



ADDIS ABABA UNIVERSITY
FACULTY OF MEDICINE
SCHOOL OF PUBLIC HEALTH

**Assessment of Quality of Antenatal-
Linked HIV Counseling and Testing
for Intervention of PMTCT in
Addis Ababa, Ethiopia**

BY
HUSSEIN ISMAIL SHAFI

**A Thesis submitted to the School of Graduate Studies
of Addis Ababa University, School of Public Health, in
partial fulfillment of the requirement for the Degree of
Masters of Public Health**

June 2008
Addis Ababa, Ethiopia

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ABSTRACT

Background: *The most important component of PMTCT program is HIV Counseling and Testing (HCT). A high quality of HCT is essential for success. In Ethiopia PMTCT services began in 2003, but only 0.8% of HIV infections among births to HIV positive women was averted in 2005/6 through PMTCT*

Objective: *the aim of this study was to assess the quality of antenatal-linked HIV counseling and testing as an intervention for PMTCT at ten public Health Centers in Addis Ababa City.*

Methodology: *a cross sectional study was conducted at purposively selected 10 health centers in Addis Ababa from April to May 2008. Methods included structured observations of counseling sessions, interviews of 10 PMTCT site coordinators, 9 counselors and 422 exit clients. Data on client satisfaction, counselors' communicative skills, duration and content of pre- and post test counseling was collected using a structured questionnaire adapted from UNAIDS tools. SPSS version 15.0 was used to enter, clean, and analyze the data. Descriptive and analytic statistics were computed.*

Result: *6 of the 10 health centers had an HCT uptake rate of 90 to 100% of those counseled, and 8 of the health centers had a client return rate of 90% to 100% to collect the test results. A total of 66 (31 pre- and 35 post test) counseling sessions were observed. The mean duration of pretest counseling was 5.37 minutes (± 3.34) and that of post test was 3.0 minutes (± 2.24). In 25.8% of the sessions, the mothers were not given the chance to freely consent or dissent for blood test. During the post test sessions, in 42.9% of the session the clients' understanding of the meaning of their test results was not explored. At exit interview, 21.3% of the clients didn't know why they were offered HCT particularly during their pregnancy time. The odds of knowing why HCT is offered during pregnancy was higher among those residents of Addis Ababa and clients who spent 5-15 min on discussion with their counselors [OR = 4.48, 95% CI: 1.84, 10.9 and OR=2.1, 95%CI: 1.03, 4.24 resp.]. Generally, 89.8% of the clients reported being satisfied with the pre-and/or post-testing counseling discussions.*

Conclusion: *The communicative skill of the counselors was generally 'satisfactory'. The majority of pre- and post-test sessions included the basic information on HIV transmission/prevention and PMTCT. However the discussions were unusually too brief, rudimentary and lacking depth and coverage. Nearly a quarter of the exit clients didn't understand why they were offered HCT particularly during their pregnancy time; however, the vast majority of the women interviewed were satisfied with the counselling and counsellors interactions.*

Key words: *PMTCT, HIV, HCT, Quality, Counselors' skills, Satisfaction: Addis Ababa*

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ACRONYMS

AA	Addis Ababa
AARHB	Addis Ababa Regional Health Bureau
AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
ARV	Antiretroviral
FMoH	Federal Ministry of Health
HAPCO	HIV/AIDS Prevention and Control Office
HC	Health Center
HCT	HIV Counseling and Testing
HIV	Human Immunodeficiency Virus
MTCT	Mother-to-child Transmission
PMTCT	Prevention of Mother-to-Child Transmission of HIV
TBPT	Tuberculosis Preventive Therapy
UNAIDS	Joint United Nations Program on HIV/AIDS
UNICEF	United Nation's Children Fund
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

I. INTRODUCTION

1.1. Background

HIV/AIDS is the worst pandemic in human history. Never before did a single disease has such global crisis and significance in terms of its threatening impact on social, economical, political security, and life expectancy of individuals and communities (1).

According to estimates from the UNAIDS/WHO, AIDS Epidemic update (Dec. 2007), in 2007 the total number of people living with HIV stands at 33.2 million (2). Among these, 15.4 million are women and 2.5 million are children under 15. In 2007, a total of 2.5 million (2.1 million adults and 420 000 under 15 children) new HIV infections and a total of 2.1 million deaths occurred due to AIDS. Every day, over 6800 persons become infected with HIV and over 5700 persons die from AIDS, mostly because of inadequate access to HIV prevention and treatment services.

Sub-Saharan Africa remains the most seriously affected Region, with AIDS remaining the leading cause of death there. About 68% of adults and nearly 90% of children infected with HIV live in this region, and 76% AIDS deaths in 2007 occurred there. In sub-Saharan Africa, almost 61% of adults living with HIV in 2007 were women. It is estimated that 1.7 million [1.4 million-2.4 million] people were newly infected with HIV in 2007, bringing to 22.5 million the total number of people living with the virus.

Each year, over half a million newborns are infected with HIV in sub-Saharan Africa through mother-to-child transmission (MTCT). Programs for the prevention of MTCT of HIV include antenatal HIV testing and counseling, avoiding unintended pregnancy, provision of appropriate antiretroviral (ARV) regimen for mothers and newborns, and support for safer infant feeding options and practices. However, in spite of efforts to scale up, only about 11% of pregnant women living with HIV received antiretroviral drugs for PMTCT globally in 2005, ranging from 77% and 29% in Eastern Europe and Latin America to 3% and 2% in western Africa and southern Asia (3). As a consequence, more than 1400 children under the age of 15 continue to be infected with HIV every day in resource-constrained settings, and children account for more than 10% of all new infections. Without care and treatment, more than half of these children will die before their second birthday.

According to calibrated single point estimates (2007), the national adult HIV prevalence is reported to be 2.1% (7.7% in urban and 0.9% in rural areas) (4). 977,394 Ethiopians are living with HIV/AIDS (41% males, 59% females); an estimated 75,420 HIV-positive pregnant women were anticipated in 2007. Highest prevalence occurs in the 15-24 age group and the prevalence is higher among females than males in both urban and rural areas. Prevalence appears to have leveled off in urban areas, but continues to rise in rural areas, where 85% of the population lives.

The Government of the Federal Democratic Republic of Ethiopia is committed to reduce the spread of HIV/AIDS and address the consequences of the epidemic in the population. The national HIV/AIDS policy was enacted in 1998; and in 2001, the National HIV/AIDS Council declared HIV a national emergency. The National HIV/AIDS strategic framework calls for a multi-sectoral response, guaranteeing rights of all people living with HIV/AIDS, and facilitating the supply and use of antiretroviral drugs. Ethiopia has adopted the WHO/UNICEF/UNAIDS 4-pronged PMTCT strategy as a key entry point to HIV care for women, men and families (4). Prevention of mother-to-child-transmission services began in 2003, but suffers from low utilization of antenatal care and delivery services; and only 0.8% of HIV infections among births to HIV positive mothers were averted in 2005/6 through PMTCT programs (5).

Since most existing interventions to prevent MTCT of HIV have not been fully implemented in Ethiopia, like other resource-constrained countries, there are still many unanswered operational questions related to preventive strategies of MTCT of HIV (6, 7). The poor quality of counseling in the PMTCT program will reduce the effectiveness of the program and the mere HIV testing averts little MTCT. It is only after the client receives quality counseling and care from a well trained and competent counselor with good counseling and interpersonal communication skills that the client will make a good decision and adhere to the information given to prevent MTCT. However, there is no data on quality of HIV Counseling and Testing for PMTCT in Ethiopia to improve the service. This study is therefore, essential to provide baseline information intending to fill this gap and to help program coordinators and policy makers, discern new opportunities to scale up and improve the service to avert MTCT.

1.2. Literature Review

1.2.1. Mother-to-Child Transmission

Mother to child transmission is the most common mode of HIV transmission in children which can be vertically transmitted from HIV positive pregnant woman to her unborn baby during pregnancy, labor and delivery or through breastfeeding after delivery. During 2002, UNAIDS estimated that worldwide through Mother to Child Transmission approximately 800,000 children acquired HIV infection including 720,000 in Sub-Saharan Africa (8).

Mother-to-child transmission of HIV occurs only rarely in early pregnancy. Without specific interventions to reduce the risk of transmission, estimated rates of MTCT, or vertical transmission range from 14% to 25% in Europe and America and from 13% to 42% in developing countries (9). The difference in risk between populations is largely attributable to the characteristics of the population studied as they relate to HIV infection and to the prevalence of factors influencing the likelihood of transmission. In particular, the additional risk posed by breastfeeding explains a large part of the estimated differences (10, 11).

Transmission of HIV through breastfeeding has been well documented. According to the limited data available in the early 1990s, the estimated additional risk of transmission from breast milk, above that of transmission during pregnancy and delivery, among women with established HIV infection, was approximately 15% when breastfeeding continued for 2 years or more (12). The risk of transmission through breastfeeding among women with recent infection (acquired postpartum) was nearly twice as high. More recent and more reliable data, including the results of a randomized clinical trial in Nairobi, confirm these initial findings (13).

The United Nations strategic approach to the prevention of transmission of HIV to infants and young children has four areas (11, 12):

1. Primary prevention of HIV infection in women
2. Prevention of unintended pregnancy among HIV-infected women
3. Interventions to reduce transmission from HIV-infected pregnant and lactating women to their children
4. Care and support of women, children, and families infected/affected by HIV/AIDS. A significant and sustainable impact will be achieved only when all four areas are in place and functioning.

1.2.2. Voluntary Counseling and HIV Testing as Part of PMTCT Strategy

HIV counseling has been defined as a confidential dialogue between a person and a care provider aimed at enabling the person to cope with stress and make personal decisions related to HIV/AIDS. The counseling process includes an evaluation of personal risk of HIV transmission and facilitation of preventive behavior (14).

The World Health Organization (WHO) is promoting the pre-test initiative, which calls for HIV voluntary counseling as an entry point for access to care and prevention (15). Although globally HCT services have been identified as an important strategy in managing HIV transmission from Mother to Child, HCT in PMTCT has not been seen as a priority in HIV care and prevention programs in many developing countries and has therefore not been widely available.

According to the WHO in 2003 the number of sites offering HCT in PMTCT services was 37,513 in the World, 13,214 in Sub-Saharan Africa (16); and it was 173 for Ethiopia in 2006 (5). The percentage of pregnant women offered HIV Counseling and Testing (HCT) in PMTCT services in 2003 was 8% for the World, 5% for Sub-Saharan Africa; and the Annual report for Ethiopian Fiscal year 1998 EC indicated that a total of 52,428 pregnant women were tested for HIV.

1.2.3. HIV Counseling and Testing During Antenatal Care

There are 2 approaches to HIV testing in the ANC (including labour & delivery) settings. Each provides easily understood information to the client about HIV and the risks and benefits of testing. The approaches differ in how patients agree to test for HIV (17). The differences are summarized as follows:

Opt-in - After the client has received information about HIV and testing, she is given the choice of refusing or consenting to an HIV test. This option is presented in a neutral, supportive manner.

Opt-out - HIV testing, in combination with information on HIV, is offered as a routine part of a standard package of care. The woman is given the opportunity to decline the test should she choose to do so. The opt-out approach emphasizes that HIV testing is an expected part of ANC. However, testing is still voluntary under the opt out approach — the woman has a right to refuse testing. The provider should identify the problem and solve issues that are preventing a woman from accepting testing.

Compared with other approaches, routine provider-initiated HIV counseling and testing using the opt-out approach for all pregnant women has resulted in greater acceptability, increased opportunity to prevent MTCT, and minimized stigma (4). Irrespective of the approach used, all information about HIV testing must be kept confidential and testing should be voluntary. The pregnant woman should be given the results of a rapid HIV test within one hour whenever possible. Knowledge of HIV status is a very important step in providing appropriate recommendations and treatment for HIV-positive women and their partners when/if indicated. The client is given pre-test information in a group or individually on HIV/AIDS and PMTCT and is told that her routine antenatal laboratory tests will include an HIV test. The provider also must inform the client that she has the right to say “no” (to opt out), and this decision by no means affects the services she will get from the health facility.

Pregnant women will require the same information as other people in pre- and post-test counseling sessions, but additional areas will need to be explored (18).

Pre-Test Counseling Sessions: The purpose of the pre-test session in all PMTCT settings is to provide the client or couple with adequate information to make an informed decision about HIV testing (19). Messages include the basics about HIV, benefits of testing and explanation of HIV testing procedures. In ANC settings, the pre-test session also includes information on partner testing, risk-reduction and encouragement to seek continuous healthcare. The pre-test session should take approximately 10–20 minutes for the group or individual sessions in the ANC setting. The Ethiopian FMoH Guidelines for PMTCT of HIV also recommends pre-test counseling session to last 5-15 minutes (4).

Post-Test Counseling Sessions: The purpose of the post-test session is to provide the woman or couple with the HIV test result; to help her understand the meaning of the result; to encourage disclosure and partner testing; to offer counselling and prevention education including risk-reduction messages as well as support and referrals to services (19). For those who test HIV-positive, the post-test session should also provide a summary of PMTCT interventions including ARV prophylaxis, safer birth, and infant feeding options. All HIV test results, whether positive or negative, must be given in person, conducted in private and tailored to the woman’s or couple’s HIV status. The healthcare worker should provide all of the essential information during this post-test counselling session, since this session may be the only post-test counselling session for a woman with limited

access to healthcare services. The post-test session for the woman or couple who tests HIV-negative typically lasts about 5–10 minutes, and for the HIV-positive generally takes 15–30 minutes or longer, depending on the need for support.

1.2.4. Quality of VCT Services

WHO representative to India defined quality VCT services as the provision of professional client-centered counseling and testing services, in an easily accessible, non-threatening, non-discriminating environment; where clients are treated equally with dignity and respect, their information kept confidential, and through an ongoing processes of pretest, post test and follow up counseling clients are facilitated to understand their personal situation, realize their abilities and are empowered to make appropriate choices; based on standard protocols for prevention, treatment and care of sexually transmitted infections including HIV, opportunistic infections, MTCT and referrals (20).

Quality entails different aspects from the perspectives of the clients, the counselors and the VCT coordinators. The dimensions of quality include: technical competences, access to services, effectiveness, interpersonal relations (interaction between the provider and the client), continuity of the service on an ongoing basis, safety (related to service delivery), and amenities (physical appearance and comfort) and support for the counselors) (21, 22).

Evaluation of counseling quality has been divided into common elements — competence (counseling quality) and content—which are important for all counseling sessions, and additional content elements which are important when counseling in specific circumstances and when specific interventions, such as MTCT and TBPT interventions, are available (18).

1. Competency-based elements

- a. **Interpersonal relationship:** Interpersonal interactions are influenced by gender, cultural and socioeconomic factors. Other factors such as workload, resources and referral opportunities will also be important. These factors should be taken into account when setting standards.
 - Good client reception, greeting and introduction;
 - Rapport, respect, interest and empathy;
 - Engagement of the client in conversation, active listening (verbal and non-verbal);
 - Emotional warmth and support, etc

b. Gathering information

- The use of an appropriate balance of open and closed questions;
- The appropriate use of silence to allow for self-expression, dealing with impact, thinking through implications;
- The clarification about client expectations and information heard to avoid premature conclusions;
- Summarizing the main issues discussed.

c. Giving information

- Acceptable knowledge about HIV on the part of the counselor;
- Counselor's ability to provide simple and clear information about HIV-related issues;
- Repetition and reinforcement of important information;
- Checking for understanding/misunderstandings; and summarizing the information.

d. Dealing with special circumstances

- Sensitivity to and accommodation of language difficulties;
- Talking about sensitive issues, appropriate to the culture, educational level and beliefs (spiritual and traditional) of the client;
- Appropriate management of the client's distress or emotional reactions;
- Flexibility to involve partner or significant other, when appropriate or requested, etc

2. **Content-based elements** — include pre-test, post-test, HIV diagnostic procedure counseling, and for special services/interventions: TBPT, MTCT

Three Guiding Principles for Testing and Counselling for PMTCT

1. *Confidentiality* – Maintaining confidentiality is the responsibility of all healthcare workers and is essential for establishing and maintaining client trust. A private space should be used for all discussions of HIV-related matters, particularly HIV test results. Healthcare workers should reassure the client that only those who are directly involved in her care will have access to her records (19).
2. *Informed Consent* – is the process during which clients receive clear and accurate information about HIV testing in order to make an informed decision about whether to accept or decline testing. In the context of PMTCT, written informed consent is not required; consent may be verbal. Prior to obtaining informed consent, the client must understand the purpose and benefits of the test, and the

testing and counselling process, including their right to refuse testing (opt-out). The healthcare worker must respect the client's testing decision.

3. *Post-test support and services:* The HIV test result should always be offered in person. Along with the result, appropriate post-test information, counseling or referral should be offered (18).

Setting up VCT and ensuring a quality that will create demand is a considerable challenge. In counseling, perhaps more than any other area of service provision, service quality determines outcomes. Poor quality counseling can result in misunderstanding and even resistance to behavior change (23). Counselors need adequate training and ongoing support and supervision to ensure that they give good quality counseling and can cope with their work load. However, according to a study done in 2006 to assess quality of VCT in Addis Ababa, 83.1% of the counselors had never been given an ongoing training (24).

A study was done in South Africa on purposively selected three PMTCT centers to assess quality of counseling of mothers (25). The result revealed that those three sites were rated very well, with high rates of acceptance of counseling and HIV testing. However, whilst the general quality of communication skills was very good, there were several gaps in the content of VCT sessions across all three sites that could have serious implications for the effectiveness of the program. Only 12 of 34 mothers were informed of the risks of HIV transmission in the womb, during delivery and by breastfeeding. Poor counseling and lack of encouragement to disclose could affect adherence to infant feeding advice and to drug therapy. Lack of adherence to ARV seriously compromises the effectiveness of many PMTCT programs. The authors concluded that the quality of infant feeding counseling provided through the PMTCT program was poor at all the three sites. Even though the counselors had good communication skills, they were observed to lack confidence to take mothers through a logical process of assessing home circumstances and presenting the risks of different infant feeding options.

In a study done to assess quality and quantity of antenatal HIV counseling in a PMTCT programme in Kenya, excellent social and communicative skills of the counselors were observed. However, minimum time was spent on individual pre- and post-test counseling, making it highly doubtful that the goals of HCT were reached (26).

Poor infant feeding counseling is a finding across many PMTCT programs. In Zambia, in only half of the sessions observed did health workers “satisfactorily” discussed MTCT with HIV positive mothers, and infant feeding options were discussed with mothers in one-third of the sessions (27). Across Zambia, out of 42 providers, only 10 counselors inquired whether the mother had money to buy formula, and only six asked whether the clients had access to adequate supplies of water and fuel (28). Inadequate knowledge of MTCT was widespread amongst mothers, even after counseling. Even at many very poor rural PMTCT sites in South Africa, a majority of HIV-positive women were opting for free formula milk (29). Given the inadequate assessment of risks, the limited information provided to women regarding safe formula feeding and the low level of knowledge regarding MTCT amongst mothers, it is likely that opting not to breastfeed is endangering many infants.

Another study was conducted in South Africa in 2004 to evaluate the quality of counseling provided to mothers in three PMTCT Pilot Sites, in which 22 counselors, 14 lay staff and 8 nurses, were observed with a mean of four observations per counselor (30). Sixty exit interviews were also conducted. The mean duration of the counseling sessions was 18 minutes. Introductory group session’s topics were fairly consistent across the sites and included what HIV is, how HIV is transmitted during pregnancy, and what the PMTCT program is including a discussion of nevirapine and feeding options. Generally, overall communication skills of the counselors with the mothers were good across all three sites. In all cases, the counselors used a warm tone of voice and language that the mother understood. In over 80% of observations, the mothers were given time to respond and an opportunity to ask questions. However, in only one-third (32%) of cases were inaccurate beliefs of the mothers corrected.

In a study conducted in Thailand to evaluate VCT in the national PMTCT program in 2000, 13 group counseling and 27 individual pre-test counseling sessions were observed (31). The individual counseling sessions lasted between 5-30 minutes (mean 16 minutes) and the group counseling sessions between 10-60 minutes (mean 21 minutes). HIV transmission and risk behavior discussed in 96% sessions, misconceptions corrected in 55%, information concerning the HIV test given in 59%, information about HIV in pregnancy and the risk of MTCT discussed in 70%, implications of a positive result for her baby in 26%; implications of a positive result for future children in 22%, implications of a positive result for decisions about infant feeding in 26%, explaining that testing is

voluntary 85%, and understanding checked for 48% of the cases. Even though the majority of sessions included basic information on HIV and PMTCT, there was less coverage of the benefits of VCT and in particular the benefits of partner testing.

In a study done in Kenya to assess the quality of counseling services delivered to PMTCT clients in 2003, 68% of the participants received less than 5 minutes of post-test counseling, and only 10.7% had more than 10 minutes of post-test counseling (32). MTCT/PMTCT knowledge was inadequate as clients could not recall information given during counseling. Privacy in counseling rooms was considered good by most clients (97%). Almost all clients (96%) waited for services for longer than 90 minutes (< 90 minutes is regarded as the acceptable waiting time).

Post-test counseling is meant to assist clients in disclosing positive HIV status. The standard requirement for counseling is a maximum of 5 clients per counselor per day and a counseling time of about 5–10 minutes for a woman or couple who tests HIV-negative, and for the HIV-positive generally takes 15–30 minutes or longer, depending on the need for support. However, the short time spent on this counseling for most clients confirms inadequate facilitation of this important task (19, 32). Findings indicated that inadequate information was passed to clients during counseling. This could be due to the fact that counselors were overwhelmed with large numbers of clients, so they ignored the prescribed counseling protocols.

Several key factors may contribute to the poor and inconsistent utilization of maternal health care services for PMTCT. The poor quality of counseling in the PMTCT program will reduce the effectiveness of the program and the mere HIV testing averts little MTCT (25). It is only after the client receives quality counseling and care from a well trained and competent counselor with good counseling and interpersonal communication skills that the client will make a good decision and adhere to the information given to prevent MTCT.

Assessing the quality of HCT in PMTCT programs is therefore very important. In Ethiopia, however, there is no such data so far to our knowledge. This study is therefore, essential to provide baseline information intending to fill the gap and to help program coordinators and policy makers, discern new opportunities to scale up and improve the service to avert MTCT.

1.3. Statement of Problem

Across the sub-Saharan Region, women bear a disproportionate part of the AIDS burden: not only are they more likely than men to be infected with HIV, but in most countries they are also more likely to be the ones caring for people infected with HIV (33). UNICEF estimated that about 1.8 million HIV-infected women are pregnant every year; and they deliver roughly 600,000 to 700,000 HIV-infected infants annually (34). Accordingly, about 200,000 to 350,000 infants are infected by HIV through breastfeeding each year; and there are 2.5 million under 15 years of age children infected with HIV globally (2). Mother to child transmission of HIV is the major source of HIV infection in children (35). The PMTCT of HIV program aims at reducing MTCT of HIV during pregnancy, childbirth and during breast-feeding.

Fortunately, the risk of perinatal transmission of HIV is below 2% with antiretroviral treatments, safe delivery and safe infant-feeding; in the absence of these critical interventions, the risk ranges from 20-45% (36). But because low-income countries often lack the infrastructure to deliver even relatively modest interventions, progress in expanding access has been slow.

The most important component of the PMTCT program is voluntary counseling and testing for HIV and counseling for infant feeding. VCT, when incorporated into antenatal care, will offer organizational convenience and can be expected to lead to the efficient use of resources. There is increasing evidence that VCT reduces reported risk behavior and prevents new infections. And a high quality of VCT is essential for success: done well, it will result in significant reductions in child mortality through decreased postnatal HIV transmission and improved infant feeding practices; done badly, it could lead to deaths from diarrhoea and other infections, increased drug resistance, and the spread of poor infant feeding practices into the general population (37).

Measuring the quality of HCT in PMTCT programs is therefore, very important. There is little published information on this subject in Ethiopia, especially in the context of scaling up this program in high-prevalence areas. This study, therefore, tries to assess the quality of antenatal linked HIV counseling and testing in terms of counselors' competence/skills, content of discussion/topics and duration of pre- and post test counseling provided to pregnant mothers through the program to prevent mother-to-child transmission of HIV at selected PMTCT sites in Addis Ababa City.

II. OBJECTIVES

2.1. General Objectives

To assess the quality of antenatal linked HIV counseling and testing in public health facilities in Addis Ababa City Administration.

2.2. Specific Objectives

1. To find out the content/topics covered during pre- and post-test counseling sessions
2. To determine duration of pre- and post-test counseling sessions
3. To determine counselors' functioning skills
4. To determine the clients' satisfaction/or acceptance of HCT within ANC setting

III. METHODS

3.1. Study Area and Setting

The study was conducted in Addis Ababa. Addis Ababa is the Capital City of Ethiopia with an area of 540 km² and a total population of about 3 Million, of which 51% are females. It has 10 sub-cities and 99 kebeles. There are totally 36 hospitals in the metropolis, of which 5 are owned by the Addis Ababa Health Bureau; 27 health centers, of which 24 are owned by the City Administration; 32 health posts and more than 500 private health institutions providing health services including ANC and Delivery. Regarding the health professionals, currently there are a total of 4527 professionals out of which 2322 are practicing in the public sector. The potential health service coverage of Addis Ababa with regard to the geographical accessibility is 100%.

Addis Ababa is reported to have one of the highest concentrations of HIV/AIDS cases in the country. The Region's HIV prevalence estimate for 2005 was 11.7%, with incidence rate of 1.4 and hosted a total of 7,995 HIV positive pregnant and 179,381 children orphaned (4). According to the Addis Ababa HIV/AIDS Prevention and Control Office (AAHAPCO), in 2007 there were 35 PMTCT service rendering health institutions in the metropolis -- 26 health centers (of which 24 are under the Addis Ababa Health Bureau), 6 hospital (5 public and 1 private) and 3 clinics.

3.2. Study Design

This study is a facility based cross sectional study applying both qualitative (observation) and quantitative methods.

3.3. Source and Study Population

3.3.1. Source population:

- a. All pregnant women in Addis Ababa City.
- b. All PMTCT counselors in Addis Ababa City, and
- c. All PMTCT site coordinators in Addis Ababa City.

3.3.2. Study population:

- a. All ANC clients who underwent HCT for PMTCT during the study period.
- b. All coordinators of the selected PMTCT sites, and
- c. All PMTCT counselors who were giving HCT service during study period.

3.4. Sample Size

3.4.1. For exit interview of antenatal (PMTCT) clients:

For the exit interview of the pregnant women regarding the service in the PMTCT sites, it was based on the following assumptions for a single population proportion,

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

Where:

n= the maximum sample size

$Z_{1-\alpha/2}$ = Confidence level; taking 95 %

P= Proportion of ANC attendees who utilize (undergo) HCT service; available data from 27 government health institutions in Addis Ababa in 1998 EC shows this proportion to be 48% in 11 months (Addis Ababa Regional Health Bureau).

d= margin of tolerable sampling error; taking d = 0.05

$$\begin{aligned} \text{Thus it gives } n &= \frac{(1.96)^2 \times 0.48(1-0.48)}{(0.05)^2} \\ &\approx 384 \end{aligned}$$

Considering 10% non-response rate, it would give a final sample size of 422.

3.4.2. For the Observational study of the content of pre- and post-test counseling:

This was carried out according to the UNAIDS Best Practice Collection Key Material. It recommends an observation of three to five counseling sessions selected at random when only one or two counselors exist. Accordingly, four sessions (pre- and post test) counseling were observed at each counseling site.

3.4.3. For PMTCT Site Coordinators:

All the coordinators of the selected PMTCT sites were included

3.5. Sampling Procedure

Ten health centers (one from each sub-city) were selected based on their antenatal client flow purposively, as it was difficult to include all the centers carrying out antenatal HIV counseling and testing. In the case of equal client flow, one health center was selected using a simple random sampling method. The sample size was assigned to each of the health centers more or less equally as the number of clients flow was nearly same across the health centers (see annex 10.3).

3.6. Inclusion and Exclusion Criteria

3.6.1. The inclusion criteria were:

- Pregnant women who consented to participate in the study
- Pregnant women who can communicate with the data collectors without language barrier.
- Pregnant women attending the health centers for ANC/PMTCT service in public sector during the data collection period.

3.6.2. The exclusion criteria included:

- Those who may be too sick to be interviewed or to respond
- Those clients refused to give their consent to participate in the study
- Those clients who cannot communicate with the data collectors by no means.

3.7. Data Collection Procedure

3.7.1. Measurements/tools

All questionnaires and check lists were adapted from the UNAIDS Best Practice Collection KEY Material (UNAIDS/00.09E (English original May 2000)) for evaluating quality of ANC-linked HCT for prevention of MTCT. It was based upon the expected content of counseling sessions found in this tool. This UNAIDS Best Practice Collection tool is a check list that suggests minimum contents and quality of pre- and post-test counseling. Some questions which were not relevant to our setting were modified or deleted and more relevant questions were added and final adjustment was made after pretest was carried out to fit to our local situation. The tool has three parts: questionnaire for exit PMTCT client interview; questionnaire for PMTCT site coordinators and counselors interview; and check list for observation of counseling sessions for the topics and duration covered, and counselors' communicative skills/counseling quality.

3.7.2. Data Collection Technique and Data Collectors

- a. **Key Informants Interviews:** - interview was conducted with the officials (10 PMTCT coordinators) and 9 counselors of the selected PMTCT sites who were on counseling activity during the time of data collection.

- b. **Observation:** - professional PMTCT counselor nurses observed the HCT service delivery for the quality of service during the pre- and post-test counseling sessions at the selected health centers. Performance bias due to the presence of an observer was minimized by the observer being unobtrusive and sitting through multiple sessions.
- c. **Exit Interviews:** - all clients attending the selected PMTCT centers during the specified data collection period were interviewed at exit points after pretest and/or post test counseling. Diploma holder nurses with basic knowledge on the topic under study and previous data collection experiences were recruited as data collectors. They were not assigned to collect the data from where they were working as staffs of the health centers.

3.8. Data Quality Control

The quality of the data was assured by:

- Using standardized UNAIDS Best Practice Collection tools
- Translating the English questionnaire into Amharic and then back to English by another person. Some discrepancies found were corrected before data collection.
- All the data collectors were diploma nurses (for interviews) plus those who had taken PMTCT training previously (for observation of counseling sessions)
- Training was given both to data collectors and supervisors. The training focused on obtaining consent, maintaining neutrality, privacy issues, personal relation and ethics in social research.
- Pretest was carried out before the actual data collection period on 5% of the sample size in other health centers. Some defects/confusions found were corrected before the actual data collection time
- Data cleaning and entry was done by the principal investigator daily.

3.9. Variables

3.9.1. Independent Variable:

- Sociodemographic characteristics of the PMTCT clients: age, religion, marital status, level of education, etc
- Waiting time to get the service
- Duration of counseling

3.9.2. Dependent Variables:

- Content of the counseling session: PMTCT/MTCT related issues, HIV related issues, breaking the news, infant feeding options, etc
- Counselors' communicative skills
- Clients' satisfaction/acceptance of HCT in ANC setting

3.10. Definitions of Terms

- **Client satisfaction:** the state of being pleased or contented by clients about the overall services they received or the specific attributes of the interpersonal relationships, technical competencies, and outcomes of the care.
- **Confidentiality:** is a situation in which you trust someone not to tell secret or private information to anyone else.
- **Counseling duration** was considered as the time taken for all counseling sessions. Standard counseling protocols prescribed an average of 25 - 30 minutes service time and a maximum of 5 clients per counselor per day (32).
- **Counseling:** is a confidential dialogue between a client and a counselor.
- **HIV testing:** is the obtaining of a bodily sample for the specific purpose or performing a medical test or a number of medical tests to determine the HIV status of a person.
- **Mother to child transmission:** a transmission of HIV from infected mothers to unborn babies which may occur during pregnancy, delivery or during breastfeeding.
- **Post-test counseling:** is the counseling provided when an individual receives his or her HIV test results as well as giving moral support immediately after the client has received the result.

- **Pre-test counseling:** is the counseling given to an individual before an HIV test is performed to make sure that the individual has sufficient information to make an informed decision about having an HIV test.
- **Privacy in counseling rooms** involves also maintaining confidentiality so that information regarding HIV status remains between the client and the counselor. For adequate privacy in counseling rooms, the door and walls need to be closed to the roof. Only the counselor and the client are expected in the room, and sessions may not be interrupted
- **VCT counselor:** a person who has received special training in client centered HIV counseling and who has a background in health or social sciences
- **Voluntary counseling and testing:** a process by which an individual undergoes counseling to enable him/her to make an informed decision about being tested for HIV, assess his/her personal risk for HIV and develop a risk reduction strategy.
- **Waiting time** was considered as the time from when the client arrived at the health center through the services until the exit. Standard waiting time is 90 minutes (32).

3.11. Data Processing / Analysis

The collected data were cleaned, checked for quality, coded and analyzed using SPSS version 15.0 computer program. Using monivariate and bivariate analysis, associations between given variables and socio-demographic characteristics were sought using appropriate statistical test at a p- value of a 0.05 significance level.

Quality of the PMTCT program was analyzed by the durations of the counseling session, topics covered in the pre- and post-test counseling sessions, clients' satisfaction, and counselors' functioning skills/competence.

- **Content of the counseling session** was assessed by individual counseling sessions: *HIV-Related Issues, PMTCT/MTCT-Related Issues, and Breaking the News*
- **Clients' satisfaction** was assessed by using information obtained about the overall satisfaction by the service and also with specific attributes to the interpersonal relationships and the outcome of the care

- *Counselors' skill* was assessed for functions (counseling skills in terms of *interpersonal relationship, information-gathering, information-giving, and counseling in special circumstances*).

3.12. *Ethical Consideration*

Before commencing data collection, ethical clearance was approved at three levels: the Ethical Clearance Committee of the Faculty of Medicine, the Ethical Clearance Committee of the School of Public Health and the Ethical Committee of the Addis Ababa Health Bureau approved the study. Then, the selected health facilities were communicated with legal and formal letter from the concerned bodies to proceed with the study.

After explaining the objectives of the study in detail, informed verbal consent was sought from all study participants (the PMTCT coordinator, PMTCT counselors and counselee, and the exit clients). All the participants were reassured of the anonymity, and personal identifiers were not used. Then, after obtaining informed consent from every participant, the data collectors continued the job by giving due respect to the norms, values, beliefs, culture, and ensuring the confidentiality of the data they collected.

3.13. *Dissemination of the Result*

After the data were analyzed and conclusions and recommendations were drawn, hard copies as well as soft copies of the result were submitted to the School of Public Health, AAU; and to the EPHA-CDC in order to make it available to those who need it. Extra hard and soft copies were also submitted to the EPHA for presentation on annual conference and for possible publication.

IV. RESULT

This study tried to assess the quality of PMTCT services given in ten public health centers. The data was collected from key informants (10 PMTCT site coordinators and 9 PMTCT counselors), 422 exit clients and by observation of the counseling sessions at the health centers.

4.1. *OPERATIONAL ASPECT OF THE PMTCT SITES* (Interview with Key Informants)

Ten PMTCT coordinators at 10 health centers were interviewed. All the coordinators responded to the questionnaire. All the surveyed PMTCT sites were health centers. Regarding trained human power working on PMTCT, the maximum number of trained human power found in the health centers was six (only in one health center) and the minimum number was one (only in one health center). Three health centers had two trained PMTCT counselors, the rest 5 health centers had 3 or more trained counselors. Some of the PMTCT site coordinators reported that they had shortage of trained human power and that the problem affected the performance and/or quality of the services. They added also that other additional health workers need to be trained and refreshment courses be given to those who were already trained. All except two health centers had an appointment system for their clients. Again all the health centers had a referral system for a better service. The health centers refer their clients to Hospitals, ART Centers, and to Care and Support Groups for a better management.

According to the responses of the PMTCT coordinators, all of the health centers offer both pretest and post test-counseling services for the pregnant women. In addition, seven of them also reported that they offer an ongoing counseling for their clients. The types of the counseling the health centers offer were group and individual (pre-test) counseling. All the health centers offered group pre test information by HIV positive mothers or by health professionals and later individual pre- and post test counseling delivered by PMTCT trained nurses. Nine of the health centers had a separate room for individual counseling.

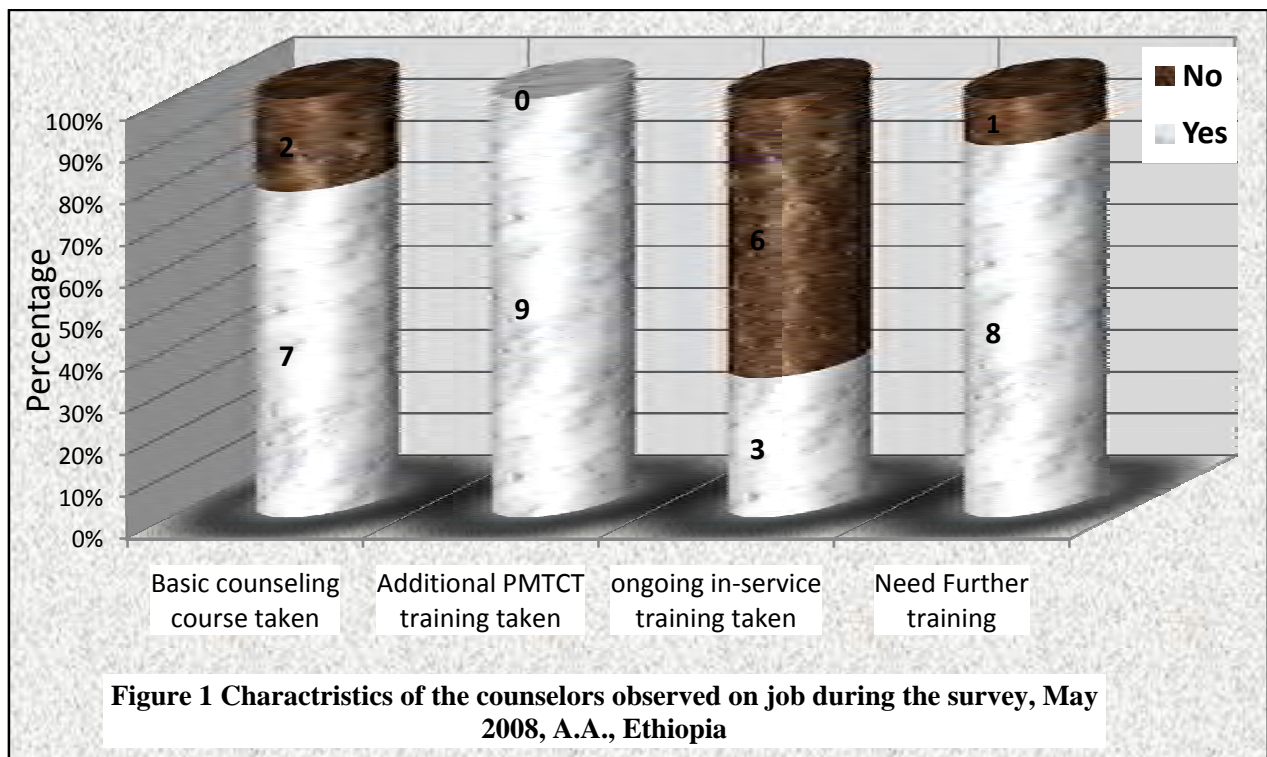
Regarding the uptake rates, 3 of the health centers reported to have an HCT uptake rate of 100% (all ANC clients underwent HCT), other 3 health centers were in the range of 90 to 99%, and the rest 4 had an uptake of 60% to 89%. Regarding the ANC clients' return rates to collect their blood test results, 3 health centers reported a return rate of 100%, 5 of the health centers reported a return rate of 90% - 99% and the rest 2 health centers reported a return rate of 70% - 89% (Table 1).

Table 1. Operational aspect of the PMTCT sites and services, May 2008, A.A, Ethiopia

Variables	Health centers (PMTCT sites)	
	Number	%
<i>No. of counselors currently found in the HC</i>		
One counselor	1	10.0
Two counselors	3	30.0
Three counselors	3	30.0
More than three counselors	3	30.0
<i>Have appointment system?</i>		
Yes	8	80.0
No	2	20.0
<i>Counseling services offered</i>		
Pre, post and ongoing counseling	7	70.0
Pre and post test counseling only	3	30.0
<i>Type of counseling</i>		
group only (pretest)	1	10.0
individual only	0	0.0
Both group and individual (pretest)	9	90.0
<i>Have separate room for counseling?</i>		
Yes	9	90.0
No	1	10.0
<i>uptake of HCT by the pregnant</i>		
100%	3	30.0
90-99%	3	30.0
70-89%	3	30.0
60-69%	1	10.0
<i>Return rate to collect HIV test results</i>		
100%	3	30.0
90-99%	5	50.0
70-89%	2	20.0

Regarding interview with counselors working on PMTCT at the time of survey, nine of the counselors responded to the questionnaire (figure 1). All the interviewed PMTCT counselors were found to be nurses, and all were appointed to become PMTCT counselors by their heads.

Seven of the nine PMTCT counselors had taken the basic VCT counseling courses, and all had attended the additional PMTCT training. Only three of them had taken refreshment training in the past five years. Eight of them believed that they need further training. Regarding specific areas of further training, 6 of them would like to get in-service training on 'HIV and PMTCT'; the rest three required an in-service training on 'counseling of HIV, PMTCT and Group Counseling' (not tabulated here).



4.2. OBSERVATION OF COUNSELING SESSIONS

Nine counselors were also observed in nine health centers on their job. This method of evaluating the content and quality of counseling sessions was acceptable to both the counselors and the counsees. The total number of individual counseling sessions observed was 66 (31 pre- and 35 post test observations), out of which 4 (11.4%) of the post test counseling sessions observed were with HIV positive mothers. The mean duration of pretest counseling sessions was 5.37 minutes (± 3.34) and that of post test sessions was 3.0 minutes (± 2.24). All the health centers were observed offering group pre test information by either HIV positive mothers or by health professionals, and later individual pre- and post test counseling offered by trained nurses, except in one health center in which individual pretest counseling was not done.

4.2.1. Observation for Counselors' Communicative Skills with the Mothers

In all cases, the counselors used a language that the mothers understood. In 16 (45.7%) of the observations, the counselors greeted and introduced themselves to the clients at the beginning of the sessions (table 2). In 40 (60.6%) of the sessions, the mothers were actively and supportively

listened/attended to. During gathering information from the mothers, the counselors used closed and open ended questions as appropriate in 32 (48.5%) of the sessions, only in 22 (33.3%) of the sessions clarification was sought for unclear questions or responses of the clients, and in 28 (42.4%) of the cases information gathered was summarized/repeated at the end.

Regarding giving information, in 52 (78.8%) of the sessions, the counselors gave clear and simple information to the clients, in 42 (63.6%) of the sessions, the counselees were given time to think and an opportunity to ask for unclear issues. In 36 (54.5%) of the sessions, misunderstandings or incorrect beliefs of the clients were assessed and corrected; and information given was appropriately summarized at the end of the discussion only in 14 (21.2%) of the sessions.

Table 2 Counselors' Communicative skills, May 2008, A.A., Ethiopia (n=66 sessions)

FUNCTION	SKILLS	Yes		No	
		#	%	#	%
<i>Interpersonal relationship</i>	Introduces self (n=35)	16	45.7	19	54.3
	Listens actively and supportively (non-verbal and verbal)	40	60.6	16	39.4
<i>Gathering information</i>	Uses open and closed questions as appropriate	32	48.5	34	51.5
	Seeks clarification	22	33.3	44	66.7
	Summarizes appropriately	28	42.4	38	57.6
<i>Giving information</i>	Clear and simple	52	78.8	14	21.2
	Gives time to respond	42	63.6	24	36.4
	Checks for (mis)understanding	36	54.5	30	45.5
	Summarizes appropriately	14	21.2	52	78.8

4.2.2. Observation for the Contents of Individual Pre-test Counseling

Regarding observation of pre-test counseling sessions, 31 sessions/cases were observed while counseling was in progress (Table 3). Of the 31 pre-test counseling sessions observed, in 23 (74.2%) of the sessions assessment of personal risks of HIV exposure was discussed; in 29 (93.5%) of the sessions, mothers' capacity to cope up with positive results (in case their test results turn positive) was assessed; however, only with 2 (6.5%) cases potential needs and possible supports available in the community explored. In 28 (90.0%) of the sessions clients were allowed time to think through issues

and for answering questions; in 27 (87.1%) of the sessions, clarification of the understanding about the information given during pre-test session was checked; but only in 23 (74.2%) of the sessions were the clients given chance to freely consent or dissent for blood test, and follow up arrangements was made with 24 (77.4%) of the clients.

Table 3 check list for the pre-test individual counseling session for PMTCT, May 2008, A.A., Ethiopia (n=31)

Have any of the following occurred during the pretest counseling sessions?				
	Yes		No	
	#	%	#	%
HIV-related issues				
Assessment of personal risk of HIV exposure and how to avoid it (e.g. safer sex)	23	74.2	8	25.8
Capacity to cope with a positive result	29	93.5	2	6.5
Potential needs and possible support	2	6.5	29	93.5
Time to think through issues and for answering questions	28	90.0	3	10.0
Clarification of understanding about information given	27	87.1	4	12.9
Informed consent/dissent given freely	23	74.2	8	25.8
Follow-up arrangements after counseling session	24	77.4	7	22.6
MTCT-related issues				
Implications of a +ve result for the baby and for future children	24	77.4	7	22.6
Implications of a +ve result for decisions about infant feeding	16	51.6	15	48.4
Desirability of getting partner/ father involved	27	87.1	4	12.9
Check for understanding	8	25.8	23	74.2
Previous ARV use	0	0	31	100

In more than three-quarter (77.4%) of the sessions, the implication of positive results for the current pregnancy and future children (the possibility of MTCT) was discussed; and in 16 (51.6%) of the cases implication of the positive result for their infants' feeding options (i.e., that the mothers should decide in time about their infant's feeding options) was discussed. In the majority of the sessions (87.1%), desirability of getting the clients' partners/husbands in the subsequent follow up counseling was advised; in only 8 (25.8%) of sessions was understanding of the clients about MTCT issues checked. And in none of the cases or sessions was previous ARV use or HIV status checked.

4.2.3. Observation for the Contents of Individual Post-test Counseling (both HIV negative and positive mothers)

All clients who had undergone HIV blood test were given post test individual counseling and all the post-test counseling sessions were observed. Accordingly, in all the 35 post test cases, the test results were given to the clients simply and clearly in a state of neutral tone; and in 29 (82.9%) of the cases, there was a pause to let clients respond or express any emotions before continuing (Table 4). In 20 (57.1%) of the cases, discussion about the meaning of the results was held; in 24 (68.6%) of the cases, clients' understanding of their results was checked; and only in 9 (25.7%) of the cases was personal, family and social implications of the results discussed. In 28 (80%) of the sessions, about discordance and referral of partners for testing was counseled; and 25 (71.4%) of the cases were appointed for next follow up counseling.

However, only 13 (37.1%) of the cases were counseled to adopt safer sex practices (specific risk reduction strategies for staying free of STIs and HIV for the future) and to be re-tested after 3 months, if there is a recent risk of exposure. Fourteen (40%) of the cases were given information on family planning services, and in 5 (14.3%) of the cases, immediate plans and intentions of the mothers was assessed.

Table 4 check list for the post-test individual counseling session for PMTCT, May 2008, A.A., Ethiopia (n=35)

Have any of the following occurred during the posttest counseling sessions? (n=35)	Yes		No	
	#	%	#	%
Results given simply and clearly	35	100	0	0
Time allowed for result to sink in	29	82.9	6	17.1
Discussion of the meaning of the result for the client	20	57.1	15	42.9
Checking for understanding	24	68.6	11	31.4
Discussion of personal family and social implications	9	25.7	26	74.3
Desirability of getting the father involved in counseling	28	80.0	7	20.0
Next appointment made	25	71.4	10	28.6
Information about safer sex and using condoms to prevent transmission of HIV and STIs	13	37.1	22	62.9
Information on family planning	14	40.0	21	60.0
Immediate plans, intentions and actions reviewed	5	14.3	30	85.7

4.2.4. Observation for the Contents of Individual Post Test Counseling (for HIV positive mothers)

Regarding the four HIV positive clients' counseling, all the four were informed that HIV can pass to the fetus during pregnancy, during delivery and by breast feeding (table 5). Three of the four positive mothers were also advised that the risk of HIV transmission is very minimal if the infant is exclusively breast fed, and the need for early cessation of breast feeding at about 4-6 months. In three of the HIV positive cases, the options of not breast feeding and using replacement feeding was discussed and reached on an agreement. Three of the 4 clients decided to exclusively breastfeed and the other one opted for formula feed. Three mothers made informed decision with the help of counsellors; the other one was offered an option (to feed replacement feeding). Two of the four positive mothers were given information on future family planning; and only with one mother was support services in the community explored/discussed. Only one case was told about the role of ARVs. Unfortunately, none of the four positive mothers was counseled on drug adherence and the need to be taken regularly, about child care, and about previous ARV use.

There was no difference on infant feeding counseling between HIV positive and negative status women ($p>0.05$). The mean duration of counseling for HIV positive clients was 5.5 minutes while it was 2.8 minutes for those clients who tested HIV negative.

Table 5. Check list for HIV positive individuals' post-test counseling for PMTCT, May 2008, A.A., Ethiopia (n=4)

Contents of Individual Post Test Counseling	Yes	No
Explained that HIV can pass to the foetus during pregnancy	4	0
Explained that HIV can pass to the infant during the birth process	4	0
Explained that HIV can be passed in breast milk	4	0
Indicated that the risk is very small if baby is breastfed exclusively	3	1
Explained need to stop breastfeeding at about 4-6 months	3	1
Discussed option of not breastfeeding and using replacement feeding	3	1
Checked mother understands risk of HIV through breast milk	3	1
Explored mother's understanding of exclusive breast feeding	1	3
Gave information on future family planning	2	2
Support services in the community explored/discussed	1	3
Told about the role of ARVs	1	3
Counseled on drug adherence and the need to be taken regularly	0	4
Counseled about child care	0	4
Counseled about previous ARV use	0	4

4.3. Exit INTERVIEWS WITH MOTHERS

4.3.1. Socio Demographic Characteristics

In the exit interview, 422 antenatal care clients from 10 health centers (one health center from each kifle-ketema) were interviewed at exit points. Accordingly, almost all (95.0%) were residents of Addis Ababa city (Table 6). Majority, (54.0%) of them were in the age group of 16-24, followed by age group of 25-34, which accounted for 178(42.2%) and the rest (3.8%) were in the age group of 35-40. The mean age of the respondents was 24.6 [\pm 4.67] years (the youngest being 16 and the oldest 40). Nearly 2/3(63.7%) of the respondents were Orthodox Christian by religion followed by Muslim (25.9%). Protestants accounted for 42(10.0%) and Catholics 2(0.2 %). About 1/3(34.0%) of the clients were Amhara by ethnicity, followed by Gurage (29.5%) and Oromo (20.7%). Silte and Tigres accounted for 30 (7.0%) and 20 (4.8%) respectively, and other ethnic groups accounted for 17(4.0%). Majority of the respondents (88.1%) were married, 34(8.1%) single, 13(3.1%) cohabiting and 3(0.7%) divorced.

Concerning the educational back ground, about half of mothers (50.4%) were in grades 7-12 (or 10+2), and college or university levels accounted only for 12 (2.9%). Nearly 1/3 (29.9%) were in the grade levels of 1-6, and the rest were either illiterate (14.5%) or only able to read/write (2.3%). Occupationally, 238(56.5%) were housewives, 53(12.6%) were employed in different private agencies, 40(9.5%) were merchants, and 31(7.4%) were unemployed/jobless. Government employees, daily laborers and students accounted for 20(4.7%), 18(4.3%), and 12(2.9%) respectively; and others 9 (2.1%).

More than half (55.3%) were first gravid, 186 (44.2%) were gravida 2 to 5 and the rest 2 were above gravida 5. One hundred ninety six (46.4%) of the clients were in their 3rd trimester, 180(42.7%) in 2nd and the rest 46 (10.9%) were in the 1st trimester. Majority 352(83.4%) of the clients were 1st visit clients, 64(15.2%) were 2nd visit and the rest 6(1.4%) were 3rd visit who came for different services.

Table 6 Socio-demographic characteristics of PMTCT attendees, May 2008, A.A, Ethiopia

Socio-demographic variables of the PMTCT clients		No	%
<i>Place of residence (n=422)</i>	Addis Ababa	401	95.0
	Out of Addis Ababa	21	5.0
<i>Age (completed years) (n=422)</i>	16-24	228	54.0
	25-34	178	42.2
	35-40	16	3.8
<i>Religion (n=421)</i>	Orthodox	268	63.7
	Muslim	109	25.9
	Protestant	42	10.0
	Catholic	2	0.4
<i>Ethnicity (n=421)</i>	Amhara	143	34.0
	Gurage	124	29.5
	Oromo	87	20.7
	Tigre	30	7.0
	Siltie	20	4.8
	Others	17	4.0
<i>Marital status (n=421)</i>	Married	371	88.1
	Single	34	8.1
	Cohabiting	13	3.1
	Divorced	3	0.7
<i>Educational Status/level (n=421)</i>	College level	12	2.9
	Grade 7-12	212	50.4
	Grade 1-6	126	29.9
	Read and write	10	2.3
	Illiterate	61	14.5
<i>Occupation (n=421)</i>	Housewife	238	56.5
	Private	53	12.6
	Merchant	40	9.5
	Jobless	31	7.4
	Daily laborer	20	4.7
	Gov't employee	18	4.3
	Student	12	2.9
	Others	9	2.1
<i>Gravidity (n=421)</i>	One	233	55.3
	Two to five	186	44.2
	Above five	2	0.5
<i>Current Gestational age (n=422)</i>	Third trimester	196	46.4
	Second trimester	180	42.7
	First trimester	46	10.9
<i>No. of visits during current pregnancy</i>	First visit	352	83.4
	Second visit	64	15.2
	Third visit	6	1.4

4.3.2. Clients' Reasons for Coming to the Health Centers

Majority, 283 (67.5%) of the clients specifically came to the health centers to get ANC (antenatal care) services, 46 (11.0%) came both for ANC and PMTCT (prevention of mother to child transmission of HIV) services, 34 (8.1%) for HIV testing and 17 (4.0%) to discuss about receiving treatment to protect their babies/fetus, and the rest 39(9.3%) came for different reasons, among which were for treatment of illnesses, for vaccination, and some were referral cases (figure 2).

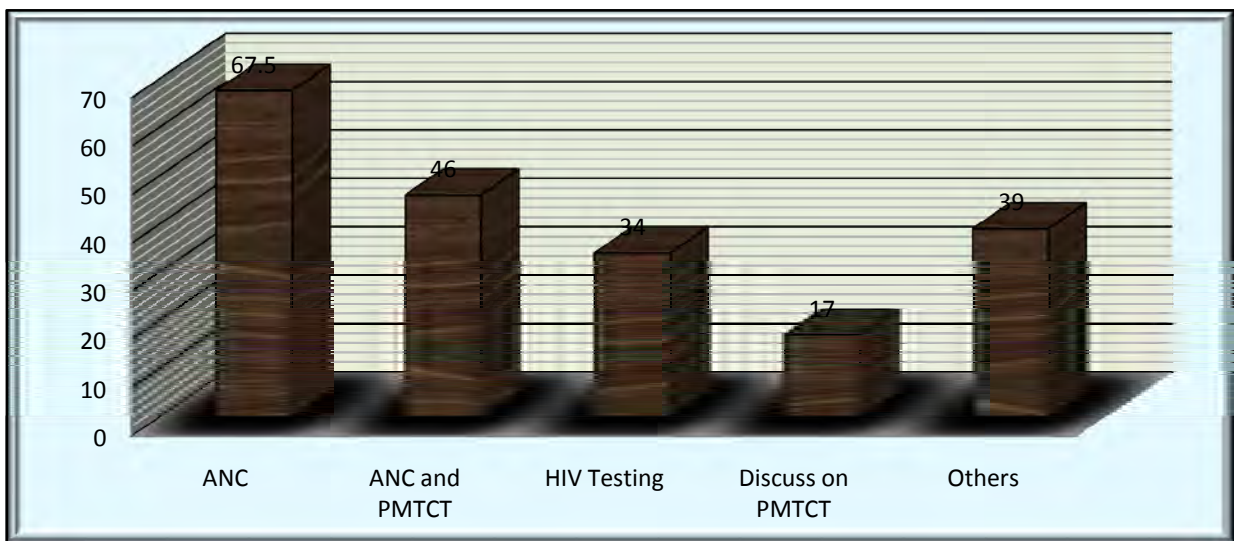


Fig. 2. Clients' Specific Reasons for Coming to the Health Centers, May 2008, A.A., Ethiopia, (n=419)

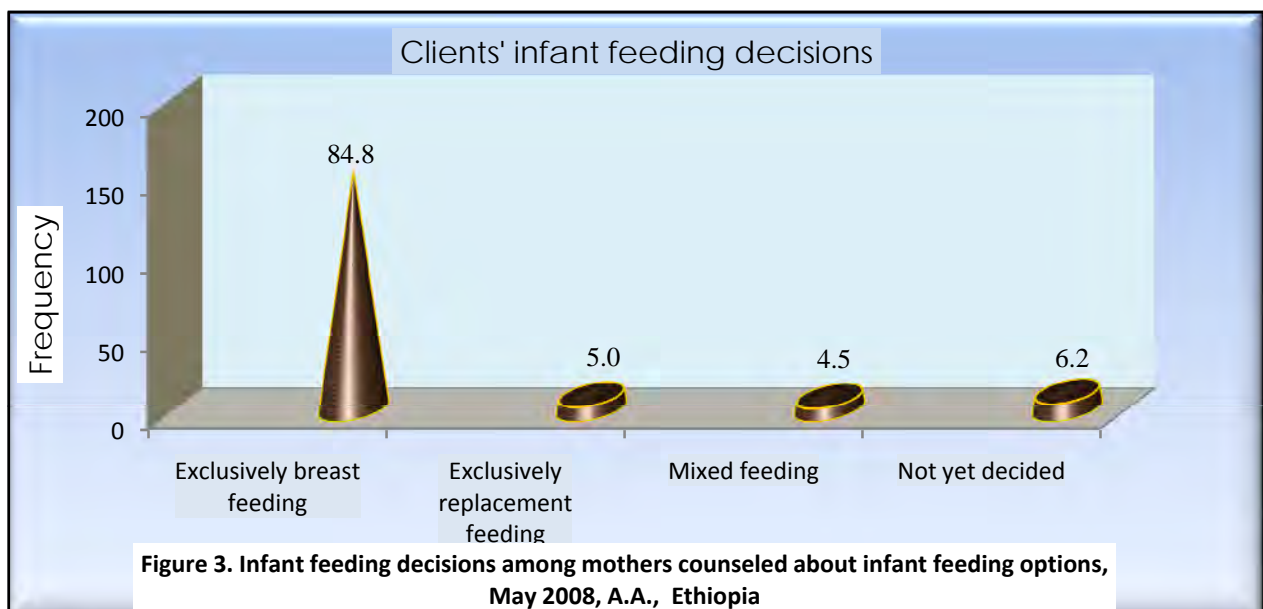
Of the 422 pregnant mothers, 393 (93.12%) were either counseled or simply requested to have HIV blood test, 390 (92.4%) had discussed about receiving their test results, and 319 (75.6%) were also counseled about issues associated with having been tested some time ago; but only 288 (68.4%) of the 422 clients were counseled about HIV/AIDS and 133 (31.5%) were not counseled on HIV/AIDS (Table 7). Of those 393 clients who were requested to have blood test, only 266 (67.7%) were counseled about HIV/AIDS and 366 (93.1%) were also counseled about receiving their test results (not tabulated here).

Concerning MTCT/PMTCT, in 314 (74.6%) of the sessions the discussion was held. With regard to the infants' health and feeding options, only 245 (58.1%) clients were counseled about the health of their babies and only 178 (42.3%) of the mothers were counseled about infant feeding options.

Table 7. Counseling offered to PMTCT clients as reported by the clients at exit interview, May 2008, A.A, Ethiopia (n=422)

Major Counseling Topics	Clients Received Counseling					
	Yes		No		Total	
	No.	%	No.	%	No.	%
About having an HIV test	393	93.1	29	6.9	422	100
About receiving the test result	390	92.4	32	7.6	422	100
Issues associated with having been tested some time ago	319	75.6	103	24.4	422	100
About HIV	288	68.4	133	31.6	421	100
About MTCT/PMTCT	314	74.6	107	25.4	421	100
About the health of the baby	245	58.1	177	41.9	422	100
About the child's feeding options	178	42.3	243	57.6	421	100

Among those 178 clients counseled about infant feeding options, 151 (84.8%) of the clients decided to exclusively breastfeed their newborns for the first 4-6 months, 9 (5.0%) decided to give exclusively replacement feeding to their newborns, 8 (4.5%) decided to give mixed feeding, while the rest 11(6.2 %) had not yet decided as to what to feed their infants (figure 3).



4.3.3. Clients Comprehension Level of the Information

Regarding comprehension/understanding levels of the PMTCT counseling topics among the clients, 261 (62.0%) of the respondents said that they had understood well the counseling on HIV/AIDS, 27 (6.4%) had discussed on the topic, but the discussion was not clear enough to understand, and 133 (31.6%) said that they had not discussed the topic at all (Fig 4). Among the points the clients reported to have gained new knowledge as a result of the counseling on HIV/AIDS were that HIV can pass from a positive mother to the fetus during pregnancy, delivery process and by breast feeding; the need for HIV testing during pregnancy; the need for partners testing; and counseling on how to live with the virus if I they have turned positive; about HIV transmission and prevention.

Of the 314 clients counseled about issues related to mother to child transmission and prevention of HIV, 287 (68.2%) reported to have comprehended the information, 27 (6.4%) had discussed about the issue, but could not grasp the information, and 107 (25.4%) did not discuss about PMTCT at all. The main points the clients reported to have grasped were that HIV can pass from mother to their children; the need for HIV testing during pregnancy; and that it is possible to protect the children or to minimize the chance of transmission by use of drugs if the mothers are positive.

Concerning infant feeding options, 110(26.1%) reported to have benefited from the counseling, 68(16.2%) didn't understand well the discussion, and the rest 243(57.7%) reported that there was no such discussion at all. Among the information the clients reported to have grasped from the counseling were that it is possible to protect or decrease the chance of transmission of HIV from a positive mother through drugs given to the mother and the infant, and that an HIV positive mother may breastfeed her infant exclusively.

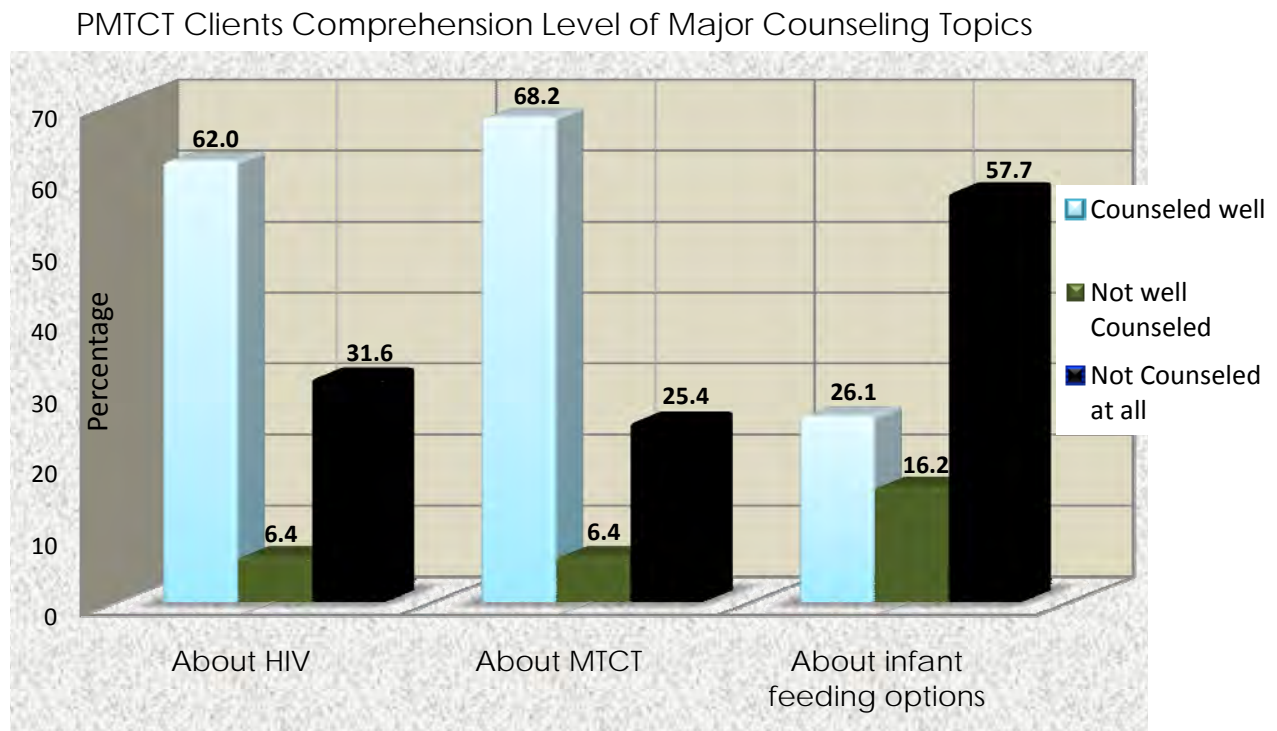


Fig. 4. Level of major counseling topics comprehended by the PMTCT clients as reported at exit interview, May 2008, A.A, Ethiopia (n=421)

Almost all (99.5%) the clients believed that HCT during pregnancy was necessary for the mother; however, only 332(78.7%) of them correctly answered that HCT is offered during pregnancy for the purpose of PMTCT, the rest (21.3%) did not know the main reason why they were offered HCT at the health centers particularly when they were pregnant. Among the answers given by the clients were: ‘HCT is offered during pregnancy to safeguard health workers/birth attendants from HIV infection’, ‘to let the mother know her status’, ‘to let the mother start ARV if positive’, and few clients said: ‘I was requested to give blood sample, I don’t know why’.

Associations were sought between knowledge why HCT is emphasized during pregnancy by different socio demographic characteristics of VCT clients and total time spent on counseling/discussion with the counselors (Table 8). Compared to being a resident out of Addis Ababa, the likelihood of knowing why HCT is needed during pregnancy was found to be higher among those inhabitants of Addis Ababa [AOR = 3.25, 95% CI: 1.2, 8.7]. The odds of knowing why HCT is offered during pregnancy was also higher among those who attended school to the level of grades 1-6 [AOR = 2.58, 95% CI:

1.27, 5.24] and among those in grades 7-12 (or 10+2) [AOR = 2.74, 95% CI: 1.43, 5.23] respectively compared to those who were illiterate. With respect to gestational age, third trimester clients were more knowledgeable about antenatal HCT compared to first trimester [AOR = 2.56, 95% CI: 1.22, 5.36]. Similarly, clients who spent 5-15 min on discussion with their counselors were also more likely to know why they were offered HCT at the health centers during pregnancy [COR = 2.1, 95%CI: 1.03, 4.24]. The difference was not, however, statistically different when adjusted.

Table 8. Association between knowledge why HCT is emphasized/given during pregnancy and clients' variable, May 2008, A.A., Ethiopia

Variables	Why HCT is emphasized/given during pregnancy			Odds Ratio (95% CI)		
	For PMTCT	Don't know	Total	Crude	Adjusted	
Residence	A. A.	322 (80.3%)	79 (19.7%)	401	4.48 [1.8,10.9]*	3.25 [1.2, 8.7]*
	Out of A. A	10 (47.6%)	11 (52.4%)	21		1.00
	Total	332 (78.7%)	90 (21.3%)	422		
Educational Status	Illiterate	37 (60.7%)	24 (39.3%)	61		1.00
	Read / write	9 (90.0%)	1 (10.0%)	10	5.8 [0.7, 49.1]	4.48 [0.52,38.3]
	Grade 1-6	103 (81.7%)	23 (18.3%)	126	2.9 [1.47,5.76]*	2.58 [1.27,5.24]*
	Grade 7-12	174 (82.1%)	38 (17.9%)	212	2.97[1.59,5.53]*	2.74 [1.43,5.23]*
	College	9 (75.0%)	3 (25.0%)	12	1.9 [0.48, 7.9]	1.76 [0.42,7.42]
	Total	332 (78.9%)	89 (21.1%)	421		
Gestational age	1 st trimester	30 (65.2%)	16 (34.8%)	46		1.00
	2 nd Trimester	142 (78.9%)	38 (21.1%)	180	1.99 [0.99,4.0]	2.0 [0.96, 4.17]
	3 rd Trimester	160 (81.6%)	36 (18.4%)	196	2.37[1.17,4.8]*	2.56 [1.22,5.36]*
	Total	332 (78.7%)	90 (21.3%)	422		
Duration of counseling	< 5 min	28 (66.7%)	14 (33.3%)	42		1.00
	5 to 15 min	230 (80.7%)	55 (19.3%)	285	2.1[1.03,4.24]*	1.71 [0.81, 3.65]
	> 15 min	74 (77.9%)	21 (22.1%)	95	1.76[0.79,3.94]	1.67 [0.71, 3.91]
	Total	332 (78.7%)	90 (21.3%)	422		

Clients' benefit level from the discussion they made with their counselors was compared with comprehension level of some of the major discussion topics, gestational age and duration of the counseling (Table 9). Accordingly, clients who were counseled for 5-15 minutes and clients who were in their second trimester were about 4 and 6 times more likely to perceive being benefited from the counseling sessions than those counseled for less than 5 minutes ($p=0.014$ and $p=0.028$ respectively). Clients who did not understand well the discussion on HIV rejected being benefited from the counseling ($p = 0.000$) compared to those who understood the discussion well.

Table 9. Association between the Counseling Topics and Times Variables for Counseling with Clients' Perception of Benefit from the Counseling they Received, May 2008, A.A., Ethiopia

Variables	Benefited from the counseling		Odds Ratio (95% CI)		P	
	Yes (%)	No (%)	Crude	Adjusted		
Duration of Counseling	< 5 min	29 (69.0)	13 (31)		1.00	
	5 - 15 min	268 (94)	17 (6.0)	7.07 (3.12, 16.0)*	4.33 [1.35, 13.87]*	0.014
	> 15 min	91 (95.8)	4 (4.2)	10.2 (3.08, 33.73)*	3.39 [0.78, 14.79]	0.105
	Total	388 (91.9)	34 (8.1)			
Gestational age	1 st trimester	39 (84.8)	7 (15.2)		1.00	
	2 nd trimester	171 (95)	9 (5.0)	3.41 (1.197, 9.72)*	6.140 [1.23,31.02]*	0.028
	3 rd trimester	178 (90.8)	18 (9.2)	1.78 (0.69, 4.54)	1.291 [0.34, 5.078]	0.714
	Total	388 (91.9)	34 (8.1)			
About HIV counseling	Well understood	255 (97.7)	6 (2.3)		1.00	
	Not understood	7 (25.9)	20 (74.1)	0.008 (0.003, 0.03)*	0.005 [0.001, 0.03]*	0.000
	Not counseled	125 (94)	8 (6.0)	0.368 (0.13, 1.08)	0.542 [0.164,1.791]	0.315
	Total	387 (91.9)	34 (8.1)			
About PMTCT or MTCT counseling	Well understood	275 (95.8)	12 (4.2)	0.44 (0.1, 1.98)	0.506[0.096,2.66]	0.421
	Not understood	7 (25.9)	20 (74.1)	0.007 (0.001, 0.03)*	N/A	
	Not counseled	105 (98.1)	2 (1.9)		1.00	
	Total	387 (91.9)	34 (8.1)			

4.3.4. Clients Satisfaction with PMTCT Service

Majority (61.6%) of the clients were served same day without an appointment, 147(34.8%) were appointed for up to a week, and the rest (3.6%) were appointed for 2 to 3 weeks to get the service (table 10). The vast majority (86.7%) of the clients stayed in the health centers up to 1.5 hours to get the service they wanted, 41(9.7%) waited 1.5 to 3 hours, and the rest 15(3.6%) waited for the service more than 3 hours in the health centers. Average waiting time was 39.75 minutes (SD=60.5).

A bit greater than two third (67.5%) of the clients spent 5 to 15 minutes both on pre- and post test discussions altogether. Forty-two (10.0%) clients spent a time less than 5 minutes both for pre and post test discussion, and 95 (22.5%) discussed for more than 15 minutes in the pre- and post test sessions altogether with the counselors. The mean duration of counseling was 14 minutes (SD = 12) for both the pre- and post-test sessions altogether.

Table 10. Time spent by the PMTCT clients to get the services, May 2008, AA, Ethiopia

<i>Time variables</i>	Frequency		
	No.	%	
First Appointment to get service	<i>Served same day</i>	260	61.6
	<i>1-7 days</i>	147	34.8
	<i>8-14 days</i>	8	1.9
	<i>15-22 days</i>	7	1.7
Waiting time to get service	<i>< 1.5 hour</i>	366	86.7
	<i>1.5 to 3 hour</i>	41	9.7
	<i>> 3 hours</i>	15	3.6
Time spent with the counselor (pre- and post-test sessions altogether)	<i>< 5 min</i>	42	10.0
	<i>5 to 15 min</i>	285	67.5
	<i>> 15 min</i>	95	22.5

Concerning clients' satisfaction with the services, 348 (82.5%) of the clients said that the counseling room's privacy was maintained, and 357(98.9%) of the clients were counseled by the same counselor both in the pre-test and post-test sessions (Table 11). Three hundred eighty nine (92.2%) felt comfortable with the counselors' client handling/respect; 386 (91.5%) were satisfied with technical competence of the counselors; and if they were given an option to see another counselor, 324 (76.8%) would not like to see another counselor at that time.

Most (91.9%) of the clients believed that they benefited from the counseling discussions; generally 379(89.8%) of the clients reported being satisfied with the pretest and/or post test counseling

discussions; and 388(92.2%) of them would recommend the health centers to their relatives or friends who would like to use the service.

Table 11. Clients' satisfaction with the PMTCT sites services, May 2008, A.A, Ethiopia

Satisfaction Issues	Yes		No		Total
	No.	%	No.	%	
Was there enough privacy during the counseling?	348	82.5	74	17.5	422
Did you see same counselor before and after the test?	357	98.9	4	1.1	361
Felt comfortable with counselor's respect/handling	389	92.2	33	7.8	422
Satisfied with technical competence of the counselor?	386	91.5	36	8.5	422
Do you want to see another counselor just this time?	98	23.2	324	76.8	422
Generally have you benefited any from the pre- and/or post-test counseling?	388	91.9	34	8.1	422
Generally are you satisfied with the pre-and/or post-test counseling discussions?	379	89.8	43	10.2	422
Do you recommend this health center to others?	388	92.2	33	7.8	421

On logistic regression, clients in the age group of 25-34 were less likely to be satisfied with the counseling service [AOR = 0.436 95% CI: 0.215, 0.887] than those aged 16-24 (Table 12). Residence place and marital status did not show significant difference with being satisfied in the counseling service.

As opposed to first trimester gestational age, the odds of being satisfied in the pre- and post-test counseling was higher among 2nd and 3rd trimester clients [COR = 2.493, 95% CI: 1.023, 6.078 and COR = 2.405, 95% CI: 1.003, 5.77 respectively]; and clients who waited for 1.5 to 3 hours were less likely to be satisfied with the counseling service [COR = 0.472, 95% CI: 0.237, 0.943]. Both the gestational age and waiting time differences were not, however, statistically different when adjusted.

with regard to duration of counseling, clients counseled for 5-15 min and for more than 15 minutes were about 8 and 11 time more likely to be satisfied with the counseling service respectively than those counseled for less than 5 minutes [AOR = 8.132, 95% CI: 3.501, 18.892 and AOR = 11.06, 95% CI: 3.331, 36.737 respectively]. Satisfaction with the counseling was not associated with being appointed for the service or with other socio demographic variables (not tabulated here).

Table 12. Comparison of clients' reported satisfaction with the counseling service by socio demographic characteristics and time variables, May 2008, A.A., Ethiopia ($n=422$).

Variables	Satisfaction with the Counseling		Odds Ratio		
	Yes	No	Crude OR (95% CI)	Adjusted OR (95% CI)	
<i>Age Group</i>	16-24 years	210 (92.1%)	18 (7.9%)	1.00	1.00
	25-34 years	154 (86.5%)	24 (13.5%)	0.550 (0.228, 1.049)	0.436 (0.215, 0.887)*
	35-40 years	15 (93.8%)	1 (6.3%)	1.286 (0.1610, 10.29)	1.148 (0.132, 9.999)
<i>Residence address</i>	Addis A.	359 (89.5%)	42 (10.5%)	1.00	1.00
	Out of A.A.	20 (95.2%)	1 (4.8%)	2.340 (0.306, 17.88)	2.224 (0.251, 19.667)
<i>Marital status (n=421)</i>	Unmarried	33 (97.1%)	1 (2.9%)	1.00	1.00
	Married	330 (88.9%)	41 (11.1%)	0.24 [0.032, 1.83]	0.254 [0.031, 2.100]
	Divorced	3 (100.0%)	0 (.0%)	--	--
	Cohabiting	12 (92.3%)	1 (7.7%)	0.36 [0.021, 6.28]	0.246 [0.012, 4.933]
<i>Gestational age</i>	1 st trimester	37 (80.4%)	9 (19.6%)	1.00	1.00
	2 nd trimester	164 (91.1%)	16 (8.9%)	2.493 (1.023, 6.078)*	2.058 (0.774, 5.470)
	3 rd trimester	178 (90.8%)	18 (9.2%)	2.405 (1.003, 5.770)*	1.966 (0.737, 5.247)
<i>Waiting time</i>	Up to 90 min	330 (90.2%)	36 (9.8%)	1.00	1.00
	1.5 to 3 hour	35 (85.4%)	6 (14.6%)	0.472 (0.237, 0.943)*	0.928 (0.32, 2.691)
	> 3 hours	14 (93.3%)	1 (6.7%)	0.620 (0.201, 1.915)	2.886 (0.324, 25.687)
<i>Duration of counseling</i>	< 5 min	27 (64.3%)	15 (35.7%)	1.00	1.00
	5 - 15 min	263 (92.3%)	22 (7.7%)	6.641 (3.086, 14.29)*	8.13 (3.501, 18.892)*
	> 15 min	89 (93.7%)	6 (6.3%)	8.241 (2.912, 23.317)*	11.06 (3.331, 36.737)*
<i>Appointed for other day</i>	Yes	15 (9.3%)	147 (90.7%)	1.00	1.00
	No	28 (10.8%)	232 (89.2%)	1.18 (0.611, 2.29)	0.954 (0.433, 2.100)

V.DISCUSSION

This study is among the first attempts to evaluate the quality of ANC-linked HCT service as an intervention for PMTCT. But it may not have appropriate comparison due to the lack of similar studies with similar objectives using similar methods and target population in our country.

According to the reports of PMTCT coordinators of the health centers, all sites offered pre-test counseling, either as group or individually, and individual post-test counseling after blood test. Majority (6 out of 10) of the health centers had an HCT uptake rate of 90-100% by ANC attendees. And more than three quarter (8 out of 10) of the health centers had a post test client return rate of 90-100% (for their results). This is in line with the findings of a retrospective study done in Addis Ababa among ANC attendees in five government health centers from 2002-2006 (38), which indicated that overall PMTCT utilization rate was 92.6% among PMTCT counseled ANC attendees. This may be as a result of an opt-out strategy being carried out throughout the country currently.

Availability of separate room for counseling is one of the minimum prerequisites in establishing HCT services. The counseling room should provide audiovisual privacy; conversations between clients and counselors should not be seen or overheard by others (22, 41), and the Addis Ababa Administrative Health Bureau also specifically recommends a separate room for counseling which is at least 9 m² wide (39). In this study, however, one of the health centers had no a separate room dedicated for counseling to maintain privacy. This violates client rights to confidentiality during counseling, in that counseling information should remain between the counselor and counselee only. Moreover, the clients may become reluctant to openly/freely discuss personal issues, and may not be benefited from the service as expected.

More than half of the surveyed health centers had three or more trained PMTCT counselors; and all the counselors found in the health centers were nurses in their backgrounds before they become counselors. This may be an advantage since relatively nurses are expected to have better knowledge of health matters than non-health background counselors, and as a result, they would be more confident and skilled/experienced in counseling their clients better.

Poor quality counseling can result in misunderstanding and even resistance to behavior change. Counselors need adequate training and ongoing support and supervision to ensure that they give good quality counseling and can cope with their work load (23); but this study indicated that 2 of the 9 counselors had not taken the basic VCT training, 6 of the 9 also never had a refreshment training, and all, but one counselor believed that they would need further refreshment training to be equipped with recent information about HIV and PMTCT, and how to conduct group counseling. Some PMTCT coordinators also shared the counselors' idea and believed the compromise of the quality of their services as a result of shortage of trained human power and lack of refreshment training for their counselors. This finding may seem to be better than the finding of a study done in 2006 in Addis Ababa which indicated that 83.1% of the general VCT counselors had never been given an ongoing training (24). The lack of training, particularly an ongoing training and technical support of counselors working for the PMTCT program, could lead to burnout of counselors or to a decline in the quality of counseling services with time (25). Furthermore, it could be an important contributory factor in the low coverage of ARV among HIV positive pregnant women if seropositive women do not receive adequate ongoing counseling to reinforce the importance of adherence.

Observation of the counseling sessions was acceptable to both the counselors and antenatal attendees. The pre-test counseling topics were fairly consistent across the sites and commonly addressed topics included about HIV/AIDS transmission/preventions, MTCT, benefits of testing and insisting on blood test. Most of the surveyed health centers, however, provided only rudimentary information hastily, which do not enable the clients to make informed decision/consent. Moreover, we observed that counselors were taking blood samples for HIV test from clients without prior consent and pretest counseling. Pre-test counseling is vital for pregnant women to ensure that they understand the implications of a negative or positive test result for themselves, their partners and any future children. It is also an opportunity to provide prevention information, and individual pre-test counseling helps patients to explore personal HIV risk behaviors and related issues, and concerns as well as for clarification of information provided in group sessions (17, 43). Entirely eliminating pre-test counseling or providing insufficient information minimizes the opportunities for ensuring informed consent and potentially makes receiving a positive test result more difficult to deal with (44). The national PMTCT guideline also recommends that the client should be given pre-test information on

HIV/AIDS and PMTCT, and that the provider must inform the client that she has the right to say “no” (to opt out) and this decision by no means affects the services she will get from the health facility (4).

The communication skill of the counselors was assessed for introductory/interpersonal relationship, gathering information from the clients, and giving information to the clients. The counselors’ communicative skill with clients may be considered “satisfactory” generally. For instance, the counselors greeted the clients and introduced themselves in 45.7% of the sessions, and 60.6% of the cases were attentively listened to. This finding of skill of interpersonal relationship was lower than that found in a study done in Thailand in 2000 and South Africa in 2004 (31, 30), in which 56% of the cases were greeted in the former and >95% cases were attentively and supportively listened to in the latter study. The lower results of the current study may be due to the fact that the health centers had shortage of trained human power as indicated by the PMTCT coordinators.

It is clear that a client will make a good decision and adhere to the information given to prevent MTCT only after the client receives quality counseling and care from a competent counselor with good counseling and interpersonal communication skills (25). Accordingly, during giving information to the clients, in a bit greater than $\frac{3}{4}$ of the sessions, the counselors gave simple and clear information to the clients in this study and a bit less than $\frac{2}{3}$ of the clients were given time to absorb the information given or to respond/express themselves. However, only in less than a quarter (21.2%) of the cases main issues discussed during giving information were summarized for the mothers. These findings are more or less comparable to the finding of a study done in Thailand (31).

As found in a similar study in Thailand (31), the majority of pre test sessions included the basic information on HIV transmission/prevention and PMTCT. However, in this study the discussions were rudimentary and lacked depth and coverage in many of the counseling sessions. Many of the counselors were making haste. In none of the sessions was previous ARV use, or previous HIV status of the women checked. Moreover, a quarter of the clients were not asked to freely consent or dissent HIV testing. This finding is similar to the study done in South Africa (30). This may negatively affect overall ANC utilization by the mothers and an ongoing counseling if the rights of women are violated.

In this study, counseling session observations revealed that $\frac{1}{4}$ (25.8%) of the clients were counseled for less than 5.0 min. The mean duration of pre-test counseling sessions was 5.94 minutes. A mean of 5.94 minutes may seem to comply with the national PMTCT Guideline that recommends individual pre-test sessions to last 5-15 minutes (4); however, it is noteworthy that 25.8% of the clients received a pre-test counseling that lasted only for 1-4 minutes. This may be the result of shortage of human power allocated for the service so that the counselors ignored the prescribed counseling protocols. Inadequate counseling time may lead to a decline in the quality of counseling services with time and eventually contribute to low coverage and adherence of ARVs among HIV positive pregnant women if seropositive women do not receive adequate counseling.

Quality VCT services act as a link connecting prevention, care and treatment programs as clients learn their status and look for their future plans. The poor quality of counseling in the PMTCT program will reduce the effectiveness of the program and the mere HIV testing averts little MTCT (25). Generally, this study pointed out that inadequate information was passed to clients during the pre-test counselling. For instance, there was less (51.6%) coverage of the implications of an HIV positive test result for decisions about infant's feeding; another quarter of the clients were not checked whether they had understood the information they were given on MTCT, and only with 6.5% of the cases was potential needs of the women and possible supports in the community explored/assessed. These results, however, are better than that obtained from a similar study done in Thailand (31).

Even though the basic topics were covered in the post-test sessions too, there were significant shortcomings in the comprehensiveness/depth of the information given, coverage of the clients, and in the time allotted for the post test counseling. For instance, discussion of the meaning of the results; personal, family and social implications of the results; and information on safer sex were covered only by 57.1%, 25.7% and 37.1% of the sessions respectively (irrespective of the clients' HIV status), and the duration of post test counseling was unusually short. Counseling is believed to enable people assess their personal risks for HIV and develop a risk reduction strategy, helps people to adhere to advice and treatment, and contribute to positive living and acceptance of the HIV results or status and is meant to assist clients in disclosing positive HIV status (15, 32). However, the short time spent on this counseling for most of the clients confirms the inadequate facilitation of this important task. This study pointed out that 68.6% of the post-test counseled mothers received a counseling that lasted less

than 5 minutes (mean = 3 min, and 31.4% of the sessions being completed within only 1 minute) as opposed to a similar study done in Thailand (31), that lasted between 5-75 minutes, with a mean of 14 minutes. This finding is, however similar to the study done in Kenya (32) and could be due to the fact that the counselors were overwhelmed with large numbers of clients, and that they ignored the prescribed counseling protocols. It is evident that it is difficult to equip the counselees with the relevant and necessary information in such a short period of counseling.

Even though too brief, the post test observation of 4 HIV positive mothers revealed that the mothers were counseled on PMTCT and risks associated with breast feeding. But, none of the four positive mothers were counseled on child care, about previous ARV use, about drug adherence and the need for the drugs to be taken regularly; and only one case was informed on the role of ARVs and its regimen. Similarly, a study done in South Africa indicated that inadequate knowledge about MTCT was passed to mothers during the post-test counseling (29). Poor quality counseling and the limited information provided to positive women is likely to result in misunderstanding, poor adherence to the information given to prevent MTCT, poor infant feeding practices, and even resistance to behavior change (23, 25, 27, 29).

In spite of their positive status, only 2 of the 4 (50%) of the positive mothers received information on future contraceptive options. Three of the four positive mothers were also informed that the risk of HIV transmission is very minimal if the infant is exclusively breast fed, and the need for early cessation of breast feeding at about 4-6 months. Similar poor findings were recorded in Zambia (27) in that only in one-third of the sessions infant feeding options were discussed with HIV positive mothers. In breast feeding population, up to 20% of infants born to HIV infected mothers may acquire HIV through breast feeding (42). Poor counseling on infant feeding especially for HIV positive mothers will lead to poor infant feeding practices that are important causes of HIV transmission from mother to infant. The current study showed no difference in infant feeding counseling between HIV positive and negative status ($p>0.05$).

Exit point interviews with the mothers revealed that 93.1% of the clients were addressed or urged about having an HIV blood test. However, only 68.4 % of the pregnant mothers were counseled about HIV/AIDS. This indicates that a significant number of the clients were simply ordered to give blood

sample for the test without the clients' informed consent and without being counseled about the topic. This initial experience may negatively influence subsequent attendance as the mere HIV testing averts little MTCT (25, 32). Majority (90.6%) of those counseled about HIV/AIDS, however, reported to have comprehended the information. This is in line with the results of a study done in Thailand (31).

Almost $\frac{3}{4}$ (74.6%) of the clients reported to have been counseled about issues associated with MTCT/PMTCT, but only less than half (42.4%) of the clients were counseled on infant feeding options. Of those clients who reported having been counseled on infant feeding options, only 61.8% reported to have comprehended/understood the counseling. A similar finding was observed in Kenya (32). MTCT/PMTCT knowledge was inadequate as clients could not recall information given during counseling. This study indicated that there was statistically significant association between clients' comprehension level of major discussion topics and a counseling duration that lasted for 5 minutes or more ($P = 0.000$). This may indicate that the counseling time was inadequate for the clients to grasp the information.

HCT is a critical component of PMTCT programs and has been a recommended practice in overall HIV/AIDS prevention and care programs, with a high level of scientific evidence. Even though almost all the clients believed that HCT was helpful for the mother during pregnancy, only 78.7% correctly understood the purpose why HCT is needed particularly during pregnancy. This may be because of the short counseling time spent on counseling, as evidenced by association of longer (5-15 min) counseling time and correct knowledge why pregnant mothers undergo HCT particularly during their pregnancy time ($p < 0.05$); or it may be due to the hustle the counselors were making against time with the clients load. Knowledge why pregnant mothers undergo HCT during pregnancy was also found to be higher among residents of A.A, those who attended school up to grade 12, and among those clients who were in their 3rd trimester ($p < 0.05$). This may be due to the fact that these groups of clients relatively have access to information as a result of their schooling or repeated ANC attendance.

Even though the majority of the clients were served the same day without an appointment, a significant number (38.4%) of the clients reported to have been appointed to come back other days for the service. This is likely to discourage potential clients from utilizing the services, resulting in low uptake since this initial experience negatively influences subsequent attendance (32).

Recall bias is a limitation of reporting on waiting time and could lead to misclassification bias. Ninety minutes is regarded as the acceptable waiting time (32). The vast majority (86.7%) of the clients stayed in the health centers up to 1.5 hours, which is regarded as acceptable waiting time to get the services they wanted, and average waiting time was 39.75 minutes (\pm 60.5). This is much better than the finding obtained from a study done in Kenya (32), in which only 3.9% waited less than 90 minutes. This may encourage the clients to utilize the service and eventually improve the service outcome.

Assessing client satisfaction helps to identify service gaps which once addressed will improve the quality of services and hence utilization. Clients' satisfaction may be considered to be one of the desired outcomes of care. An expression of satisfaction or dissatisfaction is also the client's judgment on the quality of care in all its aspects, but particularly pertaining to the interpersonal process. However, it should be remembered that, unless special precautions are taken, clients may be reluctant to reveal their opinions for fear of alienating their attendants (40). Concerning clients' satisfaction with the services in this study, 92.2% felt comfortable with the counselors' client handling/respect; 91.5% were satisfied with technical competence of the counselors; and 91.9% of the clients believed that they had benefited from the counseling discussions. Generally, 89.8% of the clients reported being satisfied with the pretest and/or post testing counseling discussions. This finding is similar to that done in Thailand (31). Satisfaction with the service was associated with the duration of counseling.

Even though the overall quality of the counseling services in terms of content of the counseling, duration of the counseling and counselors' competence (interpersonal relationships, gathering and giving information) of the surveyed health centers was more or less comparable to different studies done elsewhere, there still remains a lot to be improved to avert MTCT of HIV.

VI. STRENGTHS AND LIMITATIONS OF THE STUDY

6.1. *Strengths of the Study*

1. To our knowledge, this study is the first of its type to assess the quality of ANC-linked HCT services as an intervention for PMTCT in the nation.
2. The study used (adapted) standardized UNAIDS Best Practice Collection Key Material to evaluate the quality of ANC-linked HCT.
3. Multiple methods were employed in the study: key informants (PMTCT site coordinators and PMTCT counselors), observation of counseling sessions by PMTCT trained data collector nurses, and exit interviews of the PMTCT clients.

6.2. *Limitations of the Study*

1. Generalizability is may be limited by the small number of observations, esp. with the counseling of HIV positive cases.
2. Even though the observers were made unobtrusive and sit through multiple sessions, performance bias may be present. (Counselors may deviate from their actual practice in observed sessions because of the presence of the observer.)

VII. CONCLUSION

All the health centers offered pre-test and post test counseling, either as group or individually. Most of the health centers had a separate room for counseling and mostly, the counseling and testing was performed on the day they come without further appointments. The uptake of HCT and a return rate to collect their test results among the ANC client was very high. Majority of the surveyed health centers had more than two trained PMTCT counselors; however, most of the counselors complained that they lacked refreshment training. Some of the site coordinators also shared this idea and urged training of additional counselors and refreshment courses for those who are on job to improve the service quality.

Overall, counselor's communicative skill (introductory/interpersonal relationship, gathering information from the clients, and giving information to the clients) was generally "satisfactory". The majority of pre test sessions included the basic information on HIV transmission and prevention and PMTCT. However, this study revealed that the discussions were rudimentary and lacking in depth and coverage in many of the counseling sessions. Many of the counselors were making haste and failed to cover all the clients and topics. Moreover, a health center was observed providing only group pre-test counseling and the clients were not given chance to express their ideas, to consent or to decline the blood testing.

All clients who had undergone HIV blood test had also undergone post test individual counseling. However, even though the basic topics were covered, there were significant shortcomings in the comprehensiveness/depth of the information given, coverage of the clients, and in the time allotted for the counseling session.

Even though too brief counseling, the post test observation of 4 HIV positive mothers also revealed that the mothers were counseled on PMTCT and risks associated with breast feeding. Unfortunately, none of the four positive mothers were counseled on child care, about previous ARV use, about drug adherence and the need for the drugs to be taken regularly; and only one case was informed about the role of ARVs and its regimen. In spite of their positive status, only 2 of the 4 positive mothers (i.e., 50%) received information on contraception, or were engaged in discussion about future contraceptive options.

Exit interview revealed that the basic topics were covered in most of the pre-and/or post test sessions, and majority of those counseled comprehended the information; however, nearly a quarter of the clients didn't understand why they were offered HCT particularly during their pregnancy time. The vast majority (86.7%) of the clients stayed in the health centers up to 1.5 hours, which is regarded as acceptable waiting time to get the services they wanted. Most of the exit clients also indicated to have spent unreasonably short counseling sessions, however, the vast majority of the women interviewed were satisfied with the counselling and counsellor interactions, and believed to have gained new things they didn't know.

VIII. RECOMMENDATIONS

Better management and supervision of the PMTCT program is needed by the administrative health bureau, with ongoing mentoring, performance evaluation and development of the skills of the counselors. This is likely to include, as a minimum, dedicated site coordinators, and specific plans for mentoring and maintaining counseling quality, and developing a check list for antenatal health education.

The counselors need to adhere to the guidelines of counseling and be committed and devote time to pre and post counseling sessions to equip the clients with the necessary and relevant information to make the women fully understand prevention of HIV transmission and to enable use of the interventions available to prevent mother-to-child transmission.

The administrative health bureau should facilitate ongoing (refreshment) training for the counselors to equip them with recent information. As well additional health workers should be trained to share the burden of the work.

IX. REFERENCE

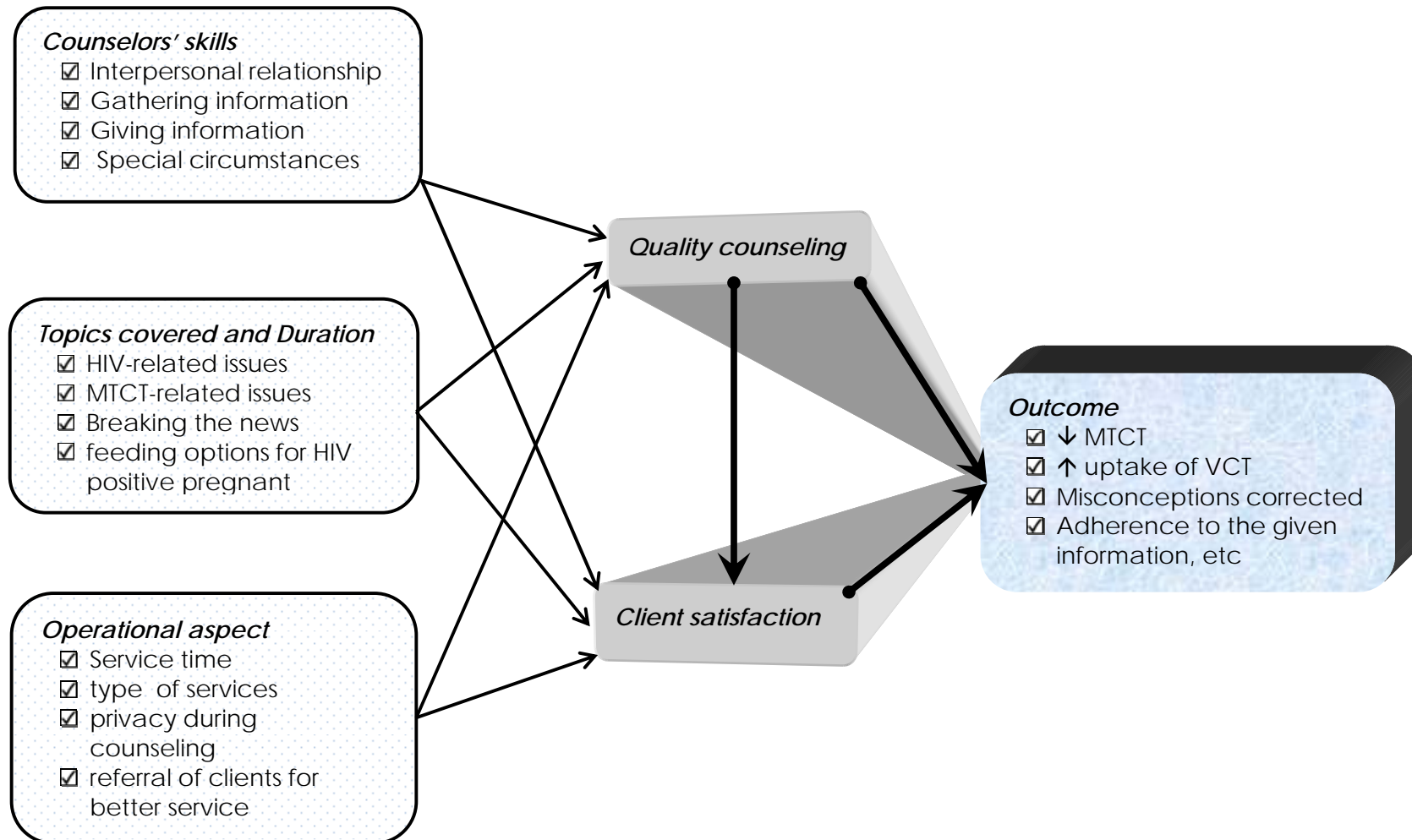
1. MoH. AIDS in Ethiopia. Federal Ministry of Health: 5th edition, June 2004.
2. UNAIDS. AIDS epidemic update: Dec 2007. Geneva, Switzerland: UNAIDS; 2007. Available at www.unaids.org. Accessed on 9/7/2008
3. Guidance on global scale-up of the prevention of mother to child transmission of HIV: towards universal access for women, infants and young children and eliminating HIV and AIDS among children / Inter-Agency Task Team on Prevention of HIV Infection in Pregnant Women, Mothers and their Children. Geneva, Switzerland: WHO; 2007. <http://whqlibdoc.who.int/publications/2007/9789241596015_eng.pdf>. (Accessed on 13/6/2008)
4. MoH. Guidelines for Prevention of Mother-to-Child Transmission of HIV in Ethiopia, Federal HIV/AIDS Prevention and Control Office, Federal Ministry of Health. July 2007.
5. MoH. AIDS in Ethiopia. Federal Ministry of Health: 6th edition, June 2006.
6. WHO. HIV/AIDS Epidemiological Surveillance Update for African Region. Zimbabwe, Harare, 2003.
7. MoH. Disease prevention and control department. AIDS in Ethiopia: 4th ed, 2002
8. Ministry of Health and Social Services. Guidelines for the Prevention of Mother-to-Child Transmission of HIV. 1st edition. Windhoek, Namibia, 2004.
9. Msellati P, Newell M-L, Dabis F. Rates of mother-to-child transmission of HIV-1 in Africa, America and Europe: Results from 13 perinatal studies. *Journal of Acquired Immune Deficiency Syndromes*, 1995; 8:506–510.
10. Newell ML. Prevention of mother-to-child transmission of HIV: challenges for the current decade. *Bulletin of the World Health Organization*, 2001b, 79:1138–1144.
11. Dabis F, Ekpini ER. HIV-1/AIDS and Maternal and Child Health in Africa. *Lancet*, 2002; 359: 2097–2104.
12. Dunn DT et al. Risk of Human Immunodeficiency Virus Type 1 Transmission through Breastfeeding. *Lancet*, 1992; 340:585–588.
13. Nduati RW et al. Effect of Breastfeeding and FORMULA feeding on Transmission of HIV-1: a randomized clinical trial. *Journal of the American Medical Association*. 2000; 283: 1167–1174.
14. WHO/GPA. Counseling for HIV/ AIDS: A key to Caring. For policy makers, planners and implementers of counseling activities WHO/GPA/94.5),WHO/GPA 1994.

15. Stringer, J. Nevirapine to Prevent Mother-to-Child Transmission of HIV-1. Among Woman of Unknown Sero status. *African Medical Journal*, 2003; 1850-1853.
16. WHO. Health Services Coverage, 2004.
17. WHO and HHS/CDC. Prevention of Mother-to-Child Transmission of HIV (PMTCT) Generic Training Package, 2004. Available at <http://www.who.int/hiv/en>. (Accessed on 17/7/2007).
18. UNAIDS. Tools for evaluating HIV voluntary counseling and testing. UNAIDS BEST PRACTICE COLLECTION. UNAIDS, Geneva, 2000. < <http://www.unaids.org> > (Accessed on 10/5/2007).
19. WHO, HHS/CDC, UNICEF and USAID. "Protect Yourself, Your Baby and Your Family from HIV/AIDS". Testing and Counseling for Prevention of Mother-to-Child Transmission of HIV (TC for PMTCT) Support Tools. Reference Guide 2006. Geneva, Switzerland: WHO, HHS/CDC; 2006. < <http://www.womenchildrenhiv.org/wchiv?page=vc-10-00> >. (Accessed on 3/7/2008)
20. WHO representative to India. Available at <http://www.naco.nic.in/> (accessed on 25/07/2005).
21. Lori, DPB. Lynne, MF. Nadia, R. Theresa, H. Quality Assurance of Health Care in Developing Countries: Quality Assurance, Methodology, Refinement Series, Quality Assurance Project, USA.
22. FHI. A guide to establishing voluntary counseling and testing services for HIV, July 2002.
23. MoH, National Guideline for VCT in Ethiopia, April 2002.
24. Abraham D. Assessment of Quality of Voluntary HIV Counseling and Testing Services in Addis Ababa. Unpublished MPH thesis, department of community health, Addis Ababa University; 2006.
25. Chopra, M. Doherty, T. Jackson, D and Ashworth, A. Preventing HIV transmission to children: Quality of counseling of mothers in South Africa. *Acta Pædiatrica*, 2005; 94: 357–363.
26. Delva W, Mutunga L, Quaghebeur A, Temmerman M. Quality and quantity of antenatal HIV counseling in a PMTCT programme in Mombasa, Kenya. *AIDS Care*, 2006; 18(3): 189-193. <<http://www.informaworld.com/terms-and-conditions-of-access.pdf>> (Accessed on 24/6/2008)
27. Hope Humana L, National Food and Nutrition Commission. Ndola District Health Management Team, Horizons Program, and Z.I.H. Program. Empowering communities to respond to HIV/AIDS: Ndola demonstration project on maternal and child health: Operations research final report. Washington, DC: Population Council; 2003.
28. Rutenberg N, Kabila S. Evaluation of United Nations-Supported Pilot Projects for the Prevention of Mother-to-Child Transmission of HIV. New York: UNICEF and Population Council; 2003.
29. Health Systems Trust. Evaluation of the pilot PMTCT sites in South Africa. Durban: Health Systems Trust; 2002. p. 124–48.

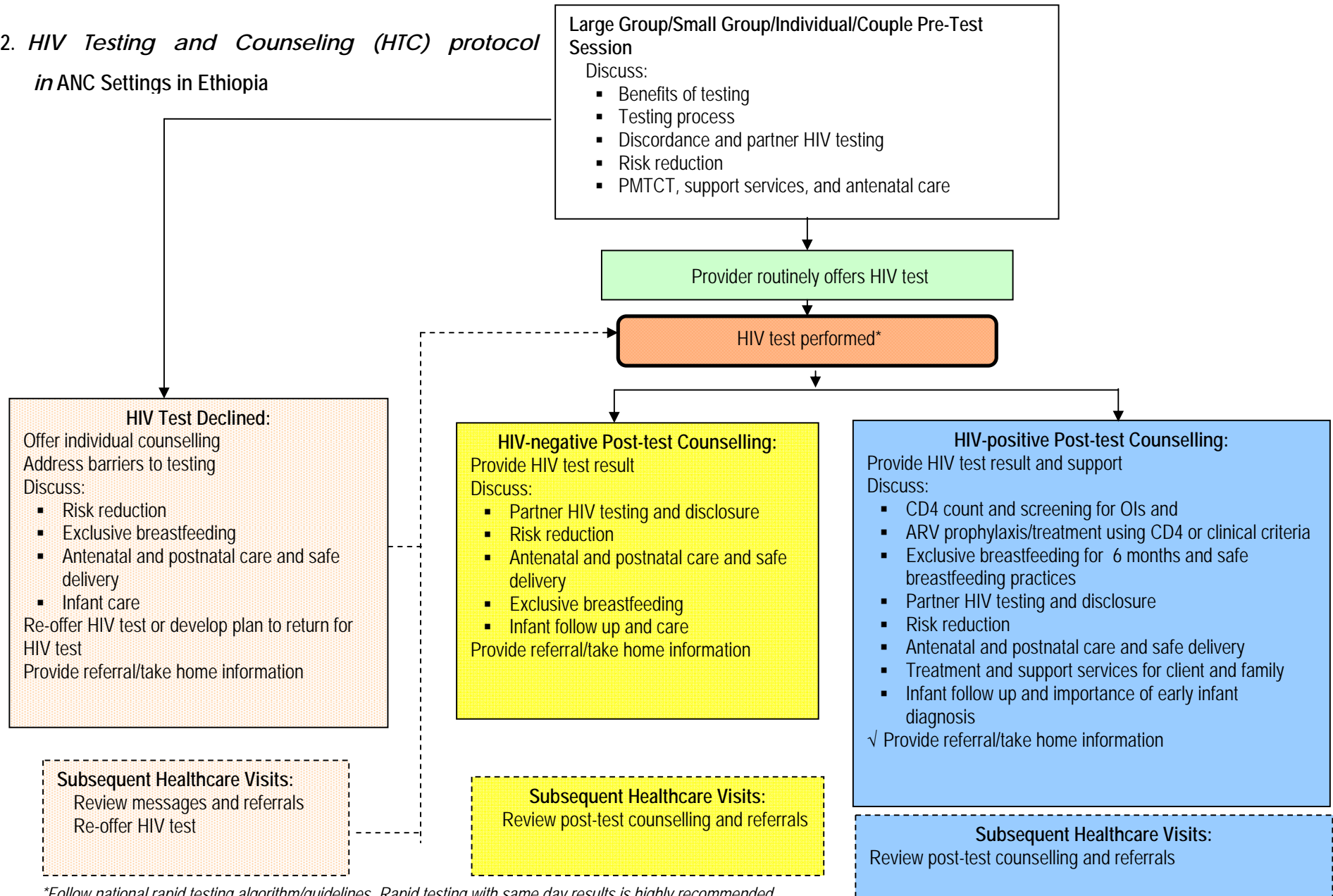
30. Chopra, M, Jackson, D., Ashworth, A. And Doherty, T. An Evaluation of the Quality of Counseling Provided to Mothers in Three PMTCT Pilot Sites in South Africa; 2004.
31. Department of Health. Ministry of Public Health Thailand. Evaluation of VCT in the National PMTCT Program. October 2000.
32. Moth, IAA. Ayayo, BCO. and Kaseje, DO. Assessment of utilization of PMTCT services at Nyanza Provincial Hospital Kenya. *Journal of Social Aspects of HIV/AIDS*. 2005; 2 (2). Also available at: <http://www.sahara.org.za/index.php/Download-document/242-Assessment-of-utilisation-of-PMTCT-services-at-Nyanza-Provincial-Hospital-Kenya.html>. (Accessed on 2/6/08)
33. UNAIDS. AIDS Epidemic Update. Geneva, Switzerland: UNAIDS; 2006.
34. UNICEF. State of the world's children. New York: UNICEF; 2000.
35. UNAIDS. AIDS epidemic update: Dec 2005. Geneva, Switzerland: UNAIDS; 2005.
36. WHO. Antiretroviral Drugs for Treating Pregnant Women and Preventing HIV Infection in Infants: Guidelines on Care, Treatment and Support for Women Living with HIV/AIDS and their Children in Resource-Constrained Settings. Geneva: WHO; 2004. <<http://www.who.int/hiv/pub/mtct/en/arvdrugswomenguidelinesfinal.pdf>>, accessed May 26, 2006).
37. Weinhardt LS, Carey MP, Johnson BT, Bickham NL. Effects of HIV counseling and testing on sexual risk behavior: A Meta analytic review of published research, 1985–1997. *A.M J Public Health*. 1999; 89:1397–405.
38. Zegeye T. Assessment of “Trends in HIV test and Sero prevalence” among randomly selected Antenatal Care attendees in government health centres in Addis Ababa. Unpublished MPH thesis, department of community health, Addis Ababa University; 2007.
39. Addis Ababa Health Bureau (AAHB). VCT Service Guideline, May 2004.
40. Donabedian A. The Quality of Care: How can it be assessed? *JAMA*. 1988; 260: 1743-48.
41. FHI – Ethiopia, Addis Ababa HIV Care and Support Service Assessment- August 2002, <http://www.fhi.org/NR/rdonlyres/> (Accessed on 23/07/2005)
42. Decock KM, Fowler MG, Mercier E, et al. Prevention of mother to child HIV transmission in resource poor countries. Translating research into policy and practice. *JAMA* 2000; 283(9): 1175-82.
43. Perez F. et al. Prevention of Mother to Child Transmission of HIV: Evaluation of a Pilot Programme in a District Hospital in Rural Zimbabwe. *BMJ* 2004; 329: 1147–1150.
44. Joo E. et al. Implementation of Guidelines for HIV Counseling and Voluntary HIV Testing of Pregnant Women. *Am J Public Health* 2000; 90: 273–276.

X.ANNEXES

10.1. Conceptual frame work of Quality HIV Counseling and Testing



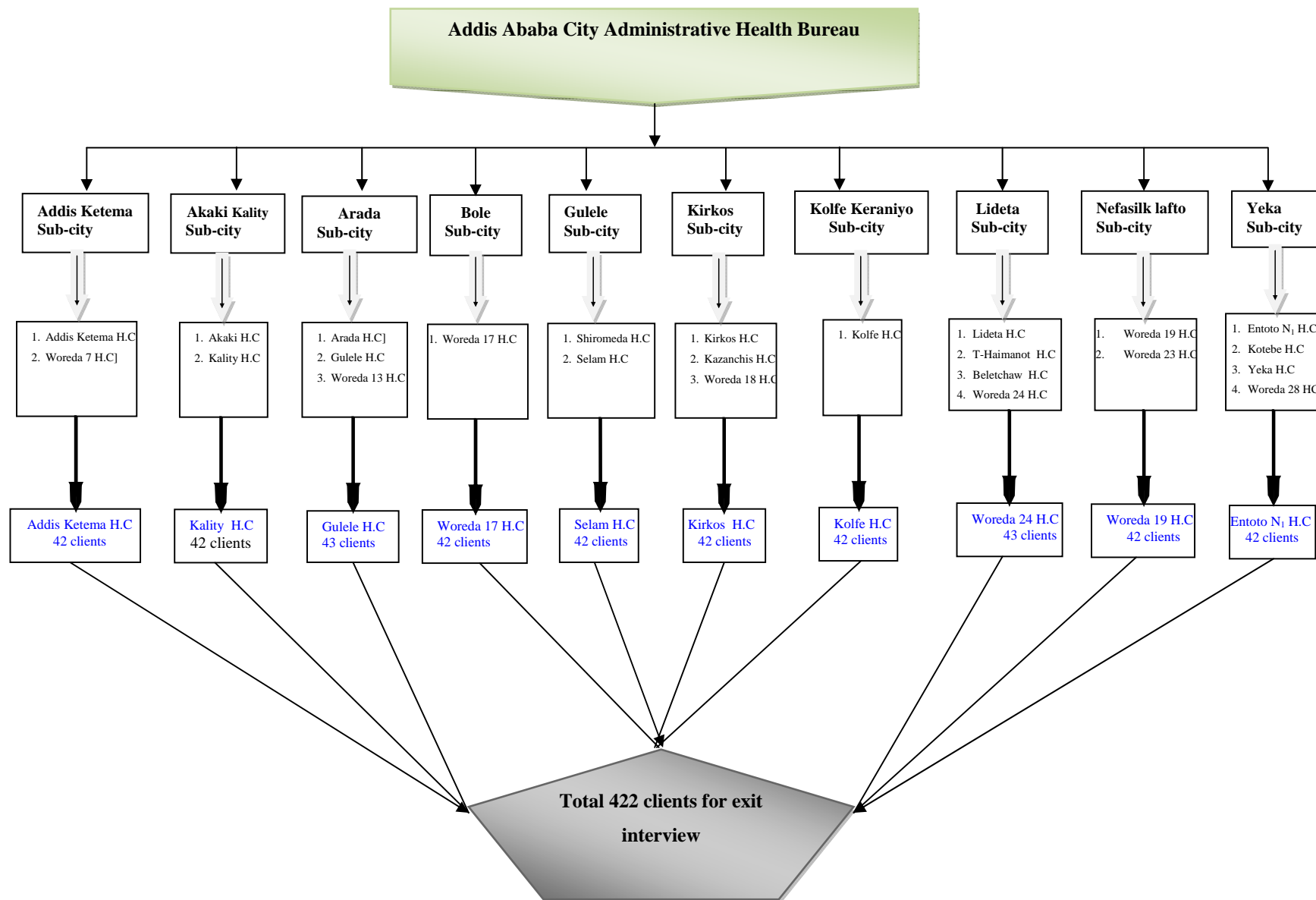
10.2. *HIV Testing and Counseling (HTC) protocol in ANC Settings in Ethiopia*



*Follow national rapid testing algorithm/guidelines. Rapid testing with same day results is highly recommended

Source: MoH. (2007). Guidelines for Prevention of Mother-to-Child Transmission of HIV in Ethiopia
School of Public Health, AAU, 2008.

10.3. Schematic Presentation of Sampling



10.4. Questionnaire

**Addis Ababa University
School of Public Health
Department of community health**

10.3.1. Questionnaire for PMTCT/VCT coordinators on logistic consideration of VCT service

M 01 Kifle-ketema

M 02 Name of PMTCT center

Checked by investigator: signature.....date

General information for PMTCT /VCT coordinators

Good morning! This self administered questionnaire was prepared on behalf of MoH and Addis Ababa University, to assist the government in improving its capacity in obtaining information on the quality of VCT for intervention of PMTCT among the pregnant. Your facility was selected in this study just by chance. You will find some questions asking you about VCT services provided at your health institution for PMTCT of HIV. The information you provide us will be completely confidential and will not be shared with anyone else without your consent. No one else working in this facility or involved in this study will know what information you gave us. The information you provide us is extremely important and valuable as it will help the governmental and nongovernmental organizations or facilities involved in interventions for prevention of mother to child transmission of HIV to improve formulation of the policy and the delivery of PMTCT services. We will share the results of this evaluation with you after the data are analyzed

Consent form

I undersigned have been informed that the interview is conducted to gather information about HIV counseling and testing services. I also agree about the confidentiality of the response to be at the highest possible level

No.	Questions	Code of classification	Code
<i>M 03</i>	What is the type of the PMTCT site?	1. Free standing 2. Health center 3. Antenatal clinic 4. Others (specify)	
<i>M 04</i>	What HCT services do you offer?	1. Pre-test counseling 2. Post test counseling 3. Ongoing counseling 4. HIV testing 5. Others (specify)	
<i>M 05</i>	Is there a separate room for counseling?	1. Yes 2. No	
<i>M 06</i>	Is group pretest counseling carried out?	1. Yes 2. No	
<i>M 07</i>	What is the uptake rate of HCT by the antenatal women attending the service? (you can answer in range)		
<i>M 08</i>	What is the return rate to collect HIV test results by the antenatal women attending the service? (you can answer in range)		
<i>M 09</i>	What is the average time interval between taking blood and the results available?		
<i>M 010</i>	Do you have appointment system?	1. Yes 2. No → if no go to q110	
<i>M 011</i>	If yes, what happens if someone comes without an appointment?	1. Asked to make a future appointment 2. Always be seen same day 3. Usually be seen same day 4. Others (specify)	
<i>M 012</i>	Do you refer your clients for better service (treatment and care)?	1. Yes 2. No	
<i>M 013</i>	If yes where do you refer to? (specify) ----- -----		
<i>M 014</i>	How many trained counselors who can work on PMTCT do you have in the health center? -----		
<i>M 015</i>	Additional comments (if any)----- -----		

**Addis Ababa University
School of Public Health
Department of community health**

10.3.2. Questionnaire for Counselors

C 01 Kifle-ketema -----

C 02 Name of PMTCT/HCT center -----

Checked by investigator: signature-----date -----

General information for HCT / PMTCT Counselors

This self administered questionnaire was prepared on behalf of MoH and Addis Ababa University, to assist the government in improving its capacity in obtaining information on the quality of VCT for intervention of PMTCT among the pregnant. Your facility was selected in this study just by chance. You will find some questions asking you about VCT services provided at your health institution for PMTCT of HIV. The information you provide us will be completely confidential will not be shared with anyone else without your consent. No one else working in this facility or involved in this study will know what information you gave us. The information you provide us is extremely important and valuable as it will help the governmental and nongovernmental organizations or facilities involved in interventions for prevention of mother to child transmission of HIV to improve formulation of the policy and the delivery of PMTCT services.

Consent form

I undersigned have been informed that the interview is conducted to gather information about HIV counseling and testing services. I also agree about the confidentiality of the response to be at the highest possible level

No.	Question	Code of classification	Code
C 03	What is your background?	1. Nurse 2. Doctor 3. Health officer 4. Social worker 5. PLWHA 6. Others (specify) ----- ----	
C 04	How did you become a counselor?	1. Appointed by the head 2. Self motivated 3. Others (specify)-----	
C 05	Did you take the basic VCT counseling course?	1. yes 2. no	
C 06	In addition to the basic VCT counseling, did you take PMTCT counseling course?	1. yes 2. no	
C 07	How many courses of counseling have you attended after the basic one? List the types of the courses as well	----- ----- -----	
C 08	Have you had a follow up/an ongoing in-service training in the past?	1. Yes 2. No →if no, go to q 11	
C 09	If yes, when did you have the last follow up training?	1. Within the last 12 months 2. Within the last 2 to 5 years 3. More than 5 years back 4. Don't remember	
C 010	Do you think you need further training?	1. Yes 2. No	
C 011	If yes, on which specific area?	1. HIV and PMTC (including ZDV) 2. Counseling for HIV infection 3. Group counseling 4. Counseling in the ANC 5. Others (specify)	

10.3.3. Guide for the Observant of Antenatal Consultation Observations

Observation of Antenatal Consultation

OBSERVER: OBTAIN PERMISSION FROM BOTH THE CLIENT AND THE PROVIDER BEFORE OBSERVING THE CONSULTATION.

BE AS DISCREET AS POSSIBLE DURING THE ASSESSMENT, AND DO NOT TAKE PART IN THE INTERACTION IN ANY WAY. MAKE SURE THAT THE SERVICE PROVIDER KNOWS THAT YOU ARE NOT THERE TO EVALUATE HIM/HER AND THAT YOU ARE NOT AN "EXPERT" TO CONSULT DURING THE SESSION.

TRY TO SIT BEHIND THE CLIENT, BUT IN A POSITION NOT DIRECTLY IN FRONT OF THE PROVIDER. DO NOT MAKE EYE CONTACT WITH THE PROVIDER DURING THE CONSULTATION.

FOR EACH OF THE ITEMS, TICK THE ANSWER THAT MOST APPROPRIATELY REFLECTS YOUR ASSESSMENT OF WHAT HAPPENED DURING THE INTERACTION.

READ TO PROVIDER (BEFORE CLIENT ENTERS): Hello. I am representing the MoH and Addis Ababa University. We are working to assist the government in improving its capacity in obtaining information on the quality of VCT for intervention of PMTCT among the pregnant. As part of this activity, we are carrying out a survey of selected facilities. I would like to observe your consultation with this client to better understand how antenatal HIV counseling is provided in this facility.

This information will remain completely confidential. This is not a supervisory visit. You may choose to stop the observation at any time. Do you have any questions for me? May I be present at this consultation?

_____ Date

Interviewer's Signature (indicates Provider's willingness to participate)

O 01	Permission received from Provider	Yes1 No2	→STOP
	<p>READ TO CLIENT Hello. I am representing MoH and AAU. We are working to assist the government in improving its capacity in obtaining information on the quality of VCT for intervention of PMTCT among the pregnant. As part of this activity, we are carrying out a survey of selected facilities I would like to observe your consultation with this Provider in order to better understand how counseling are provided at this facility.</p> <p>This information will remain completely confidential and will not affect the level of care you receive here now or in the future.</p> <p>You may tell me to stop the observation at any time if you feel uncomfortable. Do you have any questions for me? May I stay?</p> <p>_____ Date _____</p> <p>Interviewer's Signature (indicates Client's willingness to participate)</p>		
O 02	Permission received from Client	Yes1 No2	→103 →STOP
O 03	Record beginning time _____	Record finishing time _____	

10.3.3.1. Check list for Observational study of pre-test content

FOR EACH OF THE ITEMS, TICK “✓” OR “✗” THAT MOST APPROPRIATELY REFLECTS YOUR ASSESSMENT OF WHAT HAPPENED DURING THE INTERACTION.

GROUP EDUCATION TOPICS			
1. HIV-related issues		Yes	No
O 04	The value of getting partner/father involved		
O 05	Knowledge about HIV and Transmission		
O 06	Misconceptions about HIV Transmission		
O 07	The HIV testing process		
O 08	The “window period”		
O 09	The meaning and possible implications of HIV-positive and HIV-negative results		
O 010	Potential needs and available Support		
2. MTCT-related issues		Yes	No
O 011	Full information about HIV in pregnancy & risk of transmission to the infant		
O 012	Possible benefits of knowing HIV status and interventions available if positive		
O 013	Testing is not mandatory and antenatal care and other services will not be denied if she decides not to be tested		
O 014	ARV therapy for MTCT is not a cure/treatment for mother		
O 015	The need to attend maternity services regularly		
O 016	Known adverse effects and drug interactions		
INDIVIDUAL COUNSELING TOPICS			
1HIV-related issues		Yes	No
O 17	Assessment of personal risk of HIV exposure and how to avoid it (e.g. safer sex)		
O 18	Capacity to cope with a positive result		
O 19	Potential needs and possible support		
O 20	Clarification of understanding about information given		
O 21	Time to think through issues and for answering questions		
O 22	Informed consent/dissent given freely		
O 23	Follow-up arrangements after counseling session		
2. MTCT-related issues		Yes	No
O 24	Implications of a positive result for the baby and for future children		
O 25	Implications of a positive result for decisions about infant feeding		
O 26	Implications of a positive result for the relationship with the baby's father		
O 27	Desirability of getting partner/ father involved		
O 28	Previous ARV use		
O 29	Check for understanding		

10.3.3.2. Check List for Observational Study of Post Test INDIVIDUAL COUNSELING

Content

FOR EACH OF THE ITEMS, TICK “✓” OR “✗” THAT MOST APPROPRIATELY REFLECTS YOUR ASSESSMENT OF WHAT HAPPENED DURING THE INTERACTION.

1. Breaking the news		Yes	No
O 30	Results given simply and clearly		
O 31	Time allowed for result to sink in		
O 32	Checking for understanding		
O 33	Discussion of the meaning of the result for the client		
O 34	Discussion of personal, family and social implications		
O 35	Who to tell, and how to tell them		
O 36	Managing immediate emotional reactions		
O 37	Checking for immediate follow-up support outside the clinic		
O 38	Immediate plans, intentions and actions reviewed		
2. MTCT-related issues			
O 39	Explanation of the delivery processes (e.g. maintaining confidentiality through ARV administration in labour)		
O 40	Implications of the positive result for the baby and for future children		
O 41	Implications of the positive result for decisions about infant feeding (e.g. benefits and risks of breastfeeding) and information on feeding options		
O 42	Information on family planning		
O 43	Previous ARV use		
O 44	Explanation of the ARV regimen and the role of ARVs		
O 45	The need for medicines to be taken regularly and according to the Regimen		
3. HIV-related issues			
O 46	Implications of sharing the positive result for the relationship with the baby's father, and the family		
O 47	Desirability of getting the father involved in counseling and follow-up		
O 48	Information about safer sex and using condoms to prevent transmission of HIV and STIs		
O 49	Information about care of the child (including nutritional advice, seeking early treatment for illnesses)		
O 50	Information on support services in the community		
O 51	Check for understanding		
O 52	Next appointment made (possibly with partner)		

10.3.3.3. Check list for feeding options for HIV positive pregnant women

FOR EACH OF THE ITEMS, TICK “✓” OR “✗” THAT MOST APPROPRIATELY REFLECTS YOUR ASSESSMENT OF WHAT HAPPENED DURING THE INTERACTION.

Have any of the following occurred during the discussion? (tick each)		Yes	No
O 53	Explains that HIV can pass to the foetus during pregnancy		
O 54	Explains that HIV can pass to the infant during the birth process		
O 55	Explains that HIV can be passed in breast milk		
O 56	Indicates that the risk is very small if baby is breastfed exclusively		
O 57	Checks mother understands risk of HIV through breast milk		
O 58	Explores mother's understanding of EBF		
O 59	Explains need to stop breastfeeding at about 4 – 6 months		
O 60	Discusses option of not breastfeeding and using replacement feeding		
O 61	Gets agreement about feeding option		
O 62	Checks mother's understanding of her feeding choice		
O 63	Decision achieved by:		
O 61.1	1) only one option offered		
O 61.2	2) Told which option to take		
O 61.3	3) mother left to make own decision		
O 61.4	4) mother helped to make informed decision		
O 64	Decision Taken:		
O 62.1	1) Exclusive formula Feeding		
O 62.2	2) Exclusive Breastfeeding		
O 62.3	3) Undecided/Unknown		
	4) Others (specify)		

10.3.3.4. Check List for counselors' Skills

FOR EACH OF THE ITEMS, TICK "✓" OR "✗" THAT MOST APPROPRIATELY REFLECTS YOUR ASSESSMENT OF WHAT HAPPENED DURING THE INTERACTION (3* = the best).

Function	Skills	Score			comment
		1	2	3*	
Interpersonal relationship					
	▪ Greets clients				
	▪ Introduces self				
	▪ Listens actively (both verbally and non-verbally)				
Gathering information					
	▪ Uses appropriate balance of open and closed questions				
	▪ Uses silence well to allow for self-expression				
	▪ Avoids premature conclusions				
	▪ Summarizes main issues discussed				
Gathering information					
	▪ Gives information in clear and simple terms				
	▪ Gives client time to absorb information and to respond				
	▪ Checks for understanding/ misunderstanding				
	▪ Summarizes main issues				
Handling special circumstances					
	▪ Accommodates language difficulty				
	▪ Prioritizes issues to cope with limited time in short contacts				
	▪ Manages client's distress				
	▪ Flexible in involving partner or significant other				

**Addis Ababa University
School of Public Health
Department of Community Health**

10.3.4. Questionnaire for Exit Interview of PMTCT Clients

- E 01. Kifle-ketema -----
E 02. Date of interview-----
E 03. Name of HCT/PMTCT center -----

Interviewer code-----name-----

Checked by investigator: signature-----date -----

Time at the beginning of the interview-----

General Information for Exit PMTCT Clients

This self administered questionnaire was prepared on behalf of MoH and Addis Ababa University, to assist the government in improving its capacity in obtaining information on the quality of VCT for intervention of PMTCT among the pregnant. You were selected in this study just by chance. You will be asked some questions about VCT services provided at this health institution for PMTCT of HIV. The information you provide us will be completely confidential and will not be shared with anyone else without your consent. No one else working in this facility or involved in this study will know what information you gave us. The nurses, doctors and other people will not be told what you said. The information you provide us is extremely important and valuable as it will help the governmental and nongovernmental organizations or facilities involved in interventions for prevention of mother to child transmission of HIV to improve formulation of the policy and the delivery of PMTCT services.

Consent Form

I undersigned have been informed that the interview is conducted to gather information about HIV counseling and testing services. I also agree about the confidentiality of the response to be at the highest possible level

No.	Question	Code of classification	Code
E 04.	Place of residence	1. Addis Ababa 2. Out of Addis Ababa	
E 05.	Age (completed years)		
E 06.	Religion	1. Orthodox 2. Muslim 3. Protestant 4. Catholic 5. Others (specify)-----	
E 07.	What is your marital status?	1. Married 2. Single 3. Widowed 4. Separated 5. Others (specify)-----	
E 08.	The highest level of education you completed	1. Illiterate 2. Read and write 3. Grade 1-6 4. Grade 7-12 5. College 6. No response	
E 09.	Occupation	1. Jobless 2. Student 3. Day laborer 4. Gov employee 5. Merchant 6. CSW 7. Housewife 8. Others (specify)-----	
E 10.	Ethnicity	1. Amhara 2. Oromo 3. Tigre 4. Gurage 5. Other (specify) -----	
E 11.	Your gestational age (in completed weeks)		
E 12.	Gravidity		

	Question	Yes	No	Code
E 13.	Have you talked to your counselor today about:			
E 14.	a) Having an HIV test?			
E 15.	b) receiving test results			
E 16.	c) Issues associated with having been tested some time ago?			
E 17.	d) The health of your baby?			
E 18.	Did you come specifically to discuss testing for HIV?			
E 19.	Did you come specifically to discuss receiving treatment to protect your baby from HIV?			
E 20.	Generally are you benefited from the pre- and/or post test counseling			
E 21.	Generally are you satisfied with the pretest and/or post test counseling			
E 22.	Are you satisfied with the technical competence of the counselor			
E 23.	Did you feel comfortable with your counselors handling of the client?			
E 24.	Was there enough privacy during your counseling?			
E 25.	Did you see the same counselor before and after the test?			
E 26.	Did you want to see a particular counselor this time (a specific person)?			
E 27.	How long did you wait for your 1 st appointment to visit the clinic? _____ Days			
E 28.	How long did you wait before someone talked with you in the clinic? ___ minutes			
E 29.	How much time did you spend with your counselor today? _____ minutes			
E 30.	How many visits have you made to your counselor at this clinic? _____ visits			
E 31.	Would you recommend using this service to a friend or family member?			
E 32.	Why? _____			
E 33.	Which of the following counseling topics did you discuss with your counselor? (circle all that applies)			
	a) About HIV			
	b) About MTCT			
	c) About infant feeding			
	d) Others (specify)			
E 34.	Which of the above counseling topics do you feel understood well/counseled well? ----- -----			
E 35.	What were the bad things about your counseling? _____			
E 36.	What new information did you grasp from the counseling/discussion you made with your counselor? _____			
E 37.	Tell me why you offered an HIV test when you are pregnant. What is its benefit? _____			

መመሪያ ለAntenatal Consultation ተመልካች

- I. Kifle-ketema -----
- II. Name of PMTCT center -----

O 017		
<p>ተመልካች:- የ ወይይቱን/ምክክሩን ሂደት ከመቻላቸው በፊት ከጠፍ ባለሙያው (counselor) እና ከተመካሪ (ነፍሰጠፎ እናት) መመልከት የማይችሉበትን/ሽን ፍቃድ አግኝ/ኚ ::</p> <ul style="list-style-type: none"> ☞ በምክክሩ ሂደት ጊዜ ምንም ዓይነት ተሳትፎ ማድረግ (ጥያቄ መጠየቅ፣ መልስ ወይም ማብራሪያ መስጠት ወዘተ) ፍፁም የተከለከለ ነው። ☞ አንተ/ቺ ካወጣህ/ሽ ለመገምገም ያልመጣህ/ሽ መሆን/ሽን እና አንተ/ቺ ከሱ የላቀ የመቻላቸው ብቃት አለህ/ሽ ማለት እንዳልሆነ አስረዳው/ኚ። ☞ አቀማመጥህ/ሽ ከነፍሰጠፎ በስተኋላ በኩል ሆኖ ነገር ግን ከካወጣህ/ሽ ቀጥታ ፊት ለፊት መሆን የለበትም፤ በወይይቱ ጊዜም ካወጣህ/ሽ በዓይንህ/ሽ አትመልከተው። ☞ ለእያንዳንዱ ከዚህ ቀጥሎ ላሉት የመወያያ ነጥቦች (observation check lists) የመወያያ ነጥቦቹ በወይይቱ ጊዜ በበቂ ሁኔታ እና በትክክል ለእርጉዟ ሴት በጣህ ወይይት ተደርጎበታል፤ በተገቢው ሁኔታ ተዳስሷል ብለህ/ሽ የምታምን/ኚ ከሆነ "✓" ምልክት አለበለዚያ "x" ምልክት በተዘጋጀው ቦታ አኑር/ሪ። 		
<p>ነፍሰጠፎ ከመግባቷ በፊት ለአማካሪው የሚሰጠው:-</p> <p>ጤና ይስጥልኝ: ስሜ _____ ይባላል: ማሪ እዚህ የተገኘሁት በጤና ጥበቃና በአዲስ አበባ ዩንቨርሲቲ በኩል ለሚደረገው የ PMTCT ጥናት (ማለትም HIV ከእናት ወደ ልጅ እንዳይተላለፍ ለመከላከል ለነፍሰጠፎች የሚደረገውን የHIV ምርመራና የምክክር አገልግሎት (PMTCT) ጥራትን በተመለከተ መረጃ ለመሰብሰብ ነው። ለዚህ ተግባር በአጋጣሚ ከተመረጡት የጤና ድርጅቶች አንዱ ይህ ጤና ጣቢያ ነው። በዚህም መሰረት ከነፍሰጠፎች ጋር የሚያደርጉትን ወይይት በመከታተል ለነፍሰጠፎች የሚሰጠውን የምክክር አገልግሎት ሁኔታ ለመረዳት ነው። ከዚህ የሚሰበሰበው መረጃ ሚስጥራዊነቱ ፍፁም የተጠበቀ ነው። ይህ የኔ ቅኝትም የሰራዎ የግምገማ አካል አይደለም። በፈለጉ ጊዜም ቅኝቴም ሊያስቆሙኝ ይችላሉ። የሚጠይቁን ጥያቄ አሎት? ምክክራችሁን መመልከት እችላለሁ? _____</p>		
	_____ Date	
Interviewer's Signature (indicates Provider's willingness to participate)		
Permission received from Provider	Yes1 No2	→STOP
<p>ለነፍሰጠፎ የሚሰጠው:-</p> <p>ጠፍ ይስጥልኝ: ስሜ ----- ይባላል: ማሪ እዚህ የተገኘሁት ጥበቃና አዲስ አበባ ዩንቨርሲቲን በመከላከል ሲሆን HIV ከእናት ወደ ልጅ እንዳይተላለፍ ለእርጉዞች የሚሰጠውን የHIV ምርመራ እና ምክክር አገልግሎትን የጥራት ደረጃ ከፍ ለማድረግ ይረዳን ዘንድ መረጃ መስጠት አስፈላጊ ሆኖ ስለተገኘ በአንዳንድ በተመረጡ የጤና ድርጅቶች ለነፍሰጠፎ እናቶች የሚሰጠው የHIV ምርመራና የምክክር አገልግሎት የጥራት ሁኔታ በጠፍ ጣቢያ ምን እንደሚመስል ለመመልከት ነው። ከዚህ የሚሰበሰበው መረጃ ሚስጥራዊነቱ ፍፁም የተጠበቀ ሲሆን እርስዎ ከዚህ ጠፍ ጣቢያ ማግኘት ያለበትን አገልግሎት በማንኛውም መልኩ አያጓድልም። በፈለጉ ጊዜም ቅኝቴን እንዳቆም ሊነግሩኝ ይችላሉ። የሚጠይቁን ጥያቄ አለ? ወይይታችሁን መከታተል እችላለሁ? _____</p>		
	_____ Date _____	
Interviewer's Signature (indicates Client's willingness to participate)		
Permission received from Client	Yes1 No2	→O 03 →STOP
Record beginning time _____	Record finishing time _____	

III. Check List for observation study of **PRE TEST COUNSELING** Content

FOR EACH OF THE ITEMS, TICK “✓” OR “✗” THAT MOST APPROPRIATELY REFLECTS YOUR ASSESSMENT OF WHAT HAPPENED DURING THE INTERACTION.

A. GROUP EDUCATION TOPICS

2. HIV-related issues		Yes	No
O 018	የልጁን አባት በወይይቱ ማሳተፍ ስላለዉ ጥቅም እንድታወቅ ተደርጋለች?		
O 019	ስለ HIV ያላቸው እወቅትና ስለመተላለፊያ መንገዶቹ ወይይት ተደርጎበታል?		
O 020	የተሳሳቱ የ HIV ግንዛቤ (መተላለፊያ መንገዶች) ታርግጧል?		
O 021	የ HIV የደም ምርመራ ሂደት ማብራሪያ ተሰጧል? The HIV testing process		
O 022	ስለ “window period” እንድትረዳ ተደርጋል?		
O 023	የHIV ደም ምርመራ ውጤት (positive እና negative) ትርጉምና ለወደፊቱ ሂደቱ ምን ማለት እንደሆነ ግንዛቤ እንድትጨብጥ ተደርጋል?		
O 024	ለየስፈልጓት ስለሚከተሉ ድጋፎችና ድጋፎቹን ከየት ከየት ማግኘት እንደሚችል እንድታወቅ ተደርጓል?		
2. MTCT-related issues		Yes	No
O 025	HIV በርግዝና ጊዜ እና HIV ከእናት ወደ ልጅ የመተላለፉን አደጋ በተመለከተ በቂ መረጃ ተሰጧታል?		
O 026	ራስን ማወቅ ስላለዉ ጥቅምና HIV POSITIVE ከሆኑት ሊደረግላቸው የሚችሉ ህክምናዎች ተነግሯቸዋል?		
O 027	መመርመር ግዴታዎች እንዳልሆነና ለመመርመር ፈቃደኛ ካልሆኑት ሌሎች የርግዝና ክትትል አገልግሎቶችን እንደሚገኙት ተገልጿል?		
O 028	HIV ከእናት ወደ ልጅ እንዳይተላለፍ ለመከላከል የሚሰጠዉ የጸረ-HIV ህክምና/መድሃኒት እሷን የማያድናት ስለመሆኑ ተገልጿል?		
O 029	ለርግዝና ክትትል አገልግሎት መመላለስ አስፈላጊነት ተገልጿል?		
O 030	ስለ መድሃኒቶች የጎንጎሽ ጉዳቶች (SIDE EFFECTS) እና drug interactions ተገልጿል?		

B. INDIVIDUAL COUNSELLING TOPICS

1. HIV-related issues		Yes	No
O 031	ግለሰቧን ለHIV የሚያደግ ሁኔታዎችና እንዴት መከላከል እንደሚችል ተዳስሷል?		
O 032	የደም ምርመራ ውጤቱን (positive result) አምኖ በመቀበል አብሮ ለመኖር ያላት ብቃት ተዳስሷል?		
O 033	ለየስፈልጓት ስለሚከተሉ ድጋፎችና ድጋፎቹ ምን ምን ሊሆኑ እንደሚችሉ እንድታወቅ ተደርጓል?		
O 034	የተሰጣትን መረጃ (Information) በትክክል መረዳቷን ለማረጋገጥ ተሞክሯል?		
O 035	ጥያቄ ስትጠየቅ ከመጣሷ በፊት ስለጉዳዩ እንድታስብበት ጊዜ ተሰጧታል?		
O 036	የደም ምርመራውን ለመቀበል ወይም ላለመቀበል በነጻነት እንድትወስን ተደርጋለች? (Informed consent)		
O 037	ከወይይቱ በኋላ በሚቀጥለው ጊዜ ለሌላ ወይይት የምትመለስበት ቀን ቀጠሮ ተይዞላታል?		
2. MTCT-related issues		Yes	No
O 038	የደም ምርመራ ውጤቱ positive ከመሆኑ ለልጇና ለራሷ የወደፊት ህይወቷ ምን ማለት እንደሆነ ተገልጿለታል?		
O 039	የደም ምርመራ ውጤቱ positive ከሆነ ለልጇ የአመጋገብ ምርጫ መወሰን እንዳለባት ተገልጿለታል?		
O 040	የደም ምርመራ ውጤቱ positive ከሆነ ከልጇ አባት ጋር ያላት ግንኙነት ምን (እንዴት) ሊሆን እንደሚችል ተመካክረዋል?		
O 041	የልጁን አባት (ባለቤቷን) በወይይቱ ማሳተፍ አስፈላጊ ስለ መሆኑ እንድታወቅ ተደርጋለች?		
O 042	ከዚህ በፊት የጸረ-HIV መድሃኒት (ARV) መጠቀም/አለመጠቀሟን (መጀመር/አለመጀመሯን) ተጠይቃለች?		
O 043	ስለ ተሰጧት HIV/MTCT መረጃ በትክክል መረዳት/አለመረዳቷን ለማረጋገጥ ጥረት ተደርጓል?		

IV. Check List for Observational Study of POST TEST INDIVIDUAL COUNSELING Content

4. Breaking the news		Yes	No
O 044	የደም ምርመራ ወጠት አሰጣጥ ግልጽና ቀለል ባለ መንገድ ነው? Results given simply and clearly		
O 045	የደም ምርመራ ወጠት ምንነት እንድትረዳ ጊዜ ተሰጣት? (Time allowed for result to sink in)		
O 046	የደም ምርመራ ወጠት ምንነት መረዳቱን ለማረጋገጥ ጥረት ተደርጓል?		
O 047	የደም ምርመራ ወጠት positive ወይም negative መሆን ምን ማለት እንደሆነ ተወያይተዋል?		
O 048	የደም ምርመራ ወጠት ለራሷ፤ ለቤተሰቧና ለማህበረሰቡ ምን ማለት እንደሆነ (ምን እንደሚመለከት) ተወያይተዋል?		
O 049	የደም ምርመራ ወጠቱን ለማንና እንዴት መንገር እንዳለባት ተወያይተዋል?		
O 050	በሴትየዋ ላይ ወድያውኑ የሚጠፉ የስሜት ለወጦችን ለመቆጣጠር (Manage ለማድረግ) ተሞክሯል?		
O 051	ከጠፍ ጣቢያ ወይን ተከታታይነት ያለው የድጋፍ አገልግሎት መኖር/አለመኖሩን ተወያይተዋል?		
O 052	የአጭር ጊዜ እቅድ፣ ምን ማድረግ እንዳለባችን ምን እርምጃ እንደምትወስድ ተከልሷል?		
5. MTCT-related issues		Yes	No
O 053	ስለ ወሊድ ሂደት ማብራሪያ ተሰጠ (ለምሳሌ በምጥ ጊዜ ARV መድሃኒት በማስገባት ለሰጥ እንደሚቻል ተገለጸላት?)		
O 054	የሴትየዋ HIV Positive መሆን በአሁኑ ጽንሰና ወደፊት በሚወለዱ ልጆች ላይ ምን ጉዳት ሊያስከትል እንደሚችል ተወያይተዋል?		
O 055	የሴትየዋ HIV Positive መሆን ልጇን እንዴት መሙብ እንዳለባት መወሰን እንዳለባት ፤ የጠት ወተት ጥቅምና ጉዳት፤ በልጅ አመጋገብ ምርጫ ላይ መረጃ ተሰጣት?		
O 056	የቤተሰብ ምጣኔ መረጃ ተሰጣት? Information on family planning		
O 057	ከዚህ በፊት የጸረ-HIV መድሃኒት (ARV) መጠቀም/አለመጠቀምን (መጀመር/አለመጀመሩን) ተጠይቃለች?		
O 058	የARV አወሳሰድና ሚና/ጥቅም ተገለጸላት?		
O 059	መድሃኒቱን በታዘዙት መሰረት ሁል ጊዜም መወሰድ አስፈላጊነት ተነግሯል?		
6. HIV-related issues		Yes	No
O 060	ከልጅ አባትና ከቤተሰብ ጋር አብሮ ለመኖር የደም ምርመራ ወጠትን የማዘዝ እንደምታ		
O 061	የልጁን አባት በወይይቱና በከትትሉ ማስተፍ አስፈላጊ ስለ መሆኑ እንድታወቅ ተደርጋለች?		
O 062	ጥንቃቄ የተሞላበት የግብረ ስጋ ግንኙነት ስለማድረግና HIVና STDን ለመከላከል ኮንዶምን ስለመጠቀም ተመክሯለች?		
O 063	ስለ ህጻኑ ልጅ እንክብካቤ (አመጋገብን በተመለከተ፤ ከታመመ ወዲያውኑ ወደ ሃኪም ቤት መወሰድንና ወ ዘ ተ) ምክር/መረጃ ተሰጧታል?		
O 064	በማህበረሰቡ ውስጥ ስለሚገኙት የድጋፍ አገልግሎቶች መረጃ ተሰጧታል?		
O 065	ስለ HIV ጉዳዮች የተነገራትን መረጃ በትክክል መረዳቱን ለማረጋገጥ ጥረት ተደርጓል?		
O 066	በመቅጠል ጊዜ መቼ እንደምትመለስ (ከተቻለ ከባለቤቷ ጋር) ቀጠሮ ተያዘላት?		

V. Check List for FEEDING OPTIONS FOR HIV POSITIVE PREGNANT WOMEN

Have any of the following occurred during the discussion? (tick each)		Yes	No
O 067	በርግዝና ጊዜ HIV ከእናት ወደ ልጅ ሊተላለፍ እንደሚችል ተገልጾታል?		
O 068	በወሊድ ጊዜ HIV ከእናት ወደ ልጅ ሊተላለፍ እንደሚችል ተገልጾታል?		
O 069	HIV በጠጥ ወተት አማካይነት ከእናት ወደ ልጅ ሊተላለፍ እንደሚችል ተገልጾታል?		
O 070	HIV positive እናት ሳትቀላቅል የጠጥ ወተት ብቻ ብትመጠው HIV ወደ ልጇ የመተላለፍ እድል በጣም ዝቅተኛ መሆኑ ተገልጾታል?		
O 071	በጠጥ ወተት አማካይነት HIV ከእናት ወደ ልጇ ሊተላለፍ እንደሚችል ነፍሰጠኛ በትክክል መረዳቷን ለማረጋገጥ ተችሏል?		
O 072	"የእናት ጠጥ ወተት ብቻ" (exclusively breast feeding) ምን ማለት እንደሆነ ነፍሰጠኛ በትክክል መረዳቷን ለማረጋገጥ ተችሏል?		
O 073	የልጁ እድሜ ከ4-6 ወር ሲሆን የጡት ወተት ማቋረጥ/ማቆም አስፈላጊ ስለመሆኑ ተገልጾታል?		
O 074	ከእናት ጠጥ ወተት ወጭ ስላሉት አማራጮች (የተዘጋጁ የታሸጉ የጣሳ ምግቦች ስለመጣብ) ተወያይተዋል?		
O 075	እናትየዋ ልጇን ምን መጣብ እንደምትፍልግ ከመገባባት ላይ ተደርሷል?		
O 076	እናትየዋ ልጇን ለመጣብ የሚጠየቀው ምርጫ በትክክል መረዳቷን ለማረጋገጥ ተችሏል?		
O 077	ነፍሰጠኛ ልጇን ለመጣብ ወሳኔ ላይ የደረሰችው እንዴት ነው?		
	ሀ) ልጇን ለመጣብ ምን መግረጥ እንዳለባት አንድ አማራጭ ብቻ ተሰቷት ነው		
	ለ) ልጇን ለመጣብ ምን መግረጥ እንዳለባት ተነገሯት ነው		
	ሐ) ልጇን ለመጣብ የፈለገችውን ራሷ እንድትመርጥ እድል ተሰቷት ነው		
	መ) ልጇን ለመጣብ በቂ ማበራሪያ ከተሰጣት በኋላ ራሷ እንድትመርጥ እገዛ ተገረገላት		
O 078	ነፍሰጠኛ ልጇን ለመጣብ የወሰነችው ምንድነው?		
	ሀ) በፋብሪካ የተዘጋጁ/የታሸጉ የጣሳ ምግቦች (formula feeding)		
	ለ) የጠጥ ወተት ብቻ (exclusive breastfeeding)		
	ሐ) ለጊዜው ምንም አልተወሰነም/ምን መወሰን እንዳለባት አላወቀችም		
	መ) ሌላ (ይገለጽ)		

VI. Check List for COUNSELORS' SKILLS

FOR EACH OF THE ITEMS, TICK “✓” OR “✖” THAT MOST APPROPRIATELY REFLECTS YOUR ASSESSMENT OF WHAT HAPPENED DURING THE INTERACTION (3* = the best).

FUNCTION		Code	SKILLS	Yes			No (አስተያየት)
				1	2	3*	
O 079	Interpersonal relationship የርስ በርስ ግንኙነት	○ 65.1	ካወንስለሯ ራሷን አስተዋውቀች?				
		○ 65.2	ካወንስለሯ ነፍሰ ጡሯን በጥሞና በማድ መጥ እንድትናገር ታበረታታለች?				
O 080	Gathering information መረጃ ማሰባሰብ	○ 66.1	ካወንስለሯ ጥያቄ ስትጠይቅ open question (ክፍት ጥያቄ) ትጠቀማለች?				
		○ 66.2	ካወንስለሯ ግልጽ ያልሆነላትን ነገር እንዲብራራላት ነፍሰ ጡሯን ሴት ትጠይቃለች?				
		○ 66.3	ካወንስለሯ መረጃ በማሰባሰብ ዙሪያ ያደረጉትን ውይይት በስተመጨረሻ በተገቢው ሁኔታ ታጠቃልላለች/ትደመድማለች?				
O 081	Giving information መረጃን መጠት	○ 67.1	ካወንስለሯ የምትሰጠው መረጃ ለነፍሰ ጡሯ ሴት እንዲገባት ቀላልና ግልጽ በሆነ ሁኔታ ትናገራለች?				
		○ 67.2	ካወንስለሯ ነፍሰ ጡሯ ሴት ምላሽ ለመስጠት እንድትችል ጊዜ ትሰጣለች?				
		○ 67.3	ነፍሰ ጡሯ ሴት የተሰጣትን መረጃ በትክክል መረዳቷን/ መገንዘቧን ለማረጋገጥ ካወንስለሯ ጥረት/Check አድርጋለች?				
		○ 67.4	ካወንስለሯ መረጃ በመስጠት ዙሪያ ያደረጉትን ውይይት በስተመጨረሻ በተገቢው ሁኔታ ታጠቃልላለች/ትደመድማለች?				
O 082	Special circumstances ልዩ ትኩረትን የሚሹ ሁኔታዎች	○ 68.1	ከነፍሰ ጡሯ ሴት ስሜት ጋር ተገቢ የሆነ በሚገባት ቋንቋ ውይይት ተደርጓል?				
		○ 68.2	የነፍሰ ጡሯን ጉዳዮች እንደ ክብደታቸው ታስተናግዳለች?				
		○ 68.3	በነፍሰ ጡሯ ሴት ላይ የሚፈጠሩ ጭንቀትና ውጥረቶችን በተገቢው ሁኔታ ለመቆጣጠር ተችሏል?				
		○ 68.4	አስፈላጊ ሆኖ ሲገኝ የልጁን አባት በወይይቱ ያሳትፋሉ?				

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VII. Questionnaire for PMTCT coordinators on logistic consideration of PMTCT service

M 016 Kifle-ketema -----

M 017 Name of PMTCT center -----

Date -----

ማሳሰቢያ

ይህ ቃለ መጠይቅ የማሞላው በተመረጡ የPMTCT ተቋም የበላይ ሀላፊ ነው። ይህ ተቋም የተመረጠው በአጋጣሚ ነው። ቃለ መጠይቁ የተዘጋጀው በአዲስ አበባ ዩኒቨርሲቲ በኩል ሲሆን ከእናት ወደ ፅንሰ/ልጅ የሚተላለፈውን ኤች አይ ቪ (HIV) ለመከላከል ለነፍሰ-ጤ እናቶች የሚደረገውን የHIV ምርመራ እና የምክር አገልግሎትን የጥራት ሁኔታ በተመለከተ መረጃ ለመሰብሰብ ነው። ከእናት ወደ ፅንሰ/ልጅ የሚተላለፈውን HIV ለመከላከል ለነፍሰ ጤ እናቶች የሚደረግ የHIV ምርመራ እና የምክር አገልግሎት ማለት ማንኛውም ነፍሰጤ እናት በእርግዝና ጊዜዎ ሻይረሱ ደሟ ወሰት መኖር አለ መኖሩን ለማወቅ የሚደረግ በምክር የታገዘ የደም ምርመራ ማለት ነው። የሚሰበሰበው መረጃ የመንግስትን አገልግሎት የማሻሻል አቅም ያግዛል ተብሎ ይታመናል። እርስዎ የሚሰጡት ማንኛውም መረጃ ማስጠንቀቂያ ፍጹም የተጠበቀ ነው። ያለ እርስዎ ፈቃድም ማንም ሰው እንዲያወቀው አይደረግም። ስምዎን ወይም ሌላ የርስዎን ማንነት ሊገልጽ የሚችል ማንኛውም መረጃ አይሞላም። ለመመለስ ፈቃደኛ ያልሆኑትን ጥያቄ መተው ይችላሉ። ስለ ትብብርዎ በቅድሚያ እናመሰግናለን።

ትክክለኛውን መልስ የያዘውን ቁጥር ይክበቡ (እንደ አስፈላጊነቱ ከአንድ በላይ መጠላስ ይቻላል)

No.	Question	Code of classification
M 018	ይህ ተቋም ከየትኛው ይመደባል?	1. ራሱን የቻለ (Free standing PMTCT Center) 2. ጤ ጣቢያ 3. የእርግዝና ክትትል (ANC) ክለኒክ 4. ሌላ (ይግለጹ) _ _ _ _ _
M 019	ይህ ተቋም የሚሰጧቸው የአገልግሎት ዓይነቶች ምን ምን ድናቸው?	1. ቅድመ ምርመራ አገልግሎት (pre test counseling) 2. የድህረ ምርመራ አገልግሎት 3. ተከታታይ የምክክር አገልግሎት (ongoing counseling) 4. የ HIV ደም ምርመራ 5. ሌላ (ይግለጹ) _ _ _ _ _
M 020	በተቋሙ ለምክክር አገልግሎት መሳጫ የሚሰጠው የተለየ ክፍል (separate room) አለ?	1. አዎን 2. የለም
M 021	ቅድመ ምርመራ አገልግሎት በጋራ ላሉ ነፍሰጠኞች ይሰጣል? (group pretest counseling)	1. አዎን 2. የለም
M 022	የምክር አገልግሎቱን ተቀብለው ደማቸውን የሚመረመሩ የ ቁጥር በአሀዝ ከመቶ ስንት ፐርሰንት ይሆናል?	h _ _ _ % እስከ _ _ _ _ %
M 023	ለመመርመር ፈቃደኛ ሆነው ደማቸውን ከሚሰጡት መካከል ውጤታቸውን ለመውሰድ የሚመጡ የነፍሰጠኞች ቁጥር በአሀዝ ከመቶ ስንት ፐርሰንት ይሆናል?	h _ _ _ _ % እስከ _ _ _ _ %
M 024	የደም ናሙና ከተወሰደ በኋላ ወጤቱ በምን ያህል ጊዜ ወስጥ ይደርሳል?	h _ _ _ እስከ _ _ _ ደቂቃ
M 025	ተገልጋዮች በቀጠሮ እንዲመጡ ታደርጋላችሁ?	1. አዎን 2. የለም → ወደ ጥያቄ M 012 ሂድ
M 026	መልሱ አዎን ከሆነ ተገልጋዮች ያለ ቀጠሮ ቢመጡ ምን ይደረጋል	1. ቀጠሮ ለሌላ ጊዜ እንዲዘ ይደረጋል 2. ሁልጊዜ የዚያኑ ቀን አገልግሎት ያገኛል 3. ባብዛኛው የዚያኑ ቀን አገልግሎት ያገኛል 4. ሌላ (ይግለጹ) _ _ _ _ _
M 027	ተገልጋዮችን በሪፈራል መልክ ለተሻለ አገልግሎት ወደ ሌላ ተቋም ትልካላችሁ?	1. አዎን 2. የለም
M 028	መልሱ አዎን ከሆነ የሚልኩባቸውን ተቋማት ዓይነት ይግለጹ: (ለምሳሌ: hospital, care and support center /group, ART center, etc) _ _ _ _ _	
M 029	በተቋም ወስጥ በአሁኑ ጊዜ በPMTCT ላይ የሚሰጡ (የ HIV ምክርአ ገልግሎት የሚሰጡ) ባለመቆያዎች በቁጥር ስንት ይሆናሉ? _ _ _ _ _	
M 030	ተጨማሪ አስተያየት ካሎት ይግለጹልን _ _ _ _ _	

Thank you !

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Department of community health

VIII. Questionnaire for PMTCT/VCT Counselors

በ PMTCT/VCT አማካሪ ወይም ካውንስለር የሚሞላ ቃለ መጠይቅ

C 012 Kifle-ketema -----

C 013 Name of PMTCT center -----

Date -----

ማሳሰቢያ

ይህ ቃለ መጠይቅ የሚሞላው በተመረጠ የPMTCT ተቋም ወስጥ በቋሚነት በሚሰሩ የPMTCT/VCT አማካሪ ወይም ካውንስለር ነው። ይህ ተቋም የተመረጠው በአጋጣሚ ነው። ቃለ መጠይቁ የተዘጋጀው በአዲስ አበባ ዩኒቨርሲቲ በኩል ሲሆን ከእናት ወደ ፅንሰ/ልጅ የሚተላለፈውን ኤች ኦይ ቪ (HIV) ለመከላከል ለነፍሰ_ጤ እናቶች የሚደረገውን የHIV ምርመራ እና የምክር አገልግሎትን የጥራት ሁኔታ በተመለከተ መረጃ ለመሰጠት ነው። ከእናት ወደ ፅንሰ/ልጅ የሚተላለፈውን HIV ለመከላከል ለነፍሰ_ጤ እናቶች የሚደረግ የHIV ምርመራ እና የምክር አገልግሎት (PMTCT) ለማንኛውም ነፍሰ_ጤ እናት በአርግዝና ጊዜዎ ቫይረሱ ደሟ ወስነው መኖር አለ መኖሩን ለማወቅ የሚደረግ በምክር የታገዘ የደም ምርመራ ማለት ነው። የሚሰበሰበው መረጃ የመንግስትን አገልግሎት የሚሻሻል አቅም ያግካል ተብሎ ይታመናል። እርስዎ የሚሰጡት ማቸውም መረጃ ማስጠንቀቂያ ፍጹም የተጠበቀ ነው። ያለ እርስዎ ፈቃድም ማንም ሰው እንዲያወቅዱ አይደረግም። ስምዎን ወይም ሌላ የርስዎን ማንነት ሊገልጽ የሚችል ማንኛውም መረጃ አይሞላም። ለመመለስ ፈቃደኛ ያልሆኑትን ጥያቄ መተው ይችላሉ።

ስለ ትብብርዎ በቅድሚያ እናመሰግናለን።

No.	Question	Code of classification
C 014	ካወንስለር ወይም አማካሪ ከመሆንዎ በፊት ምን ነበሩ? (What is your background?)	1. ነርስ 2. ዶክተር /ሐኪም 3. የጠፍ መኮንን 4. የሚሰራዊ አገልግሎት ሰራተኛ 5. ከቫይረሱ ጋር የሚኖር 6. ሌላ (ይገለፅ) -----
C 015	አማካሪ ለመሆን እንዴት ነበር የተመረጠች?	1. በበላይ ሃላፊ ወይም አለቃ ተመርጬ 2. በራሴ ተነሳሽነት 3. ሌላ (ይገለፅ) _ _ _ _ _
C 016	መሰረታዊው የአማካሪነት ኮርሶች (basic VCT counseling course/training) ወስደዋል?	1. አዎን 2. የለም
C 017	ከመሰረታዊው የአማካሪነት ኮርሶች (basic counseling) በተጨማሪ ሌላ የPMTCT የአማካሪነት ኮርሶችን ወስደዋል?	1. አዎን 2. የለም
C 018	ከመሰረታዊው የአማካሪነት ኮርሶች በተጨማሪ ምን ስንት ጊዜና ምን ምን የአማካሪነት ኮርሶችን (counseling courses) ወስደዋል?	----- ----- ----- -----
C 019	የተከታታይ (ongoing) ካወንስለንግ ስልጠና በሰራ ላይ እያሉ ተከታትለዋል?	1. አዎን 2. አልተከተከታተልኩም → ወደ ጥያቄ C 010 ሂዱ
C 020	መልሱ አዎን ከሆነ የተከታታዩን ስልጠና የወሰዱት መቼ ነበር?	1. ባለፉት 12 ወራት ወስጥ 2. ባለፉት ከ 2-5 ዓመት 3. ከ5 ዓመታት በፊት 4. አላስታውስም
C 021	በርስዎ ግምት ተጨማሪ የአማካሪነት ኮርሶች የሚያስፈልጉት ይመስልዎታል?	1. አዎ 2. አያስፈልገኝም
C 022	መልሱ አዎን ከሆነ ተጨማሪ ስልጠናው ከየትኞቹ ዘርፎች ነው የሚያስፈልጉት?	1. በHIV እና PMTCT (ZVDን ጨምሮ) 2. በHIV Infection አማካሪነት 3. በግሩፕ ካወንስለንግ (Group counseling) 4. በየእርጉዝ (ANC) ካወንስለንግ 5. ሌሎች (ይገለፅ) _ _ _ _ _ _ _ _ _ _
C 023	ተጨማሪ አስተያየት ካሎት ይግለጹልን ----- ----- -----	

Thank you !

Addis Ababa University
School of Public Health
Department of community health

IX. Questionnaire for Exit Interview of PMTCT Clients

ለነፍሰ-ጤ እናቶች በሚጠጠው የHIV ምርመራ እና የምክር አገልግሎት ለተሳተፉ ነፍሰ-ጤች የሚደረግ ቃለ-ምልልስ

- E 01. Kifle-ketema -----
- E 02. Date of interview-----
- E 03. Name of the Health Centre (HCT/PMTCT center) -----

Interviewer's name: -----
 Checked by investigator: signature-----date -----
 Time at the beginning of the interview-----time at the end -----

ጤ ይስጥልኝ:: ስሜ _ _ _ _ _ ይባላል:: ዛሬ እዚህ የተገኘሁት በጤ ጥበቃ ሚስቱና በአዲስ አበባ ዩኒቨርሲቲ በኩል ለሚደረግና HIV ከእናት ወደ ፅንሰ/ልጅ እንዳይተላለፍ ለመከላከል ለነፍሰ-ጤ እናቶች የሚደረገውን የHIV ምርመራ እና የምክር አገልግሎትን የጥራት ደረጃን በተመለከተ መረጃ ለመስጠት ነው:: እርስዎ ለዚህ ቃለ ምልልስ የተመረጡት በአጋጣሚ ብቻ ነው:: ይህ ለነፍሰ-ጤ እናቶች የሚደረገው የHIV ምርመራ እና የምክር አገልግሎት በፈቃደኝነት ላይ የተመሰረተ ሆኖ ለማንኛውም ነፍሰጤ እናት በእርግዝና ጊዜዎ ሻይረሱ ደሟ ወስጥ መኖር አለ መኖሩን ለማወቅ የሚደረግ በምክር የታገዘ የደም ምርመራ ነው:: በዚህ ቃለ ምልልስ የዚህ ጤ ጣቢያን የምርመራ እና የምክር አገልግሎትን የጥራት ደረጃ መረዳት ይቻል ዘንድ እርስዎ ከአማካሪዎ ጋር ያደረጉትን ወይይት ወይም ምክክር ይዘት እጠይቃለሁ::

የሚጠበቅበው መረጃ የመንግስትን አገልግሎት የማሻሻል አቅም ያግዛል ተብሎ ይታመናል:: እርስዎ የሚሰጡት መረጃ ማስጠበቅና ፍጹም የተጠበቀ ነው:: ያለ እርስዎ ፈቃደም ማንም ሰው በዚህ ጤ ጣቢያም ይሁን በሌላ ቦታ የሚሰሩ ማንም ሰው እርሶ የሚሰጡትን መረጃ ሊያገኘው ወይም ሊያየው አይችልም:: ነርሶቹም፣ ጤ ረዳቶቹም፣ ዶክተሮቹም ሊያገኙት አይችሉም:: እንዲያወቁም አይደረግም:: ስምዎን ወይም ሌላ የርስዎን ማንነት ሊገልጽ የሚችል ማንኛውም መረጃ አይሞላም:: ለመመለስ ፈቃደኛ ያልሆኑትን ጥያቄ መተው ይችላሉ:: በቃለ-ምልልሱ የሚሰጡት ማንኛውም መረጃ እጅግ በጣም ጠቃሚ በዚህ አገልግሎት ላይ የተሰማሩ የጤ ተቋማትን ብቃት ለማሻሻል ይረዳል:: የሚጠይቁኝ ጥያቄ አሉት? _ _ _ _ _

- በቃለ-ምልልሱ ለመሳተፍ ፈቃደኛ ነዎት?
1. አዎ
 2. አይደለሁም → አቁም

አመሰግናለሁ:: ወደ ቃለ-ምልልሱ እንገባለን::

E 04.	የመኖሪያ ቦታ	3. አ .አ 4. ከአ .አ ወጭ		
E 05.	እድሜ ስንት ነው? (የመጨረሻው ልደት ይመዘገብ)	1. -----ዓመት 2. አላወቀውም 3. ምላሽ የለም		
E 06.	የየትኛው ሃይማኖት ተከታይ ነዎት?	1. ኦርቶዶክስ 2. ፕሮቴስታንት 3. ካቶሊክ 4. መስሊም 5. ሌላ (ይገለፅ) -----		
E 07.	የጋብቻ ሁኔታ	1. ያላገባች 2. ያገባች 3. ባል የሞተባት 4. የተፋታች 5. ሌላ ይገለፅ _ _ _ _ _		
E 08.	የትምህርት ደረጃ	1. ያልተማረች 2. ማንበብና መጻፍ የምትችል 3. ለ 1-6ኛ ክፍል የደረሰች 4. ከ7-12ኛ ወይም 10+2 የደረሰች 5. ኮሌጅ የደረሰች		
E 09.	ስራዎ ምንድን ነው?	1. ስራ የለኝም 2. ተማሪ 3. የቀን ስራተኛ 4. የመንግስት ተቀጣሪ 5. ነጋዴ 6. ሴተኛ አዳሪ 7. የቤት እመቤት 8. ሌላ /ይገለፅ / _ _ _ _ _		
E 10.	የየትኛው ብሔረሰብ አባል ነዎት?	1. አማራ 2. አሮሞ 3. ትግራይ 4. ጉራጌ 5. ሌላ (ይገለፅ) -----		
E 11.	ይህ እረግዝና ስንት ወፋ ነው?	_ _ _ _ _ ወር		
E 12.	ይህ እረግዝና ስንተኛ እንግዝናዎት ነው?	_ _ _ _ _ ኛ እንግዝና		
	Questions	Yes	No	Code
E 13.	ዛሬ ከአማካሪዎ ጋር ስለ HIV ደም ምርመራ ተወያይተዋል?	አዎን	የለም	
E 14.	ዛሬ የደም ምርመራ ወጠቋዎን ስለመቀበል/አለመቀበል ከአማካሪዎ ጋር ተወያይተዋል?	አዎን	የለም	
E 15.	ዛሬ ከዚህ በፊት የደም ምርመራ ስለማድረግ/አለማድረግ ከአማካሪዎ ጋር ተወያይተዋል?	አዎን	የለም	
E 16.	ዛሬ ስለ ልጅዎ አመጋገብ ሁኔታ ተመካክረዋል?	አዎን	የለም	
E 17.	መልስዎ አዎን ከሆነ ልጅዎን እንዴት ለመገባት ነጋ ያሰቡት/የወሰኑት? 1. ለመጀመሪያዎቹ 4 ወራት ጠጥ ብቻ ለመስጠት (Exclusively breast feeding) 2. ለመጀመሪያዎቹ 4 ወራት የጣሳ ወተት ብቻ (Exclusively replacement feeding) 3. ድብልቅ (የጠጥ ወተት እና የጣሳ ወተት) Mixed 4. ገና አልወሰንኩም			

E 18.	ዛሬ ስለ ፅንሱ/ልጅዎ ጤና ከአማካሪዎ ጋር ተወያይተዋል/ተነጋግረዋል?	አዎን	የለም
E 19.	ዛሬ እዚህ ጤና ጣቢያ የመጠለት ዋና ዓላማ ምንድን ነው? 1/ የ HIV ደም ምርመራ ለማድረግ 2/ HIV ወደ ልጄ/ፅንሱ እንዳይተላለፍበት ህክምና ለመሻት 3/ ለ ANC CHECK UP (ለርግዝና ክትትል) 4/ ሌላ (ይገለጽ) _____		
E 20.	በአጠቃላይ ከአማካሪዎ ጋር ካደረጉት ምክክር/ወይይት ጥቅም አግኝቼበታለሁ ብለው ያምናሉ?	አዎን	የለም
E 21.	በአጠቃላይ ከአማካሪዎ ጋር ባደረጉት ምክክር/ወይይት ረክቼበታለሁ ብለው ያምናሉ?	አዎን	የለም
E 22.	በአማካሪዎ የመያብቃት ረክተዋል?	አዎን	የለም
E 23.	የአማካሪዎ መሳተጋገድ ተመቸቶት ነበር?	አዎን	የለም
E 24.	ሌላ አማካሪ ቢኖረኝ ብለው ተመኝተው ነበር?	አዎን	የለም
E 25.	ከምርመራ በፊትም ሆነ በኋላ አማካሪዎ ራሳቸው ናቸው?	አዎን	የለም
E 26.	የምክክር አገልግሎት የሚሰጡበት ክፍል ለብቻ በሚሰጥ ለመወያየት ያስችላል?	አዎን	የለም
E 27.	አሁን በዚህች ሰዓት ሌላ አማካሪ ቢያገኙ ይፈልጋሉ?	አዎን	የለም
E 28.	በርግዝና ክትትል ጊዜ የሚሰጠው የHIV ምርመራና የምክር አገልግሎት አስፈላጊ ነው ብለው ያምናሉ/ያስባሉ?	አዎን	የለም
E 29.	እዚህ ጤና ጣቢያ አገልግሎት ለማግኘት የመጀመሪያ ቀጠሮ ስንት ቀን ፈጀ?	_____	_____
E 30.	እዚህ ጤና ጣቢያ የሚዳዎትን ሰው ለማግኘት ምን ያህል ጊዜ ፈጀብዎት?	_____	_____
E 31.	ከአማካሪዎ ጋር በወይይት ያሳለፉት/ያባከኑት ጊዜ ስንት ደቂቃ ይሆናል?	_____	_____
E 32.	እዚህ ጤና ጣቢያ ስለ HIV ለመወያየት ስንት ጊዜ መጥተዋል?	_____	_____
E 33.	ልትመረመር እያሰበች ያለችን ነፍሰ-ጤና ጓደኛዎን ወይም ዘመድዎን ወይም ዘመድዎን ወይም ምርመራ ጣቢያ እንዲመጡ ይመክራሉ?	አዎን	የለም
E 34.	ለምን? _____		
E 35.	በምክክር ጊዜ ከሚከተሉት ወስጥ በየትኛው ርዕስ ጉዳይ ላይ ተወያይተዋል? 1/ ስለ HIV 2/ ስለ MTCT 3/ ስለ ህጻኑ አመገብ 4/ ሌላ (ይገለጽ) _____		
E 36.	ከምክክር ወስጥ ጥሩ ነው የሚሉት ፤ በደንብ የተረዱት የወይይት ነጥብ ስለ ምንድን ነው?		
E 37.	ከምክክር ጥሩ አይደለም (መጥፎ ነው) የሚሉት ነጥብ ምንድን ነው? _____		
E 38.	በአጠቃላይ (generally) ከውይይቱ/ከምክክሩ የቀሰሙት እውቀት ምንድን ነው? _____		
E 39.	በአርግዝና ጊዜዎ የ HIV የደም ምርመራ ለምን እንደማይሰፈልግ/እንደማይረግ ይግለጹልኝ: : _____ _____		

Declaration of the Principal Investigator

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

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Approval of the Primary Advisor

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

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