UTILIZATION OF PMTCT SERVICES AMONG PREGNANT WOMEN IN WESTERN AMHARA REGION

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III. Dedication

This thesis work is dedicated to my lovely Mother W/ro Dinkeayehu Yeneakal who has been the source of inspiration, engine of courage, and secret for every of my achievements through all affairs of my life.

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V. List of Acronyms

AAU	Addis Ababa university
AIDS	Acquired Immuno Deficiency Syndrome
ANC	Antenatal Care
AOR	Adjusted Odds Ratio
ART	Aantiretroviral Therapy
ARV	Antiretroviral Drug
BSS	Behavioral Surveillance Survey Project
CDC	Center for Disease Control and Prevention
CI	Confidence Interval
DOT-HAART	Directly Observed Highly Active Anti retroviral Therapy
FGD	Focus Group Discussion
HIV	Human Immuno Deficiency Virus.
HIV+	HIV Positive
IDI	In-depth Interview
IP	Infection Prevention Practices
MTCT	Mother to Child Transmission of HIV
OR	Odds ratio
PLWHA	People Living With HIV/AIDS
PMTCT	Prevention of Mother to Child Transmission of HIV
PPTCT	Prevention of Parent to Child Transmission of HIV
SD	Standard Deviation
STIs	Sexually Transmitted Infections
STDs	Sexually Transmitted Diseases
SPSS	Statistical Package for Social Science Research
TB	Tuberculosis
TBAs	Traditional Birth Attendants
U.S.	United States of America
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

VI. Abstract

Background: Ethiopia is one of the countries hard-hit by HIV/AIDS. Amhara region has the largest proportion of HIV positive women, HIV positive live births and AIDS orphans. PMTCT programs are starting to be launched in many health facilities of the country. Thus it is imperative to study the utilization of the services by pregnant women to ensure programme effectiveness.

Objectives: - The objective of this study was in general to determine the level of utilization of PMTCT program in western Amhara region and specifically to determine the level of antenatal VCT service utilization, to examine factors influencing acceptance of voluntary HIV counseling by pregnant women; and to explore client preferences and suggestions on PMTCT program implementation by which acceptance may be increased.

Methodology: - A health facility based cross sectional survey was conducted using structured questionnaire among 452 pregnant women following antenatal care (ANC) at selected facilities of west Amhara region between April and June 2006. Four focus group discussions (among pregnant women not following ANC for the current pregnancy and spouses of pregnant women) and eight in-depth interviews (among traditional birth attendants and counselors) were conducted.

Results: - Response rate was 98%. Three-hundred and four (67.3%) of the respondents had under gone the process of voluntary counseling and testing for HIV. Two hundred eighty-nine (97.6%) of them were tested for HIV and 274 (94.8%) of those who were tested received the test result. Of all the socio-demographic variables, education was positively associated with acceptance of ANC counseling (AOR (95% CI) for formal schooling Vs no formal schooling = 3.67 (1.56, 8.61)) while being a rural women and being a farmer were associated with less likelihood of undergoing HIV counseling in ANC [AOR (95%C.I.)= 0.22 (0.14, 0.35) and 0.44 (0.22, 0.98] respectively). Correct knowledge with respect to transmission of HIV during labor and that it can be prevented by chemotherapy were associated with higher likely hood of using PMTCT services. The main barriers for utilization of PMTCT services identified were incorrect perceptions regarding HIV/AIDS and stigma by husband, family and community.

Conclusion: Based on the findings Community based education and sensitization targeted to women, increasing access of women to VCT, promoting PMTCT to all facilities caring for women in the catchments areas is recommended

Key words: Pregnant women, PMTCT, VCT, HIV/AIDS, ANC, Ethiopia

1. Introduction

During the year 2003, about 2.5 million (2.1-2.9 million) children were living with HIV/AIDS; and the global HIV/AIDS epidemic had claimed the lives of nearly 4.3 million children. Mother-to-child transmission (MTCT) is the largest source of HIV infection in children below the age of 15 years and affects approximately 500,000 infants per year all over the world, majority of which are in developing countries. Apart from posing the burden of HIV positive children on the society, MTCT is causing great social problems by producing orphans after the death of one or both parents due to AIDS. [1]

Sub-Saharan Africa harbors the largest population of people living with HIV/AIDS (PLWHA). Ethiopia, Nigeria and South Africa are the three countries with the largest number of PLWHA. Based on the 2003 nation wide sentinel surveillance of Ethiopia the following projections are made for 2006; the country adult prevalence of HIV in Ethiopia is estimated to be 4.8% (1,820,914 people), the prevalence for women is higher (5.5%, 1,006,604). While the urban prevalence of HIV seems stabilizing at a higher magnitude, the spread of HIV among the rural Ethiopian population is increasing. Amhara region has one of the worst HIV/AIDS burden in the country (7.0%) with the largest population of PLWHA (673,488). By this figure the region accounts to one-third of all PLWHA, while it attributes to slightly higher than one-fourth of the countries population. There are estimated 62,230 HIV positive pregnant women, 16,932 HIV positive births (62% of the country projection) and a total of 270,821 AIDS orphans in the region. [2, 3]

Pediatric AIDS is becoming a major public health problem in our country. In response to this, PMTCT programs are being starting in many hospitals and health centers through out the country. The program was launched as pilot project in Bahir Dar, Woreta and Adet health facilities in August 2004. On the background of low ANC service utilization only some 80 % of pregnant

women accept HIV testing on individual counseling at antenatal care (ANC) (3). ANC coverage of the country is one of the lowest in the world (27.6%); Amhara region has even lower ANC utilization rate (26.5%). Only 5.5 % of all Ethiopian pregnant women (and 3.5% of Amhara region) deliver in health facilities. [2, 4, 5]

This research focused on the factors affecting the utilization of prevention of MTCT of HIV services by pregnant mother. The knowledge, perceptions and attitudes on HIV/AIDS were assed. 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. It looked in to who is being reached by the message and service being provided, and assessed the acceptability and accessibility in the community, which are critical to redesign effective and appropriate prevention of mother to child transmission of HIV (PMTCT) programs.

2. Literature review

A woman infected with HIV can pass the virus to her baby during pregnancy, labor and delivery, or breastfeeding. Without preventive intervention, roughly 15 to 30% of newborns of untreated HIV-positive women will become infected with HIV during pregnancy and delivery and an additional 10 to 20% during breastfeeding. The risk has varied by region—with rates of 15-to 25% transmissions in industrialized countries of Western Europe and the U.S., but higher rates (25 to 35%) reported from developing countries. Some studies have found rates as high as 43% in Sub-Saharan Africa (6). Variations could be due to differences in epidemiology of STIs, availability of safe obstetric practices, utilization of ARV drugs.

Recently, interventions to prevent transmission of HIV from mother to child have become increasingly available in Africa. There are three main strategies that are essential for achieving maximum effective reduction of MTCT of HIV: primary prevention of HIV among "would be parents", prevention of unwanted pregnancy among HIV positives, prevention of HIV transmission from HIV infected females to their infants [through antiretroviral therapy to pregnant females (reduce maternal viral load with ARV drugs) and infants, prevention of avoidable exposure to maternal virus at birth through improved obstetric practices (strict application of infection prevention(IP) precautions, and where applicable, caesarian section) and reduction of exposure to HIV through breast feeding or replacement feeding for the infant] [6,7].

Testing during antenatal period offers several advantages including early counseling on the prevention of MTCT and on maintaining health; to take steps to prevent exposing partners; plan for treatment and follow-up for the baby; receive support to maintain her health, including proper nutrition, treatment of sexually transmitted infections (STIs), and care for other infections, such as tuberculosis (TB) or malaria. If a woman is negative, she and her partner can be counseled on risk

reduction. This may be particularly important in areas where taboos on sexual activity during pregnancy or postpartum might cause a man to seek other partners, thereby placing a woman at risk when she resumes sexual activity with her partner [6, 8].

The most effective way to prevent MTCT is to prevent the woman from becoming infected in the first place, and to provide access to family planning to HIV-positive women who want to prevent pregnancy. It includes HIV education, safe-sex practices, avoidance of sharing contaminated needles, early treatment of sexually transmitted diseases (STDs) and change in moral behavior and attitude of the community. In the developing countries, most of the mothers are getting infection from their husbands through sexual route; i.e. fathers are equally responsible for the transmission of HIV to their children. Hence, in order to ensure that mothers alone should not be blamed for MTCT, PMTCT has been renamed as PPTCT (prevention of parent to child transmission) in India [1, 6].

Researchers in some parts of sub Saharan Africa conducted various studies on PMTCT of HIV to determine coverage, to see problems and challenges and find out solutions for programmatic effectiveness. In Coast Provincial General Hospital (CPGH), Mombassa, Kenya, *Marleen Temmerman et.al* made a hospital based observational study over one year period among 3564 pregnant women with first-ANC visit to review coverage of the nevirapine in the existing PMTCT model. They found a counseling rate of 71% and a testing rate of as high as 97% ([9]. In 2003-2004, Kampala, Uganda Marina Giuliano et.al made evaluation of a five-year performance of a Hospital PMTCT programme to identify potential reasons affecting its uptake [10]. They found a 76.0 % testing rate and a 79.9% acceptance of test result. In Zimbabwe, Freddy Perez et.al estimated PMTCT programme uptake using routine monitoring data collected over 2½ years period [11]. It was found that 92.9% were counseled and 74.3% received posttest counseling, while only 24% received complete mother–child antiretroviral prophylaxis. Similarly, in a one year

cohort of 3136 ANC attendee in Malawi 96% were pre-test counseled and 95% underwent HIV-testing as well as post-test counseling [12].

Thomas M Painter et.al in Abidjan, Ivory cost, made a clinic based qualitative interview of 27 HIV positive pregnant women over 8 months time [13]. In that study, negative experiences that pregnant women had had while interacting with programme staff or to their views about the programme was an important barrier for returning back. Some women are dissatisfied with how HIV testing had been explained—horrible consequences of the disease emphasized. On the other hand**,** Nuwagaba-Biribonwoha H. et.al pointed out that among the challenges with the PMTCT programme are staff shortage, overworked and under-motivated staff [14]. In Kigali, Rwanda a 13 months prospective cohort study of factors associated with failure to return for HIV post-test counseling in pregnant women revealed that the only variable significantly associated with failure to return for post-test counseling was a positive HIV test result [15]. In a cross sectional study conducted among pregnant women following ANC in Tanzania on attitudes to voluntary counseling and testing, the major concern of women was for the reaction of their male partners to the possibility of a positive HIV test and low confidence in the confidentiality of HIV testing [16]. Other team of investigators has also identified that enrolment in to PMTCT programme were lower in married or cohabitating women than single women [17].

Many women do not participate in PMTCT programs. Missed opportunities to offer, or low uptake of voluntary counseling and testing (VCT) during routine ANC; refusal to be tested for HIV both by pregnant women and partners; inadequate acceptance of ART offered to HIV+ women at ANC; poor adherence to "take-home" antiretroviral drugs (ARV) for mother and newborn when given to HIV+ women at ANC; insufficient use of facility-based delivery where improved obstetric practices can be used and antiretroviral therapy (ART) for mother and newborn can be supervised; low coverage of newborns with ART even when delivered in facility;

and non-receipt of HIV test results have been studied as barriers to participation. The reason why less than one third of pregnant women who receive HIV positive test results eventually start taking antiretroviral prophylaxis is not examined well [17, 18]. A study in Burkina Faso revealed that up to as much as 53% of pregnant women declared not to know the existence of MTCT risk, reminding the existence of wide knowledge gap [19]. In a community-based survey on knowledge and attitude towards VCT in northwest Ethiopia on 992 residents, it was indicated that most of the interviewed individuals were lacking the correct knowledge on mode of transmission and prevention measures [20].

While VCT campaigns continue to focus on the benefits of testing before conception, 'Planning to have children' was among the least expressed reasons for accessing VCT services [8]. Despite prior knowledge of HIV seropositivity 36% of women in a Jamaican study had circumstances of repeat pregnancies and poor partner notification [21]. Denial of HIV positive test results is not uncommon among women and even some do not believe that ARV prophylaxis is effective in preventing MTCT of HIV [13]. Reasons for refusing include concerns over privacy and confidentiality, stigma attached to the HIV test and "fear" of a positive result [19]. Fear of stigma and discrimination against people living with HIV/AIDS discourages some women from taking precautionary measures that can greatly reduce the risk of MTCT, such as to find out their HIV/AIDS status, seeking counseling if they are HIV-positive and pregnant, taking ARVs while pregnant; or choosing not to breast feed [7, 22].

Acceptance of HIV test and enrolment in the PMTCT program were lower in married or cohabitating women than single women, in women belonging to the minorities/marginalized segments, and in lower educational status. At times the only variable significantly associated with failure to return for post-test counseling can turn out to be a positive HIV test result. These indicate that the fear of being identified as HIV positive in the family, fear of being recognized by service providers and lack of awareness are still strong limiting factors. The major concern of

women in VCT is for the reaction of their male partners to the possibility of a positive HIV test and low trust in the confidentiality of HIV testing. Particularly the role of husbands in the success of PMTCT programs is pointed out to be critical, since partner participation in VCT and couple counseling increases uptake of nevirapine and formula feeding by many folds [13, 15,16, 23, 24].

Low health service utilization and lose to follow up common among African pregnant women further complicates the problem. In Ethiopia, heavy workload, lack of access to health services, poverty, traditional practices, poor social status and decision-making power, and lack of access to education are among the highly prevalent socio-cultural factors that potentially affect the health of women [25].

In a Kenyan study, only 29% of HIV-infected women who received posttest counseling at 23rd – 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 [22, 25, 26]. In Ethiopia, progressive assessment of the pilot implementation sites of Hareg project revealed that 50% HIV+ pregnant women received complete course of ARV prophylaxis to reduce risk of MTCT, but no body knows how many of them actually took/swallowed the drugs [4] (See conceptual framework PP 9).

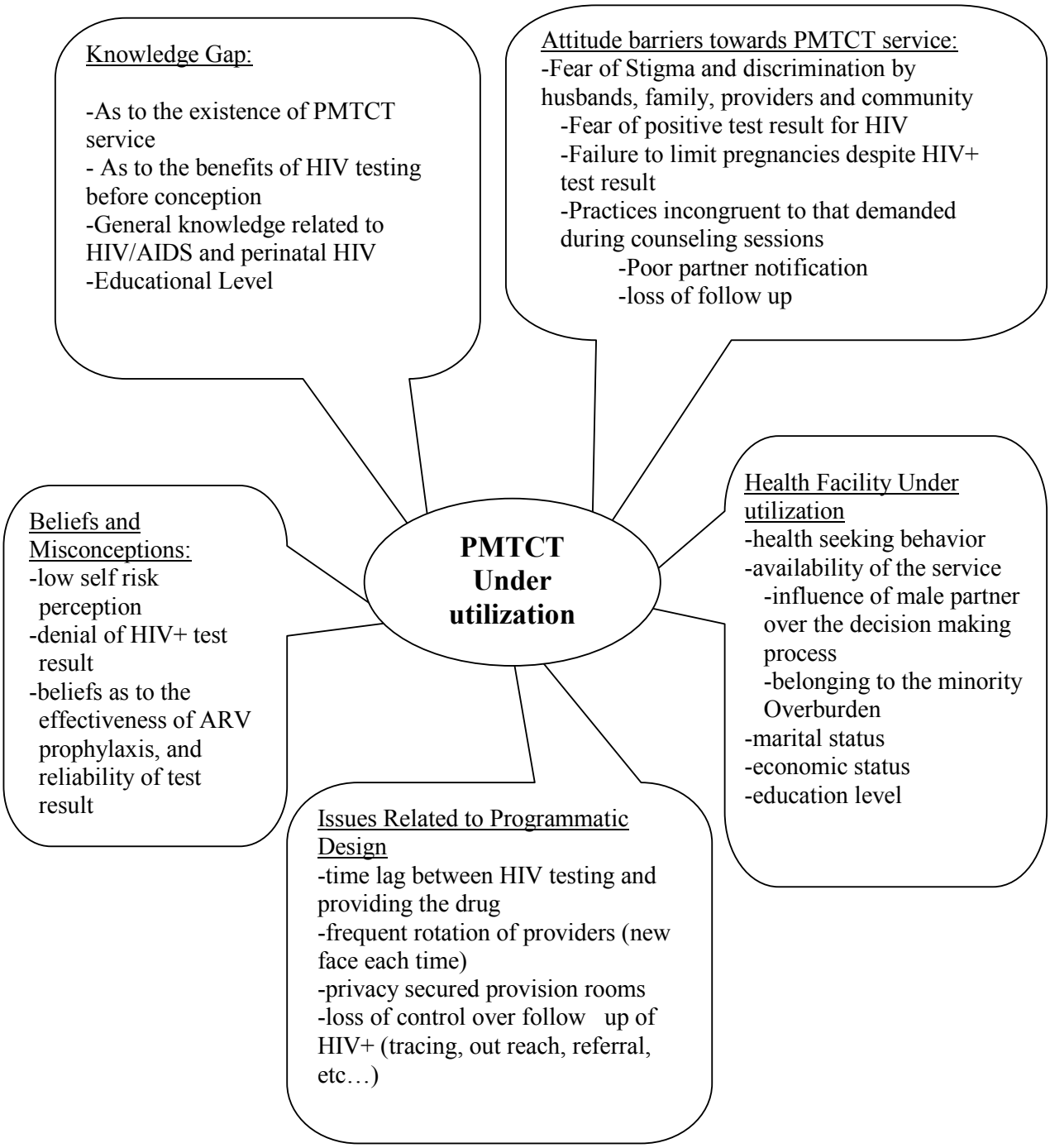
In the past 5 years, in Western, Eastern and Central Europe, MTCT rates were reduced to as low as 1.6% through combined efforts. By using nevirapine alone MTCT of HIV can be reduced by 50 %[9]. Lesson from programs of tuberculosis, river blindness and many of the most successful programs of HIV/AIDS itself show that systematically engaging the communities (most concerned parts of community, peers and family members) is critical for large scale coverage of nevirapine 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 [19, 27, 28].

Traditional birth attendants constitute an extensive network, reaching millions of individuals infected and affected by HIV/AIDS, potentially capable of expanding and simplifying access to comprehensive HIV care through various entry points. Over time, these practitioners have, and have remained actively engaged years after their initial involvement, a definite sustainability advantage over conventional community health workers. Most of them are eager to collaborate; they can be trained to support voluntary counseling and testing, the prevention of mother-to-child transmission of HIV and ART, to strengthen existing referral facilities, and to build a functional traditional health practitioner–biomedical health practitioner cross-referral system [29].

In the method known as directly observed highly active antiretroviral therapy (DOT-HAART) in Haiti, community health care workers known as accompanatures visit people receiving ARV therapy at home on daily basis [26, 30, 31,32].

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



3. Objectives

3.1. General Objective:

To determine utilization of PMTCT service among pregnant women in Western Amhara Region

3.2. Specific Objectives:

1. To determine the level of utilization of antenatal HIV counseling in PMTCT program.
2. To determine the level of utilization of antenatal HIV testing in the PMTCT program.
3. To examine factors influencing acceptance of counseling among pregnant women and to explore client preferences and suggestions on PMTCT program implementation by which utilization may be increased.

4. Methodology

I. Study area: The study was conducted in Bahir Dar town, Adet town and Woreta Town. Bahir Dar town is the capital of Amhara National Regional State. It is located at 11^{o}: 56` latitude, 37$^{O}$: 37` longitude and has altitude of 1,800 meters above see level with a prevailing hot humid climate. Bahir Dar is one of the fastest growing towns in the country and has a total population of 209, 564 living in 12 kebeles [33]. It is one of the best recreational centers in the country with scenic and ancient historic tourist attractions. The town has one referral hospital and two health centers in addition to many other private and governmental health service facilities. The hospital and one of the health centers- the Bahir Dar health center- have started providing PMTCT services. Adet and Woreta Towns - semi-urban settlements, the administrative and business centers of Yilma Na Densa and Fogera Woredas, located 45 Kms Southeast and 50 Kms North of Bahir Dar town respectively. The population of these woredas is predominantly (95%) rural. According to the 1994 population and housing census [32, 33] the population of Yelmana Densa Woreda is estimated to be 253,794 at annual growth rate of 3‰. In each of the districts there is one health center – the Adet health center and Woreta health Center- for most of the health care services including PMTCT programs. Both urban and rural communities get services from all these four institutions.

II. Study design: Quantitative Cross-sectional survey, triangulated with exploratory and explanatory qualitative study. Specifically, three methods were employed in the study including administration of a survey questionnaire, focus group discussions, and individual in-depth interviews.

II.1: Quantitative survey. Facility based cross sectional data collection was conducted using structured and pre-tested interviewer-administered questionnaire. The purpose of the questionnaire was to assess ANC VCT service utilization, test acceptance and factors affecting PMTCT service utilization among pregnant women. An open ended question was included at the

end that addresses why service is underutilized and what are their preferences which must be fulfilled so as to scale up the program. By evaluating the responses to this question of the first 85 of interviewee, the content of the qualitative interview was decided.

II.2: Qualitative Interview: The information obtained from the qualitative study was used to explain the results of the quantitative study. Because the qualitative methodologies attempt to answer the "why" questions and deal with the emotional and contextual aspects of response, adding "feel," "texture," and nuance to quantitative findings from the point of view of the people being studied [(34)].

Preliminary interview/discussion guides were prepared and potential study subjects identified- but the final decision was based on the pre-test and quantitative interviews on the first five days. The two most important factors identified were the role of husband and the interaction with provider.

II.2.1 FGD: The purpose of focus group discussions (FGD) was to probe and explore people's perspectives on feelings, and beliefs about HIV/AIDS, ANC HIV screening, Nevirapine intake, and stigma associated with utilization of PMTCT program. In the FGD participants were not expected to reveal personal experiences or personal behavior, rather the emphasis was on obtaining shared opinions.

FGD was conducted in two groups:

a. Pregnant women in the community without ANC visit in the pregnancy at the time of survey. These were identified by local women association leaders.
b. Husbands/regular partners of pregnant women

II.2.2 In-depth interview: The purpose of the IDI was to gather hidden information from key informants who have better knowledge, status, or access to observations denied to the researcher and who are willing to share their knowledge. IDI was conducted among:

a. Health workers delivering counseling for PMTCT (N=5)
b. TBAs in the study areas (N=3).

III. Source Population: All pregnant women, all men whose wives/regular partners were pregnant, all traditional birth attendants in the study areas and all counselors working in one of the three health facilities were eligible.

IV. Study Populations: There were five primary study groups interviewed: (See table 1)

Table 1: Summary of study subjects and methods

Study subjects	Method of data collection
-Individually counseled Pregnant women in ANC follow up	-Interviewer administered questionnaire
-Pregnant women, no ANC follow up	-FGD
-Husbands/regular partners to pregnant women	-FGD
-TBAs	-IDI
Counselors	-IDI

IV. a. Inclusion criteria:

1: Quantitative study: Every pregnant woman who had at least one ANC visit at Felege Hiwot hospital, Bahir Dar, Woreta or Adet health centers and exposed to HIV counseling during the study period were eligible to the quantitative study.

2: Qualitative Study: Pregnant women in the community who didn't have ANC visit prior to data collection and husbands of pregnant women of communities in the study area were involved in the focus group discussion. Health workers who were delivering counseling for PMTCT and traditional birth attendants in the study areas were included for the In-depth interviews.

IV. b. Exclusion criteria of the study subjects:

People who did not fulfill inclusion criteria were excluded from the study. To avoid over reporting people who are not permanent residents of the study area were also excluded from the study. People who were involved in the study once were not included/re-numerated at any other time of the current study.

V. Sample Size: Sample size (n) for the quantitative study was determined based on single

population proportion (p). The formula:

$$n = \frac{Z^2 \alpha/2\, p(1-p)}{d^2}$$ was employed [35].

Where *n* is sample size, *P* is the proportion of HIV tested pregnant women who received HIV test result under the PMTCT pilot program in Bahir Dar, Adet and Woreta, 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 $\left(Z_{\alpha/2} = 1.96\right)$, and 20% for non-response (refusal to be enrolled and drop outs), the required sample size *n* was **461**.

VI. Sampling frame/ Sampling procedures:

Every pregnant woman who was for the first time exposed to HIV counseling during the data collection period was invited for interview. All of the data collectors start on the same day and stop on the same day when the calculated sample size is achieved.

For the qualitative study, purposive sampling was employed [36]. The TBAs were identified with the help of district health officials. Three IDI were conducted among voluntary TBAs. IDIs were conducted among all of the five active counselors (those who are on active duties at the time of the study) in all of the four health facilities. Groups' participants were identified with the help of women and youth associations according to the pre-selected criteria relevant to the objective of study. Each group contained eight participants selected on convenient basis by the principal investigator. Point of information saturation was achieved at four FGDs where further enrolment terminated.

VII. Data collection procedures (Instrument, personnel, method of recruitment, data quality control**) and duration:**

Data collection was conducted in the 6 weeks period of April 24 –June 2, 2006.

1 Quantitative Study: A structured survey questionnaire was developed based on questionnaires and published studies (BSS-Ethiopia, FHI, WHO. The questionnaire was prepared originally in English and translated to Amharic. A different person made retranslation back to English for checking consistencies. It was pre-tested on same place among participants equivalent to 5% of the sample size by the trained interviewers and revised ahead of the data collection period. The Amharic version was used for the actual interview. Issues addressed include socio demographic characters, HIV/AIDS related knowledge, beliefs, attitudes, terms and perceptions of being HIV positive, their potential reasons for refusing or discontinuing follow up visits, and their plan as to where to deliver, their opinion on partner notification.

Interviewing was carried out in the four study places (Felege Hiwot Hospital, Bahir Dar, Adet and Woreta health centers) at the same time. The survey questionnaire was administered by counselors of PMTCT service who were in charge at time of interview (8 trained nurses - 2 from each site). No identifying information was collected. Interviews were made in a private setting at the clinic locations and were blinded to all identifiers, thus totally anonymous. On average interviews lasted from 20 to 25 minutes to complete, and all responses were written in Amharic.

One supervisor for the two sites in Bahir Dar and one for each of Adet and Woreta health centers were available through out the data collection period. A two days training regarding objective of the study and conduct of interview was provided by the principal investigator. It was subsequently followed by a one day pre-testing in both facilities. On average 24 pregnant women were included in the study per day, and a total of 452 was achieved in 19 working days.

Method of Recruitment: Women attending antenatal clinic services who were offered VCT in the data collection period were invited to participate in the survey questionnaire 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

interviewers on sites, who were counselors in PMTCT services recruited on voluntary bases from the same health facilities, were in charge of recruiting eligible pregnant women into the study.

2 Qualitative Studies:

2.1. FGD: A series of focus group discussions were conducted with eligible participants in Bahir Dar (pregnant women not following ANC in the current pregnancy, and husbands /regular partners to pregnant women). Each focus group included 8-10 people, and was single gender. The men focus group discussion was conducted by the principal investigator and one well-familiarized research assistant who has been working with Hareg project as a community pace maker. Two female counselors conducted the women FGDs. A field guide was used to facilitate the discussion; however the facilitator was free to further explore issues that arise in the discussions. Issues addressed include: how they see the PMTCT service being provided, positive and negative experiences that others had had or expected to have during interactions with staff working at the program, shortcomings of the program and suggestions for improvement. The discussions were tape-recorded and the research assistant wrote down notes during the discussion. The recorded cassette was transcribed by the principal investigator.

Method of Recruitment: Participants for focus group discussions were recruited by a variety of means, depending on the population of interest, with the help of the core community mobilizers (kebele health focal persons nominated by the Hareg project) and the community pace maker (who was a staff in Bahir Dar health center). Once eligibility has been established the identified persons were asked to participate in a discussion. The sessions were conducted in the same or second day of contact. The focus group discussions were held at the study site in a private setting (closed halls). Informed consent was obtained prior to the interview sessions and also at the time of the session prior to the discussion. There was full freedom to decline participation at any point in the process. The research assistant was recruited from Bahir Dar health center and involved

through out the data collection as a supervisor for the survey and as assistant for qualitative studies. Four FGD were conducted. Recruitment of more FGD was terminated with accomplishment of purpose.

2.2. In-depth interviews: The purpose of conducting these 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. A total of 5 counselors and 3 traditional birth attendants participated in the in-depth interviews. IDI was conducted using a semi-structured methodology with the aid of field guides for each of the study groups to provide general guidelines for the interviews. Interviews were free to deviate from the guides as needed to follow up on important topics that arose.

The principal investigator and the research assistant conducted individual interviews. Interviews were conducted in Amharic. The semi-structured interviews were tape recorded, and lasted approximately 40 minutes on average. Verbal consent was sought for tape-recording the interview on spot. Interviews were made in a private room at the study site where the participant feels comfortable speaking with the interviewer.

Method of Recruitment: health workers who are responsible for VCT under the PMTCT programs of the respective sites who worked for three or more months were requested to be interviewed and tape recorded with explanation of the objectives of the study and verbal consent. Traditional birth attendants in the community were identified with the help of the community PMTCT pace maker and the same processes was applied. There was no negative sanction for refusal to participate in the study.

VIII. Data quality assurance:

Questionnaire was checked for completeness on a daily basis by immediate supervisors. After checking all questionnaires for consistency and completeness the supervisors submitted the filled questionnaire to principal investigator. Incorrectly filled or missed ones were sent back to respective data collector for correction. The investigator made supervision of the data collection sites through out stay. In order to crosscheck the collected data and to maintain the quality of data the principal investigator also randomly rechecked five percent of the completed questionnaires daily. For the qualitative data, in addition to hand written notes by the research assistant, discussions/interviews were tape-recorded. Transcribing was made in the day or two of data collection and data recording made manually.

IX. Measures and Study variables:

1. Dependent/ Outcome Variables

1 Utilization of Voluntary counseling for PMTCT by pregnant women following ANC

2 Utilization of HIV testing by counseled pregnant women in ANC

3 HIV test acceptance by pregnant women following ANC who underwent voluntarily counseling and testing for HIV.

4 Acceptance of take-home Nevirapine by pregnant women

2. Independent / Exposure/explanatory variables

1. The socio demographic characteristics:

5 Age, educational status, residence, marital status and occupation

2. Knowledge, attitudes, perceptions, beliefs, and behaviors related to HIV/AIDS

6 Prenatal issues including MTCT and PMTCT; Risk perception of HIV infection for self, and for partner.

7 Perceived benefits and concerns on PMTCT of HIV program under way.

8 Issues related to the best ways to communicate the PMTCT of HIV, uncertainties and benefits of utilizing the program were dealt.

9 *Stigma of various degrees*

10 Likelihood of negative outcomes of HIV testing of pregnant women.

11 Likely reactions of husband to wife being HIV infected.

12 The perceived role of the husband in the commitment for PMTCT of HIV service utilization was also investigated.

X. Data Analysis procedures:

Quantitative Data: - All responses to the survey questionnaires were coded against the original English version and entered using a double entry was done using epi Info 2002 Version 6.04D software. The double interred 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 11.0-computer database for analysis. Recoding and re-categorizing was made for relevant variables. Cross tabulations were made to calculate crude odds ratios, p-values and X^2 for descriptive (uni- and bi-variate) analysis. Following this multi-variate analysis using the logistic regression model done by the specific objectives.

Qualitative Data: The hand written notes and tape-recorded discussions/interviews were transcribed, compiled together and later translated into English. The transcripts were then coded manually. Upon elaboration of initial codes, secondary codes developed and investigated with progress in the analysis. Summaries of the coded transcripts were developed that highlight important findings, with associated quotations from the discussions extracted.

Findings from all the three instruments were investigated at the same time and triangulated to help in interpretation.

5. Ethical Considerations

The ethical approval and clearance was obtained from Department of Community Health, FOM and Addis Ababa university ethical committee. Permissions were obtained from the concerned bodies of the Amhara Regional Health bureau and District Health Offices of Bahir Dar town, Adet and Woreta Districts. Support letters were obtained from DCH and Amhara Region Health Bureau. The standard consent form for health research indicated in the National Health Research Ethics Review Guidelines of Ethiopia [Ethiopian Science and Technology Commission, 2004] was adopted in this study. Prior to interview and discussions data collectors inform respondents/study participants and request for consent. If in the processes of interview the data collector had found undesired belief or practice regarding HIV/AIDS, he/she must have educated the individual at the end of the session or referred to the principal investigator or supervisor in case it was beyond capacity.

1. Risks and Discomforts: were considered; that participants may feel uncomfortable or experience some emotional stress from being asked some of the questions; and that someone may accidentally learn of their responses to the questions or discussion, primarily as a result of a person from a focus group discussion telling others what was said. In these cases participants were free to refuse from answering any question or stop the interview at any time.

2. Benefits: Participants are expected to have benefited from the interview by learning about HIV and AIDS. Results of this research are also used to better explain the positive and negative aspects of getting HIV counseling, testing and taking Nevirapine when HIV positive by pregnant women. What is learned from the study will be used to help others in the community and for a large-scale investigation.

3. Informed Consent: Full informed consent was obtained from all participants with each method of data collection. The consent form was written in Amharic, and read to those persons who were

illiterate or passed for them to read for those who need it. Copies of the English version of the informed consent form for the individual in-depth and structured interviews were attached. Participants had not have to sign the form to ensure their confidentiality. There was no identifying information recorded and data files are stored in a secure location. They were given information on how to contact the study staff should any questions or concerns come up at a later time. For focus group discussions the informed consents were obtained privately and individually for each participant prior to the meetings.

6. Results

6.1. Results of Quantitative Data

A total number of 452 pregnant women (98% response rate) were included in this study. The age of pregnant women included in this study ranged between 15 and 45 years with mean age (±SD) of 25.40 (±5.43) and median 25years. The majority, 396 (87.6%) and 433(95.8%), were Christians and married, respectively. A large proportion (82.5%) of the respondents had two or less number of live children. Three hundred fifty women (77.3%) were urban dwellers, and 102 (22.6%) were rural dwellers. Some 18 (19.7%) rural residents traveled more than two hours to reach a health facility with VCT service. More than half of the respondents (52.4%, N=237) had never had formal schooling at any time prior to interview. (For details see table 2.)

Three hundred four (67.3%) of the respondents reported that they had under gone voluntary counseling for HIV testing. Two hundred eighty-nine (97.6%) of the pregnant women who under went counseling were tested for HIV and 274(94.8%) of those who were tested received the test result (Table 3). Rural women were more likely to decline individual voluntary counseling after group information in the antenatal setting [AOR (95%C.I.)= 0.22 (0.14, 0.35). With respect to occupation of women, farmers were more likely to decline counseling compared to those who are not farmers [AOR (95%C.I.)= 0.44 (0.22, 0.99]. Pregnant women who had formal schooling were more likely to undergo voluntary HIV counseling compared to those with out formal schooling (AOR (95% CI) = 3.67 (1.56, 8.61)). (Table 4)

Table 2: Socio demographic characteristics of the Ante Natal Care Attendees, June 2006 (Bahir Dar, Adet and Woreta Health centers and Felege Hiwot Hospital, Amhara Region) (N= 452)

Characteristic	Total	Percent
Age (years)		
15-19	55	12.2
20-24	158	35.0
25-29	136	30.1
30-34	68	15.0
35-39	30	6.6
40-45	5	1.1
Residence		
Urban	350	77.3
Rural	102	22.6
Religion		
Orthodox Christian	390	86.3
Islam	56	12.4
Others (protestant and catholic)	6	1.3
Marital Status		
Currently Married	433	95.8
Single, divorced, widowed, separated	19	4.2
Educational Level		
No formal schooling	237	52.3
Attended elementary school (grade1-6)	41	9.1
Attended high school or College (grade 7 or higher)	174	38.6
Occupation		
House wife	260	57.5
Farmer	96	21.2
Government employee	50	11.1
Daily Laborer	16	3.5
Others	30	6.7
Husbands' Occupation*		
Civil government employee	144	33.7
Farmer	101	23.7
Daily Laborer	57	13.3
Merchant	50	11.7
Self employed in small scale	27	6.1
Military person	19	4.3
Others	29	7.4

*Total does not add up to 433. Of the 433 husbands married to pregnant women the occupation of 5 were missed.

Table 3: Out come of Major events in the ANC-PMTCT service among pregnant women, June 2006 (Bahir Dar, Adet and Woreta Health centers and Felege Hiwot Hospital, Amhara Region) (N= 452)

Character		Count	% From Total
ANC follow up:		452 (100%)	100 %
Voluntary HIV Counseling provided: Yes		304 (67.3%)	67.3%
	No	148 (32.7%)	32.7%
Undergone HIV testing: Yes		289 (97.6%)	63.9%
	No	15 (4.9%)	NA
Received HIV test result: Yes		274 (94.8%)	60.6%
	No	15 (5.2%)	NA

*NA= Not applicable

Four hundred and fifty one (99.8%) and 438 (96.9%) of the pregnant women respectively said that they had heard about HIV/ AIDS and PMTCT before, many of them had multiple sources of awareness; namely, health facilities (91.1%), radio (75.8%), friends (43.9%), social ceremonies like "idir" (36.6%), relatives (34.6%), school teachers during their school ages (34.4%), news paper (24.8%), and television (55.0%). Pregnant women who were first informed by school teachers were more likely to have voluntary counseling for HIV testing when compared to others sources [AOR (95%C.I.)= 2.51 (1.46, 4.31). Meanwhile women who were informed first in social ceremonies were less likely to have voluntary counseling for HIV testing when compared to other sources [AOR (95%C.I.)= 0.63 (0.41, 0.97)). (Table 4)

One hundred forty-one (32.0%) of pregnant women believed that HIV is a curse sent from GOD as a punishment of the sin of people. These women were more likely to refrain from getting voluntary HIV counseling [AOR (95% C.I.)= 0.52 (0.28, 0.99). With regard to transmission of HIV from a mother living with HIV/ AIDS to the fetus (MTCT) 311(68.8%), 279 (61.7%) and 344 (76.1%) had the correct knowledge that MTCT of HIV occurs during pregnancy, labor and breast-feeding respectively. Pregnant women who have the correct knowledge that MTCT occurs during labor were more likely to under go voluntary counseling for HIV testing [AOR (95% C.I.) =1.99 (1.30, 3.05)). (Table 5)

Four hundred fifty women (99.6%) knew at least one method of prevention of HIV transmission. Specifically, 443 (98.4%), 328 (72.9%), and 183 (40.7%) mentioned to be faithful, to abstain and to avoid breast-feeding respectively.

Coming to PMTCT, 438 (96.9%) of the pregnant women had heard of it and of these, 401(91.6%) mentioned chemotherapy while 27(6.2%) believed that there is a vaccine for PMTCT. Pregnant women who had the correct knowledge that MTCT of HIV can be prevented using chemotherapy

were more likely to have voluntary counseling for HIV testing [AOR (95% C.I.) =3.19 (1.16, 8.75).

Of the 344 pregnant women who had the correct knowledge that MTCT of HIV occurs during breast-feeding, only 183 mentioned that PMTCT is possible through avoidance of breast-feeding.

Pregnant women were asked what they think about the reason for which many other pregnant women are not attending ANC. Fear of consequences of positive HIV status mentioned by 132(29.3%), lack of awareness as to the benefits of ANC by 141(32.0%) and work load of women by 20 (4.4%) were among the perceived reasons.

Only 244 (55.5%), 245(64.8%) and 192(54.7%) of the interviewee talked about HIV/ AIDS with their husbands, with health personnel and other people respectively in the 12 months preceding the survey. Among reasons stated for differing discussions about HIV/AIDS with husband: thinking that they are safe 149(66.5%) felt it is not important issue, 27 (12.1%) addressed that such discussions cause marital disharmony; yet 46(20.5%) others refrained from commenting.

*Three hundred four (67.3%) of the respondents had under gone voluntary counseling for HIV testing. The timing of counseling was premarital VCT in 90 (29.6%), preconception VCT in 35 (12.5%), and the current pregnancy in 176 (57.9%). In 170(55.9%) counseling was user-initiated i.e. to plan for marriage in 48 (15.9%), to plan for having baby in 118(38.8%) and to know self-status in 8 (2.4%). In 134 (44.1%), it was provider- initiated at health facility visit. Three hundred thirty nine (92.6%) of the respondents know that HIV testing is mandatory in each of the subsequent pregnancies.

Table 4: Socio demographic Variables associated with Acceptance of Voluntary HIV Counseling, June 2006 (Bahir Dar, Adet and Woreda Health centers and Felege Hiwot Hospital, Amhara Region)

Characteristic	Not Counseled	Counseled	COR (95% C.I.)	AOR (95% C.I.)
Address:				
Rural	41	61	0.22 (0.14, 0.35)	**0.22(0.14,0.35)**
Urban	263	87	1	
Occupation:				
Farmer	38	58	0.22 (0.14, 0.36)	**0.44 (0. 22, .99)**
Other	266	90	1	
Formal Schooling:				
Yes	169	46	2.78 (1.83, 4.20)	**3.67 (1.56, 8.61)**
No	135	102	1	

Table 5: Other Variables associated with Acceptance of Voluntary HIV Counseling, June 2006 (Bahir Dar, Adet and Woreta Health centers and Felege Hiwot Hospital, Amhara Region

Characteristic	Not Counseled	Counseled	COR (95% C.I.)	AOR (95% C.I.)
First Source of Information on HIV/AIDS:				
School teachers:				
Yes	128	27	3.23 (2.01, 5.20)	2.51 (1.46,4.31)
No	176	120	1	
Social Ceremonies:				
Yes	95	70	0.50 (0.33, 0.75)	0.63 (0.41,0.97)
No	209	77	1	
Knowledge of HIV/ AIDS / MTCT of HIV:				
AIDS- a curse sent from God:				
Yes	240	57	0.54 (0.30, 0.98)	0.52 (0.28, 0.99)
No	125	16	1	
MTCT of HIV during Labor:				
Yes	208	71	2.35 (1.57, 3.52)	1.99 (1.30,3.05)
No	96	77	1	
Knowledge of Chemotherapy:				
Yes	286	115	5.18 (2.52,10.66)	3.19 (1.16, 8.75)
No	12	25	1	
HIV related Behavior and Beliefs				
Fear of being identified as HIV positive in the community:				
Yes	77	83	0.30 (0.17,0.56)	0.41(0.21,0.82)
No	95	32	1	
Perception of Others' Attitudes towards PLWHA:				
Out cast them or consider as people who are cursed	110	77	0.53 (0.36,0.79)	0.19 (0.08,0.43)
Care for them like any other sick person	186	69	1	

Reasons given for not counseled ever or up until the time of survey were fear of being identified as HIV positive in the community in 160 (52.6%), low perceived risk of having HIV in 77(25.3%), the need to consult the husband in 41(13.5%), fear of discussing the horrible picture of HIV with the counselor in 18 (5.9%), and other reasons like lack of awareness as to the benefit or the presence of VCT and by chance in 8(2.6 %). Pregnant women who were afraid of being identified as HIV positive in the community were more likely to abandon VCT in the ANC setting (AOR (95%CI)= 0.41(0.21,0.82)). (Table 5)

One hundred twenty two (30.7%) of the entire respondents suspect that their husbands might have HIV and specifically, 54.5% (N=67) of the pregnant women who had not known their status expected their HIV test result to be positive for HIV. Of the 67 pregnant women who had expectation of having positive HIV test result, 23 (34.3%) were not willing to take the drug for PMTCT. The reason given by 14 of them was to avoid discrimination by the family, and that by 9 was lack of trust on the effectiveness of the drug.

One hundred fifty six (34.5%) of pregnant women had never discussed about MTCT of HIV and the possible outcomes of the current pregnancy with partner, and 226 (50.0%) about the issues of HIV testing in the current pregnancy. About 164 (72.4%) of pregnant women believed that their husbands support couple testing, while the other 62(27.6%) believed that their husbands want the wife to be tested alone or not to raise the issue at all.

The Likely reaction of husbands/sex partners to positive test result was such that the husband will not accept the result trusting the wife in 71 (19.6%), while 48 (13.2%) expected to be thrown out of home/out-casted and physically violated/abused respectively. Like wise 81 (24.7%) and 187(61.1%) of the respondents expected that the family and the community respectively will out cast and physically violate/abuse the HIV positive women. Pregnant women who perceived that the community out cast PLWHA were more likely to differ from under going voluntary

counseling for HIV testing compared to those who thought that they are cared for (AOR (95%CI)= 0.19 (0.08,0.43).

Regarding the preferred place of delivery, 133 (29.4%) planned home, 111(24.6%) did not decided until the time of the survey. Among 272 pregnant women interviewed in health centers, 208 (76.5%) planned to deliver in another facility (the near by hospital). With respect to the desired number of additional children 293 (79.0%) need to have no more child if by chance mother is positive for HIV, 52 (14.0%) one or two more children, 10 (2.7%) more than two children. These could probably be due to lack of envisage to appreciate the service provided by maternity staffs in the health centers.

6.2. Summery of findings from Qualitative Data

6.2.1. Summary result of in-depth interviews among TBAs and ANC-VCT Counselors

Perceived reasons why many pregnant women do not follow ANC

1. Lack of awareness:

As stated by TBAs and counselors lack of awareness of the benefits of having ANC is said to be common among urban and rural women. “Some think as having minimal risk of HIV as they are living with the ever partner in life.” (PMTCT Nurse, Adet health center)

2. Fear of stigma, discrimination and self-coping

“Women fail to have VCT because many lack the skill how to cope and what to do if positive. Afraid of stigma and discrimination, many women do not like to be seen in the VCT rooms”. (39 years old female TBA) “Due to the fear of discussions about HIV with health care provider women want to avoid counseling.” (PMTCT Nurse, Bahir Dar health center). Like wise all the interviewees mentioned the fear of being identified as positive and the consequent stigma and discrimination by family and villagers. “Particularly women are afraid of having HIV positive test result while status of the husband is unknown or negative. In that case the family will discriminate

the woman and even abandon from home." "Women are afraid of rearing children knowing that they have the deadly disease".

3. Work load of and low status of women

"To be a mother is to shoulder the over loaded home tasks and out of home activities. Mothers have little time to think and care for themselves. Even those who make visits do not tolerate the slightest time lost while waiting for turn." (PMTCT Nurse, Felege Hiwot Hospital)

"Among rural communities, the norm does not allow women to walk out of door unattended. The husbands do not trust wives, especially young ones. Further more unless it is holyday the husband gives priority to his farming activities rather than accompanying his wife." (PMTCT Nurse, Woreta health center).

4. The way providers treat pregnant women

All of the TBAs pointed out that the government facility health care providers are not polite in handling patients. They do not explain when doing procedures; miss place records and reject referrals sent by TBAs. How ever the counselors stated that there is unreal circulating gossip in the community about health care facilities that the service is cumbersome.

The TBAs believed that they have acceptance over health care providers in the community. "We are friendly to women in the community, are transparent to them, explain every thing done for them, and keep secretes." (42 years old female TBA)

Suggested measures to scale up the PMTCT service

1. Continuous health education: community based and facility-based education, peer group discussions in the community and group education among HIV positives. "By appointing HIV + pregnant women at the same time, raise the issue (related to being HIV + pregnant woman) and discuss. They them selves do not know whom they are with until the discussion is raised. This creates a sense of belongingness, builds their ability to cope." (PMTCT Nurse, Bahir Dar health

center)

2. Social Mobilization: Four of the interviewees suggested strengthening health education-outreach community based education (through churches and schools by the help of priests and teachers) and programmatic facility based education. The other respondent emphasized the importance of having contact persons for HIV + pregnant women from the start which will be crucial for tracing. (PMTCT Nurse, Woreta health center) "No matter whether the TBA or health worker made the counseling we (the TBAs) can manage the follow up, provided that confidentiality is shared. We are the trusted providers." (39 years old female TBA) "Since we (the TBAs) are the front line providers, monitoring of our activities, coordinating joint out reach visits regularly with a health worker capable of performing screening for medical problems, and providing supplies like IP materials and drugs for family planning."

6.2.2. Summary result of FGDs among Husbands to Pregnant women and pregnant woman who do not attend ANC

Knowledge and Attitudes regarding HIV testing

Both pregnant women not following ANC and husbands to pregnant women know what HIV and AIDS are and how HIV is transmitted. However, self-risk perceptions for HIV are variable. One woman said that "I know only my husband as a partner; there is no possibility that I can acquire HIV." (40, gravida IV, illiterate)

In both groups of husbands the discussants believed that sick people should under go HIV testing for possible initiation of ART, otherwise people should be tested when planning for marriage.

Possible reasons of not using PMTCT services by pregnant women:

The most frequently stated reasons by the discussants were fear to cope for self if positive for HIV and fear of discrimination by the community in taking ARV drugs; they better not know their status. Even some husbands in the community do not allow the wife to be tested. If the wife is positive for HIV while the husband is not, they may even divorce.

Pregnant women perceive that the drugs used for PMTCT does not prevent MTCT of HIV. One pregnant mother (age 39, gravida V, no formal schooling) said, "While AIDS has no cure, advocating that it can be prevented by medication is to cheat mothers".

The other reason agreed by the respondents is that health professionals do not treat clients with courtesy.

Suggested interventions for wide coverage:

Improve the conducts /the ways by which providers handle clients)

Husbands should be informed how to handle pregnant women; supportive home environments should be created for women to enable them in decision.

Establishment of women friendly associations in the community working at household levels to provide social support and empower women was recommended.

7. Discussion

In this facility based survey conducted in western Amhara region, 67.3% of the antenatal care attendee had under gone individual voluntary counseling for HIV testing. Among all pregnant women who were counseled, 97.6% proceeded with HIV testing, and 94.8% of those who were tested subsequently received the HIV test result.

The high level of testing rate and receiving results in this study shows the effectiveness of private individual counseling, which gives the woman space to make a private decision without group pressure [10]. This is the tip of ice burg when we extrapolate the values for all pregnant women in the study areas. Antenatal care utilization rate from a trained health professional in Amhara region is as low as 26.5% [5]. This indicates that the uptakes for these services are actually very low when the general population is considered, in line with reports from other African studies [13, 14, 15]. A lesson that can be learned from these levels of testing and receiving test results is that once women are enrolled to individual counseling they are likely to proceed with testing and receiving of test results.

Different barriers for the utilization of PMTCT services were examined. Being a rural resident and being a farmer seem strong limiting factors for both counseling and testing. But there was no difference among rural women who walk more than two hours and who travel less than two hours to reach the facility providing PMTCT services. A farmer woman is engaged in both in- home and tedious out- door farming activities for which she allocates little time for seeking medical care in general. The under utilization of health facility has been observed also by key informants. The counselors have observed that distance is a barrier for rural women and that pregnant women do not tolerate time lost waiting for their turn because of the double burden that they shoulder. In Ethiopia, heavy workload, lack of access to health services, poverty, traditional practices, poor

social status and decision-making power, and lack of access to education are among the highly prevalent socio-cultural factors that potentially affect the health of women [23]. "Among rural communities, the norm does not allow women to walk out of door unattended. The husbands do not trust wives, especially young ones. Further more unless it is holyday the husband gives priority to his farming activities."

As has been observed by researchers else where, education has positive association with enrolment to PMTCT program [10]. In this study it was observed that pregnant women who were informed about HIV/AIDS first by school teachers while they were students are also better in getting involved to voluntary counseling for HIV testing. The presence of the correct knowledge on that MTCT of HIV occurs during labor and PMTCT is possible by chemotherapy are associated with high likelihood of utilizing voluntary counseling for HIV testing.

Wrong perceptions associated with HIV/AIDS are also limiting factors for undergoing counseling. The perception that HIV is curse sent as a penalty for the sin of people was among the factors associated with less likelihood of undergoing voluntary counseling and testing for HIV in the ANC setting. A noteworthy proportion of pregnant women are afraid of discussing the "horrible picture" of HIV with the service providers. "The most frequently stated reason by the discussants for avoiding counseling was fear to cope for self if positive for HIV; they better not know their status." "These women are afraid of rearing children knowing that they have the deadly disease".

In this study many issues that herald the prevalence of HIV associated stigma are identified. It was revealed that pregnant women who were afraid of being identified as HIV positive in the community were more likely to abandon VCT in the ANC setting. Like wise pregnant women who perceived that the community out cast PLWHA were more likely to differ from under going voluntary counseling for HIV testing compared to those who thought that they are cared for.

These could be due to the fear of rejection in the family and community. Hence, a sizable proportion of women avoided discussions with husband about HIV/AIDS being afraid of marital disharmony. "If a woman under goes HIV testing without getting permission, the husband threatens, even divorces her". "Particularly women are afraid of having HIV positive test result while the status of the husband is unknown or is negative. In that case the family will discriminate the woman and even abandon her from home".

Couple counseling and testing was favored by a large proportion of pregnant women, signifying that it will be an entry point for discussions about HIV in the family. Partner participation in VCT and couple counseling is found to increase success of PMTCT programs [13, 16, 22, 23, and 25]. Farquhar et.al reported that women who came with partners for VCT were 3-fold more likely to return for nevirapine, 5-fold more likely to avoid breast-feeding [23].

The degree of stigma is such sever that women attach it to the service provision rooms and the time of administration of the drug. "Many women do not like to be seen in the VCT rooms". "Many people are aware that nevirapine is taken during labor, HIV positive pregnant women refrain from taking it not to be seen/ identified while taking the drug". Women who were first informed about HIV/AIDS in social ceremonies were less likely to have voluntary counseling for HIV testing when compared to other sources. This may be the associated message distortions and stigma in the community.

The fear of stigma and discrimination against people living with HIV/AIDS was studied by many other investigators as a barrier discouraging women from taking precautionary measures that can greatly reduce the risk of MTCT such as to find out their HIV/AIDS status, seeking counseling if they are HIV-positive and pregnant, taking ARVs while pregnant; or choosing not to breast feed [7, 18, 21]. There fore, efforts to minimize the various stigma associated with HIV should be

undertaken through education and empowerment of women. Particularly, male husbands should be motivated to take part in taking care of women and the pregnancy.

Knowledge gap was manifested in various ways; stigma and discrimination are also the result of lack of or incorrect knowledge. Discussants emphasized the importance of out reaches community based health education programmes "through churches and schools by the help of priests and teachers" in addition to programmatic facility based education. "Among other reasons, mothers fail to use the services partly not to be seen by others, and partly duo to their workload. Therefore they will be addressed at home in a private setting where there is no barrier to discuss." Out reaches programmes enable the health system to use health extension workers, TBAs, and the kebeles health focal persons- provided that they are properly trained on counseling and on confidentiality; and that the counselors inform about shared confidentiality to the mothers." The TBAs are the first to help women and have high acceptance in the community. They are eager to work with the modern health care systems [25, 27, 28]. In the in-depth interviews the TBAs demonstrated this. "The TBAs are the trusted providers. No matter whether the TBA or health worker made the counseling the TBAs can manage the follow up, if confidentiality can be shared." "Since we (the TBAs) are the front line providers, monitoring of our activities, coordinating joint out reach visits regularly with a health worker capable of performing screening for medical problems, and providing supplies like IP materials and drugs for family planning." Establishment of use friendly associations in the community working at household levels is mandatory for social support, and continuous community and peer education (hence PMTCT plus). "It is very good to use social mobilizers provided that clever, active, popular and coherent people are selected." "Having contact persons for HIV positives enables tracing possible".

Even though the reason for why a large proportion of pregnant women had the tendency to deliver

out of the health centers from which they follow ANC is subject for further speculation, improving the quality of service and provision of clear information can have a role.

8. Strength of the study

Some of the good standings of this study are:

1. Base line information for program planning and implementation. This study has a substantial contribution to determine the level of HIV counseling, testing, and opinion on acceptance of nevirapine, and identify various factors associated with avoidance of utilization at various levels of the PMTCT service. It may at large be a helpful asset to redesign progrmme implementation for scaling up of PMTCT service coverage.
2. The study can be eye opener and even a base line for further studies at a large scale and to spark new hypotheses as there is scarcity of other similar studies in the country and the horn of Africa that examined the level of utilization and reasons for refusal of pregnant women to participate in the PMTCT programs.
3. Multiple methods used in the study. The quantitative cross-sectional survey was triangulated with exploratory and explanatory qualitative study to safeguard against the accusation that the study's findings are simply an artifact of a single method or a single source.

9. Limitations

1. Since the study is a facility-based study and selection (ascertainment) bias is likely to occur. As much as 84.5% of pregnant women in Amhara region do not make even a single visit to a trained health worker while pregnant (4). Data collected from health facilities may not be representative of the community at large.
2. Information (interviewer) bias is a possibility. To secure confidentiality and make it at ease, data collection was made by the counselors in the PMTCT services of the respective sites. As key informants, the counselors are likely to know some of the variables of study.

10. Conclusions

Individual counseling is highly effective in the studied facilities. Interventions triggered towards encouraging women to come for individual counseling can ensure programme effectiveness.

Being a rural resident and being a farmer seem strong limiting factors for pregnant women to undergo HIV counseling.

Educational status and correct knowledge of women about MTCT of HIV and PMTCT were positively associated with voluntary counseling and testing for HIV in the ANC setting.

Fear of stigma of HIV positive pregnant women by the husband, family, and the community was regarded as a barrier for utilizing counseling, testing and intension to take drugs.

Scale up of the program may be possible through a decentralized approach by community mobilization and use of TBAs in the system to provide HIV/AIDS education and refer mothers to health facilities for testing.

11. Recommendations

Increasing access to VCT before and during pregnancy by integration of PMTCT services into routine reproductive health services and strengthening referrals within the facilities should be practiced. Enroll pregnant women with missed opportunities of VCT during their facility visit for any reason.

Promoting PMTCT services in all health care facilities to provide essential care to women and her fetus in the catchments areas may improve the utilization of the services.

Community based education and sensitization on HIV/AIDS; MTCT, and PMTCT, and specific education against stigma and discrimination targeted to women and the community is required in the catchments areas.

Out reaches and community mobilization among rural people served by PMTCT programmes.

More community based and qualitative research is needed on determinants of PMTCT coverage and compliance.

12. References

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Appendix I: Terms & Operational definitions:

AIDS= acquired immuno deficiency syndrome, a state of sever immuno deficiency with multiple typical opportunistic infectious diseases and malignancy, in a patient with underlying infection with HIV virus

ANC = antenatal care; the care given to pregnant women and her un-born fetus.

Desrtict health office = also called Woreda health office, the health quarter/ department of the Woreda

Elderly women: - In this study it implies any female of age ≥ 50 years old.

Kebele = the smallest political and administrative structure

Kebele health focal person = a person elected/ appointed, usually after a short training, for health maters of the kebele.

MTCT= an acronym for "mother to child transmission of HIV"- in this study stands for the transmission of HIV occurring during pregnancy and childbirth.

Nevirapine = an anti retroviral drug which is recommended for use in PMTCT

PMTCT= an acronym for "Prevention of mother to child transmission of HIV"- in this study stands for taking short course antiretroviral (nevirapine) prophylaxis during labor.

Rural resident= a person living under peasant association settlement

Urban resident = a person living under city municipality administration

Woreda = a well organized and structured administrative structure (district) composed of many kebeles

Young woman: - In this study it implies any female of age 15-24 years and married.

Appendix II: - Quantitative Research Tools

Instruction:

The quantitative questionnaire has 9 pages containing 55 questions divided among 5 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 cod 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

#	Question Item	Response	Cod No	Skip to
001	Study Record #			
002	Place of interview	Felege Hiwot Hospital..... Bahir Dar Health Center..... Woreta Health Center……. Adet Health Center.....	1 2 3 4	
003	Time of start of interview ___/ Hr: __ _/___ Min. Time of finish_____/Hr___/___min.	004	Time of finish of 1st interview _ __/Hr: ___ /___ Min. Time of finish_____/Hr___/___min.	

Section 1: Socio Demographic Characteristics & Background Information

#	Question Item	Response	Code No	Skip to
010	Residence address	Urban..... Rural.....	1 → 2	030
020	How long did it take you to reach here?	-	__Hr&__ _ Min	
030	Age of the respondent	in years		
040	What is your religion?	Orthodox Christian..... Islam..... Catholic..... Protestant..... Other (specify)_____	1 2 3 4 77	
050	Do you attend religious subjects and praying ceremonies	Mostly I attend …… Occasionally I attend…… I never attend……... I do not want to respond to this question ….	1 2 3 9	
060	Marital Status	Currently married..... Single – Never married..... Separated..... Divorced..... Widowed..... I do not want to respond to this question...	1 2 3 4 → 5 9	080
070	Does your husband have official sexual partner or marriage?	Yes…… No…… I do not want to respond to this question……..	1 2 9	
080	Number of alive children (if any)	-		
090	Educational Status	Unable to read and write..... Only able to read and write..... Attended elementary school (Grades 1– 6)…….. Attended high school (Grades 7 – 12)..... Attended University/college.....	1 2 3 4 5	
100	Occupation	House wife..... Government employee..... Farmer..... Commercial sex worker..... House maid..... Daily laborer..... Other (specify).....	1 2 3 4 5 6 77	
110	Husband's Occupation	Civil Government employee..... Farmer..... Daily laborer..... Military Person..... Other (specify).....	1 2 3 4 77	

Section 2: Knowledge, Perceptions and Attitudes towards HIV/AIDS

#	Question Item	Response	Code No	Skip to
120	Have you ever heard about HIV/AIDS before?	Yes..... No..... Not sure..... I Do not want to respond.....	1 2 → 3 9	150
130	Where did (do) you hear about it? From: (Do not read the alternatives. More than one response is possible)			

No	Source	1=Yes	2=No
131	Friends	1	2
132	Relatives	1	2
133	School teachers	1	2
134	Health institutions	1	2
135	Radio	1	2
136	Television	1	2
137	Magazines	1	2
138	Social ceremonies – coffee drinking, traditional community meetings (idir, coffee ceremony etc.)	1	2
139	Others (specify)		

140	How do you feel the message release via public media (radio, Television, Newspaper etc).	Clear and appropriate in contents…….. Clear but inappropriate contents…….. Appropriate in contents but not clear…… Sometimes it is clear but not always… Not Clear……. It doesn't concern me…….. I do not want to respond to this question....	1 2 3 4 5 6 9	
150	Do you agree that HIV/AIDS is a curse sent from God rather than it is due to human misbehavior?	Yes..... No..... Not sure..... I do not want to respond to this question.....	1 2 3 9	
160	Can you tell me how HIV is transmitted from one person to another? If the answer is yes, please specify: (Do not read the alternatives. More than one response is possible)			

No	Source	1=Mentioned	2=Not Mentioned
161	Sexual intercourse	1	2
162	Getting injections	1	2
163	Blood transfusions	1	2
164	Mother to child during pregnancy	1	2
165	Mother to child during delivery	1	2
166	Mother to child through breast milk	1	2
167	I do not know	1	2
168	Others (specify)		

170	How do you rate the transmission of HIV virus during pregnancy , delivery and breast feeding					

No	Response	1= High	2= Medium	3=no transmission	4= I can't guess
171	During pregnancy	1	2	3	4
172	During delivery	1	2	3	4
173	During breast feeding	1	2	3	4

#	Question Item	Response	Code No	Skip to
180	Do you know how HIV transmission can be prevented? If Yes please list the ways by which one can prevent from being infected with HIV? (Do not read the alternatives. More than one response is possible)			

No	Response	1=Mentioned	2=Not Mentioned
181	Limiting sexual partners to the minimum, possible only one	1	2
182	Changing high-risk sexual behaviors	1	2
183	Avoiding un sterile injections	1	2
184	Avoiding unscreened blood transfusions	1	2
185	Aborting pregnancies of HIV infected women	1	2
186	Avoiding breastfeeding by HIV infected mothers	1	2
187	I do not know	1	2
188	Others (specify)		

190	Have you ever heard how Mother to Child Transmission of HIV can be prevented?	Yes.....	1	
		No.....	2	
200	Could you tell me any method(s) by which we can prevent the newborn from being infected with HIV? (Do not read the alternatives. More than one response is possible)			

No	Response	1=Mentioned	2=Not Mentioned
201	Chemotherapy	1	2
202	Vaccination	1	2
203	Traditional therapy	1	2
204	I do not know	1	2
204	Others (specify)		

210	Do you support the idea that every pregnant woman should be screened for HIV?	Yes.....	1	
		No.....	2 →	230
		Not sure.....	3	
		I do not want to respond to this question.....	9	
220	If the response is yes should the partner be tested with the pregnant women or not?	Yes.....	1 →	240
		No.....	2	
		Do not know.....	3 →	240
230	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 the alternatives. More than one response is possible)			

No	Response	1=Mentioned	2=Not Mentioned
231	Afraid of copping with Positive HIV status	1	2
232	Afraid of the consequences (in the community) of knowing that they might be positive	1	2
233	Do not like to give blood at all	1	2
234	Have very little blood left	1	2
235	The religious faith does not permit it	1	2
236	Cannot specify any reason	1	2
237	I do not want to respond to this question	1	2
238	Others (specify)		

#	Question Item	Response	Cod No	Skip to
240	Do you believe that couples should be screened for HIV before getting married?	Yes..... No..... Not sure..... I do not want to respond to this question...	1 2 3 9	260
250	If yes, then where should they be tested preferably?	At ANC clinics (VCT clinics)..... At private clinics..... At private laboratories..... Do not know..... I do not want to respond to this question... Others (specify)_____	1 2 3 4 9 77	
260	Do you think that a pregnant woman who is HIV positive should abort her pregnancy?	Yes..... No..... Not sure..... I do not want to respond.....	1 2 3 77	

270 Please tell me how should couple have sexual intercourse if either of them is HIV infected?

No	Response	1=Mentioned	2=Not Mentioned
271	They should be divorced	1	2
272	Do not have sexual intercourse at all	1	2
273	They should use condoms always	1	2
274	They should behave as usual – use no condoms	1	2
275	No idea	1	
276	Others (specify)		

280 What should couples do, if both of them are HIV infected, regarding their sexual relationship?

No	Response	1=Mentioned	2=Not Mentioned
291	They should be divorced	1	2
282	Do not have sexual intercourse at all	1	2
283	They should use condoms always	1	2
284	They should behave as usual – use no condoms	1	2
285	No idea	1	
286	Others (specify)		

#	Question Item	Response	Cod No	Skip to
290	What do you think as to how will people handle people living with HIV/AIDS?	Care for them as any other sick people..... Outcast hem..... Consider them as people who are cursed and evil..... Deprive them of any of the social benefits in the society… Others (specify)_____	1 2 3 4 77	
300	Do you think you are at risk of getting HIV infection?	Yes..... No..... Don't know..... I do not want to respond to this question.....	1 2 3 9	

Section 3: HIV/AIDS related Behavior & Beliefs

#	Question Item	Response	Cod No	Skip To
310	Have you ever discussed about HIV/AIDS with husband, health personnel, or other people in the last 12 months?	Ser. no 311 With Husband; 312 Health Personnel; 313 Other People — 1=Yes; 2= No; 3=Doesn't emember		
320	How do you judge about the message delivered by PMTCT staff regarding HIV/AIDS	Very clear / Clear / Some times clear, sometimes vague / Vague / I don't know / I do not want to respond to this question	1 / 2 / 3 / 4 / 5 / 9	
330	What is your feeling towards the message conveyed about HIV/AIDS by PMTCT staff?	Appropriate / Inappropriate / I don't want to respond to this question….. / Other	1 / 2 / 9 / 77	1 → 350; 9, 77 → 350
340	If the response is inappropriate/bad, Why? (Do not read the alternatives. More than one response is possible)	341 Contact time not enough; 342 Discussions are not elaborated well; 343 Horribly/terrifying picture emphasized; 344 Testing Procedure not comfortable; 345 I do not like to respond to this question; 346 Other (specify) — 1= mentioned; 2= Not mentioned		
350	If you do not discuss about HIV/AIDS in the current pregnancy, why not? (Refer #310)	It is not an important issue to discuss (we are safe). / Such discussions cause marital disharmony / I do not like to respond to this question / Other (specify)	1 / 2 / 9 / 77	
360	Have you ever been counseled for HIV testing?	Yes / No / I do not want to respond to this question	1 / 2 / 9	2, 9 → 390
370	If the response is Yes, when were you counseled first time?	Premarital VCT / Preconception VCT / In the current pregnancy	1 / 2 / 3	1 → 390
380	How did you come up to access VCT first time (the initiative)?	To plan for marriage / To plan for having baby / Initiated by provider at health facility visit / Other (specify)_____	1 / 2 / 3 / 77	
390	If your response is No, why not? (Refer Q 360)	351 I have no risk of HIV; 352 Fear of discussing the horrible picture of HIV/AIDS; 353 Knowing serostatus has no benefit; 354 The need to consult to my husband; 355 Fear of being seen in the VCT; 356 Other (specify) — 1= mentioned; 2= Not mentioned		

Section 4: HIV/AIDS related Behavior & Beliefs.....cont

#	Question Item	Response	Cod No	Skip to
400	If you were counseled do not tell me the result, but have you ever been tested for HIV?	Yes..... No..... I do not want to respond to this question...	1 2 → 420 9	
410	Do not tell me the result, but have you known the HIV test result for your self?	Yes..... No..... I do not want to respond to this question…….	1 → 450 2 9 → 420	
420	If your response is no, why not?	Afraid of copping with positive result for my self….. Afraid of discrimination by husband and family…. Afraid of discrimination by community..... Other (specify)_____	1 2 3 77	
430	Suppose if you were to be tested for HIV, what would you expect the results of the testing be? (Refer to # 340)	Negative..... Positive..... I don't know..... I don't want to be tested at all..... I do not want to respond to this question	1 2 3 4 9	
440	If you were tested for HIV, would you accept the test result?	Yes..... No..... I do not want to respond to this question.....	1 2 9	
450	Do you think your husband or sexual partner is at risk of getting HIV infection?	Yes..... No..... Not sure..... I do not want to respond to this question.....	1 2 3 9	
460	Suppose if your husband or sexual partner were to be tested for HIV, what would you expect the results of the testing be?	Negative..... Positive..... I don't know..... He does not want to be tested at all... I do not want to respond to this question...	1 2 3 4 9	
470	Do you discuss with your partner about MTCT of HIV & the possible outcomes of the current pregnancy?	Yes..... No..... Doesn't remember..... I do not want to respond to this question...	1 → 500 2 3 → 500 9	
480	Have you ever discussed with your husband about the issues of HIV testing in the current pregnancy?	Yes..... No..... Doesn't remember.....	1 2 3	
490	What is the view of your husband regarding HIV screening?	Wants to have couple testing..... Wants me to be tested alone, but not himself. Doesn't want me to be tested..... Doesn't want to discuss at all..... I do not want o respond to this question.....	1 2 3 4 9	

Section V: **HIV/AIDS related Behavior, Stigma & Discrimination**

#	Question Item	Response	Cod No	Skip to
500	Is your husband willing to accompany you to ANC	Yes..... No..... He doesn't care.....	1 2 3	

510	If you were supposed to be tested and results turn out to be positive, would you notify results to:	No	Category	1= Yes	2= No, I will never let him/them know my test result	3= I can not be sure	
		511	Husband ?	1	2	3	
		512	Family ?	1	2	3	

520	If you were supposed to be tested and result turns out to be positive, what would be the likely reaction of your:	No	Response	1= No one will believe the results (I am trusted)	2= I will be thrown out of home/out-casted	3=I will be physically violated/ abused	4= He/ they will start to care for me	5= I do not want to respond to this question	
		521	Husband/sex partner?	1	2	3	4	5	
		522	Family members?	1	2	3	4	5	
		523	Community members?	1	2	3	4	5	

530	Once you are HIV negative is it necessary to have HIV testing in each pregnancy?	Yes..... No..... Not sure.....	1 2 3	
540	Suppose your test was positive for HIV, would you take Medication to prevent transmission of HIV to your yet un born fetus?	Yes..... No..... I can not be sure..... I do not want to respond to this question...	1 → 2 3 } 9 } →	560 560

550	If the response is No, Why Not?	No	Response	1= Mentioned	2= Not mentioned	
		551	I don't believe that ARV prophylaxis is effective	1	2	
		552	Fear of being identified as PLWHA by people (husband, family, or neighbor)	1	2	
		553	Fear of Drug side effect	1	2	
		554	I do not like to respond to this question	1	2	
		555	Other (specify)			

#	Question Item	Response	Cod No	Skip to
560	What would be the best option for feeding an infant born to HIV positive mother?	No / Response / 1= Mentioned / 2= Not mentioned 531 Stop breastfeeding and provide formula food (if affordable) — 1 — 2 532 Continue breast-feeding if the mother is poor — 1 — 2 533 Mix both breast as well as supplementary feeding — 1 — 2 534 Provide the newborn with whatever is available in the house — 1 — 2 535 Not sure — 1 — 2 536 I do not want to respond to this question — 1 — 2 537 Other (specify)		
570	If you were tested and turn out to be positive, how many more children would you like to have in future?	None..... One or two more..... More than two..... Can't decide now..... Don't want to think about it even..... I do not want to respond to this question...	1 2 3 4 5 9	
580	Suppose you are HIV + do you come to have follow up counseling	Yes..... No..... Not sure..... I do not want to respond.....	1 2 3 9	
590	If one of your family suffer from HIV/AIDS, he/she develops body sore, and discharge body fluid, what measure shall you take?	No special care is necessary……. Wash hand with soap and water…… Wear Glove……. Wear any plastic material available at home……. I don't know……. Other (specify) ……..	1 2 3 4 5 77	
600	Where do you like to deliver in the current pregnancy?	At home attended by TBA..... In this health facility..... In another health facility..... I have not decided yet..... I do not want to respond to this question... Other (specify)_____	1 2 3 4 5 77	

Any Additional information you would like to mention with respect to underutilization of PMTCT service by pregnant women. ----------

Thank you for your Participation!!!

Assurance of Completeness

Certified By (Name)		Completed/Interrupted/Incomplete	Signature	Date
Interviewer				
Supervisor				

Appendix III: 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 Bahir Dar, Woreta and Adet. 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 – III-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

Informed Consent Form for In-depth Interviews:

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 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 interview you will be asked some short questions 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.

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.

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.

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 30-40 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)

Appendices – III-2: - Guidelines for the in-depth interviews

The in-depth interviews among TBAs will cover a range of topics including:

1. HIV/ AIDS related knowledge, attitudes, terms & perceptions:

2. Attitudes regarding HIV testing.
3. Understanding of the mechanisms of perinatal transmission of HIV:
4. Attitudes regarding prenatal care.
5. Feelings, attitudes and beliefs regarding HIV medications.
6. Attitudes and views concerning the quality of social, psychological, and medical support services provided/necessitated by ANC, counseling and delivery services in health care facilities
    - What strengths that must be encouraged and weaknesses in the service delivery that may be associated with low ANC coverage, facility utilization for delivery, low VCT and PMTCT uptake are there?
    - Perceptions towards health care providers
7. Perceived social impact of being HIV positive (especially regarding to husband – wife interaction and family life),
8. Topics related to their perceived roles for narrowing gaps and scaling up these services in the community.
    - How can these problems be solved?
    - The role of the TBA/health service provider in the decision-making process related to HIV testing and enrollment to the PMTCT program, ANC, and facility delivery.
    - Any value of outreach programs focused on couples [can it provide women and their partners with opportunities outside antenatal settings?].

The in-depth interviews among ANC- VCT providers will cover a range of 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 nevirapine?
4. What measures should be taken to scale up the program?
5. Any values of out reach programs focused on pregnant women? Could it give opportunities out side antenatal setting?

Appendix IV: - Amharic Versions of the Questioners & Field Guides

ሀ) መጠይቆች እና የማወያያ ነጥቦች በአማርኛ

<u>ክፍል 00)</u> -ትዕዛዝ፡

ይህ መጠይቅ በ5 ንዑሳን ክፍሎች የተከፈለ ሲሆን 57 ጥያቄች አሉት፡፡ጥያቄወች ከመጀመራቸው በፊት የስምምነት መግለጫ ይገኛል፡፡ይህን መጠይቅ ለመረጃ መሰብሰቢያነት ከመጠቀም በፊት ሁሉም ገፆችና ጥያቄወች መኖራቸውን ያረጋግጡ፡፡ መረጃ ለመሰብሰብ በቅድሚያ የስምምነት መግለጫውን ለመረጃ ሰጪ በጥሞና አንብበው መስማማታቸውን በፊርማ ያረጋግጡ፡፡ ለእያንዳንዱ ጥያቄ ምረጃ ሰጪ የሚሰጡትን መልስ በመልስ ረድፍ እና በጥቁው አኳያ የሚገኘውን ቁጥር ያክብቡ፡፡በእያንዳንዱ ክ/ጊዜ መጠይቅ ሲጀምሩ እና ሲያጠናቅቁ ሰዓቱን ይጻፉ፡፡ ሲጨርሱ አሟልተው መመዝገብን በማረጋገጥ ይፈርሙ፡፡

ክፍል 0) -የስምምነት መግለጫ፡

ስሜ ----------ይባላል፡፡ የአ/አ/ዩ/ የጎ/ሰብ ጤና ሳይንስ ት/ት ክፍል በሚያካሄደው ጥናት ውስጥ በጊዜያዊ መረጃ ሰብሳቢነት በመስራት ላይ እገኛለሁ፡፡ የጥናቱ ዓላማ ኤች አይ ቪ ከእናት ወደ ልጂ እናዳይተላለፍ በሚያደርጉ አገልግሎቶች የነፍሰ ጡር እናቶችን አጠቃቀም ማወቅ ነው፡፡ በጥናቱ በርካታ ነፍሰ ጡሮችን ማሳተፍ አስፈላጊ በመሆኑ በተለያዩ ቦታወች የመረጃ ስብሰባው በመከናወን ላይ ነው፡፡

በዚህ ጥናት ስለ ግል ሕይወት፤ ስለቤተሰብ፤ ስለ አካባቢ ስለ ኤች አይ ቪ እና የመሳሰሉት ጉዳዮች ይጠየቃሉ፡፡ አንዳንድ ጊዜ ለራስ የማይመች ጥያቄ ሊጠየቁ ይችላሉ፡፡ የእርስን ማንነት የሚያመለክት መረጃ ፈፅሞ አይመዘገብም፡፡ የሚሰበሰበዉ መረጃ ተጠቃልሎ በዋናው አጥኝ በጥንቃቄ የሚቀመጥ ሲሆን ጥናቱ ሲጠናቀቅ ማንም ሰው በማያገኘው ሁኔታ ይወገዳል፡፡ መጠይቁ የሚካሄደው በፍፁም ፈቃድ ነው፡፡

ከዚህ ጥናት የሚገኘው ዉጤት ለወደፊቱ ፕሮግራሙን የተሻለ ለማድረግ ይጠቅማል፡፡ በአጠቃላይ መጠይቁ ከ15-20 ደቂቃ ይወስዳል፡፡ በትዕግስትና በጥሞና አዳምጠው ለመመለስ የሚያደርጉትን ጥረት እያደነቅን በቅድሚያ ከልብ እናመሰግናለን፡፡

በጥናቱ ለመሳተፍ ፈቃደኛ ነት? ፈቃደኛ ካልሆኑ አመስግነሽ አሰናብች፡፡ ፈቃደኛ ከሆኑ ቀጥይ፡፡ ፈቃደኝነታቸውን ያረጋገጠችው ጠያቂ ስም----------ፊርማ----------

<u>ንዑስ ክፍል 0)</u> አጠቃላይ መነሻ ሀሳብ

ተ.ቁ	መጠይቅ	ዝርዝር መልስ	የመልስ መለያ	ይለፍ
001	የመጠይቅ መለያ ቁጥር	-		
002	መጠይቁ የተካሄደበት ቦታ	ፈለገ ሕይወት ሆስፒታል..... ባህር ዳር ጤና ጣቢያ..... ወረታ ጤና ጣቢያ..... አዲት ጤና ጣቢያ.....	1 2 3 4	
003	የመጀመርያው ክ/ጊዜ መጠይቅ የተጀመረበት ጊዜ ----- ክ-----:: የተጠናቀቀበት ጊዜ-------ክ------::	004	ሁለተኛ ክ/ጊዜ ከተቀጠሩ የተጀመረበት ጊዜ----ክ----- :: የተጠናቀቀበት ጊዜ------ክ-------::	

ንዑስ ክፍል ፩) አጠቃላይ መረጃ

ተ.ቁ	መጠይቅ	ዝርዝር መልስ	የመልስ መለያ	ይለፍ
010	የመኖሪያ አካባቢ	ከተማ..... ገጠር.....	1 → 2	030
020	እዚህ ጤና ተቋም ለመድረስ ምን ያህል ጊዜ ወሰደብ?	-	ሰዓት ደቂ	
030	ዕድሜ ስንት ነው?	-		
040	ሐየማኖት ምንድን ነው?	ኦርቶዶክስ ክርስትያን..... እስልምና..... ካቶሊክ..... ፕሮቴስታንት..... ሌላ (ይገለፅ)----------	1 2 3 4 77	
050	መንፈሳዊትምህረቶችን ወይም የፀሎት ስንስርአቶችን ይከታተላሉን?	አዎ እከታተላለሁ..... አልፎ አልፎ እከታተላለሁ..... ምጭራሽ አልከታተልም..... ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....	1 2 3 9	
060	በአሁኑ ሰዓት የጋብቻ ሁኔታ እንዴት ነው?	ባለትዳር..... በፍፀም አግብቼ አላውቅም..... ከባለቤቴ ጋር ተለያይተን ነው የምንኖረው (ነገር ግን አልተፋታንም)..... ተፋትቻለሁ..... ባለቤቴ ከዚህ ዓለም በሞት ተለይቷል..... ለዚህ ጥያቄ መልስ መስጠት አልፈልግም	1 2 3 4 → 5 9	080
070	ባለቤትም ሌላ ሚስት ወይም የምትታወቅ የግብረስጋ ጓደኛ አላቸዉን?	አዎ (አለዉ)..... የለዉም..... ..... ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....	1 2 9	
080	ልጆች ካሉት ብዛታቸዉ ስንት ነው?	-		
090	እረስ ያጠናቀቁት ከፍተኛ የትምህርት ደረጃ ምንድን ነው?	ማንበብና መፃፍ አልችልም..... ማንበብና መፃፍ ብቻ እችላለሁ..... ከ1ኛ-6ኛ ክፍል ተምሬአለሁ..... ከ7ኛ-12ኛ ክፍል ተምሬአለሁ..... ከፍተኛ ትምህርት ተምሬአለሁ.....	1 2 3 4 5	
100	ምደበኛ ሥራ ምንድን ነው?	የቤት እመቤት..... የመንግስት ሠራተኛ..... ገበሬ..... ሴተኛ አዳሪ..... የቤት ውስጥ ሠራተኛ(ተቀጣሪ)..... የቀን ሥራ..... ሌላ (ይገለፅ)----------	1 2 3 4 5 6 77	
110	የባለቤት መደበኛ ሥራ ምንድን ነው?	የመንግስት ሠራተኛ..... ገበሬ..... የቀን ሥራ..... ወታደር..... ሌላ (ይገለፅ)----------	1 2 3 4 77	

ንዑስ ክፍል ፪) ስለ ኤድስ እዉቀት አሳቤ እና እምነት (አመለካከት)

ተ.ቁ	መጠይቅ	ዝርዝር መልስ		የመልስ መለያ	ይለፍ
120	ስለ ኤች አይ ቪ ወይም ስለ ኤድስ በሽታ ሰምተው ያዉቃሉ?	አዎን.....		1	
		ሰምቼ አላውቅም.....		2	→150
		እርግጠኛ አይደለሁም.....		3	
		ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.		9	
130	ስለ ኤች አይ ቪ/ ኤድስ ከየት ሰሙ? (ከአንድ በላይ መልስ መስጠት ይቻላል ፡ ምርጫው ግን አይነበብም)	ተ.ቁ	ዝርዝር ምርጫ	1=ተጠቅሷል	2=አልተጠቀሰም
		131	ከጓደኛ	1	2
		132	ከዘመድ	1	2
		133	ከትምህርት ቤት/ ከመምህራን	1	2
		134	ከጤና ተቋማት	1	2
		135	ከሬድዮ	1	2
		136	ከቴሌቪዥን	1	2
		137	ከጋዜጣ	1	2
		138	ከማኅበራዊ ግንኙነቶች (ዕድር፤ ቡና)	1	2
		139	ሌላ (ይገለጽ)		
140	በመገናኛ ብዙሃን (በሬዲዮ በትሌቪዥን በጋዜጣ) ስለ ኤች አ ይ ቪ /ኤድስ የሚተላለፈዉን መልእክት እንዴት ያዩታል?	ግልፅና ተገቢ ይዘት አለዉ.....		1	
		ግልፅ ነዉ ነገር ግን ይዘቱ ተገቢ አይደለም.....		2	
		ይዘቱ ተገቢ ቢሆንም ግልፅ አይደለም		3	
		አንደ አንዱ ግልፅ ነዉ አንድ አንዱ ግልፅ አይደለም.....		4	
		ይህ ጥያቅ ዕኔን ዐይመለከትም.....		6	
		ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....		9	
150	ኤች አይ ቪ ኤድስ በባህሪያችን ምክንያት የሚመጣ ሳይሆን የእግዚአብሄር ቁጣ ነው ቢሉኝ ትስማማለህ?	አዎ.....		1	
		አልስማማም.....		2	
		እርግጠኛ አይደለሁም.....		3	
		ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....		9	
160	የኤች አይ ቪ ህዋስ ከ ሰው ወደ ሰው እንዴት እንደሚተላለፍ ሊነግሩኝ ይችላሉ? (ከአንድ በላይ መልስ መስጠት ይቻላል ፡ ምርጫው አይነበብም)	ተ.ቁ	ዝርዝር ምርጫ	1=ተጠቅሷል	2=አልተጠቀሰም
		161	በግብረ ስጋ ግንኙነት	1	2
		162	መርፌ በመወጋት	1	2
		163	ደም በመስገስ	1	2
		164	በእርግዝና ወቅት ከእናት ወደ ጽንስ	1	2
		165	በወሊድ ጊዜ ከእናት ወደ ልጃ	1	2
		166	ጡት በማጥባት ጊዜ ከእናት ወደ ልጅ	1	2
		167	እንዴት እነደሚተላለፍ አላውቅም	1	
		168	ሌላ (ይገለጽ)		
170	ፅንሱ በእርግዝና ላይ ዕያለ በወሊድ ግዜ እና ጡት በማጥባት ጊዜ ኤች አይ ቪ የመያዝ እድሉ ምን ያህል ነዉ?	ተ.ቁ	ዝርዝር ምርጫ	1= ከፍተኛ	2= መንከለኛ	3= አይተላለፍም	4= መገመት አልችልም
		171	ምእርግዝና ወቅት	1	2	3	4
		172	ምወሊድ ወቅት	1	2	3	4
		173	ጡት በማጥባት ወቅት	1	2	3	4

ተ.ቁ	መጠይቅ	ዝርዝር መልስ			የመልስ መለያ	ይለፍ
180	ራስን ከኤች አይቪ ለመከላከል መደረግ የሚገባቸውን ጥረቶች ቢጠቅሱልኝ (ከአንድ በላይ መልስ መስጠት ይቻላል ፡ ምርጫው አይነበብም)	ተ.ቁ	ዝርዝር ምርጫ	1=ተጠቅሷል	2=አልተጠ	
		181	ግብረ ስጋ ግንኙነትን አንድ ለአንድ መወሰን	1	2	
		182	አጋላጭ ባህሪን ማስተካከል	1	2	
		183	ጥንቃቄ የጎደለዉ መርፌን ባለመወጋት	1	2	
		184	ምርመራ ያልተደረገለትን ደም ባለመለገስ	1	2	
		185	ከኤች አይ ቪ ጋር ለምትኖር ፍሰጡር ጽንስ በማስወረድ	1	2	
		186	ከኤች አይ ቪ ጋር የምትኖር እናት ለልጇ ጡቷን ባለማጥባት	1	2	
		187	የመከላከያ መንገድ አላውቅም	1		
		188	ሌላ (ይገለጽ)			
190	ኤች አይ ቪን ከእናት ወደ ልጅ እንዳይተላለፍ ማድረግ እነደሚቻል ሰምተው ዉቃሉ ?			አዎ..... 1 ሰምቼ አላዉቅም..... 2		
200	የኤች አይ ቪን ህዋስ ወደ ጽንስ እንዳይተላለፍ ማድረግ የሚቻልበት መንገድ ካለ ሊነግሩኝ ይችላሉ?	ተ.ቁ	ዝርዝር ምርጫ	1=ተጠቅሷል	2=አልተጠቀሰም	
		201	በዘመናዊ ህክምና መድኃኒት በመውሰድ	1	2	
		202	ክትባት በመውሰድ	1	2	
		203	በባህላዊ ሕክምና	1	2	
		204	ምንም አላውቅም	1	2	
		205	ሌላ (ይገለጽ)			
210	እያንዳንዷ ነፍሰጡር ሴት የኤች አይ ቪ ምርመራ ታድርግ የሚለውን ሀሳብ ትደግፊአለሽ			አዎ..... 1 አልደግፍም..... 2 → 230 እርግጠኛ አይደለሁም..... 3 ለዚህ ጥያቄ መቂስ መስጠት አልፈልግም..... 9		
220	መልስ አ ከሆነ ባሎች አብረው የኤች አይ ቪ ምርመራ ማድረግ አለባቸው? (ከጥያቄ 060 ጋር ነፃጽሩት)			አዎ..... 1 → 240 የለባቸውም..... 2 እርግጠኛ አይደለሁም..... 3 → 240		
230	አብዛኛውን ጊዜ እናቶች የእርግዝና ክትትል ለማድረግ ወደ ጤና ደርጅቶች የማይሄዱት ለምንድን ነው?(ከሁለት በላይ መልስ መስጠት ይቻላል)	ተ.ቁ	ዝርዝር ምርጫ	1=ተጠቅሷል	2=አልተጠቀሰም	
		231	በግንዛቤ ማነስ ምክንያት	1	2	
		232	የስራ ብዛት ስላለባቸው እና በወረፋ መብዛት መጉላላት እንዳይደርስባቸው አስቀድመው በወሬ በመፍራት	1	2	
		233	ከኤች አይ ቪ ጋር እንደሚኖሩ ቢታወቅ ሊደርስባቸው የማችለውን ችግር በመፍራት	1	2	
		234	ከጤና ድርጂቱ ድረስ የቦታ እርቀት ስለ አለ	1	2	
		235	በልማድ እና ከእምነት አንፃር ለማይሄድ	1	2	
		236	ገንዘብ ስለሌላቸው	1	2	
		237	አብሮ የሚመጣና የሚያመጣቸው እያጡ (ሴት ልጅ ለብቻ አትሄድም)	1	2	
		238	በ ወሬ ባለሙያወች እንደሚያንላቱና መጥፎ ፊት እንደሚያሳዩ ስለሚሰማ	1	2	
		239	ሀሳብ የለኝም	1	2	

ተ.ቁ	መጠይቅ	ዝርዝር መልስ	የመልስ መለያ	ይለፍ
240	ተጋቢዎች የቅድመ ጋብቻ የኤች አይ ቪ ምርመራ ማድረግ አለባቸዉ ብለዉ ያምናሉ?	አዎ..... አላምንበትም..... እርግጠኛ አይደለሁም..... ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....	1 2 3 9	→ 260
250	መልስ አምንበታለሁ ከሆነ የት ነው መመርመር ያለባቸው?	ከእናቶች ምርመራ አገልግሎት ወይም የምክርና ምርመራ አገልግሎት ክፍል..... ከግል ክሊኒክ..... ከግል ላቦራቶሪ..... አላውቅም..... ለዚህ ጥያቄ መልስ መስጠት አልፈልግም..... ሌላ (ይገለፅ)----------	1 2 3 4 9 77	
260	ከኤች ኤ ቪ ጋር የምትኖር ነፍሰጡር እናት ጽንሱን ማስወረድ አለባት ብለው ያምናሉ?	አዎ..... አላምንበትም..... እርግጠኛ አይደለሁም..... ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....	1 2 3 9	

270	ከሁለት ትዳር ጓደኛሞች አንዳቸዉ ኤች አይ ቪ ቢኖርባቸው የግብረ ስጋ ግንኙነት እንዴት ነው መፈጸም ያለባቸው?	ተ.ቁ	ዝርዝር ምርጫ	1=ተጠቅሷል	2=አልተጠቀሰም	
		271	መፋታት አለባቸው	1	2	
		272	ፊዕሞ መታቀብ ነው ያለባቸው	1	2	
		273	ሁልጊዜ ኮንዶም መጠቀም አለባቸው	1	2	
		274	ዘወትር እነደለመዱት ነው መሆን ያለበት-ኮንዶም አያስፈልግም	1	2	
		275	ምን መደረግ እንዳለበት ሀሳብ የለኝም	1		
		276	ሌላ (ይገለፅ)			

280	ሁለቱም የትዳር ጓደኛሞች ኤች አይ ቪ ቢኖርባቸውሰ እንዴት ነው የግብረ ስጋ ግንኙነት መፈጸም ያለባቸው?	ተ.ቁ	ዝርዝር ምርጫ	1=ተጠቅሷል	2=አልተጠቀሰም	
		281	መፋታት አለባቸው	1	2	
		282	ፊዕሞ መታቀብ ነው ያለባቸው	1	2	
		283	ሁልጊዜ ኮንዶም መጠቀም አለባቸው	1	2	
		284	ዘወትር እነደለመዱት ነው መሆን ያለበት-ኮንዶም አያስፈልግም	1	2	
		285	ምን መደረግ እንዳለበት ሀሳብ የለኝም	1		
		286	ሌላ (ይገለፅ)			

290	ሰች ከኤች አይ ቪ ጋ ር ለሚኖር ሰው ምን አይነት አቀራረብ ያላቸው ይመስልሻል?	እንደማንኛውም የታመመ ሰው እንክብካቤ ያደርጉለታል.. ያገልሉታል..... እንደተረገመ ኃጢአተኛ ሰው ይቆጥሩታል..... ከማሕበራዊ አገልግሎቶች ተጠቃሚ እንዳይሆን..... ያግዱታል..... ሌላ (ይገለፅ)----------	1 2 3 4 77	
300	ለኤች አይ ቪ ተጋላጭነት አለኝ ብለሽ ታምኛለሽ?	አዎ..... አላምንም..... እርግጠኛ አይደለሁም..... ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....	1 2 3 9	

ቁ	መጠይቅ	ዝርዝር መልስ				የመልስ መለያ	ይለፍ
310	ባለፉት አስራ ሁለት ወራት ዉስጥ ኤች አይ ቪ ኤድስን በተመለከተ ከትዳር (ከወንድ) ጓደኛ ጋር፤ ከጤና ባለሙያ ጋር ወይም ከሌላ ሰው ጋር ተወያይተው ያውቃሉ?	ተ.ቁ	ከ-ጋር	1=አ ተወያይ ቻለሁ	2=የለም አልተወ ያየሁም	3= መወያየታችን አላስታውስም	
		311	መፋታት አለባቸው	1	2	3	
		312	ፈፅሞ መታቀብ ነው ያለባቸው	1	2	3	
		313	ሁልጊዜ ኮንዶም መጠቀም አለባቸው	1	2	2	
320	በዚህ ጤና ጣቢያ (ሆስፒታል) የምክርና የምርመራ አገልግሎት የሚሰጠውን መረጃ እንዴት ያዩታል?	ግልፅ ነው.....				1	
		አንዳንዱ ግልጽ ነው አንዳንዱ ግን ግልፅ አይደለም..				2	
		ግልፀ አይደለም.....				3	
		እርግጠኛ አይደለሁም.....				4	
		ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....				9	
330	በዚህ ጤና ጣቢያ/ሆስፒታል የእናቶችና ሕፃናት እንክብካቤ ክፍል በኤች አይ ቪ ዙሪያ ስለሚሰጠው ትምህርት ይዘት እንዴት ያዩታል?	ጥሩ ነው.....				1 →	350
		መጥፎ ነው.....				2	
		ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.				3	
		ሌላ (ይገለፅ) ----------				77 →	350
340	መልስ መጥፎ ነው ከሆነ ምክንያቱን ቢገልጹልኝ- (ከአንድ በላይ መልስ መስጠት ይቻላል ፡ ምርጫው ግን አይነበብም)	ተ.ቁ	ዝርዝር ምርጫ	1=የተጠቀሰ	2=ያልተጠቀሰ		
		341	ለውይይት የሚሰጠው ጊዜ ምቂ ስላልሆነ	1	2		
		342	በጥልቀት ውይይት ስለማይደረግ	1	2		
		343	በኤድስ አስከፊ ገጽታ ላይ ስለሚተኮር	1	2		
		344	የምርመራ ሂደቱ ምቹ ስላልሆነ	1	2		
		345	ለዚህ ጥያቄ መልስ መስጠት አልፈልግም	1			
		346	ሌላ (ይገለጽ)				
350	በአሁኑ እርግዝና ስለ ኤች አይ ቪ ኤድስ ተወያተው የማያውቁ ከሆነ፡ ምክንያት ምንድን ነው?	ይህ አስፈላጊ ጉዳይ ስላልሆነ (በእኛ ላይ ኤች አይ ቪ አይኖርም)				1	
		የዚህ አይነቱ ዳይ ጋብቻን ያናጋል.....				2	
		ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....				9	
		ሌላ (ይገለፅ) ----------				77	
360	የኤች አይ ቪ ምርመራ እንዲደረግልሽ የምክር አገልግሎት ተሰጥቶሽ ያውቃል?	አዎ.....				1	
		የለም አያውቅም.....				2	
		ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....				9 →	390
370	ለመጀመርያ ጊዜ የምክር አገልግሎት ያገኘሽው መቼ ነበር?	ቅድመ ጋብቻ.....				1 →	390
		ቅድመ እርግዝና.....				2	
		በእርግዝና ክትትል ጊዜ.....				9	
380	ለመጀመሪያ ጊዜ የምክር አገልግሎት ለማግኘት እንዴት ልትመጪ ቻልሽ?	ባል ለማግባት በማሰብ				1	
		ልጅ ለመዉለድ በማሰብ.....				2	
		ለሌላ ጉዳይ ጤና ጣቢያ/ ሆስፒታል ስመጣ ባለሙያዎች መክረዉኝ				3	
		ሌላ (ይገለጽ)				77	

ተ.ቁ	መጠይቅ		ዝርዝር መልስ			የመልስ መለያ	ይለፍ
390	መልስ አልተመረመርኹም ከሆነ ምክንያትሽ ምንድን ነው? (ከጥያቄ 360 ጋር አነፃጽር)	ተ.ቁ	ዝርዝር ምርጫ	1=የተጠቀሰ	2=ያልተጠቀሰ		
		391	ለኤች አይ ቪ የሚያጋልጠኝ ምንም ነገር ስለሌለ	1	2		
		392	የኤድስን አስከፊ ገጽታ መወያየት ስለሚያስፈራኝ	1	2		
		393	ኤች አይ ቪ መኖር አለመኖሩን ማወቅ ምንም ጥቅም ስለሌለው	1	2		
		394	ለመመርመር ከባለቤቴ ጋር መወያየት ስለሚያስፈልገኝ	1	2		
		395	ሌሎች ሰች በምርመራ ክፍሉ እንዳያዩኝ ስለምፈራ	1	2		
		396	ሌላ (ይገለጽ)				
400	ውጤቱን አትንገሪኝ ግን የምክር አገልግሎት አግኝተሽ ከሆነ ተመረመርሽ?			አዎ.....		1 2 →	420
				አልተመረመርሁም.....			
				ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....		9	
410	(ውጤቱን ለእኔ አትንገሪኝ ግን) ውጤቱን ለራስሽ አውቀሻል?			አዎ.....		1 →	450
				አላወቅሁም.....		2	
				ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....		9 →	450
420	መልስሽ አላወቅሁም ከሆነ ምክንያትሽ ምንድን ነው?			ኤች አይ ቪ አለብሽ ብባል እራሴን መግዛት እንዳያቅተኝ.....		1	
				ባለቤቴና ሌሎች ቤተሰቦቼ እንዳያገልሉኝ ስለፈራሁ.....		2	
				የአካባቢዬ ሰች እንዳያገልሉኝ ስለፈራሁ.....		3	
				ሌላ (ይገለፅ)----------		77	
430	እንበልና የኤች አይ ቪ ምርመራ ቢደርግልሽ የምትጠብቂው ዉጤት ምንድን ነው?			አይኖርብኝም.....		1	
				ሊኖርብኝ ይችላል.....		2	
				መገመት አልችም.....		3	
				እስከነአካቴው መመርመር አልፈልግም.....		4	
				ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....		9	
440	ምንአልባት የኤች አይ ቪ ምርመራ ብታደርጊ የሚነገርሽን ዉጤት ትቀበይዋለሽ?			እቀበለዋለሁ.....		1	
				አልቀበለውም.....		2	
				ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....		9	
450	ባለቤትሽ (የፍቅር ጓደኛሽ) ለኤች አይ ቪ ተጋላጪነት ያለዉ የመስልሻል?			አዎ.....		1	
				አይመስለኝም.....		2	
				ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....		9	
460	እንበልና ባለቤትሽ (የፍቅር ጓደኛሽ) የኤች አይ ቪ ምርመራ ቢደርግለት የምትተብቂው ዉጤት ምንድን ነው?			አይኖርበትም.....		1	
				ሊኖርበት ይችላል.....		2	
				መገመት አልችም.....		3	
				እስከነአካቴው መመርመር አልፈልግም.....		4	
				ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....		9	

ንዑስ ክፍል ፫)) ስለ ኤድስ ተግባራት/ ባህሪ

ተ.ቁ	መጠይቅ	ዝርዝር መልስ	የመልስ መለያ	ይለፍ
470	ኤች አይቪ በእርግዝና ወቅት ከእናት ወደ ጽንስ እንደሚተላለፍ፡ የእርግዝናው ውጤትም ምን ሊሆን እነደሚችል ከባለቤትሽ ጋር/ ከፍቅረኛሽ ጋር ተወያይታችሁ ታዉሐቀችሁ?	አዎ..... አናውቅም..... አላስታውስም..... ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....	1 2 3 9	500 500
480	በአሁኑ እርግዝና የኤች አይ ቪ ምርመራ ለማድረግ ከባለቤትሽ ጋር ተወያይተሽ ታውቂአለሽ?	አዎ..... አላውቅም..... አላስታውስም.....	1 2 3	
490	ባለቤትሽ በኤች አይ ቪ ምርመራ ላይ ምን አይነት አመለካከት አለው?	አብረን እንድንመረመር ይፈልጋል..... እኔ እንድመረመር ይፈልጋል ለራሱ ግን አይፈልግም..... እኔ እንድመረመር አይፈልግም..... ፈፅሞ በጉዳዩ ላይ መወያት አይፈልግም..... ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....	1 2 3 4 9	
500	ባለቤትሽ ለእርግዝና ክትትል ስትመጪ አብሮሽ ለመምጣት ፈቃደኛ ነው?	አ..... አይደለም..... ግድ የለውም.....	1 2 3	
510	እንበልና የኤች አይ ቪ ምርመራ ተደርጎልሽ ውጤቱ የኤች አይ ቪ ህዋስ በደምሽ እንዳለ ቢያመለክት ለባቤትሽ/ ለቤተሰቦችሽ ትነግሪአለሽ?	ተ.ቁ | ዝርዝር ምርጫ | 1= አዎ | 2=በፍፁም አልነግርም | 3=እርግጠኛ አይደለሁም 511 | ለባለቤት/የፍቅር ጓደኛ | 1 | 2 | 3 512 | ለቤተሰብ አባላት | 1 | 2 | 3		
520	እንበልና የኤች አይ ቪ ምርመራ ውጤት ቫይረሱ እንዳለብሽ ቢያመለክት እና ባለቤትሽ/የፍቅረኛሽ/ ቤተሰቦችሽ እና አንችን ሚያውቁሽ ሰች ውጤቱን ቢያዉቁ ምላሻቸው ምን ሊሆን ይችላል?	ተ.ቁ | ዝርዝር ምርጫ | 1= በፍፁም ውጤቱን አይቀበሉትም (ያምነኛል) | 2= ከቤት እባረራለሁ (ከማህበረሰ ቡ እገለላለሁ) | 3= ሊያንገላቱኝ (ሊደበድቡኝ) ይችላሉ | 4=እንክብካቤ ያደርጉልኛል | 77= ሌላ (ይገለፅ) 521 | ባለቤት/የፍቅር ጓደኛ | 1 | 2 | 3 | 4 | 522 | የቤተሰብ አባላት | 1 | 2 | 3 | 4 | 523 | ሚያውቁሽ የአካባቢሽ ሰች | 1 | 2 | 3 | 4 |		
530	አንድ ጊዜ ኤች አይ ቪ ተመርምረሽ የለብሽም ከተባልሽ በሚቀጥለው የእርግዝና ጊዜሽ በድጋሜ የኤች አይ ቪ ምርመራ ማድረግ ያስፈልጋል?	አዎ..... አያስፈልግም..... እርገጠኛ አይደለሁም.....	1 2 3	
540	ምናልባት ነፍሰጡር እንደሆንሽ ተመርምረሽ ኤች አይ ቪ ቢገኝብሽ ቫይረሱ ወደህፃኑ እንዳይተላለፍ መድሃኒት ትወስጃለሽ?	አ እወስዳለሁ..... አልወስድም..... እርግጠኛ አይደለሁም..... ለዚህ ጥያቄ መልስ መስጠት አልፈልግም	1 2 3 9	560 560

ተ.ቁ	መጠይቅ	ዝርዝር መልስ				የመልስ መለያ	ይለፍ
550	መልስ አልወስድም ከሆነ ምክንያትን ቢገልጹልኝ	ተ.ቁ	ዝርዝር ምርጫ	1=ተጠቅሷል	2=አልተጠቀሰም		
		551	መድኃኒቱ ፍቱን አይመስለኝም	1	2		
		552	መድኃኒት የምወስድ ከሆነ ቫይረሱ ያለብኝ መሆኑ ይታወቅብኛል (ባለቤቴ፤ቤተሰቦቼ፤ጎረቤቶቼ)	1	2		
		553	መድኃኒቱ ጉዳት እንዳያደርስብኝ ስለምፈራ	1	2		
		554	ለዚህ ጥያቄ መልስ መስጠት አልፈልግም	1	2		
		555	ሌላ (ይገለፅ)				
560	ከኢች አይ ቪ ጋር የምትኖር እናት ልጇን ለመመገብ ጥሩው መንገድ ምንድን ነው?	አቅም ካለ ጡት ማጥባቱን አቁሞ የጡጦ ምግብ «formula food» መጀመር.....			1		
		የመግዛት አቅም ከሌላት ጡቷን ብቻ ማጥባቷን መቀጠል....			2		
		ጡቷን እና የጡጦ ምግብ እያፈራረቁ መስጠት.....			3		
		ቤት ያፈራውን ነገር ሁሉ ለህፃኑ መስጠት.....			4		
		ምን እንደሚሻል እርገጠኛ አይደለሁም.....			5		
		ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....			9		
		ሌላ (ይገለፅ)----------			77		
570	አይሁንና ተመርምረሽ ኤች አይ ቪ ቢኖርብሽ ስንት ልጆች እንዲኖሩሽ ነው የምትፈልጊው?	ምንም.....			1		
		አንድ ወይም ሁለት.....			2		
		ከሁለት በላይ.....			3		
		አሁን መገመት አዳጋች ነው.....			4		
		ስለዚህ ጉዳይ ማሰብ አልፈልግም.....			5		
		ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....			9		
580	የኤች አይ ቪ ምርመራ ተደርጎልሽ ከቫይረሱ ጋር እንደምትኖሪ ብታውቂ ለክትትል ተመለሻለሽ?	አዎ.....			1		
		አልመለስም.....			2		
		እርግጠኛ አይደለሁም.....			3		
		ለዚህ ጥያቄ መልስ መስጠት አልፈልግም.....			9		
590	ከብተሰቦችህ አባል አንዱ/ዷ ለረጅም ጊዜ ድቋቋ/ች የኤድስ ህመምተኛ ቢሆን/ ብትሆን እንክብካቤ በማድረግ ሂደት በቁስሉ በፈሳሽ እና በመሳሰሉተ ላይ ምን አይነት ጥንቃቄ ታደርጊያለሽ?	ምንም ልዩ ጥንቃቄ አልፈልግም.....			1		
		ምዉሃ እና በሳሙና እጀን እታጠባለሁ.....			2		
		ጓንት እጠቀማለሁ.....					
		ከቤት የተገኘዉን ፕላስቲክ ሁሉ እጠቀማለሁ.....			3		
		ሌላ (ይገለፅ).....			77		
600	በዚህ እርግዝናሽ የት ነው ለመዉለድ ያቀድሽዉ?	ከቤቱ በልምድ አዋላጅ አማካኝነት.....			1		
		በዚህ የህክምና ተቋም.....			2		
		በሌላ የጤና ድርጅት.....			3		
		ገና አልወሰንሁም.....			4		
		ምን ማድረግ እንዳለብኝ አላዉቅም.....			5		
		ሌላ (ካለ ይገለጽ)----------			77		

ኤች አይ ቪን ከእናት ወደ ልጅ እንዳይተላለፍ በመከላከሉ ሂደት እናቶች እንዳይጠቀሙ የሚያደርጉ አስፈላጊ የሆኑ አለተጠቀሰም የሚሉት ጉዳይ ካለ መጥቀስ ይችላሉ:: ----------
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ይህ የመጠይቁ የመጨረሻ ክፍል ነው:: ጊዜን ሰዉተው ጥያቄችን ለመመለስ ስለተባበሩኝ ከልብ አመሰግናለሁ:: መጠይቁ በትክክል ለመጠናቀቁ ማረጋገጫ

ያረጋገጠው(ችው) ሰው ስም		ተጠናቅቋል/ተቋርጧል/ አልተጠናቀቀም	ፊርማ	ቀን
መረጃ ሰብሳቢ				
ተቆጣጣሪ				

ለ) የቡድን ዉይይት መመሪያ

1. ስለ ኤች አይቪ እና ኤድስ ያላቸዉ አመለካከት
2. ለኤች አይ ቪ የደም ምርመራ ስለማድረግ ያላቸው ዝንባሌ
3. ኤች አይ ቪ ከእናት ወደ ልጅ እንዴት እንደሚተላለፍ ያላቸው ግንዛቤ
4. በመንግስት ጤና ተቋማት ስለሚደረገዉ የቅድመ ወሊድ ክትትል፤ የምክር አገልግሎት እና ማዋለድ አገልግሎት ያላቸው አመለካከት
5. አገልግሎቱን ስለሚሰጡ የጤና ተቋማትና ባለሙያወች ያላቸው አመለካከት
6. (የምክር) አገልገሎቱን ለማግኘት በሚሄዱበት ጊዜ የገጠማቸዉ ያዩት መጥፎ ነገር
7. ስለ ፀረ ኤች አይ ቪ መድሃኒቶች ያላቸዉ አመለካከት እና እምነት
8. እናቶች አብዛናዉን ጊዜ የእርግዝና ክትትል ለማድረግ ወደ ጤና ድርጅት የማይመጡት ለምንድን ነው?
9. በርካታ ነፍሰጡሮች ምክር አገልግሎት ተሰጥቷቸው ደማቸውን ለማስመርመር ፈቃደኛ አይሆኑም። ለምድን ነዉ?
10. አብዛኛዉን ጊዜ ነፍሰጡሮች ኤች አይ ቪ ቫይረስ በደማቸዉ እንዳለ ቢያዉቁም ወደ ፅንሱ እንዳይተላለፍ የሚረዳዉን መድሃኒት ለመዉሰድ ግን ፈቃደኛ አይሆኑም። ለምን የመስላችኋል?
11. እነዚህን ነገሮች ለማስወገድ ምን መደረግ አለበት ብላችሁ ታምናላችሁ? ይህ ነገር በዚህ አካባቢ ለሚኖር ጎ/ሰብ መፈጸም ይቻላል? እንዴት?
12. ኤች አይቪን ከእናት ወደ ልጅ እንዳይተላለፍ በማድረጉ ጥረት የባሎች ሚና ምን መሆን አለበት? የምክር አገልግሎትን በመጠቀም እና መድሃኒት በመዉሰዱ በሚስቶች ዉሳኔ የመስጠት ሚና ላይስ ተጽዕኖ ያሳድራሉ? እንዴት?

Appendix V: Declaration

1. Declaration of the principal investigator

I the undersigned, senior MPH student declare that this thesis is my original work in partial fulfillment of the requirements for the degree of master of public health. All the sources of the materials used for this thesis and all people and institutions who gave support for this work are fully acknowledged.

Name- Tilahun Worku Belay

Signature_____

Place of submission - Department of Community Health, Faculty of Medicine,

Addis Ababa University

Date of submission: April 18, 2007

2. Approval of the primary advisor

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

Advisor's name - Prof. Yemane Berhane

Signature_____