



**ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH SCIENCES  
SCHOOL OF PUBLIC HEALTH**

**Assessment of Factors Affecting Utilization of PMTCT Services among Pregnant women in  
Sebeta and Alemgena Health centers, Fin fine Zurja Special Zone of Oromia, Ethiopia.**

**BY**

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## DEDICATION

To my husband Pastor Bekele Hailu who contributed unreserved support to my success and my children Nathanael and Elroi who scarifies their time for my study.

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## LIST OF ACRONYMS

|        |  |
|--------|--|
| AAU    | Addis Ababa University                     |
| AIDS   | Acquired Immuno Deficiency Syndrome        |
| ANC    | Antenatal Care                             |
| AOR    | Adjusted Odds Ratio                        |
| ART    | Antiretroviral Therapy                     |
| ARV    | Antiretroviral                             |
| BSS    | Behavioral Surveillance Survey             |
| CI     | Confidence Interval                        |
| COR    | Crude Odds ratio                           |
| EPHA   | Ethiopian Public Health Association        |
| FGD    | Focus Group Discussion                     |
| FMOH   | Federal Ministry of Health                 |
| HIV    | Human Immuno deficiency Virus.             |
| HIV+   | HIV Positive                               |
| IDI    | In-depth Interview                         |
| MTCT   | Mother to Child Transmission               |
| NVP    | Nevirapine                                 |
| PLHIV  | People Living With HIV                     |
| PMTCT  | Prevention of Mother to Child Transmission |
| PW     | Pregnant women                             |
| RHB    | Regional Health Bureau                     |
| SD     | Standard Deviation                         |
| SPSS   | Statistical Package for Social Sciences    |
| UNAIDS | Joint United Nations program on HIV/AIDS   |
| VCT    | Voluntary Counseling and Testing           |
| WHO    | World Health Organization                  |

## ABSTRACT

**Background:** The HIV pandemic created an enormous challenge to the survival of mankind worldwide. Ethiopia is one of the country's most severely hit by the pandemic. Besides the dominant heterosexual transmission, vertical transmission accounts for more than 90% of pediatric AIDS. Thus it is vital to study the utilization of the services by pregnant women to ensure programme effectiveness.

**Objective:** The objective of this study is to assess factors affecting utilization of PMTCT services among pregnant women in Sebeta and Alemgena health centers, Fin Fine Zurya Special Zone of Oromia from March, 2012.

**Methodology:** Facility based cross-sectional study was conducted to determine factors that affect the utilization of PMTCT services. Data were collected using interviewer administered questionnaire among 387 pregnant women following antenatal care in the selected facilities of Fin Fine Zurya Special Zone of Oromia region. Two focus group discussions & 4 in-depth interviews were also conducted.

**Results:** Three hundred eighty seven respondents participated in the study making a response rate of 96%. Out of these, 95.6% were tested for HIV. Pregnant women who had formal schooling were 9 times more likely to utilize voluntary HIV testing compared to illiterate [AOR (95% CI) = 8.99(1.70-15.57)]. With respect to occupation of women, farmers were less likely to undergo voluntary HIV testing compared to non farmers in occupation [AOR (95% C.I.)= 0.44 (0.22-0.99)]. Pregnant women who have had the knowledge that HIV transmission occurs during sexual intercourses were more likely to undergo voluntary HIV testing. Those who perceived that discussions about HIV/AIDS with husband cause marital disharmony were more likely to differ from undergoing voluntary HIV testing. [AOR (95%CI) = 0.20(0.05-0.87)].

**Conclusion:** Formal educations, occupation, knowledge about HIV transmission, discussion with husbands were found to be the predictors of PMTCT service utilization. Targeted community sensitization and mobilization on PMTCT to reduce stigmatization & discrimination, to increase partners' involvement in the program & continuous health education to increase knowledge through community based education using outreach, home to home & community conversion to increase PMTCT utilization by pregnant mothers were recommended.

## 1. INTRODUCTION

Human immune deficiency virus (HIV) has spread throughout the world causing untold suffering and death, and creating profound development challenges. (1) In 2008, 2.1 million children under 15 years of age were living with HIV; 430,000 were newly infected; and 280,000 died from AIDS-related causes.

According to calibrated single point estimates (2007), the Ethiopian adult HIV prevalence is reported to be 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. Highest prevalence occurs in the 15-24 age groups and prevalence is higher among females than males in both urban and rural areas. (2)

According to Oromia National Regional State, the prevalence rate of HIV/AIDS was estimated 1.5 % ( 1.2% Male and 1.8% Female).The epidemic predominantly affecting young peoples 15-24 years of age. (3) The prevalence was higher among young women and adolescent girls and rural areas; this group of population often have lack of information and access to services. (4) The number of people living with HIV (PLHIV) in Oromia was 265,509 among which about 34.5% are in need of ART;but, only 13% of the totals were getting ART.

Passing the HIV from an infected mother to her infant is known as mother-to-child transmission (MTCT). It is responsible for most of the acquisitions of paediatric HIV infections. (5) MTCT still accounts for a substantial, although decreasing, portion of new HIV infections in many African countries. (5, 6)

Optimal PMTCT coverage has not yet been achieved. United Nations agencies report that in 2008, in low- and middle-income countries: 21% of pregnant women were tested for HIV, 45% of pregnant women living with HIV received antiretroviral drug (ARV) regimens or ART and 32% of infants born to mothers living with HIV received ARV prophylaxis at birth. (6) PMTCT service of Oromia region: Out of 209,797 ANC attendants, about 64% were pre-test counselled,64% tested for HIV, 3,061 (2% of total pregnancies) pregnant women (PW) were found positive,1331 PW received NVP and each year 3,007 childer born with HIV. AIDS orphaned was about 202,251.AIDS related death was 10,833 in the same year. (3)

Among a number of factors that enhance the spread of HIV/AIDS in the region were poverty, low education, stigma and discrimination of those living with HIV, migration, presence of sex workers, difference between gender and harmful traditional practices were included. (4) However, factors affecting PMTCT in Oromia National Regional States in general, and in sebeta and Alemgena , Fin Fine Zurya special zone of Oromia in particular was not documented. Therefore, the objective of this study was to assess factors affecting PMTCT utilization in the study area (Figure 1).

### **1.1. Statement of the problem**

The Ethiopian government has been making an effort to prevent MTCT of HIV as part of the overall HIV/AIDS prevention and control program. Ministry of health (MOH) is accelerating access to HIV/AIDS treatment in Ethiopia.

The national estimated prevalence in adult is 2.1% (urban 7.7 and rural 0.9%) with estimated number of PLWHA of 1.3 million (590,000 males & 730,000 female). Number of HIV+ persons needing ART 258,264. AIDS Orphans 898,350. HIV Positive Pregnancies 75,420, HIV Positive Births 14,148. (7, 8)

Pediatric HIV/AIDS is becoming a major public health problem in our country. In response to this, PMTCT programs are being initiated in many hospitals and health centers throughout the country. Nationally only 34% of women attend ANC during pregnancy, and only 10% deliver with a skilled attendant. (9)

Pregnant mothers tested for HIV are only 417,841 (14%). Of the total tested pregnant mothers 10,267 (2%) were HIV Positive. From HIV Positive pregnant mother, 6,466 (62.7%) had received nevirapine. (9, 10) This indicates that more than 30% of the women who should receive treatment were missed.

Despite the availability of PMTCT service the utilization of available PMTCT service is found low. Therefore, identification of challenges to proper utilization of PMTCT needs an intensive investigation.

## 1.2. Rationale of the Study

Mother-to-child transmission (MTCT) is by far the largest source of HIV infection in children below the age of 15 years. The virus may be transmitted during pregnancy, childbirth, or breast-feeding (10). Taking in to account the risk factors of MTCT, as well as increased availability of effective MTCT interventions, we now have a better opportunity to prevent children becoming infected with HIV from their mother. In continuum of HIV/AIDS interventions, preventing HIV infection in women of childbearing age will also limit the number of infants being infected by their mother. Support for prevention of unwanted pregnancies in HIV-positive women would have the same effect.

The risk of HIV transmission from an infected mother to her child can be reduced by 50% by giving antiretroviral drug during pregnancy and labor and by avoiding breast-feeding. Without medical intervention, transmission rates range between 25% and 48% in resource-limited settings (40). The 4-pronged PMTCT strategy is as a key entry point to HIV care for pregnant women. However, programs to prevent MTCT are mainly delivered through the health care system, and are aimed at preventing an already infected mother from transmitting the virus to her child around the time of pregnancy, birth and in the following months. According to EDHS, percentage of pregnant women received HIV counseling and testing during ANC is one of the lowest coverage in the country (11.3%); Oromia region has even lower HIV counseling and testing utilization rate during ANC (8.6%). Only 10 % of all Ethiopian pregnant women (and 8.1% of Oromia region) deliver in health facilities (9).

The study was supposed to identify factors affecting the utilization of PMTCT services among pregnant women. The knowledge, perceptions and attitudes on HIV/AIDS were assessed. The knowledge gaps, the level of stigma and miss conceptions all of which have impact on hope of positive living with HIV/AIDS and PMTCT service utilization were assessed. The result obtained from this study will help for policy makers and health workers to design strategies which could optimize PMTCT utilization.

## **2. LITERATURE REVIEW**

The HIV pandemic created an enormous challenge to the survival of mankind worldwide. Ethiopia is one of the country's most severely hit by the epidemic. Besides the dominant heterosexual transmission, vertical virus transmission from mother to child accounts for more than 90% of pediatric AIDS. (2)

Every day, over 6,800 persons becomes infected with HIV and over 5,700 persons die from AIDS, mostly because of inadequate access to HIV prevention and treatment services. The HIV pandemic remains the most serious of infectious disease challenges to public health. (11)

The estimated number of deaths due to AIDS in 2007 was 2.1 million [1.9–2.4 million] worldwide, of which 76% occurred in sub-Saharan Africa. Declines in the past two years are partly attributable to the scaling up of antiretroviral treatment services. AIDS remains a leading cause of mortality worldwide and the primary cause of death in sub-Saharan Africa, illustrating the tremendous, long-term challenge that lies ahead for provision of treatment services, with the hugely disproportionate impact on sub-Saharan Africa ever clearer.(11)

Each year, approximately 1.4 million women living with HIV in low- and middle-income countries become pregnant. In sub-Saharan Africa, the proportion of antenatal clients who are living with HIV ranges from below 1% to over 45%. The commonest route of HIV infection for HIV positive children under 5 is through mother to child transmission. Preventing mother-to-child transmission of HIV would be the main intervention to reduce HIV infection amongst children. Transmission of HIV from a mother to her infant can take place during pregnancy, labour, and delivery and after birth via breastfeeding, especially mixed feeding. It is thought that the risk of transmission varies at the different stages with the risk during pregnancy ranging from 5-10%, 10-20% during labour and delivery and 10-20% through mixed feeding. In the absence of any interventions to prevent MTCT, it is estimated that in about thirty percent of cases the virus will pass from the mother to the infant. In 2009, and estimated 370,000 children were newly infected with HIV, 90% of whom lived in sub-Saharan Africa. (12, 13)

In contrast, mother-to-child transmission of HIV has been largely eliminated in high-income countries through provider-initiated HIV testing and counseling, access to highly-effective

antiretroviral prophylaxis and treatment, safer delivery practices, family planning and safe use of replacement feeding.(12)

Globally a quarter of new born infected with HIV die before the age of one , up to 60% dies before reaching 2<sup>nd</sup> birth day and more than 80% of these deaths occur in sub Sahara Africa. (14)

The study done in Dire Dawa Dil Chora hospital among 233 pregnant found among socio demographic variables older age groups ( $\geq 30$ ) found to be 78% less likely to accept HIV testing compared to younger ( $\leq 19$  years). Married women were more likely to accept HIV testing than single ones, OR=22.2(95%CI 5.23, 96.0) the study showed that 79.5% of participants had good knowledge about HIV, PMTCT and VCT. (14)

Study done on Gonder show that among 1148 interviewed mother 82.5% women were had poor attitude and practice towards PMTCT service, 63.7% of the respondent had the desire to use of PMTCT. Ninety percent of them did not want to be tested for HIV of this 70.8 % of them said that they did not have any risk faced to acquire HIV. (15)

Another study done on Mekele 2490 study population 94.87% know that HIV can be transmitted from mother to child, of this 95.9% , 93.6% and 91.5% of mother knew that the disease is transmitted during birth, pregnancy and breast feeding respectively. 17.1% who were not tested reasoned out duet to fear of rejection by partners. (16)

The study done in AA to assess knowledge & attitudes towards MTCT of HIV and its prevention among post natal mothers of Tikur Anbessa and Zewditu hospitals shows that 76.8% knew that MTCT that of HIV is preventable, while 15.7% said that it is not preventable and 7.5% did not know 64.6% knew the protective effect of prophylactic antiretroviral drugs, 37.1 % knew that avoiding breast feeding can prevent MTCT of HIV , while 10.4 % knew that elective C/S delivery can prevent transmission of the virus .Those mother from AA and those who were in the second & above grade were found to be more knowledgeable on MTCT & PMTCT. (17)

Another study done among pregnant women attending ANC at armed force Hospital shows PMTCT pregnant heard of it, regarding intervention to reduce MTCT, about 95% of accepters and 82 % non accepters mentioned that they know about intervention that reduce MTCT. Those

who have correct knowledge of MTCT of HIV can prevented using chemotherapy were more to have VCT AOR 3.19, CI 95%(1.16,8.75). (18)

According to study done on PMTCT service utilization among pregnant women in Amhara region, 67.3% of respondents undergone the process of VCT, of all socio demographic factor education was positively associated with acceptance of HIV testing (AOR 0.22, 95% CI 0.14, 0.35). The main barriers of utilization of PMTCT service utilization were incorrect perception regarding HIV/AIDS, fear of husband's response and stigma by family and community. (19)

The successful implementation of PMTCT interventions and the reduction of AIDS-related maternal mortality depend upon the wider introduction and strengthening of VCT services, both linked to maternity care and more widely A cross-sectional sample of 400 recently pregnant women from rural Maharashtra India indicates thirteen women (3.3%) reported receiving antenatal HIV testing. high antenatal care utilization, and STI symptom history, recently pregnant rural Indian women report low HIV testing. Barriers to HIV testing during pregnancy include lack of discussion by antenatal care providers and lack of awareness of existing testing services. (20)

Findings of a cross-sectional study of knowledge, attitudes, and practices carried out among women receiving prenatal or postnatal care from two midwife-obstetric unit clinics in Khayelitsha, in the Western Cape region of South Africa. Shows of the 264 women who participated in the cross-sectional study, 95 percent had been tested for HIV and 83 percent of those tested had told their partners about the HIV test. However, only 60 percent of the women who tested positive had told their partners about their test results, whereas 90 percent of the HIV-negative women had shared their results. Partner violence toward HIV positive women was a significant factor in nondisclosure of test results. (21)

A cross-sectional studies conducted in Ghana among women in antenatal clinics shows, in 2005,98% of women accepted counseling and 97% accepted testing; 3.3% tested HIV positive. Multivariate analysis showed that women with secondary education were 88% less likely than those with no/primary education to accept testing (OR=0.12, CI=0.03–0.54, p=0.006). (22)

Finding of A matched-cohort study of HIV-infected and HIV-uninfected mothers and their infants at 18-20 months post-partum in Zomba District, Malawi shows low PMTCT program efficiency and effectiveness under routine program conditions in Malawi. HIV-free infant survival may have been influenced by key factors, including underuse of HAART, underuse of sd-NVP, and suboptimal infant feeding practices. Maternal mortality among HIV-infected women demands attention; improved maternal survival is a means to improve infant survival. (23)

In a Kenyan study, only 29% of HIV-infected women who received posttest counseling at 23<sup>rd</sup>-24th weeks of gestation collected nevirapine at 34th week, and only 20% of infected women eventually took the drug in labor, partly due to the time lag between testing and providing the drug. In other part of Africa similar low uptake was reported in 2004. Only 30% of the pregnant women who attended antenatal care in the facility with PMTCT services delivered in that facility. The vast majority delivered at home or in another health facility. (24-26)

In the past decade, in Western, Eastern and Central Europe, MTCT rates were reduced to as low as 1.6% through combined efforts. By using nevirapine alone MTCT of HIV can be reduced by 50 %. (27) Lesson from programs of tuberculosis, river blindness and many of the most successful programs of HIV/AIDS itself show that systematically engaging the communities (most concerned parts of community, peers and family members) is critical for large scale coverage of ART uptake. The inclusion of these people will help to overcome the key obstacles to an effective response, including denial, stigma and discrimination; hence they critically determine how women- as part of the community understand PMTCT. (28-30)

In Ethiopia, rates have been reduced to less than 2% with intensive interventions that include combination highly active antiretroviral (ARV) therapy for the mother during pregnancy and labour zidovudine (ZDV) given to the infant for six weeks post-partum, obstetrical interventions including elective caesarean delivery (prior to the onset of labour and membrane rupture) at 38 weeks, and complete avoidance of breastfeeding. This regimen has become the recommended first choice for resource-constrained settings in the 2004 WHO guidelines. (31, 32)

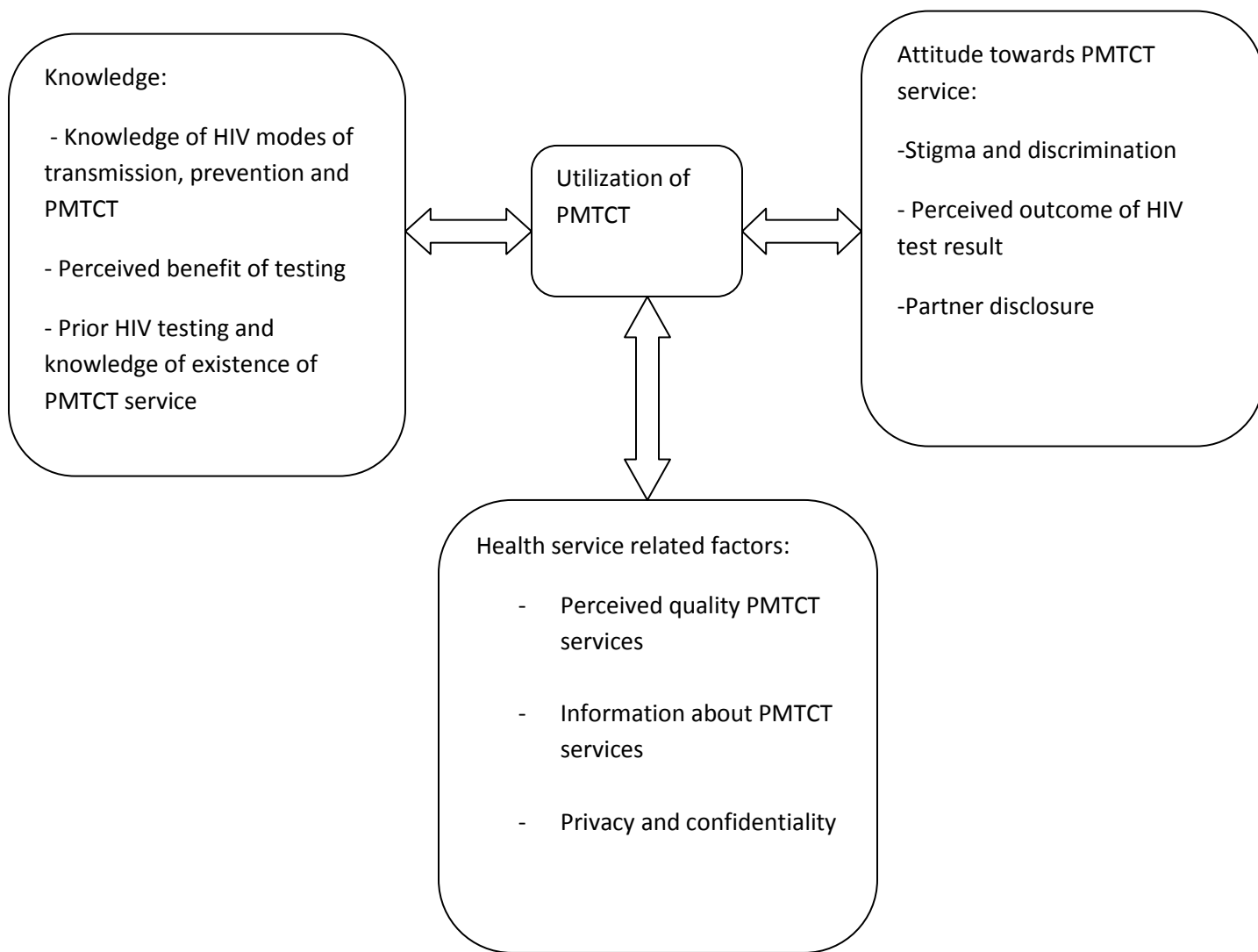


Figure 1: Conceptual Frame work: Factors affecting utilization of PMTCT service

### **3. OBJECTIVE**

#### 3.1. General Objective

To determine level and identify factors that influence utilization of PMTCT services by pregnant women in, Fin Fine Zurya Special Zone of Oromia National Regional State, Ethiopia

#### 3.2. Specific Objectives

1. To determine the level of utilization of antenatal HIV counseling and testing in the PMTCT Services.
2. To identify factors affecting utilization of PMTCT services in the selected health facilities of Sebeta and Alemgena towns.
3. To assess the uptake of ART by women referred to ART service from selected PMTCT sites.

## 4. METHODOLOGY

### 4.1. Study area

The study was conducted in Fin Fine Zurya Special Zone of Oromia, Sebeta and Alemgena Towns - urban settlements, Industrial and business centers of Special Zone, located 25 Kms and 15 Kms West of AA town respectively. According to the 2007 population and housing census, the population Sebeta and Alemgena town was estimated to be 100,010 & 48,071 respectively. At the time of the survey in each of the towns, there was one health center - for most of the health care services including PMTCT. A total of 3,800 and 1,827 pregnant women were expected for Sebeta and Alemgena town in 2003 E.C. respectively. Of these pregnant women 2,564 (67.5%) and 1,680(92%) were ANC attendants received ANC/PMTCT services in Sebeta and Alemgena towns respectively. Of those who received ANC/PMTCT services, 2,871(67.6%) were pre-test counselled, 2,456(57.9%) tested for HIV, 67 pregnant women (PW) found positive, 353 partner tested respectively. For Sebeta out of 35 positive pregnant women 31 were received NVP. For Alemgena all 32 positive pregnant women referred to Sebeta Health center and 27 were received NVP. Because there is no ART services in Alemgena Health center.

### 4.2. Study design

The study used quantitative study method in the form of facility based cross sectional survey design complemented by a qualitative study, focus group discussions and individual in-depth interviews.

### 4.3. Source population

All pregnant women in the two towns of Fin Fine Zurya Special zones of Oromia

### 4.4. Study population

Pregnant women attending ANC in the in selected 2 health centers at the time of the study period.

**Inclusion criteria:** - all current pregnant women attending ANC and exposed to HIV counseling for the first time in selected health centers and who were willing to participate in the study

**Exclusion criteria:** - Pregnant women who were seriously ill and also with disability of hearing or listening

#### 4.5. Sample size determination

Sample size is determined by using single population proportion formula as follows.

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

Where n is sample size, p is the proportion of HIV tested pregnant women who received HIV test result under the PMTCT service in Sebeta and Alemgena , and d is the margin of error.

The following assumptions were used. Since local data for the value of p was not available, it was taken to be 50% (P=0.5) to allow maximum sample size. Allowing 5 % for expected margin of error (d) and with 95% confidence level  $Z_{\alpha/2} = 1.96$ , and 5% allowance for non-response, a total sample size of 403 was calculated

#### 4.6. Sampling procedures

Every pregnant woman who was for the first time exposed to HIV counseling during the data collection period was eligible for an interview. For the qualitative study, purposive sampling was employed (33). In-Depth Interviews (IDIs) were conducted among the two health professionals involved in PMTCT service delivery and with sero-positive pregnant and postnatal sero-positive mothers in the two health facilities. FGD participants were identified with the help of counselors according to the preset criteria relevant to the objective of study. Each group consisted of six participants selected by the principal investigator.

#### 4.7. Data collection

Data was collected from the study participants using pre-tested structured questionnaire. The questionnaire was adapted from published studies with reasonable modifications. The questionnaire contains variables on socio demographic characteristics, HIV/AIDS related knowledge, beliefs, attitudes, terms and perceptions of being HIV positive, and their plan as to where to deliver. The questionnaire was first prepared in English and translated to Amharic then back to English. It was pre-tested on same place among participants by the trained interviewers and revised before the start of actual data collection. Data was collected by two BSc degree holder Nurse who were given two days training by the principal investigator about the objective of the study, how to fill the questionnaire and maintain privacy and confidentiality during the interview.

Women attending ANC service while providing the routine HIV test in the data collection period were invited to participate in the survey questions upon exit. They were first told of the study and then screened for eligibility if they expressed an interest in participation. Once eligibility had been established, informed consent was obtained from each participant. The counselor was recruited those pregnant mothers who are willing to participate in the study till required sample size is satisfied.

For qualitative study participants were selected purposively from Alemgena and Sebeta Health centers ANC/PMTCT unit. A field guide was used to facilitate discussions and in-depth interviews. The purpose of conducting these FGDs and in-depth interviews was to gain a detailed insight into the clients understanding and perception about HIV testing and counseling, perceived risks, and the beliefs and attitudes related to the utilization of the PMTCT service. Once eligibility has been established the identified persons were asked to participate in a discussion or IDIs. Informed consent was obtained prior to the discussion or in-depth interview. The focus group discussions and IDIs were held at the study site in a private setting where the participant feels comfortable speaking with the interviewer. During the group discussions or in-depth interviews the investigator was moderating the discussion or IDIs and the supervisor was assigned for note taking and discussions or IDIs were tape recorded.

#### 4.8. Data quality

Two days training was given on the study instrument and the data collection procedure for the data collectors.

Questionnaire was prepared in English and then translated to Amharic and then back to English language to ensure consistency of questionnaire.

The questionnaire was pre tested and necessary adjustments were made prior to actual data collection was launched. Data quality control and cleaning was commenced in the field by the principal investigator ensuring that all the information on the questionnaires have been properly collected and recorded and checked for completeness of data and internal consistency.

#### 4.9. Data analysis and management

Data were coded against the original English version and entry was done using Epi Info software. The entered data were validated for consistency and inspected for outliers to identify any erroneous values. Data cleaning was made manually by removing missing/conflicting ideas and responses to questions about relevant information.

The final data file was compiled and imported into SPSS version 16 statistical package for analyses. Recoding and re-categorizing was made for relevant variables. Univariate analysis was done to calculate frequencies and proportions. On bivariate analysis association of selected exposure variables was done with the outcome variable. Multivariate analysis was computed to assess the presence and strength of association and to see for confounders with dependent variable HIV test acceptors utilization. Logistic regression was performed using SPSS. The result was presented using appropriate frequencies, proportions, odds ratio and 95% confidence interval.

To analyze qualitative data the hand written notes and tape-recorded discussions/interviews were transcribed, compiled together and later translated into English. The important findings were narrated, summarized and incorporated. Findings from all the three instruments were investigated at the same time and triangulated to help in interpretation.

#### 4.10. Operational definitions

- **Utilization of PMTCT:** - The consumption of PMTCT services primarily acceptance of counseling and HIV testing and a range of intervention in PMTCT.
- **Acceptors:** - pregnant women who has received pretest counseling and accept HIV testing on the current pregnancy
- **Non acceptors:** - pregnant women who received pretest counseling and refused the HIV testing offering.
- **ANC:** - antenatal care; the care given to pregnant women and her un-born fetus.

#### 4.11 Variables

##### **Dependent variables**

- Acceptance of HIV test

##### **Independent variable**

- Socio-demographic:  
Age, educational level, marital status, religion, occupation and husbands' occupation
- Knowledge, attitudes, perceptions of HIV/AIDS, PMTCT and VCT
- Perceived benefits of PMTCT
- Stigma and discrimination
- Women partners discussion on PMTCT
- Partners test acceptance
- Client provider relation

#### 4.12 Ethical consideration

Ethical clearance was obtained from Research and Ethics Committee (REC) of the School of Public Health, Addis Ababa University. Officials of the Fin Fine Zurya Special zone of Oromia, Sebeta and Alemgena health office were communicated through formal letter and permission was obtained. Consent was obtained from each respondent by explaining objectives of the study and privacy was considered so that they could express their feeling freely. Study participants were told about the right not to participate in the study or to discontinue the interview at any time they wanted to do so.

#### 4.13 Dissemination of results

The result of this study will primarily be submitted to the SPH, AAU as partial fulfillment of the degree of masters in Public Health. Following this, it will also be disseminated to relevant bodies including Fin Fine Zurya Special zone of Oromia, Sebeta and Alemgena health office, respective health centers. It will send to be published in scientific journal.

## **5. RESULT**

### **5.1 Univariate analysis**

#### **Socio-demographic characteristics of pregnant women**

A total of 387 pregnant women participated in the study making a response rate of 96%. Sixteen women refused to participate. The age of pregnant women included in this study ranged between 17 and 40 years with mean age ( $\pm$ SD) of 25.66  $\pm$ 5.11 years and median 25 years. Two hundred fifty two (65.1%) and 377(97.4%), were Orthodox and married, respectively. A large proportion (59.4%) of the respondents had two or less number of live children. Two hundred fifty two women (66.1%) were Sebeta residents and 131 (33.9%) were Alemgena residents (Table 1).

Level of education revealed that 139(35.9%) were illiterate, 110(28.4%) attended Primary education, 99(25.6%) attended secondary education and 39(10.1%) attended tertiary education (Table 1).

Two hundred twelve (54.8%) of the study participants were house wives, 87 (22.5%) were farmer, 33(8.5%) were employed, 30(7.8%) were daily laborer and 25(6.4%) were others (House maid, Merchant, Private Business & Student) respectively (Table 1).

With regard to their Husbands' Occupation 90(24.1%) were employed, 104(27.9%) Daily laborer, 87(23.3%) farmer, 70(18.8%) Merchant and 22 (5.9%) were others (Driver, Solider, Evangelist & contractor) (Table 1).

Table 1: Socio demographic characteristics of the ANC Attendees, Sebeta and Alemgena Health Center, Fin Fine Zurya Oromia special Zone, Ethiopia March, 2012

| <b>Variables</b>   | <b>Number</b> | <b>Percent</b> |
|--|---------------|----------------|
| <b>Age(years)</b>  | n=387         |                |
| 15-20  | 79            | 20.4           |
| 21-30  | 263           | 68.0           |
| 31-40  | 45            | 11.6           |
| <b>Place of Residence</b>                                |               |                |
| Sebeta   | 256           | 66.1           |
| Alemgena   | 131           | 33.9           |
| <b>Religion</b>  |               |                |
| Orthodox   | 252           | 65.1           |
| Muslim   | 82            | 21.2           |
| Protestant   | 45            | 11.6           |
| Others(Catholic and Witchcraft)                          | 8             | 2.1            |
| <b>Marital Status</b>                                    |               |                |
| Married  | 377           | 97.4           |
| Others(Single, Divorced & Widowed)                       | 10            | 2.6            |
| <b>Educational Status</b>                                |               |                |
| Illiterate   | 139           | 35.9           |
| Primary  | 110           | 28.4           |
| Secondary  | 99            | 25.6           |
| Tertiary   | 39            | 10.1           |
| <b>Occupation</b>  |               |                |
| House Wife   | 212           | 54.8           |
| Farmer   | 87            | 22.5           |
| Government Employee                                      | 33            | 8.5            |
| Daily Laborer  | 30            | 7.8            |
| Others(House maid, Merchant, Private business & Student) | 25            | 6.4            |
| <b>Husbands' Occupation*</b>                             | n=373         |                |
| Government Employee                                      | 90            | 24.1           |
| Daily Laborer  | 104           | 27.9           |
| Merchant   | 70            | 18.8           |
| Farmer   | 87            | 23.3           |
| Others(Driver, Solider, Evangelist & contractor)         | 22            | 5.9            |

\*Total does not add up to 377. Of the 377 husbands married to pregnant women the occupation of 4 were missed.

## Knowledge, Perceptions and Attitudes towards HIV/AIDS

Three hundred seventy one (95.9%) participants knew the disease HIV/AIDS as it is shown in table 2. Source of information about HIV/AIDS included health facility 163(42.1%), Radio 221(57.1%), TV 131(33.9%), Newspaper 16(4.1%), Family 85(22%) and school 62(16%) (Figure 2).

Two hundred fifty four (65.6%) of respondents had mentioned their feeling about the message released via public media were clear and appropriate in contents, clear but inappropriate in contents, appropriate in contents but not clear, sometimes it is clear but not always, does not concern them and no response accounts for 2(0.5%), 10(2.6%), 11(2.8%), 69(17.8%) and 41(10.6%), respectively (Table 2).

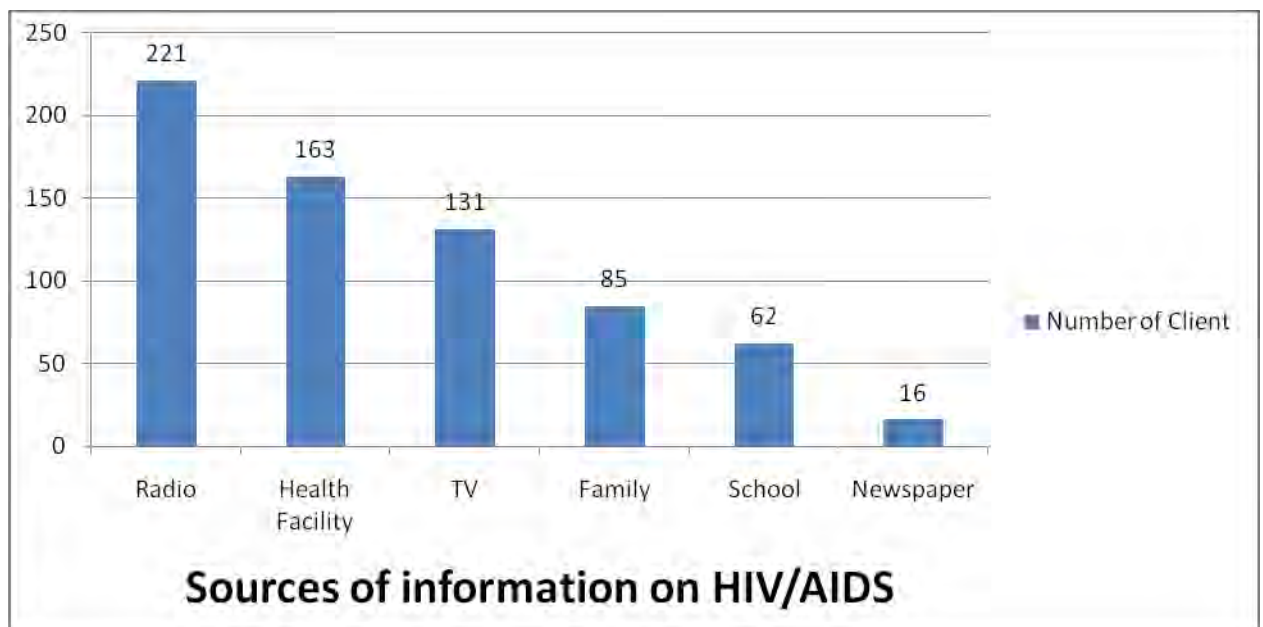


Figure 2 Source of information about HIV/AIDS among pregnant women in Sebeta & Alemgena Health center March 2012.

All participants have responded to the questions on mode of HIV transmission and its prevention methods. Two hundred ninety (74.9%) of the respondents had mentioned the means for HIV transmission as sexual intercourse: 243(62.8%) sharing sharp instrument: 69 (17.8%) infected blood and 22 (5.7%) mother to child transmission.

All participants have known at least one method of prevention of HIV transmission. One hundred seventy six women (45.5%), 170 (43.9%), 112 (28.9%) and 29(7.5%) mentioned its prevention methods to be faithful, to abstain, using condoms and to avoid sharing of sharp instruments, respectively.

Three hundred eighty two (98.7%) of the respondents support the idea that every pregnant woman should be screened for HIV and 379(97.9%) mentioned that the partner should be tested with the pregnant women. Pregnant women were asked what they thought about the reason for which many other pregnant women were not attending ANC. Fear of consequences of positive HIV status mentioned by 136(35.1%), lack of awareness as to the benefits of ANC by 134(34.6%), afraid of coping with positive HIV status 83 (21.4%), do not like to give blood at all 42(10.9%) and the religious faith does not permit it 14(3.6%) were among the perceived reasons(Table 2).

Table 2: Knowledge, Perceptions and Attitudes towards HIV/AIDS among the ANC Attendees, Sebeta and Alemgena Health Center, Fin Fine Zurya Oromia special Zone, Ethiopia. March, 2012

| <b>Variables</b>  | <b>Number</b> | <b>Percent</b> |
|---|---------------|----------------|
| <b>Knowledge of HIV/AIDS</b>                                  | n=387         |                |
| Yes   | 371           | 95.9           |
| No  | 16            | 4.1            |
| <b>Message conveyed via public media</b>                      |               |                |
| Clear & appropriate   | 254           | 65.6           |
| Clear but inappropriate in contents                           | 2             | 0.6            |
| Appropriate in contents but not clear                         | 10            | 2.6            |
| Sometimes it is clear but not always                          | 11            | 2.8            |
| Does not concern them   | 69            | 17.8           |
| No response   | 41            | 10.6           |
| <b>Knowledge on mode of HIV transmission*</b>                 |               |                |
| Sexual intercourse  | 290           | 74.9           |
| Sharing sharp instrument                                      | 243           | 62.8           |
| Infected blood  | 69            | 17.8           |
| MTCT  | 22            | 5.7            |
| <b>Means of prevention of HIV transmission*</b>               |               |                |
| Faithful  | 176           | 45.5           |
| Abstain   | 170           | 43.9           |
| Using Condoms   | 112           | 28.9           |
| Avoid sharing of sharp instruments                            | 29            | 7.5            |
| <b>Support the idea every pregnant women screened for HIV</b> |               |                |
| Yes   | 382           | 98.7           |
| Others(No & Not sure)   | 5             | 1.3            |
| <b>Partner should be tested with pregnant women</b>           |               |                |
| Yes   | 379           | 97.9           |
| Others(No & Don't know)                                       | 8             | 2.1            |
| <b>Reason for pregnant women are not attending ANC*</b>       |               |                |
| Fear of consequences of positive HIV status                   | 136           | 35.1           |
| Lack of awareness as to the benefits of ANC                   | 134           | 34.6           |
| Afraid of coping with positive HIV status                     | 83            | 21.4           |
| Do not like to give blood                                     | 42            | 10.9           |
| Religious faith does not permit it                            | 14            | 3.6            |

\*Multiple Responses

Concerning PMTCT, 322 (81.5%) of the pregnant women had heard of it .The methods of PMTCT mentioned by the respondents: 211(53.4%) use of antiretroviral drug, 90 (22.8%) avoid breast-feeding and about 106 (26.8%) participants didn't know the means of prevention. Three hundred fifty eighty (92.5%) of the respondent judged that message delivered by PMTCT staff regarding HIV/AIDS is very clear and 371(95.9%) mentioned that it's appropriate.

Three hundred seventy (95.6%) of the respondents reported that they had undergone voluntary counseling for HIV testing. All pregnant women who underwent counseling were tested for HIV and 369(95.3%) of those who were tested received the test result .Three hundred sixty one (93.3%) of those who received the result were negative for HIV and 9(2.3%) of those who received the result were positive for HIV. Five of the positive pregnant women were eligible and enrolled for ART treatment and 4 of the positive pregnant women received ARV prophylaxis.

Three hundred eighty four (99.2%) of the respondents believed that couples should be screened for HIV before getting married and 301(77.8%) mentioned that preferably to be tested at ANC clinic, 84(21.7) mentioned that preferably to be tested at private clinic and 2(0.5%) were didn't know where to be tested.

One hundred twenty (31%) of the respondents believed that they are at risk for getting HIV. Two hundred forty two (62.5%) of the 387 participants believed that they are not at risk for getting HIV, 24(6.2%) of respondents didn't know they are at risk for getting HIV and 1(0.3%) has no response for this question (Table 3).

Table 3: ANC-PMTCT service among pregnant women, Sebeta and Alemgena Health Center, Fin Fine Zurya Oromia special Zone, Ethiopia March, 2012

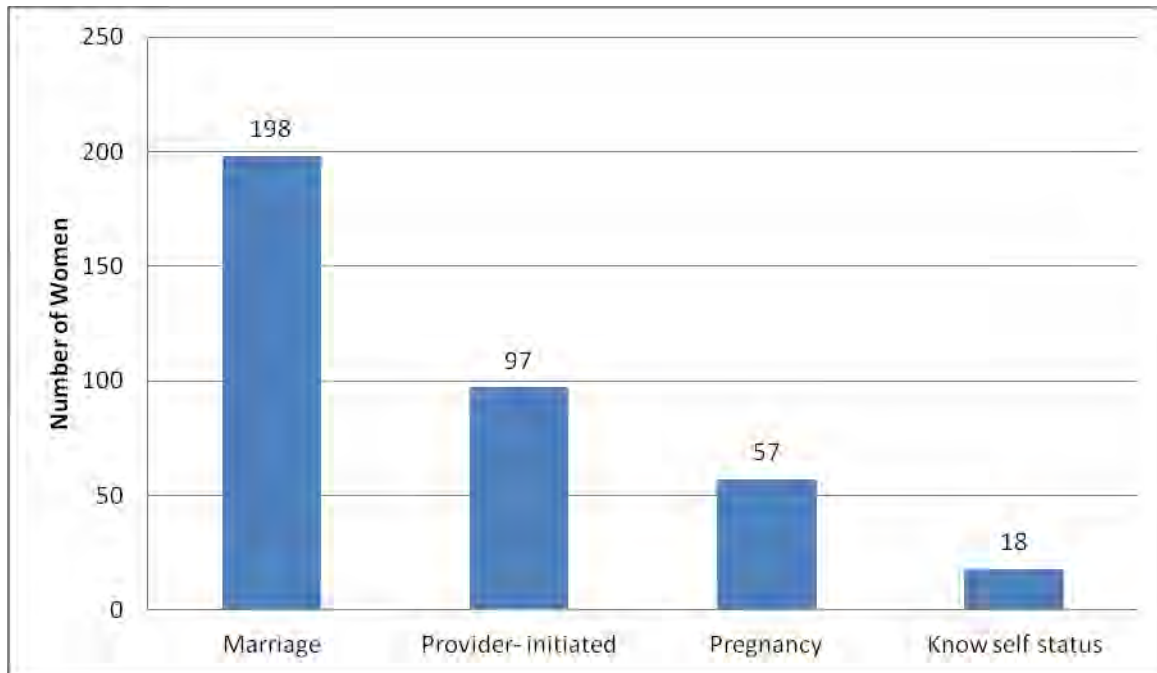
| <b>Variables</b>                                | <b>Number</b> | <b>Percent (%)</b> |
|---|---------------|--------------------|
| <b>Knowledge on MTCT prevention</b>             | n=387         |                    |
| Yes   | 322           | 81.5               |
| No  | 65            | 18.5               |
| <b>Means of prevention of MTCT*</b>             |               |                    |
| Use of ARV drug                                 | 211           | 53.4               |
| Avoid breast-feeding                            | 90            | 22.8               |
| Don't know                                      | 106           | 26.8               |
| <b>HIV Counseling Provided</b>                  |               |                    |
| Yes   | 370           | 95.6               |
| No  | 17            | 4.4                |
| <b>Undergone HIV Testing</b>                    | n=370         |                    |
| Yes   | 370           | 100                |
| No  | -             | -                  |
| <b>Received HIV test Result</b>                 |               |                    |
| Yes   | 369           | 99.7               |
| No  | 1             | 0.3                |
| <b>HIV Test Result</b>                          |               |                    |
| Negative  | 361           | 93.3               |
| Positive  | 9             | 2.3                |
| <b>Couples screened for HIV before marriage</b> | N=387         |                    |
| Yes   | 384           | 99.2               |
| No & Not Sure                                   | 3             | 0.8                |
| <b>Preferred place of Test</b>                  |               |                    |
| ANC clinic                                      |               |                    |
| Private Clinic                                  | 301           | 77.8               |
| I don't know                                    | 84            | 21.7               |
|   | 2             | 0.5                |

**\*Multiple Responses**

## HIV/AIDS related Behavior & Beliefs

Among reasons stated for differing discussions about HIV/AIDS with husband: 189(48.8%) felt it is not important issue, 92(23.8%) of them addressed that such discussions cause marital disharmony; and yet 106(27.4%) others refrained from commenting.

Three hundred seventy (95.6%) of the respondents had undergone voluntary counseling for HIV testing. Concerning the time of counseling and testing, 229 (59.2%), were tested premarital, 49 (12.7%) in preconception and 92 (23.8%) were during current pregnancy. In 273 (70.5%) of them counseling was user-initiated i.e. to plan for marriage in 198 (51.2%), to plan for having baby in 57(14.7%) and to know self status in 18 (4.7%). In 97 (25.1%), it was provider- initiated at health facility visit (figure 3). Three hundred eighty three (99%) of the respondents know that HIV testing is mandatory in each of the subsequent pregnancies (Table 4).



**Figure 3 Reasons for testing among pregnant women in Sebeta & Alemgena Health center March, 2012.**

## **HIV/AIDS related Behavior, Stigma & Discrimination**

Seventeen (4.4%) of the participants gave reasons for not being tested ever or up until to the time of the study as: fear of being identified as HIV positive in the community in 4 (1%), low perceived risk of having HIV in 10(2.6%), the need to consult the husband in 2(0.6%), and fear of discussing the horrible picture of HIV with the counselor in 1(0.3%). Four of the pregnant women who had not known their status expected their HIV test result to be positive for HIV.

Sixty five (16.8%) of the pregnant women had never discussed with partner about the issues of HIV testing during the current pregnancy. About 337 (87.1%) of pregnant women believed that their husbands support couple testing, while the other 50(12.9%) believed that their husbands want the wife to be tested alone or not to raise the issue at all. About 101 (26.1%) of the respondents suspected that their husbands might have HIV.

The study participants were asked about their plan where when they want to deliver 338 (87.3%) in the facilities where they ANC, 26 (6.7%) in another facility (the nearby hospital), 14(3.7%) undecided at the time of the study and 9(2.3%) planned to delivery at home.

With respect to the desired number of additional children 185 (47.8%) needed to have no more child if by chance mother is positive for HIV, 144 (37.2%) one or two more children, 31 (8%) more than two children and 27(7%) undecided (Table 4).

Table 4: HIV/AIDS related Behavior, Stigma & Discrimination among the ANC Attendees, Sebeta and Alemgena Health Center, Fin Fine Zurya Oromia special Zone, Ethiopia. March, 2012

| Variables  | Number | Percent |
|--|--------|---------|
| <b>Reasons for differing discussions with partner</b>                      | n=387  |         |
| Not important issue  | 189    | 48.8    |
| cause marital disharmony   | 92     | 23.8    |
| Avoid commenting   | 106    | 27.4    |
| <b>Reasons for not being tested ever</b>                                   | N=17   |         |
| Fear of being identified as HIV +ve  | 4      | 1.0     |
| Low perceived risk of having HIV   | 10     | 2.6     |
| Need to consult the husband  | 2      | 0.6     |
| Fear of discussing the horrible picture of HIV                             | 1      | 0.2     |
| <b>Discuss with partner about HIV testing in the current pregnancy</b>     |        |         |
| Yes  | 319    | 82.4    |
| No   | 65     | 16.8    |
| No response  | 3      | 0.8     |
| <b>Partners Believe about HIV Testing</b>                                  |        |         |
| Husbands support couple testing  | 337    | 87.1    |
| Husbands want the wife to be tested alone or not to raise the issue at all | 50     | 12.9    |
| <b>Preferred place of delivery</b>   |        |         |
| Home   | 9      | 2.3     |
| Health facility  | 338    | 87.3    |
| Another Health facility  | 26     | 6.7     |
| Undecided  | 14     | 3.6     |
| <b>Desired number of additional children by tuned +ve</b>                  |        |         |
| No more child  |        |         |
| One or two more children   | 185    | 47.8    |
| ≥ 3 more   | 144    | 37.2    |
| Undecided  | 31     | 8.0     |
|  | 27     | 7.0     |

## **5.2. Bivariate analysis**

### **Socio demographic variables associated with acceptance of HIV testing among the ANC Attendees, Sebeta and Alemgena Health Center**

Bivariate analysis was done to assess any association between socio demographic variables and voluntary HIV testing utilization. Women residing in Alemgena were 8 times more likely utilize voluntary HIV testing compared to Sebeta residents [COR 995%C.I.)=8.26(1.08-66.02)]. Pregnant women who had formal schooling were 15 times more likely to utilize voluntary HIV testing compared to illiterate [COR (95% CI) = 14.88(3.35-66.09)]. With respect to occupation of women being a farmer was less likely to undergo voluntary HIV testing compared to non farmers [COR (95%C.I.)= 0.17 (0.06-0.50)] (Table 5).

### **Factors associated with acceptance of HIV testing among the ANC Attendees, Sebeta and Alemgena Health Center**

Bivariate analysis was done to assess any association between different variables and voluntary HIV testing utilization. Pregnant women whose source of information from Radio were more likely to undergo voluntary HIV testing [COR (95%CI) =10.88(2.45- 48.26)].

Pregnant women who have the knowledge that HIV transmission occurs during sexual intercourses were more likely to undergo voluntary HIV testing [COR (95% C.I.) =2.81(1.05- 7.49)].

Those pregnant women who perceived that discussions about HIV/AIDS with husband would cause marital disharmony were more likely to differ from undergoing a voluntary HIV testing compared to their counter parts [COR (95%CI) = 0.33(0.12-0.88)].

According to bivariate regression shows those who planned to deliver in hospital had a significant association at [COR (95%CI) =0.19(0.05- 0.94)] with the acceptance of voluntary HIV testing (Table 6).

Table 5: Bivariate analysis showing Socio demographic factors associated with Acceptance of Voluntary HIV testing, Sebeta and Alemgena Health Center, Fin Fine Zurya Oromia special Zone, Ethiopia. March, 2012

| Variables                 | HIV test  |          | COR(95% CI)               |
|---------------------------|-----------|----------|---------------------------|
|                           | Yes (%)   | No (%)   |                           |
| <b>Age(Years)</b>         |           |          |                           |
| 15-20                     | 74(93.7)  | 5(6.3)   | 1                         |
| 21-30                     | 255(97.0) | 8(3.0)   | 2.15(0.68-6.78)           |
| 31-40                     | 41(91.1)  | 4(8.9)   | 0.69(0.18-2.72)           |
| <b>Place of Residence</b> |           |          |                           |
| Sebeta                    | 244(93.8) | 16(6.2)  | 1                         |
| Alemgena                  | 126(99.2) | 1(0.8)   | <b>8.26(1.08-66.02)*</b>  |
| <b>Religion</b>           |           |          |                           |
| Orthodox                  | 237(94.0) | 15(6.0)  | 0.24(0.05-1.06)           |
| Other                     | 133(98.5) | 2(1.5)   | 1                         |
| <b>Educational Status</b> |           |          |                           |
| Illiterate                | 124(89.2) | 15(10.8) | 1                         |
| Formal Education          | 246(99.2) | 2(0.8)   | <b>14.88(3.35-66.09)*</b> |
| <b>Occupation</b>         |           |          |                           |
| House wife                | 207(97.6) | 5(2.4)   | 1                         |
| Farmer                    | 76(87.4)  | 11(12.6) | <b>0.17(0.06,0.50)*</b>   |
| Other                     | 87(98.9)  | 1(1.1)   | 2.10(0.24-18.25)          |

Table 6: Bivariate analysis showing other variables associated with Acceptance of Voluntary HIV testing, Sebeta and Alemgena Health Center, Fin Fine Zurya Oromia special Zone, Ethiopia. March, 2012

| Variables                                | HIV test  |         | COR(95% CI)                |
|--|-----------|---------|----------------------------|
|  | Yes (%)   | No (%)  |                            |
| <b>Source of information on HIV/AIDS</b> |           |         |                            |
| Radio                                    |           |         |                            |
| Yes                                      | 219(99.1) | 2(0.9)  | <b>10.88(2.45- 48.26)*</b> |
| No                                       | 151(91.0) | 15(9.0) | 1                          |
| Family                                   |           |         |                            |
| Yes                                      | 82(96.5)  | 3(3.5)  | 1.33(0.37- 4.74)           |
| No                                       | 288(95.4) | 14(4.6) | 1                          |
| <b>Mode of HIV transmission</b>          |           |         |                            |
| Sexual Intercourse                       |           |         |                            |
| Yes                                      | 281(96.9) | 9(3.1)  | <b>2.81(1.05-7.49)*</b>    |
| No                                       | 89(91.8)  | 8(8.2)  | 1                          |
| Sharing sharp instrument                 |           |         |                            |
| Yes                                      | 68(98.6)  | 1(1.4)  | 3.60(0.47-27.63)           |
| No                                       | 302(95.0) | 16(5.0) | 1                          |
| Infected blood                           |           |         |                            |
| Yes                                      | 233(95.9) | 10(4.1) | 1.19(0.44-3.20)            |
| No                                       | 137(95.1) | 7(4.9)  | 1                          |
| <b>Heard about MTCT</b>                  |           |         |                            |
| Yes                                      | 2(91.2)   | 6(8.8)  | 2.71(0.97-7.60)            |
| No                                       | 308(96.6) | 11(3.4) | 1                          |
| <b>Means of PMTCT</b>                    |           |         |                            |
| Use of ART drug                          |           |         |                            |
| Yes                                      | 201(95.7) | 9(4.3)  | 1.06(0.40-2.80)            |
| No                                       | 169(95.5) | 8(4.5)  | 1                          |
| Avoid Breast feeding                     |           |         |                            |
| Yes                                      | 87(97.8)  | 2(2.2)  | 2.31(0.52-10.28)           |
| No                                       | 283(95.0) | 15(5.0) | 1                          |
| Don't know                               |           |         |                            |
| Yes                                      | 94(94.0)  | 6(6.0)  | 0.62(0.23-1.74)            |
| No                                       | 276(96.2) | 11(3.8) | 1                          |

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|   |           |         |                         |
|---|-----------|---------|-------------------------|
| <b>Discussions with partners<br/>about HIV/AIDS</b>                     |           |         |                         |
| Not an important issue  | 177(93.7) | 12(6.3) | 2.62(0.90-7.58)         |
| Yes   | 193(97.5) | 5(2.5)  | 1                       |
| No  |           |         |                         |
| Cause marital disharmony  | 84(91.3)  | 8(8.7)  | <b>0.33(0.12-0.88)*</b> |
| Yes   | 286(96.9) | 9(3.1)  | 1                       |
| No  |           |         |                         |
| <br><b>For current pregnancy<br/>preferred place of delivery</b>        |           |         |                         |
| Health center   | 324(95.9) | 14(4.1) | 0.66(0.18-2.39)         |
| Yes   | 46(93.9)  | 3(6.1)  | 1                       |
| No  |           |         |                         |
| Hospital  |           |         |                         |
| Yes   | 9(81.8)   | 2(18.2) | <b>0.19(0.05-0.94)*</b> |
| No  | 361(96.0) | 15(4.0) | 1                       |
| Undecided   |           |         |                         |
| Yes   | 12(92.3)  | 1(7.7)  | 1.87(0.23-15.24)        |
| No  | 358(95.7) | 16(4.3) | 1                       |
| <br><b>Feeding option for an infant born<br/>to HIV positive mother</b> |           |         |                         |
| Avoid breast feeding  |           |         |                         |
| Yes   | 277(95.2) | 14(4.8) | 1.57(0.44-5.57)         |
| No  | 93(96.9)  | 3(3.1)  | 1                       |
| Continue breast feeding   |           |         |                         |
| Yes   |           |         |                         |
| No  | 16(94.1)  | 1(5.9)  | 1.38(0.17-11.09)        |
|   | 354(95.7) | 16(4.3) | 1                       |

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### 5.3. Multivariate Analysis

#### Factors associated with voluntary HIV testing utilization among pregnant women

Multivariate analysis was done to see the independent effects of explanatory reliable on voluntary HIV testing utilization. After adjusting for potential confounding variables there was a significant association between some variables with voluntary HIV testing utilization. Education and occupation showed significant association with voluntary HIV testing utilization. Pregnant women who had formal schooling were 9 times more likely utilize voluntary HIV testing compared to illiterate [AOR (95% CI) = 8.99(1.70-45.57)].

With respect to occupation of women, farmers were less likely to undergo voluntary HIV testing compared to those who were not [AOR (95%C.I.)= 0.44 (0.22-0.99)]. Pregnant women who were informed by Radio & family were more likely to undergo voluntary HIV testing [AOR (95%CI) =14.90(2.94- 75.47)] and [AOR (95%C.I.) = 4.45(1.01-19.65)] respectively. Pregnant women who had the knowledge that HIV transmission occurs during sexual intercourses were more likely to undergo voluntary HIV testing [AOR (95% C.I.) =0.13(0.02-0.83)].

Pregnant women who perceived that discussions about HIV/AIDS with husband cause marital disharmony were more likely to differ from undergoing voluntary HIV testing compared to others [AOR (95%CI) = 0.20(0.05-0.87)]. Women who planned to deliver in a hospital were more likely to accept [AOR (95%CI) =0.01(00- 0.31)] voluntary HIV testing (Table 7).

Table 7: Multivariate analysis showing Factors associated with acceptance of HIV testing among the ANC Attendees, Sebeta and Alemgena Health Center, Fin Fine Zurya Oromia special Zone, Ethiopia March, 2012

| Variables  | HIV test  |          | COR(95% CI)        | AOR(95%CI)                 |
|--|-----------|----------|--------------------|----------------------------|
|  | Yes (%)   | No (%)   |                    |                            |
| <b>Educational Status</b>  |           |          |                    |                            |
| Illiterate   | 124(89.2) | 15(10.8) | 1                  | 1                          |
| Formal Education   | 246(99.2) | 2(0.8)   | 14.88(3.35-66.09)* | <b>8.99(1.70-45.57)**</b>  |
| <b>Occupation</b>  |           |          |                    |                            |
| House wife   | 207(97.6) | 5(2.4)   | 1                  | 1                          |
| Farmer   | 76(87.4)  | 11(12.6) | 0.17(0.06,0.50)*   | <b>0.31(0.10,0.98)**</b>   |
| Other  | 87(98.9)  | 1(1.1)   | 2.10(0.24-18.25)   | 1.24(0.13-11.75)           |
| <b>Sources of Information on HIV/AIDS</b>                                |           |          |                    |                            |
| <b>Radio</b>   |           |          |                    |                            |
| Yes  | 219(99.1) | 2(0.9)   | 10.88(2.45-48.26)* | <b>14.90(2.94-75.47)**</b> |
| No   | 151(91.0) | 15(9.0)  | 1                  | 1                          |
| <b>Family</b>  |           |          |                    |                            |
| Yes  | 82(96.5)  | 3(3.5)   | 1.33(0.37-,4.74)   | <b>4.45(1.01-19.65)**</b>  |
| No   | 288(95.4) | 14(4.6)  | 1                  | 1                          |
| <b>Mode of HIV transmission</b>  |           |          |                    |                            |
| <b>Sexual Intercourse</b>  |           |          |                    |                            |
| Yes  | 281(96.9) | 9(3.1)   | 2.81(1.05-7.49)*   | <b>0.13(0.02-0.83)**</b>   |
| No   | 89(91.8)  | 8(8.2)   | 1                  | 1                          |
| <b>Discussions with partners about HIV/AIDS cause marital disharmony</b> |           |          |                    |                            |
| Yes  | 84(91.3)  | 8(8.7)   | 0.33(0.12-0.88)*   | <b>0.20(0.05-0.87)**</b>   |
| No   | 286(96.9) | 9(3.1)   | 1                  | 1                          |
| <b>For current pregnancy preferred place delivery</b>                    |           |          |                    |                            |
| <b>Hospital</b>  |           |          |                    |                            |
| Yes  | 9(81.8)   | 2(18.2)  | 0.19(0.04-0.94)*   | <b>0.01(00-0.31)**</b>     |
| No   | 361(96.0) | 15(4.0)  | 1                  | 1                          |

## Qualitative

### Summary results of focus group discussion

Total of twelve participants were included in the study. Two FGD were conducted with pregnant mothers coming for ANC selected from Sebeta and Alemgena Health Center MCH unit by PMTCT service providers. The majority of the respondents 9 (75.0%) were in age group 21-30 years, 6(50%) were attended secondary education. Six (50%), 4(33.3%) and 2(16.7%), were Orthodox, Muslim and Protestant respectively. Eleven (91.7%) and 1(8.3%), were married and unmarried, respectively. Four (33.3%) of participants were housewife, 2(16.7%) were farmer, 1(8.3%) were government employed, 2(26.7%) were daily laborer and 3(25%) were merchant respectively (Table 8). And also a total of 3 health professionals (clinical nurses), two pregnant women and two postnatal sero positive mothers who where beneficiary of the PMTCT service were participated in the in-depth interviews.

Table 8: Socio demographic characteristics of FGD

| Variables                 | Number | Percent |
|---------------------------|--------|---------|
| <b>Age(years)</b>         | n=12   |         |
| 15-20                     | 2      | 16.7    |
| 21-30                     | 9      | 75.0    |
| 31-40                     | 1      | 8.3     |
| <b>Place of Residence</b> |        |         |
| Sebeta                    | 6      | 50.0    |
| Alemgena                  | 6      | 50.0    |
| <b>Religion</b>           |        |         |
| Orthodox                  | 6      | 50.0    |
| Muslim                    | 4      | 33.3    |
| Protestant                | 2      | 16.7    |
| <b>Marital Status</b>     |        |         |
| Married                   | 11     | 91.7    |
| Single                    | 1      | 8.3     |
| <b>Educational Status</b> |        |         |
| Illiterate                | 2      | 16.7    |
| Primary                   | 3      | 25.0    |
| Secondary                 | 6      | 50.0    |
| Tertiary                  | 1      | 8.3     |
| <b>Occupation</b>         |        |         |
| House Wife                | 4      | 33.3    |
| Farmer                    | 2      | 16.7    |
| Government Employee       | 1      | 8.3     |
| Daily Laborer             | 2      | 16.7    |
| Merchant                  | 3      | 25.0    |

## **HIV/ AIDS related knowledge & perceptions:**

Almost both group of the discussants stated that AIDS as a serious threat with no cure .This disease has no treatment, so if you hear that someone is infected, it is like a death, and there is no return to health again. HIV/AIDS is a very dangerous disease .HIV could be transmitted through unprotected sex, sharing of razor blade, needle with infected person, pregnancy and delivery.

In focus group discussions one of the participants mentioned that,

*“I thought HIV transmitted from one person to the other person because of carelessness of people. Most men in Sebeta village are farmer and during harvest time they went to market to sell their crop, and when they are drunk they sleep around and will be infected with HIV/AIDS. When they return home, they will infect their wives who will then infect their unborn children. And for small children may contract HIV through cutting of Uvula and milk tooth extraction with contaminated materials, Pregnancy and delivery.”* (One of the FGD participant)

One participant from Sebeta discussant said that *“People’s perception regarding HIV they think as curse and sin. As to me I feel that HIV transmitted through shaking and sleeping together in the same bed”*.

## **HIV testing and its importance**

Almost all participants agreed that VCT is important to know self-status. Four of the group discussants mentioned that *“previously I have a fear about testing but now I like to have it.HIV testing is good because it helps you to know your status and it makes you feel free, happy and confident. If you know your status it is better opportunity to your baby in the future.”*

One of the participant from Sebeta discussant said *“Yes , I like HIV testing. At this time it is an asset. Because HIV doesn’t differentiate one person from the other by religion, race, sex, wealth; if somebody knew his/her status so it is good to for that person to take care of him/herself. HIV testing is a very good tool because it helps to know your own status. So health is a property”*.

### **Knowledge about mechanism MTCT of HIV**

Majority of FGD participants knew MTCT of HIV. However there was variation about the mode of transmission. Most participants from both groups from Alemgena and Sebeta mentioned that MTCT is possible during breast-feeding. Half of participants mentioned MTCT can occur during delivery and pregnancy.

One participant from Alemgena discussant said that *“There is no chance for the baby to be free from HIV since he/she shares everything through placenta from his/her mother in the womb”*.

Regarding prevention of MTCT almost all of the participants from both groups said that avoiding breast-feeding could prevent HIV transmission to the baby. Some participants mentioned taking ART could prevent it.

### **Possible reasons of not using PMTCT services by pregnant women:**

Almost all of the discussants stated that fear of discrimination by the community. If she is tested and knew her status afraid of coping with positive HIV status and the consequences (in the community) of knowing that they might be positive. They preferred not know their status. Majority of FGD participants mentioned that lack of knowledge and information about the benefits of HIV testing. Some women do not understand benefit of testing and they think that testing service has payment. Woman gave birth at home and the delivery is safe they believe that for the next pregnancy they don't need to go Health facility.

Majority of participants mentioned they have never discuss with their partner about HIV testing and PMTCT of HIV during their pregnancy. Some husbands do not allow her to be tested. If the wife tested without her husbands' knowledge this might cause beat or divorce and they feared that they would be blamed for bringing the disease into the house.

One participant mentioned that the reason pregnant women not using PMTCT services there is gap in counseling.

### **Suggestion given to improve PMTCT services utilization**

- Teaching everybody in the community through providing continuous education and information dissemination about the benefits of PMTCT.
- Involving male partners in the prevention of MTCT.
- Empower women to enable them in decision making.

- Improve health professionals counseling knowledge and use local language during counseling.

### **Summary result of in-depth interviews**

#### **Perceived reasons why many pregnant women do not follow ANC/PMTCT**

1. Fear of stigma and discrimination.

Some of the main reasons stated by pregnant women and ANC/PMTCT providers were some positive mother did not tell their sero-status to their husband for fear of violence and firing out of home and fear of being stigmatized and discriminated by family, neighbors and community. In addition some of them thinks as taking ART drug predispose their fetus to drug side effect and also afraid of being identified as HIV positive.

2. Lack of Knowledge:

As stated by pregnant women, ANC/PMTCT and ART providers' lack of knowledge about the benefits of having ANC. *"A few women said that there was no need to be tested because they felt they had not put themselves at risk: I and my husband have lived a clean life. There is no need to be tested."* (ANC/PMTCT provider Nurse, Sebeta health center)

3. Male Dominance

Male dominance is common in sebeta. The husband doesn't allow women without his permission to go health facility. If a mother was counseled and tested for HIV without the knowledge of her husband, since she is afraid of her husband for many reasons like verbal and physical abuse, and marital relationship break up, she will not disclose her HIV status to her husband. Instead of coming to health facility they like to be managed by TBA at home to keep their peace. (ANC/PMTCT provider Nurse, Alemgena health center)

4. Accessibility of ART site

Alemgena Health center has no ART clinic .Positive pregnant mother referred from Alemgena to Sebeta Health for ART services. When we compare PMTCT service uptake by clients; Sebeta clients' utilize more than Alemgena. This may be due to distant location, transportation cost and need time to travel. (ANC/PMTCT and ART providers, Sebeta Health center)

**Suggested measures to scale up the PMTCT service**

1. Community sensitization, and mobilization on PMTCT to reduce stigmatization and discrimination, to increase partners' involvement in the program and involvement of community so as to maximize PMTCT service utilization
2. Continuous health education: community based education through outreach, home to home using HEWs and community conversion including HIV positive mothers to increase PMTCT utilization by pregnant mothers.
3. Program expansion: Opening ART site/clinic in Alemgena Health center.

## 6. DISCUSSION

The purpose of this study was to assess factors affecting utilization of PMTCT services among pregnant women in Sebeta and Alemgena towns, 95.6% of the antenatal care attendee had undergone voluntary counseling for HIV testing. Among all pregnant women who were counseled, 100% proceeded with HIV testing, and 99.3% of those who were tested subsequently received the HIV test result. Three hundred sixty one (93.3%) of those who received the result were negative for HIV and 9(2.3%) of those who received the result were positive for HIV. Only 5 of the positive pregnant women were eligible and initiated ART. The 4 of the positive pregnant women were not meet medical criteria for initiating ART but administered ARV prophylaxis. The testing figure was high when compared to EDHS 2011, which was 11.3% of women aged 15-49 years had been tested for HIV during ANC (9), and another study done in Western Amhara region which was 67.2% (34). This might be due to access improvement to the shift to routine opt-out testing service, anti retroviral therapy and the study set up was Town, which increases demand for HIV counseling and testing. Antenatal care utilization rate from a skilled provider in Oromia region is as low as 31.3% (9). This indicates that the uptake for these services would be very low compared to the general population, and this is consistence with study conducted in Namibia (34).

In the current study, as expected educational status and occupation had shown statistically significant association with voluntary HIV testing service utilization. Women with formal education were more likely to utilize voluntary HIV testing service than those who were illiterate. This finding is consistent with other studies done in Ethiopia (35-37). This might be due to individuals with formal education might have had better access to more information about HIV/AIDS and PMTCT. With respect to occupation of women, farmers were less likely to undergo voluntary HIV testing compared to those who are not farmers. This finding is comparable with study results of Namibia(34).

Being illiterate and a farmer in occupation seem barriers for both counseling and testing. Factors that had influence utilization of PMTCT service has been observed also by key informants as most men in Sebeta village were farmer and male dominance is common. The PMTCT providers have observed that the husband doesn't allow women without his permission to go to a health facility. This is consistent with study done in Western Amhara region(18).

Knowledge about mode of HIV transmission and its prevention methods was found to be high. I.e. ninety eight percent of the women knew at least one method of prevention of HIV transmission. when compared to study done in Dessie(36). In this study it was observed that pregnant women who were informed about HIV/AIDS through a radio and family were also better in getting involved to voluntary counseling for HIV testing. The finding was consistent with other study findings (35-38). Those individuals who had good knowledge about VCT were also more likely to utilize VCT service than those who had not. This might be due to knowledgeable individuals might perceived the benefits gained from being tested for HIV(35). Pregnant women who had the knowledge that HIV transmission could occur through a sexual intercourse were more likely to undergo voluntary HIV testing than knowledge on other mode of transmission, the finding is comparable with study done in Mersa.

Pregnant women who perceived that discussions about HIV/AIDS with husband could cause marital disharmony were more likely to differ from undergoing voluntary HIV testing compared to others. This was also supported by the qualitative study where discussants stated as marital disharmony the main reasons of coping with positive HIV status and fear of stigma and discrimination by their partners and community. Some positive mothers did not tell their sero-status to their husband for fear of violence and being fired out of home and fear of being stigmatized and discriminated by family, neighbors and community. This might be due to lack of knowledge as majority of FGD participants mentioned that lack of knowledge and information about the benefits of HIV testing. Some women did not understand the benefit of testing and they thought that they had not put themselves at risk: “I and my husband have lived a clean life. There is no need to be tested”. Similar to other studies done in South Africa, Dessie, Western Amhara and Tigray, discussants emphasized to improve the service utilization by involving male partners in the prevention of MTCT and empower women to enable them in decision making (18, 36, 37, 39). Focus group discussants were also underlined the importance of teaching everybody in the community to address knowledge gap by providing continuous education and information dissemination about the benefits of PMTCT through outreach, home to home using HEWs and community conversion including HIV positive mothers to increase PMTCT service utilization by pregnant mothers.

With regard to the preferred place of delivery, majority of the respondents planned to deliver in health center. But those who planned to deliver in hospital had a significant association with the acceptance of voluntary HIV testing.

Regarding the uptake of ART by women referred to ART service from Alemgena PMTCT site. All referred HIV positive mothers were utilized ART service fully even though the cost of travelling to Sebeta health center challenging for Alemgenas' client. This finding is consistent to the study done in South Africa. "The financial costs associated with ART initiation such as travel (bus fare and personal time) to and from clinics can also contribute to low utilization of ART services by pregnant women"(39).

## 7. STRENGTH & LIMITATIONS OF THE STUDY

### **STRENGTH OF THE STUDY**

- In this study both quantitative and qualitative methods were used. The quantitative cross-sectional survey was triangulated with exploratory and explanatory qualitative study. So those issues need more explanation explored in a better way.
- Factors that have a potential to influence the utilization of PMTCT service by pregnant women were included and multivariable regression analysis was used to control the confounders.

### **LIMITATIONS OF THE STUDY**

Limitation of the study were that

- It was conducted only among the ANC attendee and hence may not be generalized to the overall pregnant women in the population.
- The study also found that the responses depended on the memory and truthfulness of the respondents which was assumed to be reliable and their might be a recall bias.
- The entry of responses into the questionnaire depended on the interviewers' interpretation of the response and was subject to misrepresentation. This was however reduced due to training of interviewers and use of people with medical background.
- Since it is cross sectional study it is difficult to assess cause and effect relationship.
- And also for some sensitive issues responses may create social desirability bias.

## 8. CONCLUSION

Socio demographic factors such as education were positively associated with voluntary counseling and testing for HIV. Being a farmer and an illiterate seem strong limiting factors for pregnant women to undergo HIV counseling and testing.

Status of knowledge of pregnant women about HIV/AIDS and PMTCT was relatively high. However despite their knowledge about HIV/AIDS, respondents who perceived that discussions about HIV/AIDS with husband cause marital disharmony was reason for differing from undergoing voluntary HIV testing.

The distance of the service is one of the factors that affect utilization of ART uptake by referred positive pregnant women. Fear of stigma and discrimination, Lack of knowledge about benefits of PMTCT and fear of partner reaction were found predictors of non- utilization of PMTCT services.

Some of factors influencing PMTCT utilization were stigmatization and discrimination, less partners' involvement in the program and lack of awareness.

## 9. RECOMMENDATION

At program level:

- FMoH and RHB should give support and follow up for the implementation of the integrated PMTCT services with routine maternal, neonatal and child and reproductive health services
- Strengthening capacity of the existing health system through implementing the health network model, referral system, expansion of PMTCT and ART sites, promotion of PMTCT services, empowering PLHIV networks, scaling up mother support group program with the aim of minimizing stigma and discrimination, ensuring adherence and promoting women's empowerment.
- Availing Basic education programs for adults who cannot attend formal education in collaboration with Education office of Fin Fine Zurya Oromia special Zone/ community

At health facility level

- Enhance knowledge about benefits of PMTCT by encouraging partner involvement to decrease fear of partner reaction and non- utilization of PMTCT services.
- The health facility should conduct targeted community sensitization and mobilization on HIV, PMTCT and ART to reduce stigmatization and discrimination including partners' involvement in the program
- Continuous awareness creation to increase knowledge through community based education using outreach, home to home and community conversion including HIV positive mothers to increase PMTCT utilization by pregnant mothers.

For further Research area

- More community based research is needs to be conducted to know to generalize the findings for general population like magnitude of HIV in the specific community

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## Appendix I: - Quantitative Research Tools

**Instruction:** The quantitative questionnaire has 6 pages containing 46 questions divided among 4 sub sections. First you will find the informed consent. Please make sure that all the stated sections & questions are present, and read (inform verbally) the consent for the interviewee before beginning the interview. Please circle the answers against the code numbers or write if stated otherwise on the space provided.

### **Informed Consent Form for Quantitative survey questionnaires:**

My name is ----- . I am working temporarily as a data collector with the department of community health of AAU, which is conducting a study among pregnant women. The objective of the present study is study is to examine PMTCT service utilization. A number of people are needed in this study for which it is being conducted elsewhere. During the interview you will be asked some short questions about your background, about HIV and AIDS, your feelings etc. Your answers will be recorded on a survey questionnaire. You may feel uncomfortable or experience some emotional stress from being asked some of the personal questions. No personal identifiers will be attached/ recorded to the interview. All the data obtained will be kept strictly confidential by using only code numbers and will be stored in locked file cabinets at Addis Ababa University, to be accessed only by the principal investigator, and destroyed immediately when the study is finalized.

Your participation in the study is upon purely voluntary basis. What we learn from this study will be used to generate information necessary for the planning to improve, redesign and scale up the PMTCT programs in our country. The interview will be conducted in private and will take 15-20 minutes. During the interview (discussion) period, if you feel inconvenient, you can interrupt and clarify inconvenience, appoint to other time or even withdraw any time after you get involved in the study. Your honest and genuine participation in responding to the questions prepared is very important & highly appreciated. If you agree to participate in this study I will interview you.

Would you be willing to participate? If yes, proceed. If no, thank and stop here.  
 \_\_\_\_\_ (Signature of interviewer certifying that respondent has given informed consent verbally).

**Quantitative Survey Questionnaire:**

| Section 0: General Information |                    |             |             |         |
|--------------------------------|--------------------|-------------|-------------|---------|
| Number                         | Question Item      | Response    | Code Number | Skip to |
| 001                            | Place of Interview | Sebeta HC   | 1           |         |
|                                |                    | Alemgena HC | 2           |         |

| Section 1: Socio Demographic Characteristics & Background Information |                                   |                                 |             |         |
|---|-----------------------------------|---------------------------------|-------------|---------|
| Number  | Question Item                     | Response                        | Code Number | Skip to |
| 010   | Residence address                 | Sebeta                          | 1           |         |
|   |                                   | Alemgena                        | 2           |         |
| 020   | Age of the respondent in years    | <15-20 years                    | 1           |         |
|   |                                   | 21-30 years                     | 2           |         |
|   |                                   | 31-40 year                      | 3           |         |
|   |                                   | 41-49 years                     | 4           |         |
| 030   | What is your religion?            | Orthodox .....                  | 1           |         |
|   |                                   | Islam .....                     | 2           |         |
|   |                                   | Catholic .....                  | 3           |         |
|   |                                   | Protestant .....                | 4           |         |
|   |                                   | Other (specify) _____           | 88          |         |
| 040   | Marital Status Currently married  | Currently married.....          | 1           |         |
|   |                                   | Single – Never married.....     | 2           |         |
|   |                                   | Divorced.....                   | 3           |         |
|   |                                   | Widowed.....                    | 4           |         |
|   |                                   | No response.....                | 77          |         |
|   |                                   |                                 |             |         |
| 050   | Number of alive children (if any) | M.....                          | 1           |         |
|   |                                   | F .....                         | 2           |         |
| 060   | Educational Status                | Illiterate.....                 | 1           |         |
|   |                                   | Primary.....                    | 2           |         |
|   |                                   | Secondary.....                  | 3           |         |
|   |                                   | Tertiary (above 12 grade) ..... | 4           |         |

| 070   | Occupation   | House wife.....<br>Government employee.....<br>Student.....<br>Daily laborer.....<br>Other (specify).....  | 1<br>2<br>3<br>4<br>88           |         |
|---|--|--|----------------------------------|---------|
| 080   | Husband's Occupation   | Civil Government employee.....<br>Daily laborer.....<br>Merchant.....<br>Other (specify).....  | 1<br>2<br>3<br>88                |         |
| <b>Section 2: Knowledge, Perceptions and Attitudes towards HIV/AIDS</b> |  |  |                                  |         |
| Number  | Question Item  | Response   | Code Number                      | Skip to |
| 090   | Have you ever heard about HIV/AIDS before?   | Yes.....<br>No.....<br>Not sure.....<br>No response.....   | 1<br>2<br>3<br>77                |         |
| 100   | Where did (do) you hear about it first? From: (Do not read, circle what she says)  | Health Facility (previous occasion) .....<br>Radio .....<br>Television .....<br>Newspaper .....<br>Family members .....<br>Others, Specify_____  | 1<br>2<br>3<br>4<br>5<br>88      |         |
| 110   | How do you feel the message release via public media (radio, Television, Newspaper etc). (Do not read, circle what she says) | Clear and appropriate in contents.....<br>Clear but inappropriate contents.....<br>Appropriate in contents but not clear.....<br>Sometimes it is clear but not always...<br>Not Clear.....<br>It doesn't concern me.....<br>No response..... | 1<br>2<br>3<br>4<br>5<br>6<br>77 |         |
| 120   | How does a person get infected by the HIV virus? (Do not read, circle what she says)   | Sexual intercourse .....<br>Infected blood and blood products...<br>By sharing sharps .....<br>Mother to child.....<br>I do not know.....<br>No response.....  | 1<br>2<br>3<br>4<br>5<br>77      |         |
| 130   | How can one be protected against getting HIV? (Do not read, circle what she says)  | Abstinence.....<br>Be faithful.....<br>Condom use.....<br>Other specify.....   | 1<br>2<br>3<br>88                |         |
| 140   | Have you ever heard how Mother to Child Transmission of HIV can be prevented?  | Yes.....<br>No.....  | 1<br>2                           |         |
| 150   | Could you tell me any  | Use antiretroviral drug.....   | 1                                |         |

|     |   |   |                              |  |
|-----|---|---|------------------------------|--|
|     | method(s) by which we can prevent the newborn from being infected with HIV? (Do not read, circle what she says)   | Avoid breast feeding.....<br>I do not know .....<br>No response.....  | 2<br>3<br>77                 |  |
| 160 | Do you support the idea that every pregnant woman should be screened for HIV?   | Yes.....<br>No.....<br>Not sure.....<br>No response.....  | 1<br>2<br>3<br>77            |  |
| 170 | If the response is yes should the partner be tested with the pregnant women or not?   | Yes.....<br>No.....<br>Do not Know.....   | 1<br>2<br>3                  |  |
| 180 | What do you think is the reason that pregnant women following ANC will not be voluntary to provide blood samples for HIV testing? (Do not read, circle what she says) | Afraid of coping with +ve HIV status.....<br>Afraid of the consequences (in the community) of knowing that they might be positive.....<br>Do not like to give blood at all.....<br>The religious faith does not permit it.....<br>No response.....<br>Others (specify)..... | 1<br>2<br>3<br>4<br>77<br>88 |  |
| 190 | Do you believe that couples should be screened for HIV before getting married?  | Yes.....<br>No.....<br>Not sure.....<br>No response.....  | 1<br>2<br>3<br>77            |  |
| 200 | If yes, then where should they be tested preferably?  | At ANC clinics .....<br>At private clinics.....<br>Do not know.....<br>No response.....<br>Others (specify) .....   | 1<br>2<br>3<br>77<br>88      |  |
| 210 | Please tell me how should couple have sexual intercourse if either of them is HIV infected? (Do not read, circle what she says)                                       | They should be divorced.....<br>Do not have sexual intercourse at all.....<br>They should use condoms always.....<br>They should behave as usual- use no condoms.....<br>No idea .....  | 1<br>2<br>3<br>4<br>5<br>88  |  |

|   |  | Others (specify).....   |                              |         |
|---|--|---|------------------------------|---------|
| 220   | Do you think you are at risk of getting HIV infection?                           | Yes.....<br>No.....<br>Don't know.....<br>No response.....  | 1<br>2<br>3<br>77            |         |
| <b>Section 3: HIV/AIDS related Behavior &amp; Beliefs</b> |  |   |                              |         |
| Number  | Question Item  | Response  | Code Number                  | Skip to |
| 230   | How do you judge about the message delivered by PMTCT staff regarding HIV/AIDS   | Very clear.....<br>Clear.....<br>Sometimes clear, sometimes vague.....<br>Vague.....<br>No response.....  | 1<br>2<br>3<br>4<br>77       |         |
| 240   | What is your feeling towards the message conveyed about HIV/AIDS by PMTCT staff? | Appropriate.....<br>Inappropriate.....<br>No response.....<br>Other.....  | 1<br>2<br>77<br>88           |         |
| 250   | If the response is inappropriate/bad, Why?                                       | Contact time not enough.....<br>Discussions are not elaborated well.....<br>Horribly/terrifying picture emphasized.....<br>Testing Procedure not comfortable.....<br>No response.....<br>Other (specify)..... | 1<br>2<br>3<br>4<br>77<br>88 |         |
| 260   | If you do not discuss about HIV/AIDS in the current pregnancy, why not?          | It is not an important issue to discuss (we are safe).....<br>Such discussions cause marital disharmony.....<br>No response.....<br>Other (specify).....  | 1<br>2<br>77<br>88           |         |
| 270   | Have you ever been counseled or HIV testing?                                     | Yes.....<br>No.....<br>No response.....   | 1 }<br>2 }<br>77             | → 300   |
| 280   | If the response is Yes, when were you counseled first time?                      | Premarital VCT.....<br>Preconception VCT.....<br>In the current pregnancy.....  | 1<br>2<br>3                  | → 300   |

|     |  |   |                             |     |
|-----|--|---|-----------------------------|-----|
| 290 | How did you come up to access VCT first time (the initiative)?                                 | To plan for marriage.....<br>To plan for having baby.....<br>Initiated by provider at health facility visit.....<br>Other (specify)_____  | 1<br>2<br>3<br>88           |     |
| 300 | If your response is No, why not? (Refer Q 270)   | I have no risk of HIV .....<br>Fear of discussing the horrible picture of HIV/AIDS.....<br>Knowing serostatus has no benefit.....<br>The need to consult to my husband.....<br>Fear of being seen in the VCT.....<br>Other (specify)..... | 1<br>2<br>3<br>4<br>5<br>88 |     |
| 310 | If you were counseled do not tell me the result, but have you ever been tested for HIV?        | Yes.....<br>No.....<br>No response.....   | 1<br>2<br>77                | 330 |
| 320 | Do not tell me the result, but have you known the HIV test result for yourself?                | Yes.....<br>No.....<br>No response.....   | 1<br>2<br>77                | 360 |
| 330 | If your response is no, why not? (Do not read, circle what she says)                           | Afraid of coping with positive result for myself.....<br>Afraid of discrimination by husband and family.....<br>Afraid of discrimination by community.....<br>Other (specify).....  | 1<br>2<br>3<br>88           |     |
| 340 | Suppose if you were to be tested for HIV, what would you expect the results of the testing be? | Negative.....<br>Positive.....<br>I don't know.....<br>I don't want to be tested at all.....<br>No response.....  | 1<br>2<br>3<br>4<br>77      |     |
| 350 | If you were tested for HIV, would you accept the test result?                                  | Yes.....<br>No.....<br>No response.....   | 1<br>2<br>77                |     |
| 360 | Do you think your husband or sexual partner is at risk of getting HIV infection?               | Yes.....<br>No.....<br>Not sure.....<br>No response.....  | 1<br>2<br>3<br>77           |     |
| 370 | Suppose if your husband or sexual partner were to be   | Negative.....<br>Positive.....  | 1<br>2                      |     |

|  | tested for HIV, what would you expect the results of the testing be?  | I don't know.....<br>He does not want to be tested at all.....<br>No response.....  | 3<br>4<br>77            |            |
|--|---|---|-------------------------|------------|
| 380  | Have you ever discussed with your husband about the issues of HIV testing in the current pregnancy?                         | Yes.....<br>No.....<br>Doesn't remember.....<br>No response.....  | 1<br>2<br>3<br>77       |            |
| 390  | What is the view of your husband regarding HIV screening?   | Wants to have couple testing.....<br>Wants me to be tested alone, but not himself.....<br>Doesn't want me to be tested.....<br>Doesn't want to discuss at all.....<br>No response.....  | 1<br>2<br>3<br>4<br>77  |            |
| <b>Section 4: HIV/AIDS related Behavior, Stigma &amp; Discrimination</b> |   |   |                         |            |
| Number   | Question Item   | Response  | Code Number             | Skip to    |
| 400  | If you were supposed to be tested and results turn out to be positive, would you notify results to your Husband /Family     | Yes.....<br>No.....<br>Not sure.....  | 1<br>2<br>3             |            |
| 410  | Once you are HIV negative is it necessary to have HIV testing in each pregnancy?  | Yes.....<br>No.....<br>Not sure.....  | 1<br>2<br>3             |            |
| 420  | Suppose your test was positive for HIV, would you take Medication to prevent transmission of HIV to your yet un born fetus? | Yes.....<br>No.....<br>I cannot be sure.....<br>No response.....  | 1<br>2<br>3<br>77       | 440<br>440 |
| 430  | If the response is No, Why Not?<br>(Do not read, circle what she says)  | I don't believe that ARV prophylaxis is effective.....<br>Fear of being identified as PLWHA by people (husband, family, or neighbor) .....<br>.....<br>Fear of Drug side effect.....<br>No response..... Other (specify)..... | 1<br>2<br>3<br>77<br>88 |            |
| 440  | What would be the best option for feeding an infant born to HIV positive mother?<br>(Do not read, circle what she says)     | Stop breastfeeding and provide formula food (if affordable) .....<br>Continue breast-feeding if the mother is poor .....<br>Mix both breast as well as  | 1<br>2                  |            |

|     |  |   |    |  |
|-----|--|---|----|--|
|     |  | supplementary feeding .....                                 | 3  |  |
|     |  | Provide the newborn with whatever is available in the house |    |  |
|     |  | .....   | 4  |  |
|     |  | No response..... Other                                      | 77 |  |
|     |  | (specify).....  | 88 |  |
| 450 | If you were tested and turn out to be positive, how many more children would you like to have in future? | None.....   | 1  |  |
|     |  | One or two more.....  | 2  |  |
|     |  | More than two.....  | 3  |  |
|     |  | Can't decide now.....                                       | 4  |  |
|     |  | Don't want to think about it even.....                      | 5  |  |
|     |  | No response.....  | 77 |  |
| 460 | Where do you like to deliver in the current pregnancy? (Do not read, circle what she says)               | At home .....   | 1  |  |
|     |  | In this health facility.....                                | 2  |  |
|     |  | In another health facility.....                             | 3  |  |
|     |  | I have not decided yet.....                                 | 4  |  |
|     |  | No response..... Other                                      | 77 |  |
|     |  | (specify) .....   | 88 |  |

Any information you would like to mention with respect to under utilization of PMTCT service by pregnant women. -----  
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## Appendix II: Qualitative Research Tools

### **Informed Consent Form for Focus Group Discussions:**

My name is -----. I am working temporarily as a data collector with the department of community health of AAU which is conducting a study among residents of Sebeta and Alemgena. The objective of the present study is to examine the utilization of PMTCT service. A number of people are needed in this study for which it is being conducted elsewhere. During the discussion some short questions will be asked about HIV and AIDS, PMTCT, pregnancy, and health care, etc. You were selected to participate in this study because you are recognized as one of the best resourceful persons in the issues for generating constructive ideas.

There will be a facilitator who will ask the group the relevant questions about you and your community. Your answers will be tape recorded. The discussion will take approximately one hour. It is possible that you may know some other members of the discussion group and that they may tell others what you say during the discussion. You may feel uncomfortable or experience some emotional stress from being asked some of the personal questions. Your name and any other personal identifiers will not be attached/ recorded to your interview. All the data obtained will be kept strictly confidential by using only code numbers and will be stored in locked file cabinets at Addis Ababa University, to be accessed only by the principal investigator, and destroyed immediately when the study is finalized.

What we learn from this study will be used to generate information necessary for the planning to improve, redesign and scale up the PMTCT programs in our country. The discussion will be conducted in private and will take 1-2 hrs. During the interview (discussion) period, if you feel inconvenient, you can interrupt and clarify inconvenience, can refuse to answer any question or leave the discussion at any time you get involved in the study. Your honest and genuine participation in responding to the questions prepared is very important & highly appreciated. If you agree to participate in the discussion you will join the FGD.

Would you be willing to participate? If yes, proceed. If no, thank and stop here.

\_\_\_\_\_ (Signature of the discussant certifying that respondent has given informed consent verbally)

## **Appendices II-1:-Guidelines for Focus Group Discussions**

The focus group discussions will cover a range of topics including:

1. HIV/ AIDS related knowledge, terms & perceptions:
2. Inclinations regarding HIV testing:
3. Understanding of the mechanisms of perinatal transmission of HIV:
4. Attitudes regarding prenatal care:
5. Possible reasons of not using PMTCT services by pregnant women:
6. Suggested interventions for wide coverage

### **Statement of Informed Consent**

#### **In-depth Interview Respondents for PMTCT service providers**

I, \_\_\_\_\_, am being asked to participate in the study of ART and PMTCT services utilization of pregnant women's. Berhane Assefa, a student, Addis Ababa University School of Public Health, is conducting this study.

I understand that the general purpose of the study is to determine how the PMTCT and ART services systems of care currently function to meet the need of pregnant women's living with HIV/AIDS and to identify the determining factors for ART service utilization at the health facilities. The researcher hopes to gain an understanding of these issues by interviewing persons knowledgeable of these systems of care.

I understand that as a participant, I have the right to withdraw from the interview process for any reason. I understand that I will participate in an interview that will take an hour. The interviewer will ask me a question about existing PMTCT and ART services, gaps in these systems, development needs, and recommendations for change.

I understand that by sharing this information, I will assist the study in making recommendations as to how future PMTCT programs can better meet the needs of sero-positive pregnant women utilizing the service.

No harm is apparent because of participating in this research. If I am unable to continue an interview, I may stop the interview process at any time.

I understand that I will be sharing information and opinion with researcher. Great precaution will be taken to ensure that this information will remain confidential. Any reports or recommendations which are written as a result of the study will never refer to specific individuals by name.

Participation in this study is voluntary. Refusal to participate will involve no penalty or loss of benefits to which I am otherwise entitled. I understand that I may discontinue participation any time with no penalty to me.

I have been given the opportunity to ask any questions, and I have received a copy of this consent form. By signing this document I freely and voluntarily consent to be interviewed as a participant in this project.

\_\_\_\_\_  
Signature of the participant

\_\_\_\_\_  
Date

### **Statement of Informed Consent**

#### **In-depth Interview Respondents for pregnant and postnatal women in Sebeta and Alemgena Health Center.**

I, \_\_\_\_\_, am being asked to participate in the study of PMTCT services utilization of pregnant women's. Berhane Assefa, a student, Addis Ababa University School of Public Health, is conducting this study. I am here to interview women who have participated in the Prevention of Mother-to-child transmission of HIV/AIDS program about PMTCT service delivered in the health institutions of Sebeta/Alemgena town. We would like to ask your opinion of PMTCT service utilization, in general. All comments, both positive and negative, are welcome. No harm is apparent as a result of participating in this project. If I am unable to

continue an interview, I may stop the interview process at any time. To ensure the quality of the data collection, I will use tape recorder. I would like to assure you that confidentiality for your comments would be respected and will be used only for research purpose. Are you willing to participate in the interview? I greatly appreciate your taking time to speak with me

If yes, proceed

If no, thank and stop here.

---

(Signature of Interviewee)

### **Appendices II-2: - Guidelines for the in-depth interviews**

The in-depth interviews among ANC/PMTCT providers will cover topics including:

1. What do you think is the reason that many women do not visit ANC while pregnant?
2. What do you think is the reason that many pregnant women tend to decline HIV testing upon group education and individual counseling?
3. What do you think is the reason that HIV + pregnant women avoid taking ARV drugs?
4. What measures should be taken to scale up the program?
5. Any values of outreach programs focused on pregnant women? Could it give opportunities outside antenatal setting?

### **In-Depth Interview (IDI) among ANC Attendees will cover topics including:**

1. What are the modes of transmission of HIV/AIDS?
2. What are the methods of prevention of HIV/AIDS?
3. How can a pregnant woman prevent her baby from becoming infected if she is HIV infected?
4. Do you think that an HIV positive woman who is pregnant needs to use a condom when having sex with her partner? If yes, why?
5. In your opinion, what are the factors that affect pregnant women's PMTCT service utilization at the health facilities?

6. Were you satisfied about how you found out about PMTCT services and got enrolled in the program? Were there problems that occurred during this process? How do you cope with it? If so can you discuss them? (Probe whether the mother faced problems on process of VCT, ANC follow-up, labor, delivery, PNC and other PMTCT related services at the health facility)

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□□ል 0) -የስምምነት መግለጫ:

ስሜ -----ይባላል። የአ/አ/ዩ/ የሩ/ሰብ ጤና ሳይንስ ትም/ት ክፍል በሚያካሄደው ጥናት ውስጥ በጊዜያዊ መረጃ ሰብሳቢነት በመስራት ላይ እ□□ፍለሁ። የጥናቱ ዓላማ ኤች አይ ቪ ከእናት ወደ ልጁ እናዳይተላለፍ በሚያደርጉ አገልግሎቶች የነፍስ ጡር እናቶችን አጠቃቀም ማወቅ ነው። በጥናቱ በርካታ ነፍስ ጡሮችን ማሳተፍ አስፈላጊ በመሆኑ በተለ□□ በታዎች የመረጃ ስብሰባው በመከናወን ላይ ነው።

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|      |                 | አለምገና ጤና ጣቢያ..... | 2        |     |

ንዑስ ክፍል 1) አጠቃላይ መረጃ

| ተ.ቁ. | መጠይቅ                       | ዝርዝር መልስ       | የመልስ መለያ | ይለፍ |
|------|----------------------------|----------------|----------|-----|
| 010  | የመኖሪያ አካባቢ                 | ሰበታ .....      | 1        |     |
|      |                            | አለምገና.....     | 2        |     |
| 020  | ዕድሜ ስንት ነው?                | <15-20 ዓመት     | 1        |     |
|      |                            | 21-30 ዓመት      | 2        |     |
|      |                            | 31-40 ዓመት      | 3        |     |
|      |                            | 41-49 ዓመት      | 4        |     |
| 030  | ሐይማኖት ምንድን ነው?             | ኦርቶዶክስ.....    | 1        |     |
|      |                            | እስልምና.....     | 2        |     |
|      |                            | ካቶሊክ.....      | 3        |     |
|      |                            | ፕሮቴስታንት.....   | 4        |     |
|      |                            | ሌላ (ይገለጽ)..... | 88       |     |
| 040  | በአሁን ሰዓት የጋብቻ ሁኔታ እንዴት ነው? | ባለትዳር.....     | 1        |     |
|      |                            | በፍጹም አግብቼ      | 2        |     |
|      |                            | አላውቅም .....    | 3        |     |
|      |                            | ተፋትቻለሁ.....    | 4        |     |

|     |                       |   |                        |  |
|-----|-----------------------|---|------------------------|--|
|     |                       | ባለቤቱ ከዝህ ዓለም በሞት ተለይቷል.....<br>ለዝህ ጥያቄ መልስ መስጠት አልፋልግም....  | 77                     |  |
| 050 | ልጅ ካለዎት ብዛታቸው ስንት ነው? | ወ.....<br>ሴ.....  |                        |  |
| 060 | የትምህርት ደረጃ እንዴት ነው?   | ማንበብ መጻፍ አልችልም.....<br>...<br>ከ1-6ኛ ክፍል ተምራያለሁ.....<br>ከ7-12ኛ ክፍል ተምራያለሁ.....<br>ከፍተኛ ት/ት ተምራያለሁ..... | 1<br>2<br>3<br>4       |  |
| 070 | መደበኛ ሥራ ምንድን ነው?      | የቤት እመቤት.....<br>የመንግሥት ሠራተኛ....<br>የቤት ውስጥ ሠራተኛ...<br>የቀን ሥራ.....<br>ሌላ (ይገለጽ).....                  | 1<br>2<br>3<br>4<br>88 |  |
| 080 | የባለቤት መደበኛ ሥራ         | የመንግሥት ሠራተኛ.....<br>የቀን ሥራ.....<br>ነጋዴ.....<br>ሌላ (የገለጽ)  | 1<br>2<br>3<br>88      |  |

ንዑስ ክፍል 2) ስለ ኤድስ እውቀት እሳቦ? እና እምነት (አመለካከት)

| ተ.ቁ. | መጠይቅ  | ዝርዝር መልስ   | የመልስ መለያ                    | ይለፍ |
|------|---|--|-----------------------------|-----|
| 090  | ስለ ኤች አይ ቪ ወይም ስለ ኤድስ በሽታ ሰምተው፣<br><input type="checkbox"/> ውቃሉ?        | አዎን.....<br>ሰምቼ አላውቅም.....<br>እርፅ <input type="checkbox"/> ኛ አይደለሁም.....<br>ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....   | 1<br>2<br>3<br>77           |     |
| 100  | ስለ ኤች አይ ቪ/ ኤድስ ከየት ሰሙ? (ከአንድ በላይ መልስ መስጠት ይቻላል ፡ ምርጫው ግን አይነበብም)       | ከጤና ተቋማት(ከበሬት ሁኔታ).....<br>ከሬድዮ.....<br>ከቴሌቪዥን .....<br>ከጋዜጣ .....<br>ከቤተሰብ አባላት.....<br>ሌላ ( <input type="checkbox"/> ለ <input type="checkbox"/> ) .....  | 1<br>2<br>3<br>4<br>5<br>88 |     |
| 110  | በመገናኛ ብዙሃን (በሬዲዮ በቴሌቪዥን በጋዜጣ) ስለ ኤች አይ ቪ /ኤድስ የሚተላለፈውን መልእክት እንዴት ያዩታል? | ግልፅና ተገቢ ይዘት አለው.....<br>ግልፅ ነው ነገር ግን ይዘቱ ተገቢ አይደለም.....<br>ይዘቱ ተገቢ ቢሆንም ግልፅ አይደለም .....<br>አንደ አንዴ ግልፅ ነው አንድ አንዴ ግልፅ አይደለም.....<br><input type="checkbox"/> ህ <input type="checkbox"/> ቅ እኔን አይመለከትም.....<br>ለዚህ ጥያቄ መልስ መስጠት አልፈልግም..... | 1<br>2<br>3<br>4<br>5<br>77 |     |
| 120  | የኤች አይ ቪ ህዋስ ከ ሰው፣<br><input type="checkbox"/> ሰው እንዴት                  | በፅብረ ስጋ ግንኙነት .....<br><input type="checkbox"/> ም በመለብ.....  | 1<br>2                      |     |

|  |                                       |                              |    |  |
|--|---------------------------------------|------------------------------|----|--|
|  | እንደሚተላለፍ                              | መርፌ በመወጋት.....               | 3  |  |
|  | ሊነግሩኝ ይችላሉ? (ከአንድ በላይ መልስ መስጠት ይቻላል : | በእርግዝና ወቅት ከእናት ወደ ጽንሰ....   | 4  |  |
|  | ምርጫው አይነበብም)                          | አላውቅም.....                   | 5  |  |
|  |                                       | ለዚህ ጥያቄ መልስ መስጠት አልፈልግም..... | 77 |  |

| ተ.ቁ. | መጠይቅ   | ዝርዝር መልስ   | የመልስ መለያ          | ይለፍ |
|------|--|--|-------------------|-----|
| 130  | ራስን ከኤች አይቪ ለመከላከል መደረግ የሚገባቸውን ጥረቶች ቢጠቅሱልኝ (ከአንድ በላይ መልስ መስጠት ይቻላል :ምርጫው አይነበብም)                  | በመታቀብ .....<br>ግብረ ስጋ ግንኙነትን አንድ ለአንድ መወሰን.....<br>ኮንዶም መጠቀም.....<br>ሌላ (□□ለ□) .....           | 1<br>2<br>3<br>88 |     |
| 140  | ኤች አይ ቪን ከእናት ወ□ ል□ እንዳይተላለፍ ማ□ረፅ እንደሚቻል ሰምተው ያውቃሉ ?   | አዎ.....<br>ሰምቼ አላውቅም.....  | 1<br>2            |     |
| 150  | የኤች አይ ቪን ህዋስ ወደ ጽንሰ እንዳይተላለፍ ማድረግ የሚቻልበት መንገድ ካለ ሊነግሩኝ ይችላሉ?(ከአንድ በላይ መልስ መስጠት ይቻላል :ምርጫው አይነበብም) | የኤች አይ ቪ መ□ኃኒት በመውሰ□.....<br>ጡት ባለማጥባት .....<br>ምንም አላውቅም.....<br>ለ□ህ □□ቁ መልስ መስጠት አልፈልግም..... | 1<br>2<br>3<br>77 |     |
| 160  | እያንዳንዱ ነፍሰጡር ሴት የኤች አይ ቪ ምርመራ ታ□ርፅ የሚለውን ሀሳብ ትደግፈዋለሽ   | አዎ.....<br>አልደግፍም.....<br>እርፅ□ኛ አ□□ለሁም.....<br>ለ□ህ □□ቁ መልስ መስጠት አል□ልፅም.....                    | 1<br>2<br>3<br>77 |     |
| 170  | መልስ አዎ ከሆነ ባሎች አብረው  | አዎ.....  | 1                 |     |

|     |  |  |                              |  |
|-----|--|--|------------------------------|--|
|     | የኤች አይ ቪ<br>ምርመራ ማግለጫ<br>አለባቸው?  | የለባቸውም.....<br>እርጅኛ አገልግሎት.....  | 2<br>3                       |  |
| 180 | አብዛኛውን ጊዜ እናቶች<br>አርገዝና ክትትል<br>ለማግለጫ ወጪ<br>ጤና ደርጅቶች<br>የማይሄዱት ለምንድን<br>ነው?(ከሁለት በላይ<br>መልስ መስጠት ይቻላል) | ኤች አይ ቪ ፖዘቲቭ ሆኖ መኖር<br>በመፍራት.....<br>ከኤች አይ ቪ ጋር እንደሚኖሩ<br>ቢታወቅ ሊደርስባቸው<br>የማችለውን ችግር<br>በመፍራት.....<br>ጭራሽ ደም ለምርመራ መስጠት<br>ስለማልወድ.....<br>ኃይማኖቱ ስለማይፈቅድልኝ.....<br>ለህግ ግብዓት መልስ መስጠት<br>አልፏልም.....<br>ሌላ (ግብዓት)..... | 1<br>2<br>3<br>4<br>77<br>88 |  |
| 190 | ተጠቃሚዎች የቅድመ<br>ጋብቻ የኤችአይ ቪ<br>ምርመራ ማግለጫ<br>አለባቸው ብለው<br>ያምናሉ?  | አዎ.....<br>አላምንበትም.....<br>እርጅኛ አይደለም.....<br>ለህግ ግብዓት መልስ መስጠት<br>አልፏልም.....  | 1<br>2<br>3<br>77            |  |
| 200 | መልስ አምንታለሁ<br>ከሆነ የት ነው<br>መመርመር<br>ያለባቸው?   | ከእናቶች ምርመራ አገልግሎት<br>ግብዓት.....<br>ከግል ክሊኒክ.....<br>አላውቅም.....<br>ለዚህ ጥያቄ መልስ መስጠት<br>አልፏልም.....<br>ሌላ (ግብዓት).....  | 1<br>2<br>3<br>77<br>88      |  |

| 210                                 | <p>ከሁለት ትዳር ጓጃሞች አንዳቸው ኤች አይ ቪ ቢኖርባቸው የግብረ ስጋ ግንኙነት እንዴት ነው መፈጸም ያለባቸው?</p> | <p>መጋታት አለባቸው.....<br/> ጋጃሞ መታቀብ ነው ያለባቸው.....<br/> ሁልጊዜ-ኮንዶም መጠቀም አለባቸው....<br/> ዘወትር እንደለመዱት ነው መሆን ያለበት-ኮንዶም አያስፈልግም.....<br/> ምን መደረግ እንዳለበት ሀሳብ የለኝም....<br/> ሌላ (ጋጃሞ) .....</p> | <p>1<br/>2<br/>3<br/>4<br/>5<br/>88</p> |     |
|-------------------------------------|---|---|---|-----|
| 220                                 | <p>ለኤች አይ ቪ ተጋላጭነት አለኝ ብለሽ ታምኛለሽ?</p>                                       | <p>አዎ.....<br/> አላምንም.....<br/> እርፅጋኛ አይደለሁም.....<br/> ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....</p>   | <p>1<br/>2<br/>3<br/>77</p>             |     |
| <b>ንዑስ ክፍል 3) ስለ ኤድስ ተግባራት/ ባህሪ</b> |   |   |   |     |
| ተ.ቁ.                                | መጠይቅ  | ዝርዝር መልስ  | የመልስ መለያ                                | ይለፍ |
| 230                                 | <p>በዚህ ጤና ጣቢያ የምክርና የምርመራ አገልግሎት የሚሰጠውን መረጃ እንዴት ያዩታል?</p>                  | <p>ግልፅ ነው.....<br/> አንዳንዴ ግልጽ ነው አንዳንዴ ግን ግልፅ አይደለም.....<br/> ግልፅ አይደለም.....<br/> እርፅጋኛ አይደለሁም.....<br/> ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....</p>   | <p>1<br/>2<br/>3<br/>4<br/>77</p>       |     |
| 240                                 | <p>በዚህ ጤና ጣቢያ ጋጃሞችና ሕፃናት እንክብካቤ ክፍል በኤች አይ ቪ ዙሪያ ስለሚሰጠው ትምህርት</p>           | <p>ጋጃሞ ነው.....<br/> መጥፎ ነው.....<br/> ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....</p>   | <p>1<br/>2<br/>77<br/>88</p>            |     |

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|     | ይዘት እንዴት ያዩታል?   | ሌላ (□□ለ□) .....  |   |  |
| 250 | መልስ መ□□<br>ነው ከሆነ<br>ምክንያቱን<br>ቢገልጹልኝ-<br>(ከአንድ በላይ<br>መልስ መስጠት<br>ይቻላል : ምርጫው ግን<br>አይነበብም) | ለውይይት የሚሰጠው ጊዜ በቂ<br>ስላልሆነ በጥልቀት ውይይት<br>ስለማ□□ረፅ.....<br><br>በኤድስ አስከፊ ገጽታ ላ□<br>ስለሚተኮር....<br><br>የምርመራ ሂደቱ ምቹ<br>ስላልሆነ.....<br><br>ለዚህ ጥያቄ መልስ መስጠት<br>አልፏልግም.....<br><br>ሌላ (□□ለ□)..... | 1<br><br>2<br><br>3<br><br>77<br><br>88 |  |
| 260 | በአሁኑ እርግዝና ስለ<br>ኤች አይ ቪ ኤድስ<br>ተወ□ተወ: ተወያተው<br>□ወ:ቃሉ?                                       | ይህ አስፈላጊ ጉዳይ ስላልሆነ (በእኛ<br>ላይ ኤች አይ ቪ አይኖርም).....<br><br>የዚህ አይነቱ ጉዳይ ጋብቻን<br>ያናጋል.....<br><br>ለዚህ ጥያቄ መልስ መስጠት<br>አልፏልግም.....<br><br>ሌላ (□□ለ□).....                                       | 1<br><br>2<br><br>77<br><br>88          |  |
| 270 | የኤች አይ ቪ ምርመራ<br>እንዲደረግልሽ የምክር<br>አገልግሎት ተሰጥቶሽ<br>□ወ:ቃል?                                     | አዎ.....<br><br>የለም አያውቅም.....<br><br>ለዚህ ጥያቄ መልስ መስጠት<br>አልፏልግም.....   | 1 }<br>2 } → 300<br><br>77              |  |
| 280 | ለመ□መር□ □□<br>የምክር አገልግሎት<br>□□ሽው መቼ ነበር?   | ቅ□መ □ብቻ.....<br><br>ቅ□መ እርግዝና.....<br><br>እርግዝና ክትትል ጊዜ.....   | 1 → 300<br>2<br>3                       |  |
| 290 | ለመ□መሪ□ □□<br>የምክር አገልግሎት   | ባል ለማግኘት በማሰብ .....  | 1<br>2                                  |  |
|     |  | ል□ ለመ□ ለ□ በማሰብ.....<br><br>ለሌላ ጉዳይ ጤና ጣቢያ ስመጣ  |   |  |

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|     | ለማፅኘት እንዴት<br>ልትመጪ ቻልሽ?  | ባለሙያዎች መረጃውን .....<br>(□□ለ□) .....  | 3<br>88                     |                |
| 300 | መልስ አልተመረመር<br>ኸም ከሆነ ምክንያትሽ<br>ምንድን ነው?(ከጥያቄ<br>270 ጋር አገጻጽር) | ለኤች አይ ቪ የሚያጋልጠኝ<br>ምንም ነገር ስለሌለ.....<br>የኤድስን አስከሬ ገጽታ መወያየት<br>ስለሚያስፈራኝ.....<br>ኤች አይ ቪ መኖር አለመኖሩን<br>ማወቅ ምንም ጥቅም<br>ስለሌለው:.....<br>ለመመርመር ከባለቤቱ ጋር<br>መወያየት<br>ስለሚያስፈልገኝ.....<br>ሌሎች ሰዎች በምርመራ ክፍሉ<br>እንዳያዩኝ ስለምፈራ.....<br>ሌላ (□□ለ□) ..... | 1<br>2<br>3<br>4<br>5<br>88 |                |
| 310 | ውጤቱን አትንገሪኝ ግን<br>የምክር አገልግሎት<br>አግኝተሽ ከሆነ<br>ተመረመርሽ?          | አዎ.....<br>አልተመረመርሁም.....<br>ለ□ህ □□ቁ መልስ መስጠት<br>አልፈልግም.....  | 1<br>2<br>77                | → 330          |
| 320 | (ውጤቱን ለእኔ<br>አትንገሪኝ ግን)<br>ውጤቱን ለራስሽ<br>አውቀሻል?                 | አዎ.....<br>አላወቅሁም.....<br>ለ□ህ □□ቁ መልስ መስጠት<br>አልፈልግም .....  | 1<br>2<br>77                | → 360<br>→ 330 |
| 330 | መልስሽ አላወቅሁም<br>ከሆነ ምክንያትሽ<br>ምንድን ነው?                          | ኤች አይ ቪ አለብሽ ብባል ራሴን<br>መግዛት እንዳያቅተኝ.....<br>ባለቤቴና ሌሎች ቤተሰቦቼ<br>እንዳያገልሉኝ ስለ□ራሁ.....<br>የአካባቢዬ ሰዎች እንዳያገልሉኝ  | 1<br>2                      |                |

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|     |   | ስለ□ራሁ.....<br>ሌላ (□□ለ□).....  | 3<br>88                |  |
| 340 | እንበልና የኤች አይ ቪ ምርመራ ቢ□ርፅልሽ የምትጠብቁው ውጤት ምንድን ነው?                   | አይኖርብኝም .....<br>ሊኖርብኝ ይችላል.....<br>መገመት አልችልም.....<br>ስከነአካቴው መመርመር አልፏልም....<br>ለዚህ ጥያቄ መልስ መስጠት አልፏልም..... | 1<br>2<br>3<br>4<br>77 |  |
| 350 | ምንአልባት የኤች አይ ቪ ምርመራ ብታ□ር□ የሚነገርሽን ውጤት ትቀበይዋለሽ?                   | ቀበለ□ለሁ.....<br>አልቀበለውም.....<br>ለዚህ ጥያቄ መልስ መስጠት አልፏልም.....  | 1<br>2<br>77           |  |
| 360 | ባለቤትሽ ለኤች አይ ቪ ተጋላጫነት ያለው □መስልሻል?                                 | አዎ.....<br>አይመስለኝም.....<br>ለዚህ ጥያቄ መልስ መስጠት አልፏልም.....  | 1<br>2<br>77           |  |
| 370 | እንበልና ባለቤትሽ (□□ቅር ጃ□ኛሽ) የኤች አይ ቪ ምርመራ ቢደርግለት የምትጠብቁው ውጤት ምንድን ነው? | አይኖርብኝም.....<br>ሊኖርብኝ ይችላል.....<br>መገመት አልችልም.....<br>ስከነአካቴው መመርመር አልፏልም.....<br>ለዚህ ጥያቄ መልስ መስጠት አልፏልም..... | 1<br>2<br>3<br>4<br>77 |  |
| 380 | በአሁኑ እርግዝና የኤች አይ ቪ ምርመራ ለማድረግ ከባለቤትሽ □ር ተወ□□ተሽ                   | አዎ.....<br>አላውቅም.....<br>አላስታወቅም.....   | 1<br>2<br>3            |  |

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|     | ታውቁአለሽ?                                    | ለዚህ ጥያቄ መልስ መስጠት አልፏልግም.....   | 77                                     |  |
| 390 | ባለቤትሽ በኤች አይ ቪ ምርመራ ላይ ምን አይነት አመለካከት አለው? | አብረን እንድንመረመር □□ል□ል.....<br><br>እኔ እንድመረመር ይፈልጋል ለራሱ ግን አይፈልግም.....<br><br>እኔ እንድመረመር አይፈልግም.....<br><br>□□ም በ□□□ ላ□ መው□የት አይፈልግም.....<br><br>ለዚህ ጥያቄ መልስ መስጠት አልፏልግም..... | 1<br><br>2<br><br>3<br><br>4<br><br>77 |  |

**ንግድ ክፍል 4) ስለ ኤድስ ባህሪ፣ መገለልና መድሎ በተመለከተ**

| ተ.ቁ. | መጠይቅ   | ዝርዝር መልስ  | የመልስ መለያ                              | ይለፍ                                |
|------|--|---|---------------------------------------|------------------------------------|
| 400  | እንበልና የኤች አይ ቪ ምርመራ ተ□□ልሽ<br><br>ወ.ጤቱ የኤች አይ ቪ ህ□ስ በ□ምሽ እንዳለ ቢያመለክት ለባለቤትሽ/ ለቤተሰቦችሽ ትጎግራላለሽ? | አዎ.....<br><br>በፍጹም አልነግርም.....<br><br>እርግጠኛ አይደለሁም.....                                    | 1<br><br>2<br><br>3                   |                                    |
| 410  | አንድ ጊዜ ኤች አይ ቪ ተመርምረሽ □አብሽም ከተባልሽ በሚቀጥለው □እርግዝና ጊዜሽ በድጋሜ የኤች አይ ቪ ምርመራ ማ□ረፅ □ስ□ል□ል?          | አዎ.....<br><br>አያስፈልግም.....<br><br>እርግ□ኛ አይደለሁም.....  | 1<br><br>2<br><br>3                   |                                    |
| 420  | ምናልባት ነፍሰጡር እንደሆንሽ ተመርምረሽ ኤች አይ ቪ ቢገኝብሽ ቫይረሱ ወደህፃኑ እንዳይተላለፍ መድሃኒት ትወስዳለሽ?                    | እወስ□ለሁ.....<br><br>አልወስድም.....<br><br>እርፅ□ኛ አይደለሁም.....<br><br>ለ□ህ □□ቁ መልስ መስጠት አልፏልግም..... | 1 →<br><br>2<br><br>3 }<br><br>77 } → | 440<br><br><br><br><br><br><br>440 |

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|-----|---|--|--|--|
| 430 | <p>መልስ</p> <p>አልወስድም</p> <p>ከሆነ</p> <p>ምክንያትን</p> <p>ቢገልጹልኝ</p>                       | <p>መ□ኃኒቱ ፍቱን አይመስለኝም.....</p> <p>መ□ኃኒት የምወስድ ከሆነ ቫይረሱ ያለብኝ መሆኑ ይታወቅብኛል (ባለቤቴ፣ ቤተሰቦቼ፣ ጎረቤቶቼ).....</p> <p>መ□ኃኒቱ ጉዳት እንዳያደርስብኝ ስለም□ራ.....</p> <p>ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....</p> <p>ሌላ (□□ለ□).....</p>   | <p>1</p> <p>2</p> <p>3</p> <p>77</p> <p>88</p>                   |  |
| 440 | <p>ከኢች አይ ቪ ጋር</p> <p>የምትኖር እናት</p> <p>ልጄን ለመመገብ</p> <p>□ሩው፣ መንገድ</p> <p>ምንድን ነው?</p> | <p>አቅም ካለ ጡት ማጥባቱን አቁሞ □□-□ ምፅብ «formula food» መ□መር.....</p> <p>የመግዛት አቅም ከሌላት ጡቷን ብቻ ማጥባቷን መቀ□ል.....</p> <p>ጡቷን እና የጡጦ ምግብ ያፈራረቁ መስጠት.....</p> <p>ቤት ያፈራውን ነገር ሁሉ ለህፃኑ መስጠት.....</p> <p>ምን እንደሚሻል እር□□ኛ አ□□ለሁም.....</p> <p>ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....</p> <p>ሌላ (□□ለ□).....</p> | <p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>5</p> <p>77</p> <p>88</p> |  |
| 450 | <p>አይሁንና ተመርምረሽ ኤች አይ</p> <p>ቪ ቢኖርብሽ ስንት ልጆች እንዲኖሩሽ ነው የምትፈለገው?</p>                   | <p>ምንም.....</p> <p>አንድ ወይም ሁለት.....</p> <p>ከሁለት በላይ.....</p> <p>አሁን መገመት አዳጋች ነው.....</p> <p>ስለ□ህ □□□ ማሰብ</p>  | <p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>5</p>                     |  |

|     |  |   |                                 |  |
|-----|--|---|---------------------------------|--|
|     |  | አልፏልግም .....  |                                 |  |
|     |  | ለጊዜ ስሜት መልስ መስጠት<br>አልፏልግም.....   | 77                              |  |
| 460 | በጊዜ እርግጠኛነት የት<br>ነው ለመውለድ<br>ጊዜ ስሜት ? | ከቤት በልምድ አዋጅ<br>አማካኝነት.....<br><br>በዚህ የህክምና ተቋም.....<br><br>በሌላ የጤና ድርጅት.....<br><br>ገና አልወሰንሁም.....<br><br>ምን ማረፊያ እንዳለብኝ<br>አላወቅም.....<br><br>ሌላ (ካለ ስሜት)..... | 1<br><br>2<br>3<br>4<br>5<br>88 |  |

ኤች አይ ቪን ከእናት ወደ ልጅ እንዳይተላለፍ በመከላከሉ ሂደት እናቶች እንዳይጠቀሙ የሚያደርጉ አስፈላጊ የሆኑ አለተጠቀሰም የሚሉት ጉዳይ ካለ መጥቀስ ይችላሉ። \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_::

**ለ) የቡድን ዉይይት መመሪያ**

1. ስለ ኤች አይቪ እና ኤድስ ያላቸው አመለካከት
2. ለኤች አይ ቪ የደም ምርመራ ስለማድረግ ያላቸው ዝንባሌ
3. ኤች አይ ቪ ከእናት ወደ ልጅ እንዴት እንደሚተላለፍ ያላቸው ግንዛቤ
4. እናቶች አብዛኛውን ጊዜ የእርግዝና ክትትል ለማድረግ ወደ ጤና ድርጅት የማይመጡት ለምንድን ነው? ያላቸው አመለካከት
5. በርካታ ነፍሰጡሮች ምክር አገልግሎት ተሰጥቷቸው ደማቸውን ለማስመርመር ፈቃደኛ አይሆኑም:: ለምድን ነው?
6. እነዚህን ነገሮች ለማስወገድ ምን መደረግ አለበት ብላችሁ ታምናላችሁ?

**ሐ) የግል የቃለ መጠየቅ መመሪያ**

1. የኤች አይ ቪ ቫይረስ መተላለፊያ መንገዶች ያውቃሉ?
2. የኤች አይ ቪ ቫይረስ መከላከያ ዜደዎች ምንድን ናቸው?
3. ኤች አይ ቪ በደሚ ውስጥ ያላት እናት ወደ ልጅ እንዳይተላለፍ እንዴት መከላከል ትችላለች?
4. አንድት ኤች አይ ቪ በደሚ ውስጥ ያላት እርጉዝ እናት ግብሬ ሥጋ ግንኙነት ስታደርግ ኮንዶም መጠቀም ይኖርባታል? አዎን ከሆነ ለምን ?
5. እናቶች በእርግዝና ወቅት ወደ ጤና ድርጅት በመምጣት የኤች አይ ቪ ምርመራ አገልግሎት የማይጠቀሙት ለምንድን ነው?
6. እናቶች በእርግዝና ወቅት ወደ ጤና ድርጅት በመምጣት የኤች አይ ቪ ምርመራና የምክር አገልግሎቱን ለማግኘት በሚሄዱበት ጊዜ የገጠማቸው ያዩት መጥፎ ነገር ወይም በአገልግሎቱ የረከት ነገር? በአገልግሎቱ ሂደት ውስጥ ችግር የገጠሞት የት ነው? እንዴት ችግሩን ተወጡት? ችግር ካለ ብንወያይበት ? (ማለት ችግሩ ያጋጠመሽ በምርመራና ምር አገልግሎት፣ ቅድመ ወሊድ ክትትል፣ በምጥ ጊዜ፣ በወሊድ፣ በድህረ ወሊድ እና በሌሎች የጤና ድርጅቱ አገልግሎቶች ጊዜ ነው ? በጥልቀት መጠየቅ )

#### Appendix IV. DECLARATION

I, the undersigned, declared that this thesis is my original work and has not been presented for a degree in this or any other university, and all source materials used for the thesis have been fully acknowledged.

Name of the student Berhane Assefa

Signature -----

Place Addis Ababa

Date of submission -----

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

Advisor name Alemayhu Mekonnen (MD, MPH)

Signature -----