mixed feeding for my baby after birth | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 601.3 | I am confident that I could use replacement feeding after birth for my baby | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 601.4 | To use EBF is easy for me to use | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2 | |

| | | | |
|---|---|---|---|
| | | Strongly disagree---1 | |
| 601.5 | To use Mixed feeding is easy for me | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 601.6 | To use Replacement feeding is easy for me | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 601.7 | To use EBF is entirely up to me | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 601.8 | To use mixed feeding is entirely up to me | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 601.9 | To use replacement feeding is entirely up to me | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 601.10 | To use EBF is beyond my control | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 601.11 | To use Mixed feeding is beyond my control | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 601.12 | To use replacement feeding is beyond my control | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |

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|---|---|---|---|
| 601.13 | The decision to use EBF is beyond my control | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 601.14 | whether I use EBF or not it is up to me | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 601.15 | The decision to use mixed feeding is beyond my control | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 601.16 | Whether I use mixed feeding or not it is entirely up to me | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 601.17 | The decision to use replacement feeding or not is entirely up to me | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 601.18 | Whether I use replacement feeding or not is entirely up to me | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| Indirect measures | | | |
| Se/no | Section I: measuring behavioral beliefs | | |
| 701.1 | If I use EBF, I will feel that I am doing something good for my baby | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 701.2 | It helps the baby get important nutrients if I use EBF for the first six months | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |

| | | | |
|---|---|---|---|
| 701.3 | If I use EBF, I will express my love to my baby | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 701.4 | If I use replacement feeding, I will fell that I am doing something good for my baby | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 701.5 | It helps the baby get important nutrients if I use replacement feeding after birth | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 701.6 | If I use replacement feeding, I will express my love to my baby | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 701.7 | If I use mixed feeding, I will feel that I am doing something good for my baby | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 701.8 | It helps the baby get important nutrients if I use mixed feeding | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| 701.9 | If I use mixed feeding, I will feel that I am doing something good for my baby | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| | Section II: measuring outcome evaluation | | |
| 801.1 | Doing something good for my baby is important | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 801.2 | Helping the baby get important nutrients is important | Strongly agree------5<br>Agree ----------4 | |

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|---|---|---|---|
| | | Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 801.3 | Expressing my love to my baby is important | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree---1 | |
| | Section III: Normative belief | | |
| 901.1 | Health professionals think that I should use exclusively breastfeed my baby for the first six months | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 901.2 | My husband would approve exclusively breast feeding my baby for the first six months | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 901.3 | My family would approve exclusively breast feeding my baby for the first six months | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 901.4 | Health professionals think that I should use replacement feeding for my baby after birth | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 901.5 | My husband would approve replacement feeding my baby after birth | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 901.6 | My family would approve replacement feeding my baby after birth | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 901.7 | Health professionals think that I should use mixed feeding for my baby after birth | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3 | |

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|---|---|---|---|
| | | Disagree ----------2<br>Strongly disagree--1 | |
| 901.8 | My husband would approve mixed feeding my baby after birth | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 901.9 | My family would approve mixed feeding my baby after birth | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| | Section IV : measuring motivation to comply | | |
| 1001.1 | What health professionals think I should do matters to me | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 1001.2 | My husband approval of my EBF is important to me | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 1001.3 | My family approval of my EBF is important to me | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| | Section V: measuring control beliefs | | |
| 1002.1 | If I know the advantage, it is more likely to use EBF | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 1002.2 | If health professionals told me, it is more likely to use EBF | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 1002.3 | If I can protect my baby from getting the virus, it is more likely to use EBF | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2 | |

| | | | |
|---|---|---|---|
| | | Strongly disagree--1 | |
| 1002.4 | If I know the advantage , it is most likely to use replacement feeding | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 1002.5 | If health professionals told me, it is most likely to use replacement feeding | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 1002.6 | If I can protect my baby from getting the virus ,it is most likely to use replacement feeding | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 1002.7 | If I know the advantage, it is most likely to use mixed feeding | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 1002.8 | If health professionals told me, it is most likely to use mixed feeding | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 1002.9 | If I can protect my baby from getting the virus, it is most likely to use mixed feeding | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| | Section VI: measuring control belief power | | |
| 1003.1 | After knowing the advantage, it will be easier for me to use EBF | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 1003.2 | Being told by Health professionals makes it more easier to use EBF | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 1003.3 | Protecting my baby from getting the virus makes it | Strongly agree------5 | |

| | | | |
|---|---|---|---|
| | more likely to use EBF | Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 1003.4 | After knowing the advantage, it will be easier for me to use replacement feeding | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 1003.5 | Being told by Health professionals makes it more easier to use replacement feeding | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 1003.6 | Protecting my baby from getting the virus makes it more likely to use replacement feeding | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 1003.7 | After knowing the advantage, it will be easier for me to use mixed feeding | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 1003.8 | Being told by Health professionals makes it more easier to use mixed feeding | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| 1003.9 | Protecting my baby from getting the virus makes it more likely to use mixed feeding | Strongly agree------5<br>Agree ----------4<br>Neutral ----------3<br>Disagree ----------2<br>Strongly disagree--1 | |
| | Thank you for your participation | Time at the end of interview__:___ | |

## 4.12 In-Depth Interview Guideline for Mothers Support Group

Hello. Good morning/afternoon! First of all we like to express our heartfelt thanks to you for coming to attend this event. My name is _____. I am here to conduct interview on predictors' of intended infant feeding options among HIV positive pregnant mothers in _____. I would like to ask you a few questions about your intention to feed your child after birth. Dear participant, you have been selected hoping that you give relevant information on this issue. Your information will be tape recorded and written. No personal identifiers will be attached/ recorded to the questionnaires.

All response will be kept confidential that means your response will only be shared with research team members and we will ensure that any information we include in our report does not identify you as respondent. Remember, you do not have to talk anything you do not want to and you may end the interview at any time. May I continue?

If the respondent agree to continue, ask if he/she has any questions. Respond to questions as appropriate, and then ask Q1.

1. Socio demographic characteristics of participants

   Age _____

   Sex _____

   Educational status_____

   Occupation _____

   Responsibility in mother's support group_____
2. What services are given in the mothers support group? How?
3. Does your program include infant feeding issues? How?

   If yes what are the advantages and challenges while working on infant feeding with HIV positive mothers?
4. How do you support the mothers?
5. What factors/situations do you think can affect HIV positive pregnant women infant feeding choice?
6. Do you have anything to say about infant feeding counseling on HIV positive pregnant women?

## 4.13 In depth interview guide line for health professionals.

**Informed consent form**

Hello. My name is _____. I am here to conduct a study on predictors of intended infant feeding options among HIV positive pregnant mothers in _____. I would like to ask you a few questions about the policy/guideline and counseling in your institution. Your information will be recorded on a questionnaire. No personal identifiers will be attached/ recorded to the questionnaires.

All response will be kept confidential that means your response will only be shared with research team members and we will ensure that any information we include in our report does not identify you as respondent. Remember, you do not have to talk anything you do not want to and you may end the interview at any time. May I continue?

If the respondent agrees to continue, ask if he/she has any questions. Respond to questions as appropriate, and then ask Q1.

**A. General Information**

Date: _____ Time of data collection_____

Interviewee's Title _____ Qualification _____

Name of Facility_____

Address: Woreda_____ Town _____Tel_____

**B. Availability and or implementation of Guidelines, Manuals**

1. Is there a national policy or guidelines for infant and young child feeding (IYCF) for the context of HIV? YES NO
   If YES

2. Which feeding options are recommended for infants of HIV-positive mothers up to 6 months old? For children 6- 24 months old?

3. If any manual or guideline(s) is/are not available and/ or not utilized why? _____

C. **Human Resources**

Type and number of personnel involved in PMTCT counseling

| Ser. No | Qualification | Total Number | Number Trained in PMTCT | Number involved in PMTCT counseling | Remark |
|---|---|---|---|---|---|
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |

**D. Availability of services**

1. How is HIV and infant feeding counseling integrated into antenatal care services?
2. Who typically counsels HIV-positive women on infant feeding within health facilities?
3. What are the counselors' beliefs regarding how HIV-positive mothers should feed their babies?
4. Does the health facility have supplies for demonstrating replacement

   Feeding methods
5. Is commercial formula distributed by the health facility? If yes, how many months Supply does a mother receive at one time? How many months' supply total Will the formula be available?
6. What do you think the factors that affect maternal infant feeding choices? How?

**የኤች አይ ቪ ቫይረስ በደማችው ውስጥ ለሚኖር ነፍሰ ጡር ሴቶች የጽሁፍ ፈቃድ ማስሞያ**

**ቀን:** _____

**የጥናቱ ርዕስ:-** ኤች አይ ቪ ቫይረስ በደማቸው ውስጥ የሚኖር ነፍሰ ጡር ሴቶች ልጆቻቸውን ለማጥባት ያላቸውን ተነሳሽነት አመላካከቾች

**የጥናቱ ተግባሪ:** ቤዛዊት ተመስገን

**ስፖንሰር:-** ጅማ ዩኒቨርሲቲ

**መግቢያ:** የኤች አይ ቪ ቫይረስ እድሜያቸው ከ 15 አመት በታች በሆኑ ህፃናት ዘንድ በአለም ደረጃ እየጨመረ የመጣ ችግር ነው::

እናም ወደ 90% የሚሆኑ በቫይረሱ የተጠቁ ህፃናት የሚኖሩት ከሰሀራ በታች ባሉ የአፍሪካ ሐገሮች ነው:: ከቅርበ ዐመታት ወዲ የህፃናት ሞት እና ህመም በብዛት መቀነስ እና የቤተሰብ ጤና መበልፀግ ባሻገር አሁንም የህፃናትና የእናቶች ጤና በአለም ደረጃ የተለያየ ገፅታ አለው:: የህፃናት ሞት በተለያዩ አህጉራት ቢቀንስም ዋና ዋና የጤና አመላካከቾች ለውጥ እየቀነሰ መጥቶአል ::

**የጥናቱ አላማ:-** የዚ ጥናት አላማ ኤች አይ ቪ ቫይረስ በደማችው የሚገኝ ነፍሰ ጡር እናቶች በእርግዝና ወቅት የሚኖራችውን የህፃናት አመጋገብ ምርጫ ማብራራት እና ባህሪያዊና አካባቢያዊ ተፅኖዎችን ለመለየት ነው ::

በጥናቱ ሊጠየቁ የሚችሉት ነገሮች

**ጉዳትና ምቾት ማጣት:-** ከጥቂት ምቾት ማጣት በስተቀር በጥናቱ መሳተፎ ምንም አይነት ጉዳት አያስከትልም::

**ሚስጥር መጠበቅ:-** ማንኛውም እርስዎ የሚሰጡን መረጃ በሚስጥረር የሚያዝ ሲሆን ስሞት በማንኛውም ሪፖርትና ህትመት ላይ አይጠቀስም::

**በፍቃደኝነት መሳተፍ:-** በጥናቱ ላይ መሳተፍ ሙሉ በሙሉ በፍቃደኝነት ላይ የተመሰረተ ነው እናም ማንኛውም ሰዐት ከጥናቱ ማቋረጥ ይችላሉ በጥናቱ ላለመሳተፍ መወሰኖ በሚያገኙት የህክምና አገልግሎት ላይ ምንም አይነት ተፅዕኖ አያስከትልም

**በፍቃደኝነት መሳተፍን የሚያረጋግጥ የፅሁፍ መረጃ**

ስለጥናቱ በደንብ ተረድቻለሁ :: የጥናቱ ዐላማ ቫይረሱ በደማቸው ውስጥ ያለ ነብሰጡር ሴቶች ከወሊድ በኋላ ህጻናትን ለማጥባት ወይም ለመመገብ ያላቸውን ፅቅድና ተነሳሽነት ለመማጥናት መሆኑን ተረድቻለሁ:: በተጨማሪም በጥናቱ እንደምሳተፍና ጥናቱ _____ደቂቃ እንደሚፈጅ ተነግሮኛል:: ከዚህም ሌላ ጥናቱ ከጥቂት ምቾት ማጣት ጋር ቢያያዝ እንጂ ምንም ጉዳት እንደማያደርስብኝ ተነግሮኛል:: በጥናቱ የሚገኘው መረጃ ወይም ውይይት ከጥናቱ አባላት ውጪ እንደማይወጣ በተጨማሪም መረጃው በካዝና ተጠብቆ እንደሚቀመጥ ተረድቻለሁ:: መረጃው የማግኘት መብት ለጥናቱ ባለቤትና ለተፈቀደላቸው የጥናቱ አባላት የተወሰነ ነው መረጃው በትንሹ ለ10 ዐመት ሊቀመጥ ይችላል::

ስለጥናቱ ጥያቄ የመጠየቅ ዕድሉ ነበረኝ እናም የጠየኩት ጥያቄ በሙሉ በአጥጋቢ ሁኔታ ተመልሶልኛል በጥናቱ ላይ በፍቃደኝነት እንድሳተፍ ተጠይቄአለሁ:: እንዲሁም በማንኛውም ሰዐት ውይይቱን የማቋረጥ መብት እንዳለኝና ያም ምንም አይነት መብቴን እንደማይነካ ተነግሮኛል::

የተሳታፊ ፊርማ _____

ቀን _____

መረጃ ሰብሳቢ

ስም _____

ፊርማ _____

ቀን _____

III መጠይቅ

1. Exit interview semi structured questionnaire

| | | | |
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| | | | ቀን _____/_____/2003 |
| የመምረጫ መስፈርት:<br>• አዲስ ተመርማሪ<br>• በጨቅላ ህፃን አመጋገብ ላይ የምክር አገልግሎት አላገኘችም<br>ከላይ ለተጠየቁት የትኛውም ጥያቄ መልሱ አዎ ከሆነ ደንበኛዎን አመስግነው መጠይቁን ያቁዋርጡ | | | |
| መጠይቁን የሚሞላው ሰው ስም_____ | | የጤና ድርጅቱ ስም _____<br>የመጠይቁ መለያ ቁጥር_____ | |
| መጠይቁ የተጀመረበት ሰዐት _____:_____ | | | |
| S. no | Questions and filter | Coding categories | Skip/ Remark |
| Section I. socio demographic Characteristics of mothers | | | |
| 201 | እድሜዎ ስንት ነው | ሙሉ እድሜ | |
| 202 | ትምህርት ተምረው ያውቃሉ | አዎ-------1<br>አይደለም -------2 (if no skip) | 205 |
| 203 | ከፍተኛ የትምህርት ደረጃ | ክፍል<br>ሰርተፍኬት -------- 13<br>ዩኒቨርሲቲ ኮሌጅ ዲፕሎማ –14<br>ዩኒቨርሲቲ ኮሌጅ ድግሪ ወይ ከዛ በላይ--15 | |
| 204 | ሐይማኖትዎ ምንድነው | ኦርቶዶክስ ----------1<br>ካቶሊክ ----------2<br>ፕሮቴስታንት ----------3<br>ሙስሊም ----------4<br>ሌላ(ግለፅ) _____ | |
| 205 | ስራዎት ምንድነው<br>ማለትም በዋናነት የሚሰሩት ስራ | ተማሪ ----------2<br>ነጋዴ----------3<br>የቤት እመቤት ----------4<br>የመንግስት ሰራተኛ----------5<br>የግል ተቀጣሪ ----------6<br>ሌላ(ግለጽ)_____7 | |
| 206 | ወቅታዊ የጋብቻ ሁኔታ | ያላገባች ---------- 1 | |

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|---|---|---|---|
| | | ያገባች ---------- 2<br>የፈታች ---------- 3<br>የሞተባት -------- 4 | |
| 207 | ብሔር | ኦሮሞ ___ ___13<br>አማራ --------- 14<br>ትግሬ ---------- 15<br>ጉራጌ ---------- 16<br>ሌላ(ይግለፁ)----- 17 | |
| 208 | የቤተሰብ ብዛት | ወንድ _____<br>ሴት_____<br>ድምር _____ | |
| 209 | አማካኝ ወርሐዊ ገቢ | በቁጥር _____ | |
| 210 | ከአሁን በፊት የነበሮት ጡት የማጥባት ልምድ | ልጅ አልነበረኝም----------1<br>ልጅ ነበረኝ ጡት ብቻ አጠባ ነበር------2<br>ልጅ ነበረኝ ግን ጡት አላጠባሁም------3<br>ሌላ ይገለፅ _____ 4 | |
| 211 | የደም ምርመራ ውጤትም ለሌላ ሰው ገልፀሻል | አዎ-------1<br>አይ -------2 | 213 |
| 212 | ለማን ገለፅሽ | ለባለቤትሽ----------1<br>ለናትሽ----------2<br>ለጎረቤትሽ ----------3<br>ሌላ ይገለፅ_____4 | |
| 213 | ስንት ጊዜ የቅድመ ወሊድ ክትትል ወይም ከእናት ወደ ልጅ የኤች አይ ቪ ቫይረስ እንዳይተላለፍ የመከላከል አገልግሎት አገኘሽ | ብዛት_____<br>አላውቀውም_____ | |
| 214 | ለዕርግዝና ክትትል በመጣሽባቸው በማንኛውም ጊዜ ስለ ጨቅላ ህፃናት አመጋገብ አማራጮች ሰምተሻል | አዎ ----------1<br>አይ ----------2 | |
| 215 | ኤድስን የሚያስከትለው ኤች አይ ቪ ቫይረስ ከእናት ወደ ልጅ<br>1 በእርግዝና ጊዜ<br>2 በወሊድ ጊዜ<br>3 በጡት ማጥባት ጊዜ ይተላለፋል | <u>አዎ</u> <u>አይ</u><br>1 2<br>1 2<br>1 2 | |
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| 216 | ከእናት ወደ ልጅ የኤች አይ ቪ ቫይረስ እንዳይተላለፍ ሐኪም ወይም ነርስ የሚያዙት የተለየ መድሐኒት አለ | አዎ ----------1<br><br>አይ ----------2 | |
| Section II: Measuring behavioral intention | | | |
| | | | |
| 301.1 | ከወሊድ በሑዋላ ለመጀመሪያው 6 ወር ጡት ብቻ አጠባለሁ ብዮ እጠብቃለሁ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 301.2 | ከወሊድ በሑዋላ ለመጀመሪያው 6 ወር ጡት ብቻ ማጥባት እፈልጋለሁ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 301.3 | ከወሊድ በሑዋላ ለመጀመሪያው 6 ወር ጡት ብቻ የማጥባት ዝንባሌ አለኝ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 301.4 | ከወሊድ በሑዋላ ጡትና ሌላ ተጨማሪ ምግብና ፈሳሽ ልጄን እመግባለሁ ብዮ እጠብቃለሁ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 301.5 | ከወሊድ በሑዋላ ጡትና ተጨማሪ ምግብ ወይም ፈሳሽ ለልጄ መጠቀም እፈልጋለሁ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 301.6 | ከወሊድ በሑዋላ ጡትና ተጨማሪ ምግብ ወይ ፈሳሽ የመጠቀም ዝንባሌ አለኝ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 301.7 | ከወሊድ በሑዋላ ጡትን | በጣም እስማማለሁ----------5 | |

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| | የሚተኩ ምግብና ፈሳሽ ልጄን እመግባለሁ ብዮ እጠብቃለሁ | እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 301.8 | ከወሊድ በሑዋላ ጡትን የሚተኩ ምግብና ፈሳሽ ለልጄ መጠቀም እፈልጋለሁ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 301.9 | ከወሊድ በሑዋላ ጡትን የሚተኩ ምግብና ፈሳሽ ልጄን የመመገብ ዝንባሌ አለኝ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| Section III: Measuring attitude | | | |
| 401.1 | ከወሊድ በሑዋላ ለመጀመሪያው 6 ወር ጡት ብቻ ማጥባት ጎጂ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 401.2 | ከወሊድ በሑዋላ ለመጀመሪያው 6 ወር ጡት ብቻ ማጥባት ጥሩ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 401.3 | ከወሊድ በሑዋላ ለመጀመሪያው 6 ወር ጡት ብቻ ማጥባት ያስደስተኛል | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 401.4 | ከወሊድ በሑዋላ ለመጀመሪያው 6 ወር ጡት ብቻ ማጥባት ጥቅም የለውም | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |

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| 401.5 | ከወሊድ በሑዋላ በመጀመሪያው 6 ወር ጡትና ምግብ ወይም ፈሳሽ መጠቀም ጎጂ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 401.6 | ከወሊድ በሑዋላ በመጀመሪያው 6 ወር ጡትና ምግብ ወይም ፈሳሽ መጠቀም ጥሩ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 401.7 | ከወሊድ በሑዋላ በመጀመሪያው 6 ወር ጡትና ምግብ ወይም ፈሳሽ መጠቀም ያስደስተኛል | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 401.8 | ከወሊድ በሑዋላ በመጀመሪያው 6 ወር ጡትና ምግብ ወይም ፈሳሽ መጠቀም ጥቅም የለውም | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 401.9 | ከወሊድ በሑዋላ ጡትን የሚተኩ ምግቦችን መጠቀም ጎጂ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 401.10 | ከወሊድ በሑዋላ ጡትን የሚተኩ ምግቦችን መጠቀም ጥሩ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 401.11 | ከወሊድ በሑዋላ ጡትን የሚተኩ ምግቦችን መጠቀም ያስደስተኛል | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 401.12 | ከወሊድ በሑዋላ ጡትን የሚተኩ ምግቦችን መጠቀም ጥቅም የለውም | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |

| Section IV: Measure subjective norms | | | |
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| 501.1 | በጣም የምቀርባቸው ሰወች በመጀመሪያ 6 ወር ጡት ብቻ ማጥባት እንዳለብኝ ያስባሉ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 501.2 | በመጀመሪያ 6 ወር ጡት ብቻ ማጥባት ይጠበቅብኛል | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 501.3 | በመጀመሪያ 6 ወር ጡት ብቻ ማጥባት እንዳለብኝ ማህበረሰባዊ ግፊት ይሰማኛል | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 501.4 | በጣም የምቀርባቸው ሰወች በመጀመሪያ 6 ወር ጡት ብቻ እንዳጠባ ይፈልጋሉ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 501.5 | በጣም የምቀርባቸው ሰወች በመጀመሪያ 6 ወር ጡትና ተጨማሪ ምግብ ለልጄ መጠቀም እንዳለብኝ ያስባሉ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 501.6 | በመጀመሪያ 6 ወር ጡትና ተጨማሪ ምግብ ወይ ፈሳሽ መጠቀም ይጠበቅብኛል | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 501.7 | በመጀመሪያ 6 ወር ጡትና ተጨማሪ ምግብ ወይ ፈሳሽ የመጠቀም ማህበረሰባዊ ግፊት ይሰማኛል | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |

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| 501.8 | በጣም የምቀርባቸው ሰወች በመጀመሪያ 6 ወር ጡትና ተጨማሪ ምግብ ወይ ፈሳሽ እንድጠቀም ይፈልጋሉ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 501.9 | በጣም የምቀርባቸው ሰወች ከወሊድ በሑዋላ ጡትን የሚተኩ ምግቦችን መጠቀም እንዳለብኝ ያስባሉ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 501.10 | ከወሊድ በሑዋላ ጡትን የሚተኩ ምግቦችን መጠቀም ከእኔ ይጠበቃል | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 501.11 | ከወሊድ በሑዋላ ጡትን የሚተኩ ምግቦችን የመጠቀም ማህበረሰባዊ ግፊት ይሰማኛል | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 501.12 | በጣም የምቀርባቸው ሰወች ከወሊድ በሑዋላ ጡትን የሚተኩ ምግቦችን ወይም ፈሳሽ እንድጠቀም ይፈልጋሉ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| | Section V: Measuring perceived behavioral control | | |
| 601.1 | ከወሊድ በሑዋላ በመጀመሪያው 6 ወር ለልጄ ጡት ብቻ ልጠቀም እንደምችል እርግጠኛ ነኝ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 601.2 | ከወሊድ በሑዋላ በመጀመሪያው 6 ወር ለልጄ ጡትና ተጨማሪ ምግብ ወይም ፈሳሽ ልጠቀም እንደምችል እርግጠኛ ነኝ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 601.3 | ከወሊድ በሑዋላ በመጀመሪያው 6 ወር ለልጄ ጡትን የሚተኩ ምግቦችን ወይም ፈሳሽ ልጠቀም | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2 | |

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| | እንደምችል እርግጠኛ ነኝ | በጣም አልስማማም----------1 | |
| 601.4 | በመጀመሪያ 6 ወር ጡት ብቻ መጠቀም ለኔ ቀላል ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 601.5 | በመጀመሪያ 6 ወር ለልጄ ጡትና ተጨማሪ ምግብ ወይም ፈሳሽ መጠቀም ለኔ ቀላል ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 601.6 | በመጀመሪያ 6 ወር ለልጄ ጡትን የሚተኩ ምግቦችን ወይም ፈሳሽ መጠቀም ለኔ ቀላል ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 601.7 | በመጀመሪያ 6 ወር ጡት ብቻ መጠቀም የኔ ብቻ ጉዳይ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 601.8 | በመጀመሪያ 6 ወር ለልጄ ጡትና ተጨማሪ ምግብ ወይም ፈሳሽ መጠቀም የኔ ብቻ ጉዳይ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 601.9 | በመጀመሪያ 6 ወር ለልጄ ጡትን የሚተኩ ምግቦችን ወይም ፈሳሽ መጠቀም የኔ ብቻ ጉዳይ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 601.10 | በመጀመሪያ 6 ወር ጡት ብቻ መጠቀም ከእኔ ቁጥጥር ውጭ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 601.11 | በመጀመሪያ 6 ወር ለልጄ ጡትና ተጨማሪ ምግብ ወይም ፈሳሽ መጠቀም ከእኔ ቁጥጥር ውጭ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2 | |

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| | | በጣም አልስማማም----------1 | |
| 601.12 | በመጀመሪያ 6 ወር ለልጄ ጡትን የሚተኩ ምግቦችን ወይም ፈሳሽ መጠቀም ከእኔ ቁጥጥር ውጭ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 601.13 | በመጀመሪያ 6 ወር ጡት ብቻ የመጠቀም ውሳኔ ከእኔ ቁጥጥር ውጭ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 601.14 | በመጀመሪያው 6 ወር ጡት ብቻ ብጠቀም ባልጠቀም የኔ ጉዳይ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 601.15 | በመጀመሪያ 6 ወር ለልጄ ጡትና ተጨማሪ ምግብ ወይም ፈሳሽ የመጠቀም ውሳኔ ከእኔ ቁጥጥር ውጭ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 601.16 | በመጀመሪያ 6 ወር ለልጄ ጡትና ተጨማሪ ምግብ ወይም ፈሳሽ መጠቀም ባልጠቀም የኔ ብቻ ጉዳይ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 601.17 | በመጀመሪያ 6 ወር ለልጄ ጡትን የሚተኩ ምግቦችን ወይም ፈሳሽ መጠቀምና ያለመጠቀም የኔ ብቻ ጉዳይ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 601.18 | በመጀመሪያ 6 ወር ለልጄ ጡትን የሚተኩ ምግቦችን ወይም ፈሳሽ ብጠቀም ባልጠቀም የኔ ብቻ ጉዳይ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| Indirect measures | | | |
| Se/no | Section I: measuring behavioral beliefs | | |
| 701.1 | በመጀመሪያ6 ወር ጡት ብቻ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4 | |

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| | ብጠቀም ለልጄ ጥሩ ነገር እያረኩ እንደሆነ ይሰማኛል | ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 701.2 | በመጀመሪያ6 ወር ጡት ብቻ ብጠቀም ልጄ አስፈላጊውን ንጥረ ነገር እንዲያገኝ እረዳዋለሁ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 701.3 | በመጀመሪያ6 ወር ጡት ብቻ ብጠቀም ለልጄ ያለኝን ፍቅር ይገልፅልኛል | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 701.4 | በመጀመሪያ 6 ወር ለልጄ ጡትን የሚተኩ ምግቦችን ወይም ፈሳሽ ብጠቀም ለልጄ ጥሩ ነገር እያረኩ እንደሆነ ይሰማኛል | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 701.5 | በመጀመሪያ 6 ወር ለልጄ ጡትን የሚተኩ ምግቦችን ወይም ፈሳሽ ብጠቀም ልጄ አስፈላጊውን ንጥረ ነገር እንዲያገኝ እረዳዋለሁ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 701.6 | በመጀመሪያ 6 ወር ለልጄ ጡትን የሚተኩ ምግቦችን ወይም ፈሳሽ ብጠቀም ለልጄ ያለኝን ፍቅር ይገልፅልኛል | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 701.7 | በመጀመሪያ 6 ወር ለልጄ ጡትና ተጨማሪ ምግብ ወይም ፈሳሽ ብጠቀም ለልጄ ጥሩ ነገር እያረኩ እንደሆነ ይሰማኛል | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 701.8 | በመጀመሪያ 6 ወር ለልጄ ጡትና ተጨማሪ ምግብ ወይም ፈሳሽ ብጠቀም ልጄ አስፈላጊውን ንጥረ ነገር እንዲያገኝ እረዳዋለሁ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 701.9 | በመጀመሪያ 6 ወር ለልጄ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4 | |

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| | ጡትና ተጨማሪ ምግብ ወይም ፈሳሽ ብጠቀም ለልጄ ያለኝን ፍቅር ይገልፅልኛል | ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| | Section II: measuring outcome evaluation | | |
| 801.1 | ለልጄ ጥሩ ነገር ማድረግ ወሳኝ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 801.2 | ልጄ አስፈላጊ ንጥረ ነገሮች እንዲያገኝ መርዳት ወሳኝ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 801.3 | ለልጄ ያለኝን ፍቅር መግለፅ ወሳኝ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| | Section III: Normative belief | | |
| 901.1 | የጤና ባለሙያዎች በመጀመሪያ 6 ወር ጡት ብቻ መጠቀም እንዳለብኝ ሊያስቡ ይችላሉ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 901.2 | ባለቤቴ በመጀመሪያ 6 ወር ጡት ብቻ መጠቀሜን ሊደግፍ ይችላል | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 901.3 | ቤተሰቦቼ በመጀመሪያ 6 ወር ጡት ብቻ መጠቀሜን ሊደግፉ ይችላሉ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 901.4 | የጤና ባለሙያዎች ከወሊድ በሑዋላ ለልጄ ጡትን የሚተኩ ምግቦችን ወይም ፈሳሽ መጠቀም እንዳለብኝ ሊያስቡ ይችላሉ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |

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| 901.5 | ባለቤቱ ከወሊድ በሑዋላ ለልጇ ጡትን የሚተኩ ምግቦችን ወይም ፈሳሽ መጠቀሜን ሊደግፉ ይችላል | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 901.6 | ቤተሰቦቼ ከወሊድ በሑዋላ ለልጇ ጡትን የሚተኩ ምግቦችን ወይም ፈሳሽ መጠቀሜን ሊደግፉ ይችላሉ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 901.7 | የጤና ባለሙያዎች በመጀመሪያ 6 ወር ለልጇ ጡትና ተጨማሪ ምግብ ወይም ፈሳሽ መጠቀም እንዳለብኝ ሊያስቡ ይችላሉ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 901.8 | ባለቤቱ በመጀመሪያ 6 ወር ለልጇ ጡትና ተጨማሪ ምግብ ወይም ፈሳሽ መጠቀሜን ሊደግፍ ይችላል | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 901.9 | ቤተሰቦቼ በመጀመሪያ 6 ወር ለልጇ ጡትና ተጨማሪ ምግብ ወይም ፈሳሽ መጠቀሜን ሊደግፉ ይችላሉ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| | Section IV : measuring motivation to comply | | |
| 1001.1 | የጤና ባለሙያዎች ምን ማድረግ እንዳለብኝ የሚያስቡት ለኔ ወሳኝ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 1001.2 | የባለቤቱ ጡት ብቻ በማጥባቱ መስማማት ለኔ ወሳኝ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 1001.3 | የቤተሰቦቼ ጡት ብቻ በማጥባቱ መስማማት ለኔ ወሳኝ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2 | |

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| | | በጣም አልስማማም----------1 | |
| | Section V: measuring control beliefs | | |
| 1002.1 | ጥቅሙን ካወቅሁ ጡት ብቻ የመጠቀም እድሉ የሰፋ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 1002.2 | የጤና ባለሙያዎች ከነገሩኝ ጡት ብቻ የመጠቀም እድሉ የሰፋ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 1002.3 | ልጄን ከቫይረሱ መጠበቅ ከቻልኩ ጡት ብቻ የመጠቀም እድሉ የሰፋ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 1002.4 | ጥቅሙን ካወቅሁ ከወሊድ በሐዋላ ጡትን የሚተኩ ምግቦችን ወይም ፈሳሽ የመጠቀም እድሉ የሰፋ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 1002.5 | የጤና ባለሙያዎች ከነገሩኝ ከወሊድ በሐዋላ ጡትን የሚተኩ ምግቦችን ወይም ፈሳሽ የመጠቀም እድሉ የሰፋ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 1002.6 | ልጄን ከቫይረሱ መጠበቅ ከቻልኩ ከወሊድ በሐዋላ ጡትን የሚተኩ ምግቦችን ወይም ፈሳሽ የመጠቀም እድሉ የሰፋ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 1002.7 | ጥቅሙን ካወቅሁ በመጀመሪያ 6 ወር ለልጄ ጡትና ተጨማሪ ምግብ ወይም ፈሳሽ የመጠቀም እድሉ የሰፋ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 1002.8 | የጤና ባለሙያዎች ከነገሩኝ በመጀመሪያ 6 ወር ለልጄ ጡትና ተጨማሪ ምግብ ወይም | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3 | |

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| | ፈሳሽ የመጠቀም እድሉ የሰፋ ነው | አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 1002.9 | ልጄን ከቫይረሱ መጠበቅ ከቻልኩ በመጀመሪያ 6 ወር ለልጄ ጡትና ተጨማሪ ምግብ ወይም ፈሳሽ የመጠቀም እድሉ የሰፋ ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| | Section VI: measuring control belief power | | |
| 1003.1 | ጥቅሙን ካወቅሁ በሑዋላ ጡት ብቻ መጠቀም ለኔ ቀላል ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 1003.2 | ከጤና ባለሙያዎች መስማት ጡት ብቻ መጠቀምን ለኔ ቀላል ያደርዋል | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 1003.3 | ልጄን ከኤች አይ ቪ ቫይረስ መጠበቅ መቻል ጡት ብቻ መጠቀምን ለኔ ቀላል ያረገዋል | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 1003.4 | ጥቅሙን ካወቅሁ በሑዋላ ጡትን የሚተኩ ምግቦችን ወይም ፈሳሽ የመጠቀም ለኔ ቀላል ነው | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 1003.5 | ከጤና ባለሙያዎች መስማት ጡትን የሚተኩ ምግቦችን ወይም ፈሳሽ መጠቀምን ለኔ ቀላል ያደርገወዋል | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 1003.6 | ልጄን ከኤች አይ ቪ ቫይረስ መጠበቅ መቻል ጡትን የሚተኩ ምግቦችን ወይም ፈሳሽ መጠቀምን ለኔ ቀላል ያደርገወዋል | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 1003.7 | ጥቅሙን ካወቅሁ በሑዋላ ለልጄ ጡትና ተጨማሪ ምግብ | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4 | |

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| | ወይም ፈሳሽ መጠቀም ለኔ ቀላል ነው | ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 1003.8 | ከጤና ባለሙያዎች መስማት ለልጄ ጡትና ተጨማሪ ምግብ ወይም ፈሳሽ መጠቀምን ለኔ ቀላል ያረገዋል | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| 1003.9 | ልጄን ከኤች አይ ቪ ቫይረስ መጠበቅ ለልጄ ጡትና ተጨማሪ ምግብ ወይም ፈሳሽ መጠቀምን ለኔ ቀላል ያረገዋል | በጣም እስማማለሁ----------5<br>እስማማለሁ----------4<br>ምንም ሐሳብ የለም----------3<br>አልስማማም ----------2<br>በጣም አልስማማም----------1 | |
| | ለተሳትፎሽ አመሰግናለሁ!!!! | መጠይቁ የተጠናቀቀበት ሰዐት__:___ | |