

ADDIS ABABA UNIVERSITY

FACULTY OF MEDICINE

DEPARTMENT OF COMMUNITY HEALTH

ASSESSMENT OF MALE PARTNERS INFLUENCE ON PREGNANT WOMEN TOWARDS VOLUNTARY HIV TESTING AND SUPPORT ON PMTCT IN HOSPITALS OF ADDIS ABABA

By:

Abenet Takele K. (B.Sc.)

A Thesis Submitted to the School of Graduate Studies of Addis Ababa University in Partial Fulfillment of the Requirement for the Degree of Master of Public Health

July 2007

Addis Ababa, Ethiopia

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DEDICATION

This thesis work is dedicated to my dearest parents

W/ro Aberash Kinati and **Ato Takele Kejela,**

who have been the sources of passion

and

inspiration throughout my academic life.

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I am strongly indebted to my advisor Dr. Mulugeta Betre from the Department of Community Health, AAU, who has given me his precious time in correcting, guiding and shaping from the beginning of the research proposal to the final write up of thesis paper. His valuable advice has contributed significantly.

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LIST OF ABBREVATIONS

AAU:	Addis Ababa University
AIDS:	Acquired Immunodeficiency Syndrome
ANC:	Antenatal Care
AOR:	Adjusted Odds Ratio
ARV:	Antiretroviral
CDC:	Center for Disease Control
DCH:	Department of Community Health
DHS:	Demographic and Health Survey
EPHA:	Ethiopian Public Health Association
FGD:	Focus Group Discussion
FOM:	Faculty of Medicine
HIV:	Human Immunodeficiency virus
IEC:	Information, Education and Communication
MOH:	Ministry of Health
MTCT:	Mother to Child Transmission
OR:	Odds Ratio
PMTCT:	Prevention of Mother to Child Transmission
STI:	Sexually Transmitted Infection
SPSS:	Statistical Package for Social Sciences
UNAIDS:	Joint United Nations Programme on HIV/AIDS
VCT:	Voluntary Counseling and Testing
WHO:	World Health Organization

ABSTRACT

Background: Women traditionally have suffered socio-cultural and economic discrimination. Thus they are easily influenced by their partners' decisions even on issues related to prevention of mother-to-child transmission of HIV/AIDS. Inadequate male involvement in pregnancy and PMTCT of HIV programmes have been identified as major bottlenecks to effective programme implementation.

Objective: This study was designed to assess the male partners influence and factors on pregnant women towards voluntary HIV testing and support on PMTCT in hospitals of Addis Ababa.

Method and Materials: Cross-sectional survey was conducted using structured pre-tested questionnaire on 423 HIV pre-test counseled pregnant women at five public hospitals that provide PMTCT services in Addis Ababa. The study was complimented with four FGDs and it was launched from December 2006 to January 2007.

Key findings: Male partners, who had presented to PMTCT centers along with women, were found to be 10.4%; and 47.3% of the pregnant women were reported to be influenced by their male partners on decision of HIV testing. Those women who had not influenced by their male partners on HIV testing 2.56 times likely to accept HIV testing than who had not. Multiple factors were looked in study whether an association exists with male partner influence on pregnant

women towards HIV testing or not: being married [AOR (95%CI) = 3.35(1.66-11.38)], living with the male partner [AOR (95%CI) = 3.23(1.09-8.41)], economical dependence [AOR (95% CI) = 3.09 (1.84-5.90)]. Pregnant women need their male partner psychological, social and financial support as well as active involvement in PMTCT services in order to utilize the service properly.

Recommendations: Besides intensifying IEC program to encourage the male partners to utilize PMTCT, care and support the pregnant women, empowering of women to make informed choices about VCT and PMTCT in providing intensive information were suggested. Supporting women to become economically independent through income generating projects as well as the strengthening of male friendly counseling at PMTCT providing institutions were also recommended.

1. INTRODUCTION

At the end of 2006, 39.5 million people were living with HIV/AIDS worldwide; these include 17.7 million women [1]. Sub-Saharan Africa remains hardest-hit and is home to 24.7 million people living with HIV. Two thirds of all people living with HIV are in Sub-Saharan Africa, as are 59% of all women with HIV. Presently, over 2.2 million children below 15 years are estimated to live with HIV in Sub-Saharan Africa. Almost all of these were infected through vertical or mother-to-child transmission (MTCT) that includes: during pregnancy, childbirth, or breastfeeding. Ethiopia is now among the most heavily affected countries, with 10% of the world's HIV infections (the sixth highest in the world) [1-3].

According to the reports of MOH in 2006, 61% reported cases were in the age group between 20 to 39 years who are the most economically active group of the population. Currently, it is estimated that 1.3 million people are living with HIV and AIDS; about 132,000 are children aged under 15 years. There is also an estimated 106,000 HIV-positive pregnant women which subsequently might have lead to 30,000 HIV-positive births. The national adult HIV prevalence estimate of 2006 reveals uneven geographical distribution: 10.5% in urban and 1.9% in rural settings. In addition from ANC clients, who had been HIV pretest counseled pregnant women in Addis Ababa, 6.4% were identified HIV positive in 2005/2006. [3, 4, 5].

The most effective approach for preventing vertically acquired HIV infection in children is through primary prevention among women of childbearing age and secondly through the prevention of unwanted pregnancies among HIV-infected women in prevention of mother-to-child transmission of HIV (PMTCT) [6].

Voluntary counseling and testing is an entry point for PMTCT of HIV infection prevention. It is offered within the antenatal setting, STI clinics, paediatric services and family planning clinics. It is important to provide VCT in this setting as it may create an opportunity to offer testing to potential mothers and fathers, while antenatal services will allow testing to be offered to women already pregnant and their partners. When counseling women in ANC setting for PMTCT interventions, special consideration is given to: infant-feeding options, family planning, advantage and disadvantage of disclosure particularly to her partner as well as involving the partner in counseling and decision making [7, 8].

Men partners are the first to learn women's status in the context of PMTCT, which is to solicit men's support on women's health choices in order to promote shared responsibility rather than inadvertently foster men's control over women's decision making. Approaching men is needed, as often their behavior places the female clients at risk. Therefore, reaching male partners of female clients is crucial [9].

Lack of male involvement in pregnancy and antenatal care in general and in prevention of mother-to child transmission (PMTCT) of HIV programmes in particular have been identified as major bottlenecks to effective programme implementation [10].

In the Ethiopian context, women traditionally have suffered socio-cultural and economic discrimination and have had fewer opportunities than men for personal growth, education, and employment. Thus they are easily influenced by their partner's decisions [11].

Previous studies have identified certain factors associated with acceptance of HIV testing including women's perceived risk of infection, perceived benefit and knowledge of mother-to-child transmission (MTCT) being among the determinants [12,13]. This particular study will try to elicit the male partners influence and factors associated among pregnant women towards voluntary HIV testing and support on PMTCT as no similar study was conducted in Ethiopia.

2. LITERATURE REVIEW

2.1. OVERVIEW OF MOTHER-TO-CHILD TRANSMISSION (MTCT)

Globally 2.3 million children under 15 were estimated living with HIV and approximately 1,600 babies were born with HIV infection daily [1, 14]. Most babies with HIV infection (90%) are born in developing countries mainly in sub-Saharan Africa and the vast majority of them acquire the virus during their mother's pregnancy, labour and delivery or as a result of breast-feeding [3,14]. Of ten countries world wide with the greatest number of infected children, the top nine are all in Sub-Saharan Africa, ranging from 140,000 in Ethiopia to 90,000 in Nigeria [15].

Reported rates of transmission of HIV from mother to child range from around 15% to 25% in Europe and the USA to 25% to 40% in some African and Asian studies. The rate of transmission estimated to be 5-10% during pregnancy, 10-20% during labour and delivery and 5-20% in breast-feeding [16-18]. Regarding the timing of transmission about two third of mother-to-infant HIV transmissions occur in the days before delivery and as the placenta begins to separate from the uterine wall; another third occur during active labor and delivery, presumably through exposure of the infant to maternal blood and genital tract secretions [19].

Some factors that might explain variations in transmission are level of viremia in the mother, degree of immuno-suppression in terms of CD4 lymphocyte count, presence of mastitis and illness or environmental factors that cause lower birth weight and pre-maturity in infants or oral thrush [20, 21].

A study that was conducted in South Africa on 549 HIV-infected mothers and infants who were tested for HIV seropositivity at 1 and 6 weeks and at 3 months. Then the cumulative probability of a positive HIV test was assessed among three subgroups: 156 babies who never breast-fed, 103 babies who breast-fed exclusively, and 288 babies who received breast milk supplementation. Findings revealed that an estimated 19% of never-breast-fed and 21% of ever-breast-fed infants were HIV-positive at 3 months of age [21].

In Uganda, a total of 306 children were enrolled to evaluate the impact of different modalities of infant feeding on HIV transmission. Transmission rates were 8.9% at week 6 (3.4% in the exclusively formula feeding group, 11.2% in the exclusively breast feeding group, 17.1% in the mixed feeding group) and 12.0% at month 6 (3.7% in the exclusively formula feeding group, 16.0% in the exclusively breast feeding group, and 20.4% in the mixed feeding group) [22].

From other study in South Africa, researchers tried to follow 229 mother-child pairs attending the prenatal care clinic of and delivering at King Edward VIII Hospital in Durban until the index child was at least 15 months old. Then, Children delivered by cesarean section were less likely to develop HIV infection than those delivered vaginally (22.9% vs. 39.8%; odds ratio [OR] = 0.45 for univariate analysis and 0.41 for multivariate analysis) [23].

STDs, in particular those associated with genital ulceration, are enhancing the efficiency of sexual transmission of HIV as well as vertically acquired HIV infection in children, and their high prevalence may explain in part the occurrence of a major heterosexual HIV epidemic in Africa [24].

2.2. PREGNANT WOMEN AND HIV/AIDS

HIV prevalence has declined among pregnant women in Zimbabwe from 26% in 2002 to 21% in 2004. In Harare, HIV prevalence in women attending antenatal and postnatal clinics fell from 35% in 1999 to 21% in 2004. Where as in South Africa and Botswana HIV prevalence among pregnant women has reached its highest levels to date: 29.5% and 37% of women attending antenatal clinics were HIV-positive in 2004 respectively [1].

The prevalence of HIV infection among pregnant women in Ethiopia were found to be 4.2%, 4.4% and 4.6% in 2002, 2003 and 2004 respectively, and by 2005, last year, 4.7% were infected. In urban Ethiopia the average prevalence of HIV among pregnant women are estimated to be 12.5% and in rural around 3.0% [4].

Addis Ababa provides a data for HIV sentinel surveillance that incorporates: Akaki, Gulele, Higher 23, Kazanchis and Teklehaymanot health centers. In 2005, the prevalence of HIV infection among pregnant women was estimated to be 14.5% but from 1995 to 2001, at the five rounds of sentinel surveillance, which was carried out at four health centers the prevalence of HIV infection among

young women (age range, 15-24 years) attending antenatal care clinics in inner city health centers declined from 24.2% to 15.1% [4, 25].

2.3. STATUS OF WOMEN AND HIV/ AIDS

Women earn only 10% of the world's income and own 1% of the world's wealth; 3 of 4 illiterate persons are women; half of the world's women are malnourished [26].

A study done in a Central African country showed that women were 4 times more susceptible to getting AIDS than men, in spite of the fact that there are more men than women in this area of Sub-Saharan Africa. The reasons that women are so vulnerable are multiple. Besides the physiological and biological factors, illiteracy, lack of access to information, prejudices, sexual taboos, and an economic dependency which have all led women towards prostitution and the growing incidence of heterosexual transmission of AIDS in Sub-Saharan Africa. Similarly, in South Africa, most women are defenseless because the culture accepts the male sexual permissiveness and focuses sexual life on male interests [27, 28].

Females in Botswana also become infected with HIV at a significantly younger age than men due to factors contributing to female HIV infection include cultural norms that permit older men to have sex with young girls or virgins, men's involvement with multiple sex partners and little or afraid to insist that condoms be used [29].

Gender inequality is one of the features of Ethiopian society. In almost all aspects of life, women are at a disadvantage. Particularly, in rural areas, cultural, economic and physiological factors place huge barriers across sexes. Moreover poverty within women-headed households is quite substantial [30].

Table 1: Gender disparity in Ethiopia: Selected indicators (2001)

Indicators	Female	Male
Life expectancy at birth (No. of years)	46.7	44.6
Adult literacy rate (percent)	32.4	48.1
Combined Primary, Secondary and Tertiary gross enrollment rate (2000/01)	27	41
Seats in parliament held by women (percent)	7.8	91.2
Estimated earned average income (US $, 2001)	550	1074

Source: United Nations Development program, Human Development Index, 2003

Moreover Ethiopian women are vulnerable to AIDS because they may have limited ability to protect themselves from HIV infections. If a women's husband dies, she may be forced to sell sex. A woman may be at risk of getting HIV even though she is faithful to her husband, because her husband has outside sexual partner. She may have little or no control over her husband's action and no ability to protect herself by having her husband use condom [31].

2.4. MALE PARTNERS ROLE AND INFLUENCE ON PREGNANT WOMEN TOAWRDS VCT AND SUPPORT

2.4.1. MALE PARTNERS ROLE IN PMTCT

The following are major PMTCT related roles of men: [32]

1. Provide care for the whole family
2. Give better psychological, social and financial support for women
3. Role in supporting pregnant women to get to clinics and/or hospitals for where chances of safe delivery.
4. Improves follow up in terms of adherence to treatment and care
5. Improved follow up of children in disclose the HIV status to the family and care for children.
6. Allows for real choice of feeding practices and early weaning.
7. Better likelihood of adopting preventive measures and changing behavior.

2.4.2. MALE PARTNERS INFLUENCE TOWARDS VCT

Often men were described as likely to oppose women for getting HIV tested. A recent study conducted in Botswana with nearly 600 men in four different regions found that 77.8% of men interviewed did report that they would be very unhappy if their partner tested for HIV [33].

On a cross-sectional study in Uganda, from the women living with their husbands, the majority of women (339 or 89%) informed their male partner to come to the antenatal clinic and also 68% (264) of the women thought that they

should consult their husbands before having HIV test. In addition 81% (299) of the women thought that their husbands would approve of their being tested and the remaining (n = 72 or 19%) feared that their husbands would not approve of their being tested. Also, the majority of women (n = 260 or 72%) thought that their husbands would accept the HIV test for themselves [34].

From a study determining the factors on acceptance of VCT among pregnant women attending antenatal clinic at armed force hospitals in Addis Ababa, women who lived together with their husbands at the time were about 5 times more likely to be tested than those whose husband lived away (95% CI=2.15, 11.46), and also those who knew MTCT as route of HIV transmission were 7 times more likely to be tested (95% CI=3.44, 15.67) [13]. Out of 67 females PLWHA women in Metu and Gore towns, 69% of them not disclosed their test result to their sexual partner because of fear of abandonment, fear of stigma and rejection, fear of confidentiality and fear of accusation of infidelity. Some 24.4% of the respondents reportedly were blamed and their partners felt sad for their result as well as getting tested without their consent [35].

Women were experienced intimate partner violence and frequently accused of disobedience, failure as a wife, or infidelity for their HIV testing without consulting their male partner. Even they would frequently face physical and sexual violations on top of emotional abuse and economical restrain of their male partners [36].

2.4.3. MALE PARTNERS DOMINANCE ON PREGNANT WOMEN

Violence against women is not only a manifestation of sex inequality, but also serves to maintain this unequal balance of power [36].

Worldwide nearly 10 percent to over 50 percent of women report being physically harmed by their intimate male partner at some point in their lives. Moreover, physical violence is almost always accompanied by psychological stress and in many cases by sexual abuse. There are consistent list of events that are said to provoke or spur violence. This include not obeying her husband, talking back, not having food ready on time, failing to care adequately for the children or home, questioning him about money or girlfriends, going somewhere without his permission, refusing him sex, or expressing suspicions of infidelity. In many developing countries even women share the notion that men have the right to discipline their wives by using force [37].

An anthropological study that was conducted among pregnant adolescents in Cape Town, South Africa reveals that power relations between men and women are commonly manifested as and imposed through sexual violence and assault. Men use physical assault to force sexual contact, beating their female partners if they refuse to have sex, are suspected of sexual infidelity, or are found to be using contraceptives. It is these power relations that determine women's ability or inability to protect them-selves against sexually transmitted disease (HIV/AIDS), pregnancy, and unwelcome sexual acts [38].

2.5. CONCEPTUAL FRAMEWORK OF MALE PARTNER'S INFLUENCE ON WOMEN

Gendered attitudes and behaviors, and gender power inequalities in intimate relationships may impact on risky sexual behavior, which consequently exposes boys and men and their partners to the risk of HIV infection, other sexually transmitted infections (STIs) and to unwanted pregnancies. Gender power inequities exemplified in men's frequent dominance in community and family decisions, impact on sexual reproductive health.

Socially along with culturally constructed masculinity, low educational ground, attitudes that keep men as self-reliant and relative economic dominance facilitated the influence of male partners on women, who already have been tied up with illiteracy, harmful traditional practices, unemployment, improperly formulated laws and policies, poverty, religion and poor health services. The presence of poor communication between husband and wife may worsen the influence of male partner on wife.

Intimate partner violence in adulthood may lead to sexual risk- taking and inhibit women from adopting self-protective practices such as condom use and voluntary counseling and HIV testing (VCT). The lack of condom use, maintaining multiple sexual partners, early sexual initiation, substance use, violence and delinquency are strongly linked to self-perception of masculinity and gender-related attitudes (Figure 1).

CONCEPTUAL FRAMEWORK OF MALE PARTNER'S INFLUENCE ON WOMEN

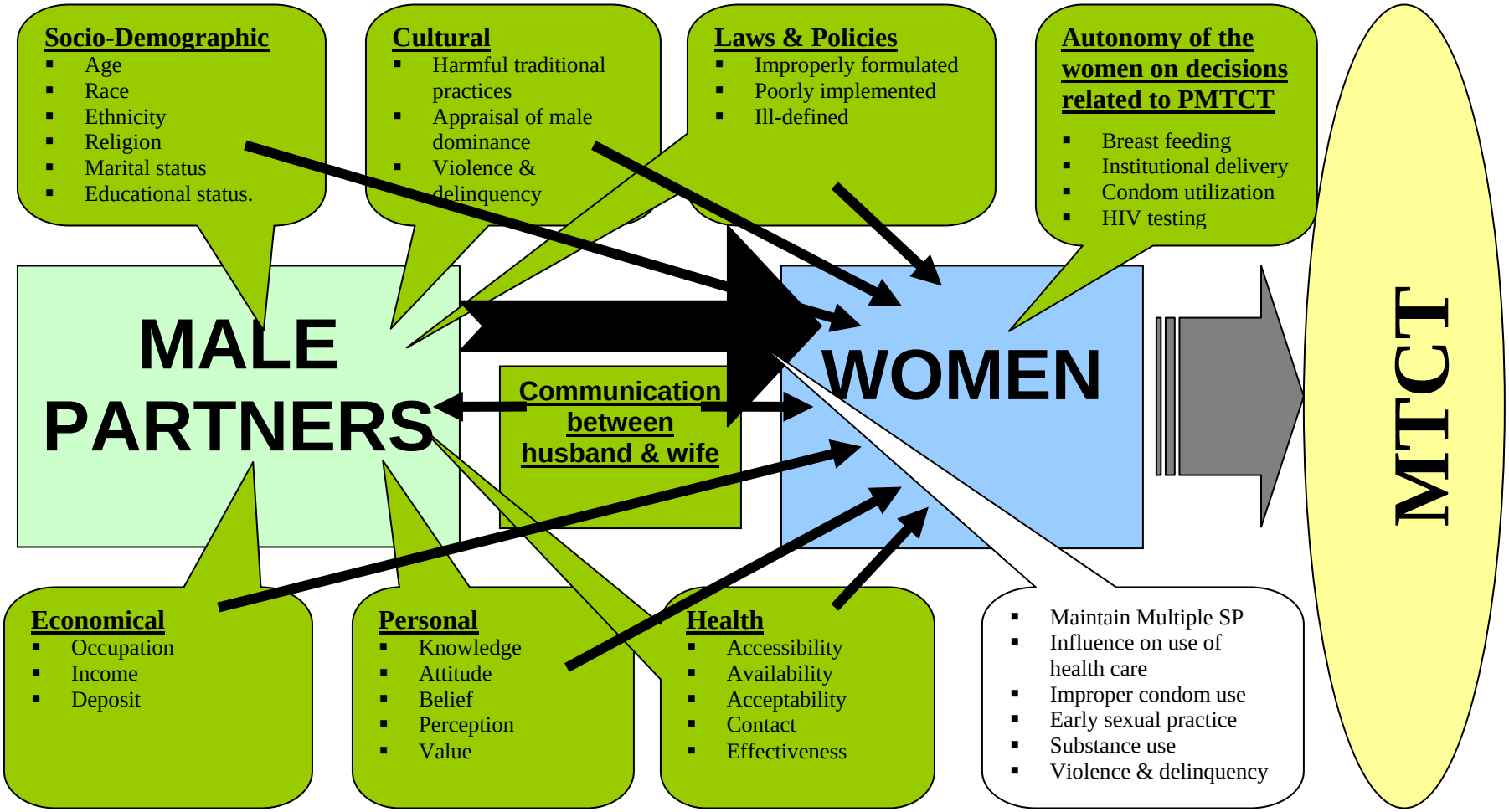


Figure 1: CONCEPTUAL FRAMEWORK OF MALE PARTNER'S INFLUENCE ON WOMEN

2.6. RATIONALE OF THE STUDY

Women are affected by different factors and circumstances that can restrain them from utilization of PMTCT services. Male partners added a significant burden over the existing devastated situation of the women as they are under influence. Indeed, men's participation and involvement in programs of PMTCT is indisputably very useful to the success of maternal and child survival.

Thus this study is therefore designed primarily to assess the influence and factors associated with male partners among pregnant women towards PMTCT. The result would be useful in enabling the planners and program managers to design appropriate PMTCT strategies, which address the male domains. Further this study will support the health care providers to introduce measures that could promote male friendly HIV testing, partner disclosure, care and support.

3. OBJECTIVES

3.1. GENERAL OBJECTIVE

- To assess the male partners influence and factors on pregnant women towards voluntary HIV testing and support on PMTCT in hospitals of Addis Ababa.

3.2. SPECIFIC OBJECTIVES

- To assess the extent of male partner's influence on pregnant women towards voluntary HIV testing and support in PMTCT at hospitals of Addis Ababa.
- To determine the socio-economic and demographic factors related to male partners influence on pregnant women towards voluntary HIV testing at PMTCT providing hospitals of Addis Ababa.
- To clarify on how male partners influence pregnant women towards voluntary HIV testing and support in PMTCT at hospitals of Addis Ababa.

4. METHODS AND MATERIALS

4.1. STUDY DESIGN

This is a facility based cross-sectional study that has employed both quantitative and qualitative data collection methods. Focus group discussion was a qualitative method that was implemented to complement the finding of the quantitative part.

4.2. STUDY AREA

This study was conducted in Addis Ababa, which is the capital and largest city of Ethiopia as well as the country's commercial, manufacturing, and cultural center. It is located in central Ethiopia at an elevation of about 2440 m (about 8000 ft) above sea level on a plateau that is crossed by numerous streams and surrounded by hills. It's projected population of 2006 is estimated to be 2,805,000 that resides in 10 sub-cities. Women in the reproductive age group make up 34.4%. In the city there were 25 hospitals, 27 health centers, 136 health stations, 78 health posts and 319 private clinics. Regarding PMTCT, at the time of this assessment, only 5 hospitals and 27 health centers were offering the service in the town [39, 40, 41].

The PMTCT program offered with an integration of ANC services at mother and child health department (MCH) in the hospitals. Every woman who attends ANC was advised to undergo HIV testing after pre-test counseled either individually or in couple with the male partner. Any woman or couple had the right to accept or refuse the HIV test.

4.3. STUDY POPULATION

The study population has included those pregnant women who had consented for voluntary HIV counseling in the hospitals that provide PMTCT services at the time of study and who had qualified the inclusion criteria for the study as described here below.

4.3.1. INCLUSION CRITERIA

- A pregnant mother who had presented at the ANC in the selected five hospitals
- A pregnant woman who had undergone HIV pre-test voluntary counseling for the current pregnancy in the sampled hospital during the study period.
- Willing to participate in the study

4.3.2. EXCLUSION CRITERIA

- Pregnant women who refused or declined to take HIV pre-test counseling
- Those who were counseled else-where
- Those who were not willing to participate in the study
- Those who were unable to communicate for some reason

4.4. SAMPLE SIZE

Using EPI INFO version 6.04 the sample size was calculated for the single population proportion. The formula used for calculating the sample was:

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

Where:

n = The desired sample size

P = Proportion of women who got approval by their male partner to be HIV tested

= 50% (To obtain a maximum sample size as there was no previous study conducted in this regard in Addis Ababa.)

Zα/2 = Critical value at 95% confidence level of certainty (1.96)

d = The margin of error between the sample and the population = 5%

The calculated result was 384 to which a non-response rate of 10% was added. Then the total sample size required for the study was found to be 423 counseled pregnant women.

4.5. SAMPLING RATIONALE AND PROCEDURE

This study was planned to be conducted in five hospitals that gave PMTCT services in Addis Ababa. The hospitals were selected for the study because those have constantly high number of client flow and were believed to be comparatively ideal places for PMTCT services as these have diversified skilled health personnel, facilities and services. Moreover, compared with other categories, the hospitals had better experience regarding PMTCT. The five hospitals which were working on prevention of mother-to-child transmission of HIV/AIDS in Addis Ababa at the time of the study, includes: Tikur Anbessa specialized, Saint Paul, Zewditu memorial, Gandhi memorial and Yekatit -12 hospitals. These hospitals were included in the study regardless of their type in the referral system.

The total study subject was distributed among the hospitals based on the number of clients they serve. At the time, each hospital on average would serve nearly 15-20 clients per day but Gandhi 30-40. Therefore interview was administered on pregnant women of 70 each from the four and 143 from Gandhi. Each study subjects were also selected through systematic sampling by incorporating every third pregnant women visiting HIV pretest counseling (Figure 2).

SAMPLING PROCEDURE

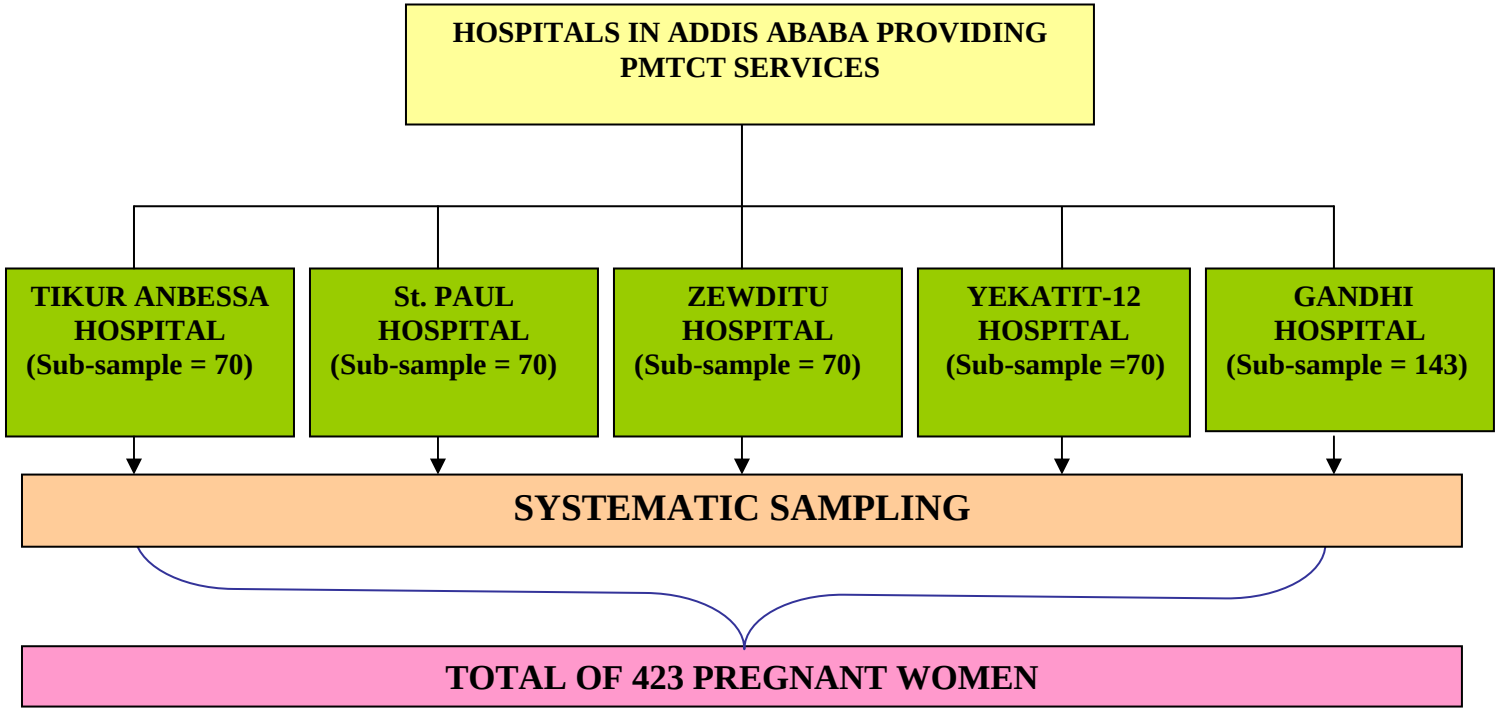


Figure 2: SCHEMATIC PRESENTATION OF THE SAMPLING PROCEDURE

4.6. DATA COLLECTION TOOLS

4.6.1. STRUCTURED QUESTIONNAIRE FOR QUANTITATIVE STUDY

The data for the quantitative section was collected using a structured questionnaire prepared to address all the important variables. The questionnaire was adopted from different literatures developed for similar purpose by different authors [13, 38, 46]. Using the questionnaire, those sampled pregnant women who attended HIV pre-test counseling from the hospitals were interviewed by the assigned trained counselor nurse. The entire interview took place at the pre-test counseling units. The questionnaires were filled side by side as the counseling process was going on. Data collection was conducted from December 2006 to January 2007.

4.6.2. SAMPLING AND DATA COLLECTION FOR QUALITATIVE STUDY

The focus group discussion (FGD) was used in order to supplement the result of the quantitative information with the insights and perspectives. Four focus group discussions of which each group with 6-7 volunteered participants who were selected from previously interviewed pregnant women at the pre-test counseling, using a purposive sampling method.

A semi-structured interview guide was implemented to facilitate the focus group discussions. A checklist was prepared to guide the discussion in such a way to generate relevant information. The FGD was conducted in a quiet and comfortable place, and each has lasted within about one to one and half hours. The principal investigator was the moderator and data collector, and one note-

taker, who had previous experience, took notes of the discussion. A tape recorder was used for recording the discussion. Each focus group discussion was facilitated until a point of information saturation.

4.7. DATA QUALITY MANAGEMENT

The questionnaire was prepared first in English then translated to Amharic and then back to English in order to maintain its consistency. A two days training was undertaken for ten data collectors and three supervisors about the objectives and process of the data collection by the principal investigator.

Questionnaires were pre-tested at PMTCT units in the five hospitals which were not included in the main study. Based on the pretest, questions were revised, edited, and those found to be unclear or confusing were removed. The pre-test of the questionnaire was carried out on 20 individuals and each data collector had obtained an opportunity to be acquainted with the interview technique.

The principal investigator would collect the completed questionnaire everyday and check each for inconsistencies and omissions. Any format with a defect was rejected from the study. The principal investigator and supervisors had re-interviewed five percent of the clients on the post-test HIV counseling units to check the validity of the data, moreover, ten percent of data was reentered to check for data entry errors and correct.

The principal investigator was responsible for co-ordination and supervision of the overall qualitative and quantitative data collection process.

Data cleaning and editing took place by removing the missed values by using Epi-info version 6.04 and SPSS 13 statistical packages.

4.8. STUDY VARIABLES

4.8.1. DEPENDENT VARIABLE

- Voluntary HIV testing of the pregnant women
- Influence of the male partners on HIV testing of the pregnant women

4.8.2. INDEPENDENT VARIABLES

A. Demo-socio-economic variables of the woman and male partner

B. Inter-partner communication

C. Independent decisions of the women on:

- Condom negotiation
- HIV testing
- Hospital delivery
- Breast feeding

4.9. OPERATIONAL DEFINITIONS

- ***Male partner influence*** – woman's acceptance, consideration and involvement of the male partner advice and / or decision on HIV testing.
- ***Male involvement*** – male partner participation in dialogue on decisions of the woman concerning HIV testing, condom use, child feeding, place of birth and taking medication during pregnancy.

- ***Support*** – decisions, intentions and actions considered by the male partner to protect the pregnant woman and the baby from HIV infection.
- ***Mutual trust*** – the feeling of love and belongingness existed between the couples as perceived by the pregnant women.
- ***Voluntary HIV testing*** – a process of voluntary HIV testing after informed consent.
- ***Inter-partner communication*** – conversation between the woman and the male partner on matters relevant to PMTCT like- HIV-testing, breast-feeding, condom use and hospital delivery.
- ***Independent decisions of the women*** – autonomy of the women to make decisions without consulting her male partner.

4.10. DATA ENTRY AND ANALYSIS

Quantitative data was entered, cleaned and analyzed using Epi-info version 6.04 and SPSS 13 statistical packages. Frequencies, proportions and measures of dispersions were estimated to describe variables. Odds ratio was used to determine presence of association between explanatory variables and male partner's influence. The degree of association between dependent and independent variables was also measured using odds ratio with 95% confidence interval. Bivariate analysis was engaged to explain the dependent variable based on the independent variables.

Qualitative data was transcribed, translated, organized, sorted into framework and analyzed through manually.

4.11. ETHICAL CONSIDERATION

Ethical clearance was obtained from the respective DCH, FOM, AAU ethical committees. A formal letter was also submitted to all the concerned bodies to obtain their co-operation. The interviewers, who had been working as a pre-test HIV counselor, got an informed verbal consent from the study subjects prior to the study. Moreover, all the study participants were informed verbally about the purpose and benefit of the study along with their right to refuse. Furthermore the study participants were reassured for an attainment of confidentiality.

4.12. DISSEMINATION OF RESEARCH FINDING

The study was undertaken for the partial fulfillment of the Degree of Masters of Public Health, at the Department of Community Health, Faculty of Medicine, Addis Ababa University. The result of the study will be reported to EPHA-CDC project, MOH, Addis Ababa Health Bureau (AAHB) and to those governmental and non governmental organizations that potentially could benefit from the study outcome. The finding of the study will be published in relevant scientific and popular journals as appropriate.

5. RESULTS

5.1. QUANTITATIVE PART OF THE STUDY

A. Socio-Demographic Characteristics of the Pregnant Woman

A total of 423 pregnant women were enrolled after fulfilling the inclusion criteria, out of which 19 pregnant women refused to participate, which makes the non-response rate 5.0 % and two questionnaires were rejected because of their incompleteness, hence complete data were obtained from 402 pregnant women.

Of all study participants, 360 (89.6%) of them presented to VCT centers alone without being accompanied by their male partners. Two hundred sixty eight (66.7%) of the respondents were between the age group of 20-29 years. The study subjects ethnic group include Amhara, Oromo, Guragie, Tigre and others 218 (54.2%), 88 (21.9%), 46 (11.4%), 35 (8.7%) and 15 (3.7%) respectively. Majorities of the pregnant women, 75.6% (304) were identified as Orthodox Christian, with the 13.4% (54) Muslim by religion. The great majority of pregnant women, 377 (93.8%) were married. With regard to educational status, 45 (11.2%) of the interviewed women were illiterate and a high proportion of the respondents, 148 (36.8%) had attended secondary school.

Among the study population, 49.3% (198) of the respondents were housewives while 28.4% (114) were employees at governmental, non-government or private organizations. Pertaining to the income distribution of respondents, 235 (58.5%) had no income and one fourth (26.1%) of them would earn between 151 - 650 birr per month (Table 2).

Table 2: Socio-demographic description of pregnant women attending ANC at PMTCT providing hospitals in Addis Ababa, December 2006.

Variable	Frequency (n)	Percentage (%)
Age (n = 402)		
19 years old or less	15	3.7
20-29 years	268	66.7
30-39 years	118	29.4
40 years and above	1	0.2
Ethnicity (n = 402)		
Amhara	218	54.2
Oromo	88	21.9
Guragie	46	11.4
Tigre	35	8.7
Others	15	3.7
Religion (n = 402)		
Orthodox	304	75.6
Muslim	54	13.4
Protestant	39	9.7
Others	5	1.2
Marital status (n = 402)		
Never married	25	6.2
Married	377	93.8
Level of school (n = 402)		
Illiterate	45	11.2
Read and write only	18	4.5
Primary	116	28.9
Secondary	148	36.8
Tertiary	75	18.7
Occupation (n = 402)		
Employed	114	28.4
Self employee	53	13.2
Jobless	24	5.9
Student	13	3.2
House wife	198	49.3
Income (n = 402)		
None	253	58.5
1-150 birr	20	4.9
151-650 birr	105	26.1
651-1400 birr	35	8.7
≥ 1401 birr	7	1.7

B. Socio-Demographic Characteristics of Male Partner

The age of male partners for interviewed women, predominantly (55.2%) has fallen on 30-39 years category and the 23.1% were in the age range of 20-29 years. The study subjects male partners ethnic group include Amhara, Oromo, Guragie and Tigre 207 (51.5%), 87 (21.6%), 53 (13.2%) and 30 (7.5%) respectively. In this study, 293 (72.9%) of male partners of the study subjects were Orthodox Christians while 59 (14.7%) were Muslims.

Eighty six point six percent of the male partners of the study participants reportedly were married before the current one. Concerning the educational background, great majorities (95%) were literate and 152 (37.8%) of them had attended secondary school. Among the study subject's male partners, 233 (58.0%) were employed, 151 (37.6%) were self employed and 8 (2%) were jobless. With regard to the monthly income of the respondents' partner, the majority (38.6%) had 151-650 birr followed by 30.6%, 14.4%, 4.7% earning a monthly income of 651-1400 birr, >1401 birr, and 1-150 birr respectively. The rest (11.7%) do not know their male partner's monthly income (Table 3).

Table 3: Socio-demographic description of male partners of the pregnant women attending ANC at PMTCT providing hospitals in Addis Ababa, December 2006.

Variable	Frequency (n)	Percentage (%)
Age (n = 402)		
19 years old or less	3	0.7
20-29 years	93	23.1
30-39 years	222	55.2
40 years and above	77	19.2
Don't know	7	1.7
Ethnicity (n = 402)		
Amhara	207	51.5
Oromo	87	21.6
Guragie	53	13.2
Tigre	30	7.5
Others	20	5.0
Don't know	5	1.2
Religion (n = 402)		
Orthodox	293	72.9
Muslim	59	14.7
Protestant	40	10.0
Others	4	0.9
Don't know	6	1.5
Prior marriage (n = 402)		
Yes	54	13.4
No	348	86.6
Level of school (n = 402)		
Illiteracy	20	5.0
Read and write only	17	4.2
Primary	80	19.9
Secondary	152	37.8
Tertiary	132	32.8
Don't know	1	0.5
Occupation (n = 402)		
Employed	233	58.0
Self employee	151	37.6
Jobless	8	2.0
Student	6	1.5
Don't know	4	1.0
Income (n = 402)		
1-150 birr	19	4.7
151-650 birr	155	38.6
651-1400 birr	123	30.6
≥ 1401 birr	58	14.4
Don't know	47	11.7

C. Financial and Decision Making of the Pregnant Women

Out of the total pregnant women in the study, 167 (41.5%) had some kind of monthly income. Family's source of income was male partner's earning for 222 (55.2%) of the respondents, 157 (39.1%) earned by both couples, 10 (2.5%) by woman own and 13 (3.2%) earned by a support of others. Forty seven percent of the mothers would claim sometimes and 112 (27.9%) even never had money that could be spent for personal issues. Pertaining to the types of current saving scheme, 239 (59.5%) had no saving but 68 (16.9%) had a saving which possessed by both partners.

More than four fifth (86.6%) of the study participant pregnant women involve their male partner to decide to buy large household item where as 82 (20.4%) decide by their own without consulting their male partner to work outside home. To use condom, 125 (83.9%) of the study subjects decision would involve the male partner while 24 (16.1%) by their own. More than half, 52.7% (212) of the pregnant women would decide to be HIV tested independent of their male partner. Majority, 265 (65.9%) of the respondent women, accommodate their male partner to decide on a place of delivery. Regarding the decision on how and what to feed a child, 267 (66.7%) of the study participant women would incorporate their male partner and 137 (34.1%) decide free of their partner. More than half (55.7%) of the decisions undertaken by the women on taking any medications during pregnancy would involve the male partner and the remaining 44.3% would be made by their own (Table 4 and Figure 3).

Table 4: Financial situations of the pregnant women attending ANC at PMTCT providing hospitals in Addis Ababa, December 2006.

Variable	Frequency (n)	Percentage (%)
Earn monthly income (n = 402)		
Yes	167	41.5
No	235	58.5
Family source of income (n = 402)		
Husband's earning	222	55.2
Own earning	10	2.5
Both	157	39.1
Others	13	3.2
Frequency of availability of money (n = 402)		
Always	41	10.2
Often	60	14.9
Sometimes	189	47.0
Never	112	27.9
Types of current saving scheme (n = 402)		
Yes, Partner's	66	16.4
Yes, Both	68	16.9
Yes, Self	29	7.2
None	239	59.5

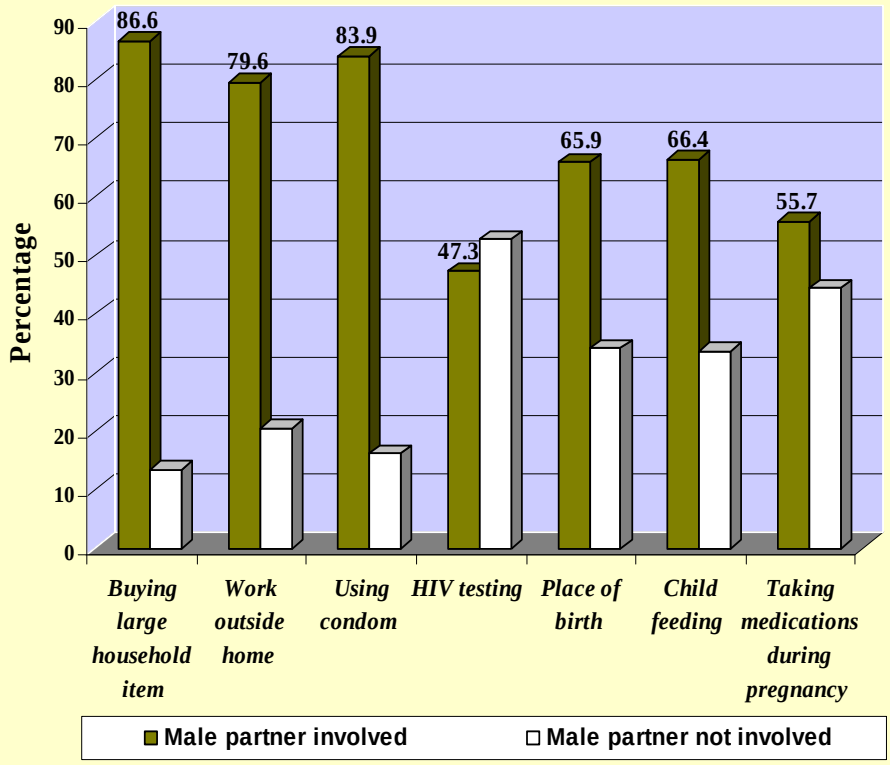


Figure 3: The role of male partner on decisions of pregnant women attending ANC at PMTCT providing hospitals, Dec. 2006.

D. Pregnant Women and the Male Partner on Issues Related to VCT

Among the study subjects, 314 (78.1%) had reported that they discussed on VCT with their male partner out of which eighty four point seven of the pregnant women had responded that they discussed on VCT issues with their male partner twice or more times while 48 (15.3%) discussed only for a single time. The discussions made on VCT would be initiated by the woman her self, the male partner, mass media and others at 172 (54.8%), 55 (17.5%), 78 (24.8%) and 9 (2.9%) respectively (Table 4).

Those pregnant women who would know whether or not their male partner was previously HIV tested counted 240 (59.7%) while 117 (29.1%) of the respondents did not know. Out of the respondents, who were aware about their partner's previous HIV test, 218 (90.8%) of them had the knowledge of the test result.

Seventy three point six percent (296) of the study subjects had undergone HIV testing sometime before. Majority, 341 (84.8%) of the participant women were willing to be HIV tested on the same day when they were counseled where as 61 (15.2%) were not willing. When those pregnant women were asked about the possible reasons for refusal of HIV testing, 15 (24.6%) were reported due to inability to deal with stress if the result is positive, 13 (21%) because of the uncertainty about the male partner's response on HIV testing, 11 (18%) would be due to fear of rejection by the community, 10 (16.4%) were because that they have undergone screening recently and 10 (16.4%) did not know their exact reason (Figure 4).

Almost all, 99.1% of the women wanted to know their HIV test results. Great majority, 328 (97%) of the respondents, planned to disclose their HIV test results to their male partner, 5 (1.5%) would not disclose and the remaining 5 (1.5%) would only disclose depending on the test result (Table 5).

When the study subjects were asked on the importance of consulting the male partner before HIV test, more than half of them, 281 (69.9%), responded as it is important. Out of which eighty one point nine percent (230) of the pregnant

women proposed that their male partner would approve their HIV testing after consulting, 15 (5.3%) proposed their partners disapproval and 36 (12.8%) reported it would be difficult for them to procrastinate. Also, 308 out of 402 (76.6%) pregnant women thought that their male partner would accept the HIV test for themselves.

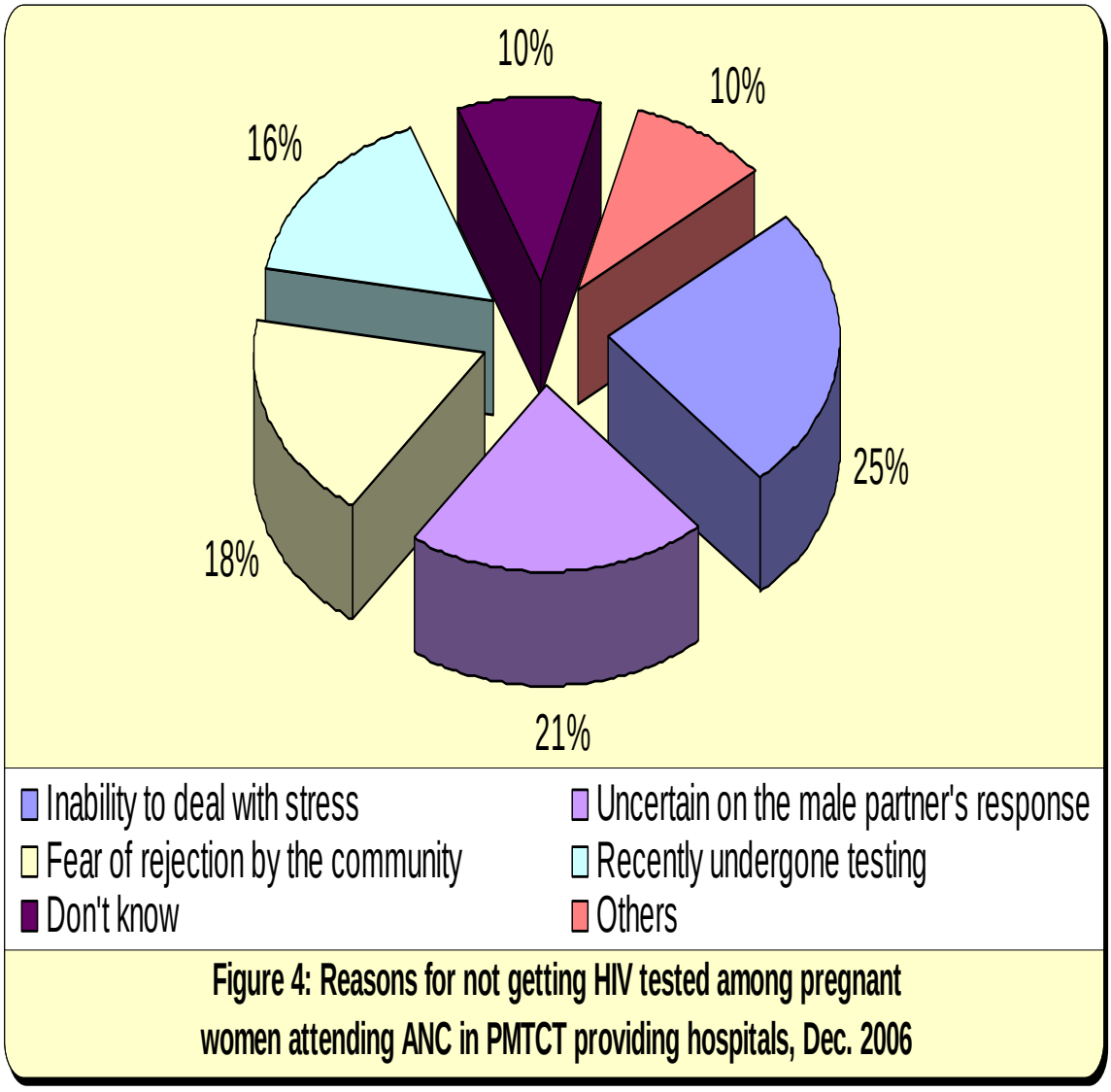


Figure 4: Reasons for not getting HIV tested among pregnant women attending ANC in PMTCT providing hospitals, Dec. 2006

Table 5: Pregnant women and the male partner on issues related to VCT at PMTCT providing hospitals in Addis Ababa, December 2006.

Variable	Frequency (n)	Percentage (%)
Discussion on VCT (n = 402)		
Yes	314	78.1
No	88	21.9
Number of discussions on VCT (n = 314)		
Once	48	15.3
Twice or more	266	84.7
Discussions initiated by (n = 314)		
Self	172	54.8
Male partner	55	17.5
Mass media	78	24.8
Others	9	2.9
Know male partner HIV tested (n = 402)		
Yes	240	59.7
No	117	29.1
Don't know	45	11.2
Aware of male partner's test result (n = 240)		
Yes	218	90.8
No	22	9.2
Pregnant women previously HIV tested (n = 402)		
Yes	296	73.6
No	106	26.4
Agree to be HIV tested (n = 402)		
Yes	341	84.8
No	61	15.2
Want to know the result (n = 341)		
Yes	338	99.1
No	3	0.9
Plan to disclose the test result (n = 338)		
Yes	328	97.0
No	5	1.5
Depend on the result	5	1.5
Consulting a male partner before HIV testing (n = 402)		
Yes	281	69.9
No	121	30.1
Proposed partner response on HIV testing (n = 281)		
Approve	230	81.9
Disapprove	15	5.3
Can't tell	36	12.8
Proposed male partner acceptance of HIV testing (n = 402)		
Yes	308	76.6
No	47	11.7
Don't know	47	11.7

E. Factors associated voluntary HIV testing of the pregnant women

Logistic regression statistical model showed a significant association (P< 0.05) between not to be influenced by male partner on decision of HIV testing and acceptance of the voluntary HIV testing by the pregnant women [AOR (95% CI) = 2.65(1.62-5.54)]. Pregnant women who had previously HIV tested were 2.61 times accept HIV testing than who had not [AOR (95% CI) = 2.61(1.25-4.42)].

Acceptance voluntary HIV testing of the study participants had also a significant association with their schooling. Pregnant women who had attend a school accepted HIV testing three times than who never attend [AOR (95% CI) = 3.01 (1.24-5.02)]. Those women who had a mutual trust with their male partner were more likely to accept HIV testing than those who had not [AOR (95%CI) = 2.99(1.51-5.02)].

Variables that included under male partner socio-demography, discussion on HIV testing and consulting male partner before HIV testing were not found to be significantly associated with uptake of HIV testing. (Table 6)

Table 6: Association between Voluntary HIV testing of the pregnant women and selected variables on PMTCT providing hospitals in Addis Ababa, December 2006.

Variable	HIV testing of the Pregnant women		Crude OR (95% CI)	Adjusted OR (95% CI)
	YES	NO		
Male partner influence on HIV testing				
No	190	22	2.23(1.27-3.92)	2.65(1.62-5.54)*
Yes	151	39	1.00	1.00
Consulting male partner before HIV testing				
No	108	13	1.71(0.64-1.93)	1.13(0.65-1.99)
Yes	233	48	1.00	1.00
Male Partner came to VCT centers				
Yes	38	4	1.79(0.61-5.20)	1.11(0.29-3.46)
No	303	57	1.00	1.00
Discussion on VCT				
Yes	271	43	1.62(0.88-2.98)	1.54(0.61-3.02)
No	70	18	1.00	1.00
Marital status				
Yes	322	55	1.85(0.71-4.84)	1.60(0.21-6.42)
No	19	6	1.00	1.00
Women previously HIV tested				
Yes	262	34	2.63(1.50-4.63)	2.61(1.25-4.42)*
No	79	27	1.00	1.00
Women attend school				
Yes	308	49	2.29(1.11-4.73)	3.01(1.24-5.02)*
No	33	12	1.00	1.00
Women income				
Yes	143	24	1.11(0.64-1.94)	1.02(0.15-3.42)
No	198	37	1.00	1.00
Economic dependence				
No	19	4	1.19(0.39-3.63)	1.22(0.61-3.87)
Yes	322	57	1.00	1.00
Mutual trust				
Yes	312	48	2.91(1.42-6.00)	3.09(1.47-7.21)*
No	29	13	1.00	1.00

Note: * = *Statistically significant at P<0.05*

F. Factors associated with male partner influence on HIV testing

Associations were sought between male partner influence on HIV testing and the different socio-demographic characteristics of the women and their male partner including issues related with VCT (Table 7). There was no a statistically significant association between the male partner influence on HIV testing and variables related to the women age, religion, schooling, occupation and income.

Male partner's influence of the study participants had a significance association with marital status. Married women were influenced by their male partners on HIV testing almost three times than those who never married [AOR (95%CI) = 3.35 (1.66-11.38)]. Those pregnant women who lived with their male partner were 3.23 times influenced by their male partner on HIV testing than those who lived away [AOR (95%CI) = 3.23(1.09-8.41)]. Regardless of a woman having income of her own or not, being fully dependent on husband's income was found to be statistically significant of being influenced for HIV testing at [AOR (95% CI) = 3.09 (1.84-5.90)].

Pregnant women who had a mutual trust with their male partner were more likely to have been influenced on HIV testing than those who had not [AOR (95%CI) = 2.99(1.51-5.02)]. Statistically significant association was observed between consulting male partners before HIV testing and their influence on the women at HIV testing [AOR (95%CI) = 2.88(1.76-5.12)]. Variables like male partner socio-demography, discussion on HIV testing and history of previous HIV testing were not significantly associated with male influence on HIV testing at $P< 0.05$.

Table 7: Association between male partner influence on HIV testing and selected variables on PMTCT providing hospitals in Addis Ababa, December 2006.

Variable	Male Partner Influence On HIV testing		Crude OR (95% CI)	Adjusted OR (95% CI)
	YES	NO		
Women religion				
Muslim	30	24	1.47(0.83-2.61)	1.13(0.38-1.21)
Christian	160	188	1.00	1.00
Marital status				
Married	185	192	3.85(1.42-10.48)	3.35(1.66-11.38)*
Never married	5	20	1.00	1.00
Living with male partner				
Yes	180	177	3.05(1.08-8.41)	3.23(1.09-8.41)*
No	5	15	1.00	1.00
Women attend a school				
No	24	21	1.32(0.71-2.45)	1.63(0.84-2.70)
Yes	166	191	1.00	1.00
Women income				
No	119	116	1.39(0.93-2.07)	1.35(0.58-2.34)
Yes	71	96	1.00	1.00
Economic dependence				
Yes	183	196	2.13(0.86-5.31)	3.09(1.84-5.90)*
No	7	16	1.00	1.00
Discussion on VCT				
Yes	155	159	1.48(0.91-2.39)	1.27(0.78-2.81)
No	35	53	1.00	1.00
Consulting male partner before HIV testing				
Yes	154	127	2.86(1.82-4.51)	2.88(1.76-5.12)*
No	36	85	1.00	1.00
Women previous HIV testing				
No	58	48	1.50(0.96-2.35)	1.28(0.97-2.23)
Yes	132	164	1.00	1.00
Mutual trust				
Yes	178	182	2.45(1.21-4.93)	2.99(1.51-5.02)*
No	12	30	1.00	1.00

Table 7 (*continuation*): Association between male partner influence on HIV testing and selected variables on PMTCT providing hospitals in Addis Ababa, December 2006.

Variable	Male Partner Influence On HIV testing		Crude OR (95% CI)	Adjusted OR (95% CI)
	YES	NO		
Male partner age				
≥ 30 years	144	155	1.01(0.64-1.60)	1.12(0.62-1.54)
< 30 years	46	50	1.00	1.00
Male religion				
Muslim	27	32	1.11(0.64-1.93)	1.13(0.65-1.99)
Christian	163	174	1.00	1.00
Male attend a school				
No	7	7	1.09(0.37-3.16)	1.92(0.29-3.45)
Yes	183	199	1.00	1.00
Male occupation				
Job	183	201	1.21(0.41-3.57)	1.22(0.67-3.33)
No job	6	8	1.00	1.00
Male income				
> 150 birr	11	8	1.43(0.56-3.63)	1.61(0.36-3.51)
≤ 150 birr	165	171	1.00	1.00

Note: * = *Statistically significant at P<0.05*

5.2. QUALITATIVE PART OF THE STUDY

A. Socio-demographic characteristics of FGD participants

The study has involved a total of 25 pregnant women. The age of the FGD participants varied from 17-48 years but most of them were between 20-29 years of age. Three fourth of the participants were legally married and the rest one fourth were unmarried but they cohabit with their male partner. Almost half of the participants had attended a secondary school. Majority of the pregnant women follow Christianity and the largest proportion were housewives.

B. Pregnant women's response on PMTCT and VCT issues

As far as prevention is concerned all of the FGDs participants noted that avoiding breastfeeding can prevent HIV transmission to the baby. Half of FGD participant pregnant women, pointed out that some sort of drug (meaning ARVs) that can be taken during pregnancy prevent HIV transmission from the mother to the baby. Very few FGD participants (two participants) declared that minimizing a scratch (meaning abrasion) occurrence during childbirth can reduce HIV transmission. Only one group discussant knew that any type of operative delivery which could be performed in the health institutions can decrease HIV transmission to the new born. Eating a quality food was proposed to have a role in preventing HIV transmission by a single participant.

All participants of the FGD said that, VCT is a voluntary process that helps to recognize one's HIV status. They also explained that VCT is important to learn one self's HIV status which creates an advantage to plan for the future. One of the pregnant women explained,

"…VCT is helpful to create an opportunity to think and decide how to live on the future regardless of the result."

Great majority of the participants believe that VCT can facilitate to build HIV free and faithful family. They also indicated that VCT enables a pregnant woman as well as the whole family to have a healthy child. Two of the FGD participants mentioned that:

"…VCT helps to direct a wonderful life; besides, it flourishes love and trust among husband and wife." Another participant added that,

"VCT is a safeguard for the family to obtain a healthy baby who is the source of happiness and hope. "

Most of the discussant pregnant women were not able to clarify the distinct difference between PMTCT and VCT. But one pregnant lady stated the following,

"…a pregnant woman need to go to PMTCT, if she wants to have a baby free of HIV/AIDS where as VCT would benefit both the woman and her male partner to get prevented from HIV before marriage and prior pregnancy."

Two pregnant women from different FGDs highlighted a point regarding VCT as it is fear triggering event and other participants approved the suggestion by nodding their heads:

"Despite repeated thoughts to be HIV tested, I am afraid of the consequences that can come as a result. …Still I am not sure what worries me but it could be fear of being rejected by my family, the neighborhood and public."

C. Pregnant women response on VCT and Male partner

Most of the FGD participant women said that they have never discussed with any of their family members or with their male partner about VCT and PMTCT during their pregnancy. There was an argument among the group discussants on the importance of consulting a male partner before going for HIV testing. One pregnant lady forwarded as follows,

"My husband is my love and my sweet heart. I can say he is everything for me. So how come I obscure a thing that can give mutual benefits, love and trust." On contrary, one woman argued,

"…I know a woman from the neighborhood who lived with a known violent and a misbehaved person. One time she became pregnant and asked him if they can get HIV tested. But the man considered it as sabotage and that brought her great consequence." Another lady further explained the issue but the other participants laughed:

"Let alone the husband it is better not tell to anybody about HIV testing, what will happen to me if the result is positive?"

Three pregnant women suggested that male partners could respond to the question of HIV testing in a certain manner of diversion of the topic, changing of facial expressions, reject, insult, hit or inquiry for divorce. These women indicated that the male partners were afraid of being tested, because they might have been involved in extramarital sexual contact which might be aggravated by substance use that include drinking alcohol, chewing *'chat'*, smoking *'shesha'.* Majority of the FGD discussants mentioned that it is unpleasant situation for their male partners to be HIV tested in a place where full of pregnant women.

Most women would never insist their male partner to be HIV tested since they are afraid of the possible drawbacks that could come so forth. One of the elderly looking women remarked that,

"…I have lived with my husband for multiple decades. We have six children. The existence of my children and me is dependent up on my husband's income. Thus why I create chaos in my life by compelling my husband to be HIV tested?"

Majority of FGD participants expected negative reaction from male partners if they knew the positive HIV status of pregnant women. Majority said that men could take the following action against their partner: beat, disgrace, reject, initiate divorce, insult and interrupt financial support. Very few FGD participants said that male partners might get depressed in the first occasion and then try to cope with the problem to reassure their female partners.

Most women in the FGDs admitted that their male partner assistance and support is critically important for their acceptance of HIV testing and relevant decisions of PMTCT.

D. Pregnant women's response towards support of the male partners'

Almost all women in the FGDs suggested that male partner contribution is prominent during pregnancy and childbirth. However, the participants also emphasized that it is unfair to consider all husbands as responsible and care-giver. Reportedly, only few male partners that do actually engage in ranges of roles like: taking care of the children, selecting the appropriate health facilities for child birth, sharing household duties and responsibilities, giving care during illness, accompanying the woman during pregnancy follow-ups and providing psychological, social and financial support. One of the women said,

"Usually, at the earlier time of introduction, male partners may look like to be concerned and care-giver but soon after marriage their hidden behavior will start to manifest…"

Some women believed that on some occasion even if the woman found out her husband's promiscuity she might be terrified to negotiate for a condom in order to keep herself protected from sexually transmitted infections or HIV/AIDS. The women listed out some of the factors that predispose male delinquency: cultural, social norms and economic dominance.

6. DISCUSSION

Prevention of mother to child transmission (PMTCT) of HIV/AIDS requires that women utilize a range of reproductive health care services including anti-retrovirals and specialized deliveries, and that they either exclusively breastfeed or consistently use formula. All of these are difficult for women to fulfill unless male partners are involved in HIV testing and support [33]. Thus study has tried to asses the male partners influence and factors associated among pregnant women towards PMTCT in hospitals of Addis Ababa.

The socio-demographic characteristics of the pregnant that attended the PMTCT services in this study were consistent with the previous studies which were conducted in Addis Ababa, Jijjiga and Tigray [13, 42, 43]. As the majority was in the age group 20-29, housewives, married, attended secondary school and had no income.

Out of the total study participants only 42 (10%) came to VCT centers with their male partners to be HIV tested. This figure is less than the finding of Byumba Hospital in Rwanda and Karatina in Kenya [9, 44]. But the figure is higher than Nodola Demonstration Project (NDP) in Zambia and demonstration of antiretroviral therapy (DART) in South Africa. The discrepancy could be due to the population's prevailing social, cultural variations and study time difference in the respective countries [45]. The result of the qualitative part of the study explained that men would not be comfortable to be HIV tested where pregnant women predominate.

The power imbalances are expressed in sexual relationships and confer on men the ability to influence and/or determine women's sexual reproductive health choices, including utilization of health care services and use of modern contraceptives including condoms. This is in fact true for the majority of Ethiopian families [42, 43]. This gives men the power and confidence to dominate their families and societies on social and cultural matters including reproduction and prevention of HIV/AIDS. Traditional cultures and religions participate by emphasizing the decision-making roles of men in their families even where women have an important economic role in the family. Most studies carried out in Ethiopia and other African countries have all asserted the domineering position of men on reproductive health matters including condom use [43]. This study also harmonizes with the above statement as male partners were the one to decide on condom utilization.

Influences from husbands and other relatives is some times very crucial in determining institutional delivery of the women, in a series of studies conducted in rural Bangladesh, which finds out that the influences of husbands, mothers and mother in laws were important in determining women's institutional delivery [46-48]. The finding is consistent with this study that the 65% of women's decision which is relevant to PMTCT on place of birth was made by their male partner.

In this study decision makers on infant feeding options were male partners in majority of the cases followed by women. As such, a study in Jimma showed that

major decision makers on infant feeding options were husbands followed by mother and mother-in-law; on contrary, a study of baseline survey of PMTCT in six regions of Ethiopia revealed that the major decision makers were mothers followed by both partners [49, 50].

This study revealed that the role of male partner is significantly high on the woman decision of HIV testing like the one done in Tigray and at the Armed Forces hospital in Addis Ababa [13, 42]. Also a study conducted in India reported that about 46% of the women mentioned their husband as a primary decision maker in issues like voluntary HIV counseling and testing [51]. The result of this specific study also was found to be very comparable with the cross-sectional study in Uganda, as the majority of women live with their husbands, informed their male partner to come to the antenatal clinic that day and most of women thought that they should consult their husbands before having HIV test [34]. This idea was in agreement with qualitative part as women would experience consequences when left for HIV testing without the husband's approval.

Moreover, both the Ethiopian and the Ugandan studies that focused on factors related to VCT on 15-49 years of urban community harmonize with this specific study as significant number of the women feared that their husbands would not approve of their being tested and even majority of the women thought that their husband would not accept the HIV test for themselves [34, 52].

This study finding showed that the most common reasons to refuse testing were fear of HIV positive status and uncertainty about male partner's response on the HIV testing. The above statement is supported by previously conducted studies Eastern Tigray and Jijiga [42, 43]. Similarly, a study of rural south-west Uganda illustrates that women were concerned that if their husbands found out they were HIV-positive they would be blamed and separation or domestic violence might result [53]. In the qualitative part of this study also emphasized the same idea.

Absence of male partner involvement on the decision of HIV testing had favor the acceptance of voluntary HIV testing by the pregnant women, AOR (95% CI) = 2.65(1.62-5.54). This could be explained that women who had considered their male partner's decision on HIV testing might consult prior HIV testing, where as, women who would make autonomous decisions on HIV testing readily accept the test just after the counseling.

In this study, male partner influence on HIV testing is statistically associated with economic dependence of the women on their husbands' income. It is known that most of the world women are poor and most of the world's poor are women [54]. According to the global-wide report, women earn 30-40% less than men for the same work and most of those who are working are employed outside the formal sector in jobs characterized by income insecurity and poor working conditions [54]. Women economic dependence on men increase their vulnerability to STDs and HIV infection by constraining their right to undergo HIV testing, negotiate the

use of condom, discuss fidelity with their partners, or leave risky relationships. The study in Tigray revealed that pregnant women who had very little power to make decision on reproductive health needs; simultaneously had minimal freedom to seek for VCT [42].

Another evidence of this could be a study on low income women in Mumbai, India. The women believed that the economic consequences of leaving a relationship with the husband was to be risky than the health risks of staying in the relationship [55].

A study done in Ghana which attempted to examine the factors that mediated women's ability to protect themselves from HIV infection, the poverty experienced by many of the women during their childhood years, coupled with a societal belief that favored them to be more dependent on their husband to fulfill their families economic needs. This as well will give a man the opportunity to be dominant over a woman in every aspect, which denies a woman from HIV testing or her sexual decision making ability [56].

This study demonstrated the statistically significant association, AOR (95%CI) = 3.35 (1.66-11.38), between marriage and male partner influence on HIV testing. Marriage provides forms of economic and social support for the women that would not be available to them if they were to remain single. Due to such economic imbalance, men have considerable power over women, especially when it comes to HIV testing and sexual relations [57]. Therefore a woman tied in

marital life would follow the husband's interest. In the qualitative part of the study, participants propagated the same idea. A study conducted in India reported that husbands are primary decision makers in issues like voluntary HIV counseling and testing [51].

Similarly, living along with the male partner was statistically significantly associated with the influence of male partner on HIV testing AOR (95%CI) = 3.23(1.09-8.41). Even if the study has no statistically significant association between discussion on VCT and male partner influence on HIV testing, living with male partner might facilitate discussions and exchange of ideas among the partners on issues of VCT and that could give a chance for male partner to exert his idea.

In some circumstances women have tested for HIV without their husbands consent and have suffered domestic violence [58]. Statistically non significant association was existed between not to consult male partner before HIV testing and acceptance of voluntary HIV testing by the pregnant women. These would be discussed women want their male partner consent and approval for HIV testing because they afraid of the consequences. Even, association existed between consult of pregnant women on HIV testing and the male influence on HIV test could be related as initially the women get advice there would be a room for the male partner to discourage to be HIV tested. However this idea needs a further male based study to determine the response of male partner following the consult of the pregnant women on HIV testing.

Pregnant women who had a perceived mutual trust with their male partner were more likely to accept HIV testing. Moreover, those women who had a perceived mutual trust with their male partner were more likely to be influenced on HIV testing than those who had not. This might be explained that in trusting people there could be strong relationship as well as share of ideas among each other which facilitate the acceptance and consideration of HIV testing.

Women based at home often lack information on AIDS, and those women who are informed sometimes depend on their male partner psychological, social and financial support, which means that they are forced to engage in unsafe sexual practices [59]. The qualitative part of the study reinforces the same fact that the number of such male partners that would provide and supply the required women need was reported comparatively minimal.

Developing responses that address norms of masculinity and involve men across the range of prevention, testing, care, and support programs is a key aspect of comprehensive HIV/AIDS programs. Men can support women at each step in the PMTCT, including the decision to and ability to get tested for HIV, return for the test results, take ARVs, and practice safe infant feeding techniques [60]. The FGD participants also emphasized that their male partner's involvement in the PMTCT service gives them confidence to fully participate in VCT and PMTCT.

7. STRENGTHS AND LIMITATIONS OF THE STUDY

7.1. STRENGTHS OF THE STUDY

1. The study is new in its kind that no other similar study has been done in the Country yet.
2. All metropolitan hospitals that render PMTCT services at the time were included in the study.
3. This study has employed both quantitative and qualitative methods.

7.2. LIMITATIONS OF THE STUDY

1. Possibility of social desirability bias might have affected responses for some questions due to the fact that health professionals were used as data collectors.
2. Like any cross sectional study it fails to show causal relationship
3. It was a hospital based and the real problem at grass root population level was obscured.
4. Lack of similar study in the Country to compare results.

8. CONCLUSIONS

1. The involvement of male partner on VCT at PMTCT providing hospitals was significantly low.
2. Important decisions of the women in the context of PMTCT including condom utilization, place of delivery and feeding of a baby were dominantly influenced by the male partner.
3. Not to be influenced by male partner on HIV testing had favor the acceptance of voluntary HIV testing among pregnant women.
4. Married and those women who live with their male partner were highly influenced by their male partner on HIV testing.
5. Economic dependence of the women on their male partner played an important role for being influenced on HIV testing.
6. Male partner would influence the women on HIV testing considerably on cases of being consulted by the pregnant women before test.
7. Pregnant women need their male partners' psychological, social and financial support; moreover, male partner's active involvement in PMTCT services would allow women to utilize the service properly.

9. RECOMMENDATIONS

1. Intensify coordinated and targeted IEC program to encourage the male partners to utilize PMTCT services and to give support for the pregnant women.
2. Enhance empowerment of pregnant women to make informed choices about VCT and PMTCT by providing intensive information.
3. Support pregnant women to become economically independent through developing and support of income generating projects.
4. Strengthen male friendly counseling at PMTCT providing institutions.
5. Innovate and encourage male peer counseling in PMTCT centers.
6. Develop a strategy for community sensitization and mobilization to utilize PMTCT services.

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11. ANNEXES

ANNEX 1:

ADDIS ABABA UNIVERISITY MEDICAL FACULTY

DEPARTMENT OF COMMUNITY HEALTH

QUESTIONNAIRE

Assessment of male partners influence on pregnant women towards voluntary HIV testing and support on PMTCT in hospitals of Addis Ababa.

01-Name of the hospital _____

02-Pregnant woman came to VCT centers

1. Alone without her partner
2. With her partner

INTRODUCTION

My name is _____ I am interviewing a pregnant women attending antenatal clinic at _____(name of institution) about influence and factors associated with male partners towards voluntary HIV testing and support on PMTCT.

The interview should be conducted after a woman passes through the process of voluntary HIV pre-test counseling whether she accepts HIV testing or not.

I am going to ask you some questions about prevention of mother-to-child transmission of HIV/AIDS especially, matters associated to your male partner. Your responses are completely confidential; your name will not be written on the form and will never be used in connection with any of the information you provide. You don't have to answer any question you don't want to answer, however your honest answer to this question will help us to understand the influence and factors associated with male partners towards voluntary HIV testing and support on PMTCT. We would like to thank you in advance for your help. Are you willing to participate?

If **Yes**- (1) = continue

No- (2) = stop

03-Result code: 1. Completed
2. Refused
3. Partially completed
4. Other

Interviewer signature certifying that informed consent has been given verbally.

Interviewer name _____
Signature _____
Date of interview _____

Checked by supervisor
Name _____
Signature _____
Date _____

Section I: Background characteristics of the women

Ser.No.	Question	Coding Categories	Code	Skip
101	How old are you?	▪ 19 years old or less ▪ 20-29 years ▪ 30-39 years ▪ 40 years & above	1 2 3 4	
102	To which ethnic group/ tribe do you belong?	▪ Amahara ▪ Oromo ▪ Tigre ▪ Others (Specify) _____	1 2 3 4	
103	What is your religion?	▪ Orthodox ▪ Muslim ▪ Catholic ▪ Protestant ▪ Other (Specify) _____	1 2 3 4 5	
104	Marital status	▪ Unmarried ▪ Married ▪ Separated ▪ Widowed ▪ Others	1 → 2 → 3 4 5	108 105
105	Type of union	▪ Partnered but not legally married ▪ Legally/formally married	1 2	
106	If married are you currently living with your partner?	▪ Yes ▪ No	1 → 2	107 108
107	How many years have you been together?	▪ Less than a year ▪ 1-5 years ▪ 6-10 years ▪ more than 10 years	1 2 3 4	
108	Number of pregnancy including the current one	▪ One ▪ Two ▪ Three ▪ Four & above	1 2 3 4	
109	The number of antenatal care visit attended in the current pregnancy	▪ At least two ▪ Less than two	1 2	
110	Have you ever attended a school?	▪ Yes ▪ No	1 → 2 →	111 112
111	What is the highest level of school you completed?	▪ Literacy (read & write) ▪ Primary ▪ Secondary ▪ Tertiary (above 12)	1 2 3 4	
112	What is your occupation?	▪ Employed ▪ Jobless ▪ Student ▪ House wife ▪ Other (Specify) _____	1 2 3 4 5	

113	Your income per month	▪ <150 birr ▪ 151- 650 birr ▪ 651-1400 birr ▪ 1401 birr & above	1 2 3 4	

Section II: background characteristics of the male partner

Ser.No.	Question	Coding Categories	Code	Skip
201	How old is he?	▪ 19 years old or less ▪ 20-29 years ▪ 30-39 years ▪ 40 years & above ▪ Don't know	1 2 3 4 5	
202	To which ethnic group/ tribe does he belong?	▪ Amahara ▪ Oromo ▪ Tigre ▪ Others (Specify) _____ ▪ Don't know	1 2 3 4 5	
203	In which religion he is?	▪ Orthodox ▪ Muslim ▪ Catholic ▪ Protestant ▪ Other (Specify) _____ ▪ Don't know	1 2 3 4 5 6	
204	Did he marry before this one?	▪ Yes ▪ No ▪ Don't know	1 → 2 → 3	205 207
205	Number of previous marriages he had excluding the current one	▪ One ▪ Two ▪ Three ▪ Four & above	1 2 3 4	
206	Currently, does your male partner have another marriage?	▪ Yes ▪ No ▪ Don't know	1 2 3	
207	Has he ever attended a school?	▪ Yes ▪ No ▪ Don't know	1 → 2 → 3	208 209
208	What is the highest level of school he completed?	▪ Literacy (read & write) ▪ Primary ▪ Secondary ▪ Tertiary (above 12)	1 2 3 4	
209	What is his occupation?	▪ Employed ▪ Jobless ▪ Student ▪ Other (Specify) _____ ▪ Don't know	1 2 3 4	
210	His income per month	▪ <150 birr ▪ 151- 650 birr ▪ 651-1400 birr ▪ 1401 birr & above ▪ Not known correctly	1 2 3 4 5	

Section lll: women status on finance and decision-making

Ser.No.	Question	Coding Categories	Code	Skip
301	What is family's main source of income?	▪ Husband's earnings ▪ Own earnings ▪ Yours and husbands earnings ▪ Others	1 2 3 4	
302	Do you earn monthly income by your own?	▪ Yes ▪ No	1 2	
303	How often do you have money that you alone can decide how to spend?	▪ Always ▪ Often ▪ Sometimes ▪ Never	1 2 3 4	
304	Do you currently have any type of saving scheme	▪ Yes, partner's saving ▪ Yes, mine and partner's saving ▪ Yes, self saving ▪ No, we don't have saving	1 2 3 4	
305	Who makes the decision if you need to buy large house hold items/furniture	▪ Your partner ▪ You and your partner ▪ You alone ▪ Others	1 2 3 4	
306	Who makes the decision if you should work outside of the home	▪ Your partner ▪ You and your partner ▪ You alone ▪ Other	1 2 3 4	
307	Who makes the decision if you need to use condom	▪ Your partner ▪ You and your partner ▪ You alone ▪ Others	1 2 3 4	
308	Who makes the decision if you need to test for HIV	▪ Your partner ▪ You and your partner ▪ You alone ▪ Other	1 2 3 4	
309	Who makes the decision whether you need to deliver a baby in health institute	▪ Your partner ▪ You and your partner ▪ You alone ▪ Others	1 2 3 4	
310	Who makes the decision on how and what to feed a baby	▪ Your partner ▪ You and your partner ▪ You alone ▪ Others	1 2 3 4	
311	Who makes the decision if you need to take medications during pregnancy	▪ Your partner ▪ You and your partner ▪ You alone ▪ Others	1 2 3 4	
312	Who decides on the type of meal prepared at home	▪ Your partner ▪ You and your partner ▪ You alone ▪ Others	1 2 3 4	
313	Who prepare a food at home if you are sick for some time	▪ Your partner ▪ You and your partner ▪ You alone ▪ Others	1 2 3 4	

Section IV: Voluntary HIV Counseling and Testing

Ser.No	Question	Coding categories	Code	Skip
401	For whom do you think voluntary HIV counseling and testing is important?	▪ Mother alone ▪ Baby alone ▪ My partner ▪ Mother and baby only ▪ The family ▪ Health workers ▪ For all ▪ Other (specify) _____ ▪ No response	1 2 3 4 5 6 7 8 99	
402	Have you ever been discussing on voluntary HIV counseling and testing with your partner	▪ Yes ▪ No	1 → 2 → 99	403,404 405
403	How many times have you discussed	▪ Once ▪ Twice or more ▪ I don't know ▪ No response	1 2 88 99	
404	Who raised the issue for discussion	▪ You ▪ Your partner ▪ Mass media ▪ Others (specify) _____	1 2 3 4	
405	Do you believe that you & your partner have mutual trust?	▪ Yes ▪ No ▪ Not sure	1 2 3	
406	Have you been tested for HIV?	▪ Yes ▪ No	1 2	
407	Do you think your partner could be tested previously	▪ Yes ▪ No ▪ I don't know ▪ No response	1 → 2 → 88 99	408 409
408	Has he ever told you about the test result?	▪ Yes ▪ No ▪ I don't know ▪ No response	1 2 88 99	
409	Would you like to voluntarily get tested for HIV today?	▪ Yes ▪ No ▪ I don't know ▪ No response	1 → 2 → 88 99	411 410
410	What could be some of the reasons you think for refusal of voluntary HIV testing?	▪ Inability to deal with stress of being positive ▪ Fear of rejection by the community ▪ Uncertainty about husbands reaction ▪ Non respect of confidentiality ▪ Other (specify) _____ ▪ I don't know ▪ No response	1 2 3 4 5 88 99	

411	Do you think it is important to consult your partner before you will get HIV tested?	▪ Yes ▪ No ▪ I don't know ▪ No response	1 → 2 → 88 99	412 413
412	What would be your husband's most likely response on the test?	▪ Approve ▪ Disapprove ▪ I can't tell ▪ No response	1 2 88 99	
413	Do you want to know your test result?	▪ Yes ▪ No ▪ I don't know ▪ No response	1 → 2 → 88 99	414 415
414	Do you have plan to tell your test result to your male partner?	▪ Yes ▪ No ▪ Depend on the result ▪ No response	1 2 3 99	
415	Do you think husband would accept HIV test for himself?	▪ Yes ▪ No ▪ I don't know ▪ No response	1 → 2 → 88 99	501 416
416	What could be some of the reasons you think for refusal of voluntary HIV testing of your partner?	▪ Inability to deal with stress of being positive ▪ Fear of rejection by the community ▪ Uncertainty on your reaction ▪ Inappropriate testing place for males ▪ Other (specify) _____ ▪ I don't know ▪ No response	1 2 3 4 5 88 99	

Section V: Risk perception

Ser.No	Question	Coding categories	Code	Skip
501	Do you think you can get the virus?	▪ Yes ▪ No ▪ I don't know ▪ No response	1 → 2 → 88 99	502 503
502	What could be the reasons for getting the virus?	▪ I had multiple sexual partners ▪ I had sexual contact without condom ▪ I had injection with unsterile needle ▪ I had sexual contact with HIV positive person ▪ Other (specify) _____ ▪ I don't know ▪ No response	1 2 3 4 5 88 99	

503	What could be the reasons for not getting the virus?	▪ I trust my partner ▪ No injection with unsterile needle ▪ I always use condom ▪ I don't know ▪ No response	1 2 3 88 99	
504	Do you think your partner can get the virus?	▪ Yes ▪ No ▪ I don't know ▪ No response	1 → 2 → 88 99	505 506
505	What could be the possible reasons of your partner for getting the virus, if at all?	▪ Had multiple sexual partners ▪ Had sexual contact without condom ▪ Had injection with unsterile needle ▪ Had sexual contact with HIV positive person ▪ Other (Specify) _____ ▪ I don't know ▪ No response	1 2 3 4 5 88 99	
506	What could be the possible reasons of your partner for not getting the virus, if at all?	▪ He trust me ▪ No injection with unsterile needle ▪ Always use condom ▪ Others (Specify) _____ ▪ I don't know ▪ No response	1 2 3 4 88 99	

ANNEX 2:

አዲስ አበባ ዩኒቨርስቲ ሕክምና ፋኩልቲ
የሕብረተሰብ ጤና ክፍል

ቃለ– መጠይቅ

ይህ በአዲስ አበባ ሆስፒታሎች ውስጥ ከእናት ወደ ልጅ የኤች አይ ቪ ስርጭትን ለመግታት በሚሰጠው አገልግሎት ዙሪያ የወንድ ጓደኛ በኤች አይ ቪ የደም ምርመራና ድጋፍ ላይ ያለውን ተፅዕኖ በሚመለከት የሚያጠና ምርምር ነው::

01– የሆስፒታሉ ስም _____

02– ነፍሰ–ጡሯ ሴት በፈቃደኝነት ላይ የተመሠረተ የምክርና የደም ምርመራ ጣቢያ የመጣችው

1. ብቻዋን ነው
2. ከወንድ ጓደኛዋ / ባለቤቱ ጋር ነው

መግቢያ

እኔ ስሜ _____ይባላል:: እኔ ቃለ–መጠይቅ የማደርገው በ_____ (ሆ/ሉ ስም) ለቅድመ–ወሊድ ምርመራ ለመጡት ሴቶች ሲሆን ፤ ይኸውም ከእናት ወደ ልጅ የኤች አይ ቪ ስርጭትን ለመግታት በሚሰጠው አገልግሎት ላይ የወንድ ጓደኛ በኤች አይ ቪ የደም ምርመራና ድጋፍ ላይ ያለውን ተፅዕኖ ለማጥናት ነው::

ቃለ–መጠይቁ የሚካሄደው ቅድመ–ደም ምርመራ ምክር ለወሰዱ ሴቶች ሲሆን የደም ምርመራ ለማድረግ ፈቃደኛ የሆኑም ሆነ ያልሆኑ በጥናቱ መታቀፍ ይችላሉ::

አሁን እኔ ከእናት ወደ ልጅ የኤች አይ ቪ ስርጭትን በመግታት ዙሪያ የተወሰኑ ጥያቄዎችን እጠይቅዎታለሁ:: እነዚህም ጥያቄዎች ከወንድ ጓደኛዎ / ባለቤትዎ ጋር ተያያዥነት ያላቸው ሊሆኑ ይችላሉ::

የእርስዎንም ምላሽ ፍፁም ሚስጥራዊ ለማድረግ ስምዎትን በየትኛውም የጥያቄ ወረቀት ላይ የማይፃፍ ሲሆን እንዲሁም የሚሰጡት ጠቃሚ መረጃ ከስምዎና ከማንነትዎ ጋር ምንም ዓይነት ግንኙነት እንዳይኖረው ተደርጎ አገልግሎት ላይ ይውላል::

ምላሽ ለመስጠት ያልፈለጉትን ጥያቄ ያለመመለስ ሙሉ መብት አለዎት ነገር ግን መልካም ፈቃድዎ ሆኖ የሚሰጡት ትክክለኛ መልስ ከእናት ወደ ልጅ የኤች አይ ቪ ስርጭትን ለመግታት በሚሰጠው አገልግሎት ዙሪያ የወንድ ጓደኛ በኤች አይ ቪ የደም ምርመራና ድጋፍ ላይ ያለውን ተፅዕኖ በተመለከተ መሠረታዊ ግንዛቤ ይሰጠናል:: ስለሆነም ለሚያበረክቱልን አስተዋፅኦ በቅድሚያ እናመሰግናለን::

በጥናቱ ለመሳተፍ ፈቃደኛ ነዎትን?

አዎ ከሆነ (1) ቀጥል/ይ

አይሆንም ከሆነ (2) አቁም/ሚ

03–ውጤታዊ መግለጫ ኮዶች፤

1. ተሞልቷል
2. ፈቃደኛ አይደሉም(አልተሞላም)
3. በከፊል ተሞልቷል
4. ሌላ

መጠይቁን የሞላው ሰው ፊርማ የሚያሳየው በጥናቱ ለሚሳተፉ እናቶች የጥናቱን ሚስጥራዊነት የሚገልጽ የቃል ማረጋገጫ መስጠቱን ነው::

መጠይቁን የሞላው ሰው ስም _____

ፊርማ _____ቀን_____

ያረጋገጠው ተቆጣጣሪ

ስም _____

ፊርማ _____ቀን _____

ምዕራፍ I : በሴቶች ባህሪያት ላይ ያተኮሩ ጥያቄዎች

ተራ ቁጥር	ጥያቄ	ዝርዝር	ኮድ	መሻገሪያ
101	እድሜዎ ስንት ነው?	▪ 19 ዓመትና ከዛ በታች ▪ 20-29 ዓመት ▪ 30-39 ዓመት ▪ 40 ዓመትና ከዛ በላይ	1 2 3 4	
102	ብሔር/ብሄረሰብዎ የትኛው ነው?	▪ አማራ ▪ ኦሮሞ ▪ ትግሬ ▪ ሌሎች (ይጥቀሱ) _____	1 2 3 4	
103	የትኛውን ሃይማኖት ይከተላሉ?	▪ ኦርቶዶክስ ▪ እስልምና ▪ ካቶሊክ ▪ ፕሮቴስታንት ▪ ሌሎች (ይጥቀሱ) _____	1 2 3 4 5	
104	የጋብቻ ሁኔታ	▪ ያላገባች ▪ ያገባች ▪ የተለያየች ▪ የሞተባት ▪ ሌሎች	1 → 108 2 → 105 3 4 5	
105	የጋብቻ ዓይነት	▪ አብሮ የመኖር ነገር ግን በህግ ያልፀና ▪ ህጋዊ ጋብቻ	1 2	
106	ያገቡ ከሆነ አሁን የሚኖሩት ከትዳር ጓደኛዎ ጋር ነውን?	▪ አዎ ▪ አይደለም	1 → 107 2 → 108	
107	ለስንት ዓመት ከትዳር ጓደኛዎ ጋር አብረው ኖረዋል?	▪ ከአንድ ዓመት በታች ▪ 1-5 ዓመት ▪ 6-10 ዓመት ▪ ከ10 ዓመት በላይ	1 2 3 4	
108	ይኸኛው እርግዝና ጨምሮ ለስንት ጊዜ አርግዘዋል?	▪ አንድ ▪ ሁለት ▪ ሶስት ▪ አራትና ከዛ በላይ	1 2 3 4	
109	በዚህኛው እርግዝና ስንት የቅድመ-ወሊድ ክትትል አድርገዋል?	▪ ቢያንስ ሁለት ▪ ከሁለት በታች	1 2	
110	ትምህርት ቤት ገብተው ተምረዋልን?	▪ አውቃለሁ ▪ አላውቅም	1 → 111 2 → 112	
111	እስከ ስንተኛ ክፍል ድረስ ትምህርትዎን ተከታትለዋል?	▪ ማንበብና መጻፍ ▪ የመጀመሪያ ደረጃ ትምህርት ▪ የሁለተኛ ደረጃ ትምህርት ▪ ሶስተኛ ደረጃ ትምህርት (>12)	1 2 3 4	
112	የስራ ሁኔታ	▪ ተቀጣሪ ▪ ስራ አጥ ▪ ተማሪ ▪ የቤት እመቤት ▪ ሌሎች (ይጥቀሱ) _____	1 2 3 4 5	
113	ወርሃዊ የገቢ መጠን	▪ ከ150 ብር በታች ▪ 151-650 ብር ▪ 651-1400 ብር ▪ 1401 ብርና በላይ	1 2 3 4	

ምዕራፍ II : በወንድ ጓደኛ ባህሪያት ላይ ያተኮሩ ጥያቄዎች

ተራ ቁጥር	ጥያቄ	ዝርዝር	ኮድ	መሻገሪያ
201	የወንድ ጓደኛዎ እድሜ ስንት ይሆናል?	▪ 19 ዓመትና ከዛ በታች ▪ 20-29 ዓመት ▪ 30-39 ዓመት ▪ 40 ዓመትና ከዛ በላይ ▪ አላውቅም	1 2 3 4 5	
202	የወንድ ጓደኛዎ ብሔር/ብሄረሰብ የትኛው ነው?	▪ አማራ ▪ ኦሮሞ ▪ ትግሬ ▪ ሌሎች (ይጥቀሱ) _____ ▪ አላውቅም	1 2 3 4 5	
203	የወንድ ጓደኛዎ የሃይማኖት እምነት የትኛው ነው?	▪ ኦርቶዶክስ ▪ እስልምና ▪ ካቶሊክ ▪ ፕሮቴስታንት ▪ ሌሎች (ይጥቀሱ) _____ ▪ አላውቅም	1 2 3 4 5 6	
204	የወንድ ጓደኛዎ እርስዎን ከማግባታቸው በፊት ትዳር ነበራቸውን?	▪ አዎ ▪ አልነበረውም ▪ አላውቅም	1 → 2 → 3	205 207
205	ይኸኛውን ትዳር ሳይጨምር የወንድ ጓደኛዎ ምን ያህል ጊዜ አግብተው ነበር?	▪ አንድ ▪ ሁለት ▪ ሶስት ▪ አራትና ከዛ በላይ ▪ አላውቅም	1 2 3 4 5	
206	በአሁኑ ጊዜ የወንድ ጓደኛዎ ሌላ ትዳር አላቸውን?	▪ አዎ ▪ የላቸውም ▪ አላውቅም	1 2 3	
207	የወንድ ጓደኛዎ ትምህርት ቤት ገብተው ተምረዋልን?	▪ አዎ ▪ አያውቅም/ቁም ▪ አላውቅም	1 → 2 → 3	208 209
208	እስከ ስንተኛ ክፍል ድረስ የወንድ ጓደኛዎ ትምህርታቸውን ተከታትለዋል?	▪ ማንበብና መጻፍ ▪ የመጀመሪያ ደረጃ ትምህርት ▪ የሁለተኛ ደረጃ ትምህርት ▪ ሶስተኛ ደረጃ ትምህርት (>12) ▪ አላውቅም	1 2 3 4 5	
209	የወንድ ጓደኛዎ የስራ ሁኔታ	▪ ተቀጣሪ ▪ ስራ አጥ ▪ ተማሪ ▪ ሌሎች (ይጥቀሱ) _____ ▪ አላውቅም	1 2 3 4 5	
210	የወንድ ጓደኛዎ ወርሃዊ የገቢ መጠን በግምት	▪ ከ150 ብር በታች ▪ 151-650 ብር ▪ 651-1400 ብር ▪ 1401 ብርና በላይ ▪ በትክክል አላውቀውም	1 2 3 4 5	

ምዕራፍ III : <u>የሴቶች ሁኔታ በፋይናንስና በውሳኔ ሰጪነት</u>

ተራ ቁጥር	<u>ጥያቄ</u>	ዝርዝር	ኮድ	መሻገሪያ
301	የቤተሰብዎ ዋነኛ መተዳደሪያ የገቢ ምንጭ ምንድንነው?	▪ የባለቤትዎ ገቢ ብቻ ▪ የራስዎ ገቢ ብቻ ▪ የርስዎና የባለቤትዎ ገቢ ▪ ሌሎች	1 2 3 4	
302	እርስዎ የግሎ ወርሃዊ ገቢ አልዎትን?	▪ አዎ ▪ የለኝም	1 2	
303	በምን ያህል የጊዜ መጠን ለግል ጉዳዮ ሊያውሉት የሚችሉት ገንዘብ ይኖሮታል?	▪ ሁሌም ▪ አብዛኛውን ጊዜ ▪ አልፎ አልፎ ▪ ኖሮኝ አያውቅም	1 2 3 4	
304	በአሁኑ ወቅት ማናቸውም አይነት ተቀማጭ ገንዘብ አለዎትን?	▪ አዎ፤ በባለቤቴ ይዞታነት ▪ አዎ፤ በእኔና በባለቤቴ ይዞታነት ▪ አዎ፤ በእኔ ይዞታነት ▪ የለንም	1 2 3 4	
305	ትላልቅ የቤት ቁሳቁሶችን ለመግዛት ቢፈልጉ በገንዘብ ላይ ውሳኔ የሚሰጠው ማን ነው?	▪ ባለቤትዎ ▪ እርስዎና ባለቤትዎ ▪ እኔ ብቻዬን ▪ ሌሎች	1 2 3 4	
306	ከቤት ውጭ ወጥተው ስራ መስራት ቢፈልጉ ውሳኔ የሚሰጠው ማን ነው?	▪ ባለቤትዎ ▪ እርስዎና ባለቤትዎ ▪ እኔ ብቻዬን ▪ ሌሎች	1 2 3 4	
307	ግብረ-ስጋ ግንኙነት ወቅት ኮንዶም መጠቀም ቢፈልጉ ውሳኔ የሚሰጠው ማን ነው?	▪ ባለቤትዎ ▪ እርስዎና ባለቤትዎ ▪ እኔ ብቻዬን ▪ ሌሎች	1 2 3 4	
308	የኤች አይ ቪ የደም ምርመራ ማድረግ ቢፈልጉ ውሳኔ የሚሰጠው ማን ነው?	▪ ባለቤትዎ ▪ እርስዎና ባለቤትዎ ▪ እኔ ብቻዬን ▪ ሌሎች	1 2 3 4	
309	ለወሊድ የጤና ተቋማትን መገልገል ቢፈልጉ ውሳኔ የሚሰጠው ማን ነው?	▪ ባለቤትዎ ▪ እርስዎና ባለቤትዎ ▪ እኔ ብቻዬን ▪ ሌሎች	1 2 3 4	
310	የተወለደውን ህፃን ምንና እንዴት መመገብ እንዳለበት የሚወስነው ማን ነው?	▪ ባለቤትዎ ▪ እርስዎና ባለቤትዎ ▪ እኔ ብቻዬን ▪ ሌሎች	1 2 3 4	
311	በእርግዝና ወቅት መድሐኒት መውሰድ ቢኖርብዎት ውሳኔ የሚሰጠው ማን ነው?	▪ ባለቤትዎ ▪ እርስዎና ባለቤትዎ ▪ እኔ ብቻዬን ▪ ሌሎች	1 2 3 4	
312	በቤት ውስጥ የሚዘጋጀውን የምግብ ዓይነት የሚወስነው ማን ነው?	▪ ባለቤትዎ ▪ እርስዎና ባለቤትዎ ▪ እኔ ብቻዬን ▪ ሌሎች	1 2 3 4	
313	ለተወሰነ ቀናት እርስዎ ቢታመሙ በቤት ውስጥ ምግብ የሚዘጋጀው ማን ነው?	▪ ባለቤትዎ ▪ እርስዎና ባለቤትዎ ▪ እኔ ብቻዬን ▪ ሌሎች	1 2 3 4	

ምዕራፍ IV: በፍቃደኝነት ላይ የተመሰረተ የኤች ኤይ ቪ ምክርና ምርመራ

ተራ ቁጥር	ጥያቄ	ዝርዝር	ኮድ	መሻገሪያ
401	በፍቃደኝነት ላይ የተመሰረተ የኤች ኤይ ቪ ምክርና ምርመራ ለማን የሚጠቅም ይመስሎታል?	▪ ለእናትዬዋ ብቻ ▪ ለህጻኑ ብቻ ▪ ለባለቤቴ ብቻ ▪ ለእናትና ህጻኑ ብቻ ▪ ለቤተሰብ ▪ ለጤና ባለሞያው ▪ ለሁሉም ▪ ሌሎች(ይጥቀሱ) ▪ መልስ የለም	1 2 3 4 5 6 7 8 99	
402	ከወንድ ጓደኛዎ ጋር በፍቃደኝነት ላይ ስለተመሰረተ የኤች ኤይ ቪ ምርመራ ተወያይታችሁ ታውቃላችሁን?	▪ አዎ ▪ አናውቅም	1 ⟶ 2 ⟶	403፤404 405
403	ለምን ያህል ጊዜ ተወያይታችሁበት ታውቃላችሁ?	▪ አንድ ጊዜ ▪ ሁለትና ከዛ በላይ ▪ አላውቅም ▪ መልስ የለም	1 2 88 99	
404	የመወያያ ነጥቡን ቀድሞ ያነሳው ማን ነበር?	▪ እኔ ▪ ባለቤቴ ▪ የመገናኛ ብዙሃን ▪ ሌሎች	1 2 3 4	
405	በእርስዎና በወንድ ጓደኛዎ መካከል ጥልቅ መተማመን ያለ ይመስሎታልን?	▪ አዎ ▪ አይመስለኝም ▪ እርግጠኛ አይደለሁም	1 2 3	
406	እርስዎ የኤች ኤይ ቪ የደም ምርመራ አድርገው ያውቃሉ?	▪ አውቃለሁ ▪ አላውቅም ▪ መልስ የለም	1 2 3	
407	የወንድ ጓደኛዎ ቀደም ሲል በግላቸው የኤች ኤይ ቪ የደም ምርመራ ያደረጉ ይመስሎታል?	▪ አዎ ▪ አይመስለኝም ▪ አላውቅም ▪ መልስ የለም	1 ⟶ 2 ⟶ 88 99	408 409
408	የወንድ ጓደኛዎ የኤች ኤይ ቪ የደም ምርመራውን ውጤት ነግረዎታልን?	▪ አዎ ▪ አልነገረኝም ▪ አላውቅም ▪ መልስ የለም	1 2 88 99	
409	እርስዎ ዛሬ በፈቃደኝነት ላይ የተመሰረተ የኤች ኤይ ቪ የደም ምርመራ ያደርጋሉን?	▪ አዎ ▪ አላደርግም ▪ አላውቅም ▪ መልስ የለም	1 ⟶ 2 ⟶ 88 99	411 408፤409
410	የኤች ኤይ ቪ የደም ምርመራ እንዳያደርጉ የገፋፋዎት ምክንያቶች የትኞቹ ናችው?	▪ ፖዘቲቭ ብሆን ሊደርስብኝ የሚችለውን ጭንቀት ስለምፈራ ▪ በህብረተሰቡ ዘንድ መገለል ይደርስብኛል ብዬ ስለምፈራ ▪ ባለቤቴ በምርመራው ላይ ስላለው አመለካከት እርግጠኛ ስላልሆንኩ ▪ የምርመራው ሚስጠራዊነት ስለተጠራጠርኩ ▪ ሌሎች (ይጥቀሱ)_____ ▪ አላውቅም ▪ መልስ የለም	1 2 3 4 5 88 99	

ተራ ቁጥር	ጥያቄ	ዝርዝር	ኮድ	መሻገሪያ
411	የወንድ ጓደኛዎን ከኤች ኤይ ቪ የደም ምርመራ በፊት ስለምርመራው ማማከር አስፈላጊ ነውን?	▪ አዎ ▪ አይደለም ▪ አላውቅም ▪ መልስ የለም	1 → 412 2 → 413 88 99	
412	የወንድ ጓደኛዎን በኤች ኤይ ቪ የደም ምርመራ ላይ ሊኖራቸው የሚችለው ምላሽ ምን ሊሆን ይችላል?	▪ ይፈቅዳሉ ▪ ይቃወማሉ ▪ ለማወቅ ያዳግታል ▪ መልስ የለም	1 2 3 99	
413	እርስዎ የኤች ኤይ ቪ የደም ምርመራ ውጤትዎን ማወቅ ይፈልጋሉ?	▪ አዎ ▪ አልፈልግም ▪ አላውቅም ▪ መልስ የለም	1 → 414 2 → 415 88 99	
414	የምርመራ ውጤትዎን ለወንድ ጓደኛዎ ለመንገር እቅድ አለዎትን?	▪ አዎ ▪ የለኝም ▪ በውጤቱ ላይ ይወሰናል ▪ መልስ የለም	1 2 3 99	
415	የወንድ ጓደኛዎ በግላቸው የኤች ኤይ ቪ የደም ምርመራ ለማድረግ ፈቃደኛ የሚሆኑ ይመስሎታል?	▪ አዎ ▪ አይመስለኝም ▪ አላውቅም ▪ መልስ የለም	1 → 501 2 → 416 88 99	
416	የወንድ ጓደኛዎ የኤች ኤይ ቪ የደም ምርመራ እንዳያደርጉ ከገፋፋቸው ምክንያቶች እርስዎ የትኞቹ ይመስሎታል?	▪ ፖዘቲቭ ቢሆኑ ሊደርስባቸው የሚችለውን ጭንቀት ስሊፈሩ ▪ በህብረተሰቡ ዘንድ መገለል ይደርስብኛል ብለው ስለሚፈሩ ▪ ባለቤትዎ እርስዎ በምርመራው ላይ ስላሎት አመለካከት እርግጠኛ ስላልሆኑ ▪ የምርመራው ሚስጠራዊነት ስለተጠራጠሩ ▪ ሌሎች (ይጥቀሱ)_____ ▪ አላውቅም ▪ መልስ የለም	1 2 3 4 5 88 99	

ምዕራፍ V: <u>ለአደጋ ተጋላጭነት ግንዛቤ</u>

ተራ ቁጥር	ጥያቄ	ዝርዝር	ኮድ	መሻገሪያ
501	እርስዎ በራስዎ የኤች ኤይ ቪ ቫይረስ በደምዎ ውስጥ ያለ ይመስሎታል?	▪ አዎ ▪ አይመስለኝም ▪ አላውቅም ▪ መልስ የለም	1 → 502 2 → 503 88 99	
502	ለኤች ኤይ ቪ ቫይረስ እንድጋለጥ አስተዋፅኦ አድርጓል ብለው እንዲያስቡ ካደረጉት ምክንያቶች መካከል የትኞቹ ናቸው?	▪ በርካታ የወሲብ ጓደኞች ስለነበሩኝ ▪ ያለ ኮንዶም ወሲባዊ ግንኙነት ስላደረኩ ▪ በቫይረሱ በተበከለ መርፌ በመጠቀሜ ▪ ኤች ኤይ ቪ ፖዘቲቭ ከሆነ ግለሰብ ጋር ወሲብ በመፈፀሜ ▪ ሌሎች (ይጥቀሱ)_____ ▪ አላውቅም ▪ መልስ የለም	1 2 3 4 5 88 99	

ተራ ቁጥር	ጥያቄ	ዝርዝር	ኮድ	መሻገሪያ
503	ለኤች ኤይ ቪ ቫይረስ እንዳልጋለጥ አስተዋፅኦ አድርጓል ብለው እንዲያስቡ ካደረጎት ምክንያቶች መካከል የትኞቹ ናቸው?	▪ በእኔና ለባለቤቴ ዘንድ መተማመን በመኖሩ ▪ በቫይረሱ በተበከለ መርፌ ባለመጠቀሜ ▪ ሁሌም በወሲባዊ ግንኙነት ጊዜ ኮንዶም ስለምጠቀም ▪ ሌሎች (ይጥቀሱ)_____ ▪ አላውቅም ▪ መልስ የለም	1 2 3 4 88 99	
504	በእርስዎ አመለካከት የወንድ ጓደኛዎ የኤች ኤይ ቪ ቫይረስ በደማቸው ውስጥ ያለ ይመስሎታል?	▪ አዎ ▪ አይመስለኝም ▪ አላውቅም ▪ መልስ የለም	1 → 505 2 → 506 88 99	
505	የወንድ ጓደኛዎ ለኤች ኤይ ቪ ቫይረስ እንዲጋለጡ አስተዋፅኦ አድርጓል ብለው እንዲያስቡ ካደረጎት ምክንያቶች መካከል የትኞቹ ናቸው?	▪ በርካታ የወሲብ ጓደኞች ስለነበሯቸው ▪ ያለ ኮንዶም ወሲባዊ ግንኙነት ስለሚፈፅሙ ▪ በቫይረሱ በተበከለ መርፌ ተጠቅመው ስለሚሆን ▪ ኤች ኤይ ቪ ፖዘቲቭ ከሆነ ግለሰብ ጋር ወሲብ ስለፈፀሙ ▪ ሌሎች (ይጥቀሱ)_____ ▪ አላውቅም ▪ መልስ የለም	1 2 3 4 5 88 99	
506	የወንድ ጓደኛዎ ለኤች ኤይ ቪ ቫይረስ እንዳይጋለጡ አስተዋፅኦ አድርጓል ብለው እንዲያስቡ ካደረጎት ምክንያቶች መካከል የትኞቹ ናቸው?	▪ ለባለቤቴ እኔን ስለሚያምነኝ ▪ በቫይረሱ በተበከለ መርፌ ስለማይጠቀሙ ▪ ሁሌም በወሲባዊ ግንኙነት ጊዜ ኮንዶም ስለሚጠቀሙ ▪ ሌሎች (ይጥቀሱ)_____ ▪ አላውቅም ▪ መልስ የለም	1 2 3 4 88 99	

ANNEX 3:

Table 8: Socio-demographic characteristics of focus groups participants, December 2006.

Variables	No. of Participants
Age:	
- < 19 years	3
- 20 - 29 years	13
- 30 - 39 years	6
- > 40 years	3
Living with male partner:	
- Legally married	19
- Cohabiting	6
Educational status:	
- Illiterate	2
- Primary (Grade 1-6)	9
- Secondary (Grade 7-12)	12
- Tertiary (Grade 12+)	2
Religion:	
- Christian	21
- Muslim	4
Occupation:	
- Employee	2
- Self employee	4
- House wife	18
- Student	1

ANNEX 4:

REGISTRATION FORM FOR FGD PARTICIPANTS

Title of the study: *Assessment of male partners influence on pregnant women towards voluntary HIV testing and support on PMTCT in hospitals of Addis Ababa.*

- FGD identification code _____
- Date _____ Place _____
- Full name of participant _____ (optional)
- Living with male partner _____
- Age _____
- Religion _____
- Education status _____
- Occupation _____
- Moderator _____
- Note taker _____
  - ⇨ Time started: _____
  - ⇨ Time ended: _____
- Any other information _____

_____

_____

_____

ANNEX 5:

FGD TOPIC GUIDE FOR PREGNANT WOMEN

You are all welcome!!!

We are happy that you devote your precious time to discus with us. We are a group from A.A.U, Department of Community Health .We are conducting a study called assessment of male partners influence on pregnant women towards voluntary HIV testing and support on PMTCT in hospitals of Addis Ababa and we like to see the determinant factors. The results generated from this study will be useful for promoting a program on prevention of mother-to-child transmission of HIV/ AIDS (PMTCT) and else where when deemed important.

You all are selected for your reach information you have to share with us. You should fell free to provide your information. Your name will not be disclosed to any one. If you don't want to say any thing you can avoid and also refuse to continue the discussion.

(The facilitator invites participants to introduce their name to participants)

Date _____ Time started _____ Time ended _____

1. Can you tell me about HIV/AIDS?
   - How to acquire
   - What are the measures to prevent
   - Feature and burden in your locality
2. What do you know about mother to child transmission of HIV/AIDS?
   - Means of transmission
   - Ways to hinder transmission
   - Probe
     - Explain it more?
     - Something else?

3. Can you tell me what do you know about VCT?

- What is the importance during pregnancy?
- What benefit does it give for the family?
- Probe
    - What is your Experience?
    - Would you explain it?

4. Is that important to inform a male partner before HIV testing?

- Mention the merits and demerits of informing male partner
- Probe
    - What is your Experience?
    - Would you explain it?

5. What would happen if you come to VCT centers without consulting your male partner?

- Probe
    - Please more explanation?
    - What is your Experience?

6. How do you think your male partner respond if you asked him to be HIV tested?

- Probe
    - Please more explanation?

7. How does your male partner react if your test result is positive?

- Probe
    - Please more explanation?
    - Any experience? Or example?
    - What else?

8. What are the reasons that made male partner influential regarding PMTCT?

- State on context of the family
- Probe
    - Further explanations please
    - What else

9. What can be done to obtain full participation of male partner on HIV testing?

DECLARATION

I, the undersigned, declare that this is my original work and has never been presented in this or any other university and that all the source material used for the thesis have been fully acknowledged.

Name: Abenet Takele K. (B.Sc.)

Signature: _____

Place: Addis Ababa

Date of submission: _____

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

Name: Dr. Mulugeta Betre (MD, MPH)

Signature: _____

Date: _____

Map of Addis Ababa

