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Facilitating factors for the Prevention of Mother-To-Child Transmission of HIV Service Utilization among Antenatal care attending Pregnant Women in Public health facilities in Dire Dawa

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Abstract

Background: Mother-to-Child Transmission of HIV has been identified as the greatest means of HIV infection among children. Studies related to PMTCT utilization has been done in other parts of Ethiopia. However, there were no studies that have examined the magnitude and factors for utilization of PMTCT despite high overall health service coverage in Dire Dawa.

Objective: To assess the magnitude and facilitating factors for the prevention of mother-to-child transmission of HIV service utilization among Antenatal care attending pregnant women in public health facilities in Dire Dawa.

Methods: A facility based cross-sectional study was conducted using face to face interviews with mothers attending antenatal clinics in public health facilities in Dire Dawa which was supplemented by qualitative study. For quantitative part of the data 389 pregnant women were recruited using systematic random sampling method. Trained data collectors conducted the data collection using a pretested structured questionnaire. The response was coded and entered into the computer using EPI info version 3.5.4 statistical packages. Cleaned data was exported to SPSS version 21.0 for analysis. Bivariate and Multivariate analyses were carried out. Six in-depth interviews were conducted with selected people working on PMTCT in their respective work places. The qualitative interviews were conducted by the principal investigator using the interview guides prepared by me.

Results: A total of 389 pregnant women attending antenatal care in Dire Dawa were approached. Of the 389 participants, about 53.2% were between 25-34 years of age, 78.9% had formal education at primary level or above, 95.6% reported acceptance of HIV counseling and testing, 78.9% were aware about mother-to-child transmission of HIV, and 93.8% knew about prevention of mother –to-child transmission of HIV and 82.3% were aware of the availability of ART prophylaxis. Of the 372 tested pregnant women, 361 (97.0%) were negative and only eleven (3.0%) were positive for HIV. Out of 11 women who were positive for HIV 9/11 of them linked to ART care service, but two of them didn't decide to be linked to ART care services. PMTCT service utilization was positively associated with high monthly income [AOR =3.7(95%CI) (1.2-11.5)], have information about VCT [AOR=4.4(95%CI) (1.1-17.6)], and prefer to have same counselor for discussion before and after the test [AOR=3.6(95%CI) (1.2-10.7)].

Conclusions and Recommendations
In general the PMTCT service utilization in Dire Dawa was found to be high. Strengthening the level of PMTCT services in ANC settings and increasing mechanisms to promote involvement of men in PMTCT services is needed.

Keywords: Utilization, PMTCT services, pregnant women, ANC, Dire Dawa.

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List of acronyms

AAU _____Addis Ababa University

AIDS_____Acquired Immunodeficiency Syndrome

ANC_____Antenatal Care

ART_____Antiretroviral Therapy

ARV_____Antiretroviral Drugs

CPT_____Cotrimoxazole Preventive Therapy

EDHS_____Ethiopian Demographic and Health Survey

FGDs_____Focus Group Discussions

HIV_____Human Immunodeficiency Virus

LWHA_____Living With HIV/AIDS

MOH_____Ministry of Health

MTCT_____Mother to Child Transmission of HIV

NGOs_____Non-Governmental Organizations

NVP_____Nevirapine

PMTCT_____Prevention of Mother to Child Transmission of HIV

SPSS_____Statistical Package for Social Sciences

SSA_____Sub-Saharan Africa

TBA_____Traditional Birth Attendant

UNAIDS_____Joint United Nations Programme on HIV/AIDS

UNFPA_____United Nation Fund for Population Activities

UNICEF_____ United Nations Children's Fund

USAID_____United States Agency for International Development

VCT_____Voluntary Counseling and Testing

WHO_____World Health Organization

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1. INTRODUCTION

1.1Background

Worldwide, HIV/AIDS poses an enormous challenge on the survival of mankind. HIV is the leading cause of mortality among women of reproductive age worldwide and is a major contributor to maternal, infant and child morbidity and mortality (1).

Globally, an estimated 35.3 million people were living with HIV in 2012(2). There were 2.3 million new HIV infections globally, showing a 33% decline in the number of new infections from 3.4 million in 2001. At the same time the number of AIDS deaths is also declining with 1.6 million AIDS deaths in 2012, down from 2.3 million in 2005(2). With an adult prevalence of 5.2% in 2008, sub-Saharan Africa (SSA) has been the most severely HIV stricken region, accounting for 71% of all new infections in adults and children, and about 90% of new infections among children worldwide (3).

According to EDHS 2011 the prevalence of HIV in Ethiopia was estimated at 1.5% with differentials: male (1.0%), and female (1.9%)(4). The number of people living with HIV/AIDS was 1,116,216 of which 84,189 were pregnant women, 72,945 were children under 15years and annual HIV positive births were 14,140(5).

In the absence of any intervention of mother to child transmission of HIV(i.e. exclusive breast feeding and use of antiretroviral drugs), the risk of a baby acquiring the virus from an infected mother ranges from 15% to 25% in industrialized countries, and 25% to 35% in developing countries. HIV transmission rate and time of transmission is estimated to be 5% to 10% during pregnancy, 10% to 15% during delivery, and 5% to 20% during breast feeding (6-7).

To prevent MTCT of HIV, United Nations (UN) agencies [UNICEF, UNFPA, UNAIDS, WHO and the World Bank] recommend a four-component strategy. The first component supports primary prevention of HIV infection among women of child bearing age. The second component focuses on the prevention of unintended pregnancy among HIV infected women. The third component promotes reduction of HIV transmission from HIV-infected women to their infants (PMTCT) through such interventions as use of antiretroviral drugs to reduce perinatal transmission, safer delivery practices, and counseling and support for infant-feeding. The fourth component provides care, treatment, and support to HIV-infected women, their infants, and their families.

In 2009, 53% of HIV-infected pregnant women worldwide received antiretroviral (ARV) drugs to prevent mother-to-child transmission(7). Furthermore, only 59% of pregnant women living with HIV in Sub-Saharan Africa received antiretroviral therapy or prophylaxis in the year 2011(8) . Globally, Antiretroviral coverage among pregnant women living with HIV reached 62% in 2012, and the number of children newly infected with HIV in 2012 was 35% lower than in 2009(2). MTCT transmission rates in the United States and Europe are below 2% due to wide coverage and provision of highly effective ART regimen. In contrast to the developed world, only 45% of HIV-positive women in low and middle income countries received antiretroviral (ARV) prophylaxis for PMTCT in 2008.

Nationally only 8% of HIV infected pregnant women have received antiretroviral (ARV) drugs to reduce the risk of mother to child transmission (MTCT) of HIV/AIDS during 2009 (5, 9) .In Ethiopia only 9.3% of the estimated numbers of HIV positive pregnant women were provided with antiretroviral (ARVs) for PMTCT in 2011 (10).

PMTCT consists of a package of low-cost interventions that have been proven to reduce transmission of HIV from mother to child to less than 5%(11-12). PMTCT also provides a vital entry point for tracing HIV-exposed children so that they can be diagnosed and receive prophylactic care, CPT and antiretroviral therapy (ART), as needed(13).

Knowledge of HIV status among HIV-negative pregnant women is equally important to provide them with the necessary information and support to remain uninfected and especially to prevent acquiring HIV infection during pregnancy and breastfeeding(14).The risk of MTCT is high if sero-conversion occurs during these periods. PMTCT interventions include HIV testing and counseling, antiretroviral prophylaxis or treatment for mother and infant, modified obstetric practices, and modified infant-feeding practices(15).

According to analysis of PMTCT service utilization in Ethiopia from 2006-2010, the number of health facilities providing PMTCT services has shown an 8-fold increment from 171 (21.3%) in 2006 to 1,352 (61.9%) in 2010 with an average rate of 236 new PMTCT sites a year(16). The Health Sector Development Plan IV for Ethiopia stipulates that 100% of health centers and hospitals will be providing PMTCT services by 2015. Although there is a significant increasing trend in the number of pregnant mothers attending ANC in Ethiopia, by the end of 2010, 29% were not yet receiving any ANC service.

Mother-to-child transmission of human immuno-deficiency virus during pregnancy, labor, delivery or breastfeeding remains a single most important cause of infections among children, especially in developing countries. In many parts of Africa, about 60% of HIV infections are estimated to occur of HIV positive among women, and the prevalence is now

as high as 40% among female antenatal care (ANC) attendees in SSA(17). The reasons for an increasing MTCT of HIV might include lack of knowledge of mothers on the risk of MTCT, benefits of preventive interventions, such as prophylactic ARV drugs and infant feeding options(18).

Under WHO's 2010 PMTCT ARV guidance, countries had the option to choose between two prophylaxis regimens for pregnant women living with HIV with CD4 greater than 350 cells/mm3: Option A and Option B. Under Option A, women receive antenatal and intrapartum antiretroviral prophylaxis along with an antiretroviral postpartum "tail" regimen to reduce risk of drug resistance, while infants receive postpartum antiretroviral prophylaxis throughout the duration of breastfeeding. Option B, on the other hand, has a simpler clinical flow in which all pregnant and lactating women with HIV initially are offered ART – beginning in the antenatal period and continuing throughout the duration of breastfeeding. At the end of breastfeeding those women who do not yet require ART for their own health would discontinue the prophylaxis and continue to monitor their CD4 count, eventually re-starting ART when the CD4 falls below 350 cells /mm3. Along with these two options a third approach is now being used, Option B+, in which all pregnant women living with HIV are offered life-long ART, regardless of their CD4 count(19).

According to Dire Dawa Regional Health Bureau report, there were 12,516 PLWHA in 2012/2013. According to EDHS 2011 the prevalence of HIV among women was 4.3% and 3.7% among men in Dire Dawa. The number of HIV positive children less than 15 years of age is about 642 in 2012/2013. The number of children less than five years of age LWHA ever started on ART (172) in 2012/2013. In addition, the proportion of pregnant women

attending ANC services in Dire Dawa is about 59% and a substantial number of women do not seek ANC service. According to different literatures the facilitating factors associated with utilization of PMTCT includes socio-demographic factors of the mothers (age marital status, educational status, ethnicity, occupation), knowledge and attitude of the mothers about MTCT of HIV and PMTCT, Structural factors(stigma and discrimination), attitudes of husband and health facility related.

Studies related to PMTCT utilization has been done in other parts of Ethiopia. However, there were no studies that have examined the magnitude and factors for utilization of PMTCT despite high overall health service coverage in Dire Dawa. This study was planned to contribute to bridge the information gap, identify factors that support PMTCT service utilization and subsequently the coverage of PMTCT services in Dire Dawa.

2. LITERATURE REVIEW

Globally, an estimated 35.3 million people were living with HIV in 2012(2). There were 2.3 million new HIV infections globally, showing a 33% decline in the number of new infections from 3.4 million in 2001(2). At the same time the number of AIDS deaths is also declining with 1.6 million AIDS deaths in 2012, down from 2.3 million in 2005(2).

Globally, about 2.1 million children younger than 15 years of age are estimated to be living with the virus in 2008; of which 430,000 are new infections(20). In 2011, 330 000 children acquired HIV infection and 230,000 children under fourteen years of age died of HIV(21). This represents a 43% decline since 2003 when 560 000 children became newly infected and a 24% drop since 2009 when 430 000 children acquired HIV infection(21).With an adult prevalence of 5.2% in 2008, sub-Saharan Africa (SSA) has been the most severely HIV stricken region, accounting for 71% of all new infections in adults and children about 90% of new infections among children worldwide (1).

The prevalence of HIV in Ethiopia is the lowest compared to other countries in the east African region such as Uganda (6.7%) and Kenya (6.1%). However, because of the big population, about 1 million HIV infected people are estimated to live in Ethiopia(22). The prevalence among women is1.5 times higher than the prevalence among men and was estimated to be 3.5% among antenatal attendees. In 2007 alone 75, 420 pregnant women were living with the virus and the annual HIV positive births were 14,148. Over 64,000 children under the age of 14 were HIV positive and over 10,000 of HIV infected children died in 2007 alone(23).

Although MTCT can occur any time during pregnancy, labor and delivery and through breast feeding, about half of the transmissions are occurring towards the end of pregnancy, during labor and delivery. About 90% of the HIV-infected children are in Africa and over 95% of HIV infections in children below the age of 15 years are due to MTCT. With no intervention about a third of HIV positive women will transmit the virus to their children during pregnancy, labor and delivery and through breastfeeding(24).

Better knowledge of, good attitude towards and practicing PMTCT is highly effective intervention and has an enormous potential to improve both maternal and child health. According to study done in Hawassa among the pregnant women, 82.3% knew PMTCT of HIV. Of these, 48.3% of the respondents knew ART drugs given for HIV-positive pregnant mothers could reduce the risk of HIV transmission. Majority of the respondents, 90.1%, knew that a child from HIV-positive mother need follow up at ART clinic(25).

Study conducted in Arba Minch showed that about 104 (92.0%) women knew that HIV can be transmitted from an infected woman to her unborn child, and 102 (90.3%) knew that PMTCT services were available in the health facilities. Twenty-seven (26.5%) women recalled only two of the known preventive measures advocated by PMTCT services, i.e. use of available prophylactic antiretroviral therapy and avoiding breast-feeding of a newborn baby. About 20 (17.7%) women explained that mother-to-child transmission of HIV could be prevented solely by avoiding breast-feeding and 17 (15.0%) were aware that delivery in a health facility, use of available antiretroviral therapy, and avoiding breastfeeding were all measures that could prevent mother-to-child transmission of HIV(26).

PMTCT programs in the continent are still plagued by multiple problems. For instance, many HIV positive pregnant women still face constraints in accessing ARV drugs because they refuse to participate or are lost to follow up in existing programs(27).

Prevention of mother-to-child-transmission programs using the NVP protocol have been introduced in several sub-Saharan countries. However, in many places uptake of HIV testing has been disappointingly low among pregnant women, who have hence not had access to available interventions to avert HIV infections in their infant(28).

According to the UNAIDS 2006 report, the PMTCT service utilization in Ethiopia is found to be one of the lowest i.e. 3% coverage. In Ethiopia only 9.3% of the estimated numbers of HIV positive pregnant women were provided with antiretroviral (ARVs) for PMTCT in 2011(10).

A study conducted in Awassa showed that 20% of the pregnant women attended in PMTCT services centers got pretest counseling where 41% of the women received their NVP and 23.7% babies received NVP(29) . In Malawi when the HIV testing has been offered in an opt-in approach, 45% of the positive women received NVP yet only 34% babies received NVP. According to study result done in Awassa 9.8% (37/377) of the women had ever utilized PMTCT services(29).

Similarly, in the Southern Region of Ethiopia, the trends in PMTCT utilization show a decreasing percentage of babies receiving NVP (from 38% in 2003/4 to 27% in 2006/7) despite an increasing percentage of women receiving NVP(29).

Various factors are affecting PMTCT service provision and utilization. Especially in poor resources settings both the health care system and the socio-cultural factors are shown to be barriers either for the service provision or utilization or for both (30). The enormous constraints within the health care system directly affect PMTCT services provision as well as utilization.

However, the lack of awareness among pregnant women about PMTCT is improving both in urban and rural areas. According to the study done in Abidjan among those testing positive for HIV, 83% of mothers and 78% of infants received nevirapine (31) .A study done in southwestern Uganda showed that a problem commonly encountered in programs for prevention of mother-to-child-transmission (PMTCT) of HIV in sub-Saharan Africa is low rates of HIV test acceptance among pregnant women (32). The most common reasons claimed for test refusal were: lack of access to antiretroviral therapy (ART) for HIV-infected women (88%), a need to discuss with partner before decision (82%) and fear of partner's reaction (54%) (32).

The study conducted in eastern Uganda showed that barriers to antenatal HIV testing were unavailability of voluntary counseling and testing services (44%), lack of HIV counseling (42%) and perceived lack of benefits for HIV infected women and their infants (33). There was a wide variation in workload among health facilities studied ranging from 8 to 147% for RCH clinics providing PMTCT services and 11 to 82% for those clinics with RCH services only (34).

According to research conducted in northern Tanzania women were more likely to bring their partner for VCT if they collected their own test results, were living with their partner, had a high monthly income and had expressed at enrolment the intention to share HIV results with their partner (35). Another study done in eastern Uganda showed that barriers to male involvement in the PMTCT programme were related to both the poor health system, to socio-economic factors and to cultural beliefs (36).

A study conducted in Gondar town indicated that acceptance of provider-initiated HIV testing and counseling was positively associated with greater number of antenatal care visits [AOR (95%CI)=2.64(1.17,5.95)], residing in the urban areas[AOR (95%CI)=2.85(1.10,7.41)], having comprehensive knowledge on HIV [AOR (95%CI)=4.30(1.72,10.73)], positive partners reaction for HIV positive result [AOR (95%CI)=8.19(3.57,18.80)] and having knowledge on prevention of mother to child transmission of HIV[AOR (95%CI)=3.27(1.34,7.94)], but negatively associated with increased maternal age and education level (37). There was no difference in terms of knowledge that mother-to-child HIV transmission can be prevented (Chi square $p = 0.78$) between the rural and urban mothers (38).

According to study conducted in Uganda of the total 380 pregnant women, 323 (85%) of whom accepted HIV testing. In multivariate analysis, testing site [OR=5.93(95%CI) (2.94-11.98)], age between 30 and 34 years [OR=3.88(95%CI) (1.21-13.41)], mistrust in reliability of the HIV test [OR=20.6(95%CI) (3.24-131.0)] and not having been tested for HIV previously [OR=2.15(95%CI) (1.02-4.54)] were associated with test refusal. Testing sites operating for longer durations had higher rates of acceptance. The most common reasons

claimed for test refusal were: lack of access to antiretroviral therapy (ART) for HIV-infected women (88%; n_57), a need to discuss with partner before decision (82%; n_57) and fear of partner's reaction (54%; n_57)(39).

In study conducted in northern Tanzania on knowledge and utilization of PMTCT services there were significant differences ($p < 0.05$) between the mothers attending antenatal care at the rural and the urban clinics: the urban attendees were more knowledgeable in nearly all subjects(40).

In SSA, partner involvement in PMTCT programs remains very low (16%-25%) and therefore a major hindrance to PMTCT utilization since male involvement is a key factor in women's decision making with regard to utilization of health services. Some women who have tested for HIV without their partner's knowledge or consent have suffered Intimate Partner Violence (IPV) and IPV has been attributed to young women acquiring HIV in these settings(40).

Mother-to-child HIV transmission, as most health problems, includes factors that can be viewed from a medical perspective as well as the socio-economic and cultural factors that contribute to vertical transmission of HIV. In PMTCT programs addressing "root" factors of mother-to-child HIV transmission could be important at one end and focusing on the immediate factors is another approach. However, in order to have a coherent picture, what we need is a conceptual framework that encompasses all of the major factors that facilitate PMTCT service utilization

The following conceptual framework is developed upon reading of different literatures on PMTCT service utilization because I didn't get the standard one.

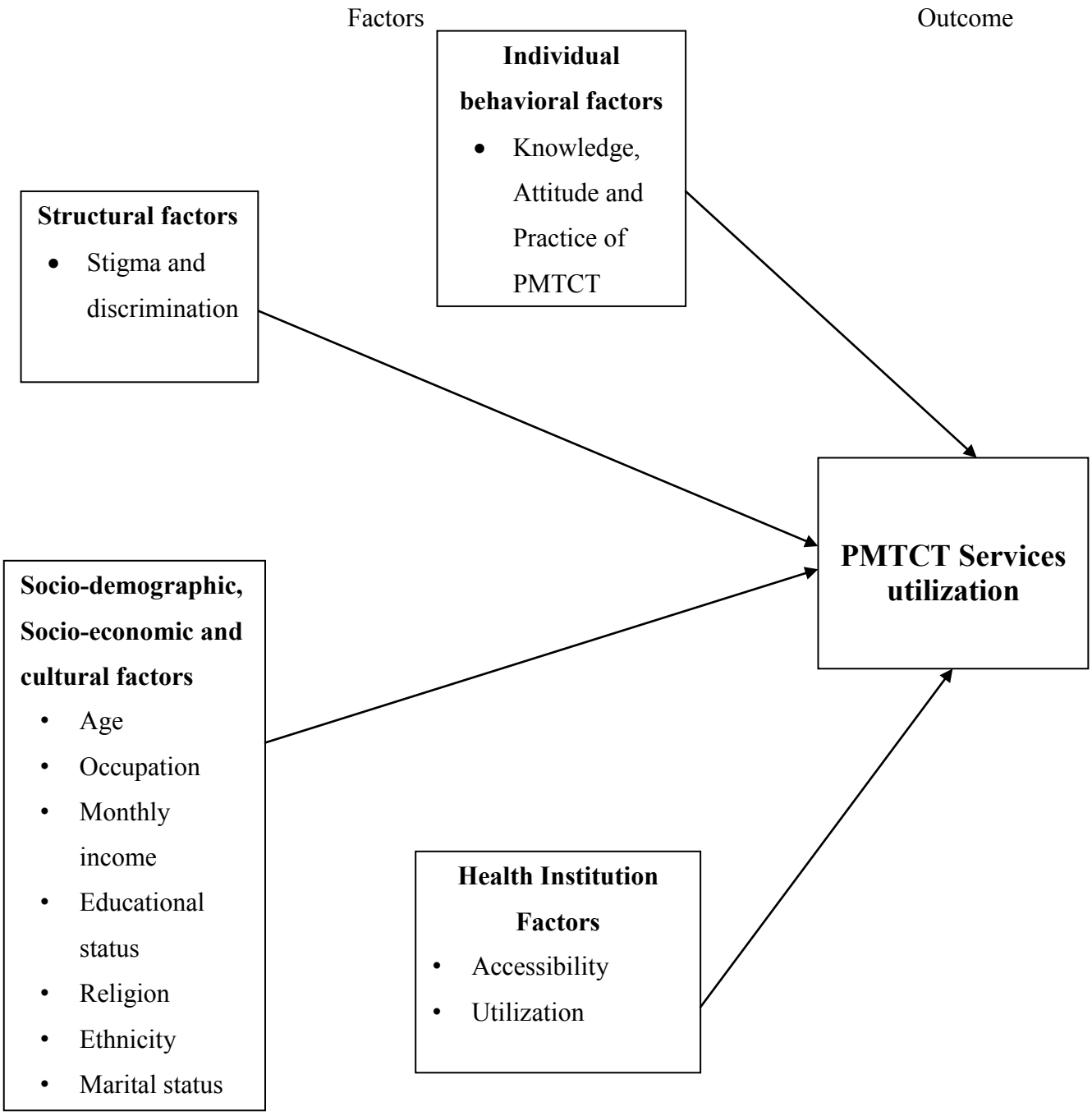

Figure1. Conceptual framework of facilitating factors for Prevention of Mother –To-Child Transmission of HIV Service Utilization among ANC attending Pregnant Women

3. OBJECTIVE

3.1 General objective

- The main objective of this study was to assess the magnitude and facilitating factors for PMTCT service utilization among ANC attendees in public health facilities in Dire Dawa

3.2 Specific Objectives

1. To determine PMTCT service utilization rate by the pregnant women attending ANC in public health facilities in Dire Dawa.
2. To identify facilitating factors for PMTCT service utilization by pregnant women attending ANC in Dire Dawa.

4. METHODS

4.1 Study area and period

Dire Dawa administration is one of the two city administration in Ethiopia and located at a distance of 515km from Addis Ababa, capital city of the country. According to 2007 Ethiopian census projection for 2012/13, the current total population of Dire Dawa administration is 396, 423 (58% residing in urban where as 42% residing at rural). It has 9 urban Kebeles and 38 rural Kebeles and 100% geographic access with primary health care. Coming to distribution of health facilities by type in the administration, there are one governmental and 4 private hospitals, 16 health centers, 5 higher clinics, 12 medium clinics, &31 Health posts (governmental). It is the hometown for diverse people from different ethnic and cultural backgrounds. According to EDHS 2011 ANC coverage of Dire Dawa was 59%(4). The ANC client load per month in each health center on average is 195 and in hospital 510 per month. According to Ministry of Health report, Dire Dawa was one of the highly affected urban areas by HIV/AIDS. The study was conducted from August 2013G.C. to June 2014 G.C.

4.2 Study Design

A facility based cross-sectional study design with quantitative and qualitative data collection methods was employed**.** During the survey, data were collected from February 2014 to March 2014 G.C using structured questionnaires. As a supplement to quantitative data, in-depth interviews were done in all study sites.

4.3 Population

4.3.1 Source population: The source populations were all pregnant women in Dire Dawa Administrative town.

4.3.2 Study population: The study populations were all pregnant women attending ANC in public health facilities in Dire Dawa Administrative town

4.3.3 Study participants: Those sampled pregnant women who visited the ANC clinic of public health facilities during the data collection period.

4.4 Inclusion and exclusion criteria

- Inclusion Criteria:

  -All pregnant women of child bearing(15-49 years) who came to public health facility for antenatal care were included in the study.

- Exclusion criteria:

  -Those women unable to communicate (those with hearing or speaking problem) were excluded from the study.

4.5 Sample size determination and sampling technique

Sample size determination

Quantitative: Two outcome variables were used to calculate sample size. Epi info StatCalc statistical software was used to calculate sample size based on the prevalence of PMTCT service utilization. The sample size was determined by assuming a proportion (prevalence estimate) of pregnant women attending ANC clinics of public health facilities who tested HIV-positive (18%) and those who tested and received ARVs (9 %) in Addis Ababa and

9.8% in Awassa with 4% margin of error, 95% confidence interval of certainty (alpha = 0.05) and 80% power. Based on this assumption, the actual sample size for the study was computed using single population proportion formula as indicated below.

Where n = Sample size

$Z \propto/2$ = critical value 1.96

P = proportion of pregnant women attending ANC clinics of public health facilities who tested HIV-positive ARVs in Addis Ababa=18%

P= Proportion of pregnant women attending ANC clinics of public health facilities who received ARVs in Addis Ababa= 9% and

P= Proportion of pregnant women attending ANC clinics of public health facilities who utilized PMTCT services in Awassa= 9.8%

d = precision (marginal error) = 4%

Thus the sample size was

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

$$nAA1 = \frac{(1.96)^2 x 0.18\,(0.82)}{(0.04)^2}$$

=354.0 This sample size was found by using prevalence of PW attending ANC and those tested HIV positive in Addis Ababa.

$$nAA2 = = \frac{(1.96)^2 x 0.09\,(0.91)}{(0.04)^2}$$

=197 This sample size was found by using prevalence of PW attending ANC and started ART use(those positive for HIV) in Addis Ababa.

$$nHA = \frac{(1.96)^2 x 0.098\,(0.902)}{(0.04)^2}$$

=212 This sample size was found by using prevalence of PW attending ANC utilized PMTCT services in Hawassa.

The non-response rate (10%) = $\frac{10\% * 354}{100\%}$=35.4~35

Total sample size (n total) = 354+35= 389.0

The outcome variable with the largest sample size was finally taken.

To complement the findings from the qualitative study and to see factors facilitating PMTCT utilization from the program perspective six in-depth interviews were conducted with selected people working on PMTCT in their respective work places.

Sampling technique

A total of 17 health facilities under the scope of Dire Dawa Health Bureau are providing PMTCT services. By simple random sampling (lottery method) a total of 5 health facilities (4 health centers and 1 hospital) namely, Melka Jebdu Health Center, Lagahare Health Center, Addis Ketema Health Center, Gandakore Health Center and Dil Chora Hospital were included in the study.

Sample size allocation for exit interview at each health facility was made proportionally based on review of the flow of ANC attendees in each health facility in the preceding one month of data collection period.

Proportional to population size for health facility=n/N*Nj

Where, n=The sample size calculated for the study

N=The summation of ANC attending PW per month before the study in all selected health facilities

Nj=The number of ANC attending PW per month in each health facility

For Lega Hare health center the flow of clients per month was 240, so that by using proportional to population size the sample size allocated for this health center was as follows:

LHC=n/N*NLHC=389/1290*240=73

For Melka Jebdu health center the flow of clients per month was 210, the allocated sample size became as follows:

MHC=n/N*NMHC=389/1290*210=63

For Genda Kore health center the flow of clients per month was 185, the allocated sample size became as follows:

G/KHC=n/N*NG/KHC=389/1290*185=56

For Addis Ketema health center the flow of clients per month was 150,the allocated sample size became as follows:

A/KHC=n/N*NA/KHC=389/1290*150=45

For Dil Chora hospital the flow of clients per month was 505,the allocated sample size became as follows:

D/HP=n/N*ND/HP=389/1290*505=152

Study participants were selected by systematic random sampling method. Every third pregnant woman was included in the sample until the required sample size was fulfilled. The participants (key informants) of the in-depth interview were purposively selected from selected health facilities.

The following diagram shows the sampling procedures.

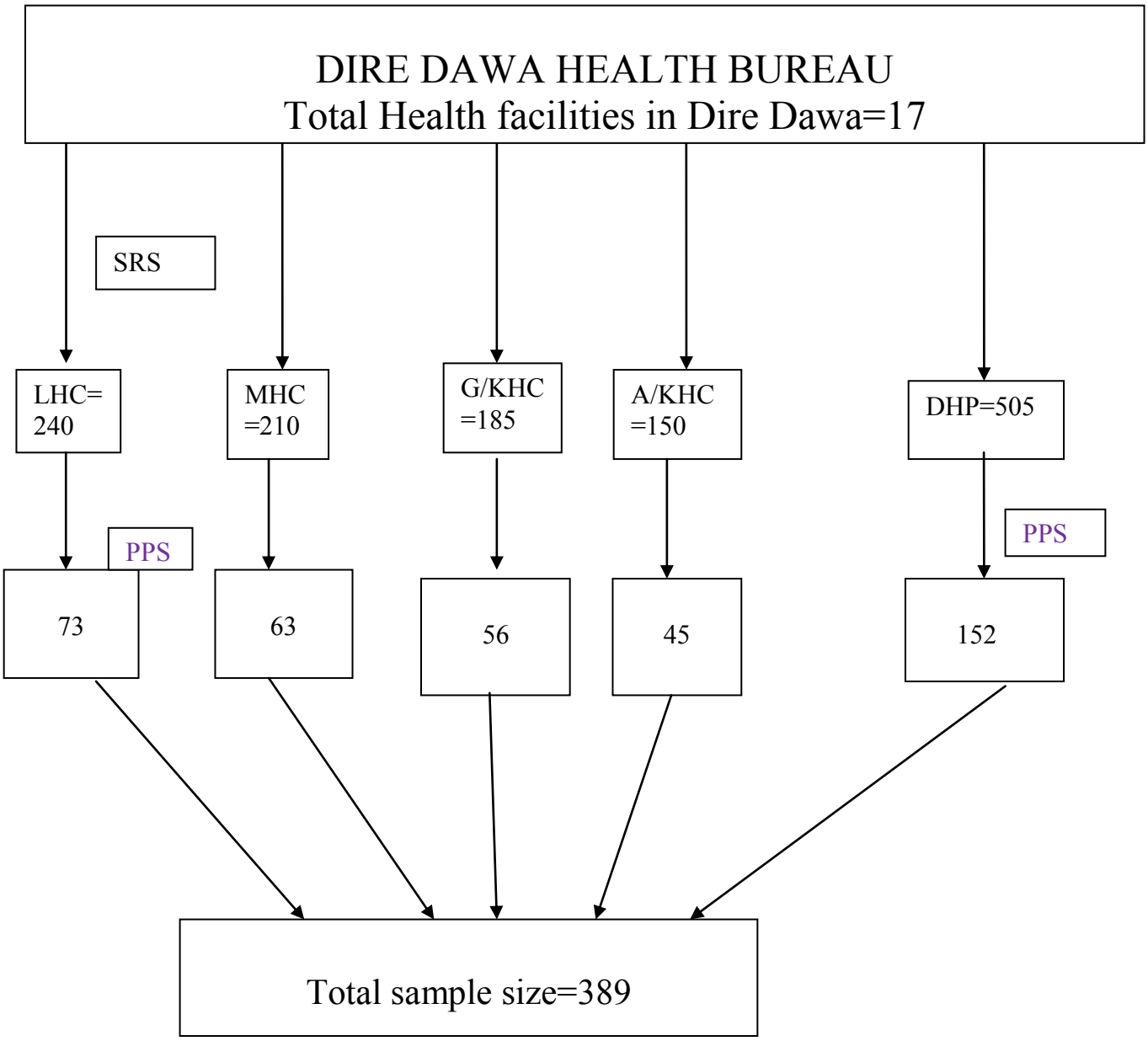

Figure2 Schematic presentation of the sampling procedure

Where:

DHP- Dil Chora Hospital

LHC-Lagahare Health center

MHC-Melka Jebdu Health center

G/KHC-Gandakore Health center

A/KHC-Addis Ketema Health center

SRS-Simple random sampling

PPS-Proportional to population size

Systematic random sampling=1290/389=3

4.6 Methods of data collection

Quantitative data: A face- to- face interview technique was used for quantitative data collection. The tool used was close and open – ended questionnaires. The survey questionnaires was adopted from one of literature developed for similar purposes by different authors with some modifications; it is then reviewed to suit the local condition (UNAIDS best practice collection). The questionnaire was first prepared in English and then translated into Amharic and back to English to ensure its consistency.

Five registered Nurses and one supervisor who can speak local languages (Amharic, Afan Oromo and Somali language) proficiently were recruited. The responsibility of the supervisor was checking whether the questionnaire was correctly completed or not together with principal investigator. Training was given for 2 days on procedures, techniques and way of collecting the data for data collectors and supervisor by principal investigator.

Qualitative data: There were six in-depth interviews, one in-depth interview at each health facility and one in-depth interview with the head of PMTCT at Dire Dawa Regional Health Bureau. In-depth interviews were conducted by principal investigator. While describing the qualitative findings, quotations from the interviews are used. I used both tape recorder and note book in order not to miss the answer given by the key informants. I attempted to hold onto as much as what they have said by request the interviewees to speak slowly.

4.7 Study Variables

Dependent variable: PMTCT service utilization

Independent variable:

- Socio-demographic and cultural factors (age, marital status, level of education, occupation, ethnicity, religion)
- Individual behavioral factors (Knowledge and attitude about MTCT of HIV and PMTCT)
- Health facility related factors (availability, accessibility)
- Structural factors (stigma and discrimination)

4.8 Operational Definition

- **Antenatal care**- It is care given to pregnant woman from conception to the time the woman goes into labor.
- **Counseling**-A helping relationship which often involves clients telling information about their current and past situations, opinions and inner most feeling.
- **Facilitating factors of prevention of mother to child transmission of HIV service utilization**-- Individual characteristics or external factors that enable the pregnant women to utilized the Prevention of Mother-to-Child HIV Transmission services.
- **Mother-to-Child HIV Transmission** - The act of passing HIV virus from HIV positive mother to her baby during pregnancy, labor and delivery or breastfeeding.
- **Partner**- Anyone having sexual relations with the women in the study.
- **PMTCT service utilization**- The act of practicing or using services provided to a pregnant woman to prevent mother-to-child transmission of HIV. This includes receiving

counseling services or testing services for HIV or knowing her HIV status after the test or receiving services such as ART prophylaxis (for those who are HIV positives).

4.9 Data analysis procedure

For quantitative data, the response was coded and entered into the computer using EPI info version 3.5.4 statistical packages. Data was cleaned accordingly and exported to SPSS version 21.0 for analysis. The analyses included: descriptive statistics, Chi square tests and logistic regression. Mean, median, SD and ranges are used to describe some of the socio-demographic and obstetric characteristics. The frequency distribution of dependent and independent variables was worked out. In bivariate analysis Odds ratios were calculated to determine the presence of associations of selected variables with the outcome variable. Multivariate logistic regression was employed for variables which were significant in the bivariate analysis to determine predictor variables on the outcome variable. Comparisons were made with available findings in different literatures**.** For qualitative part, data was edited, cleaned; color coded and organized using thematic framework. The result is presented in narratives triangulated with the quantitative results.

4.10 Data quality management

Before going to data collection procedure, training on data collection instruments and procedures of sample selection was given for data collectors and supervisors by principal investigator. The survey questionnaire was pre-tested & the necessary arrangements & corrections were made to standardize & ensure its validity. All completed questionnaires and forms were checked for completeness and consistency and submitted to the supervisor on daily basis and again checked for completeness and consistency. The quantitative and

qualitative interviews were conducted separately in areas where privacy was ensured and others could not overhear.

4.11 Ethical Consideration

Ethical clearance was initially obtained from AAU, College of Health Sciences, Research and Ethical Committee of School of Public Health. A letter of support was secured from Dire Dawa Regional Health Bureau and Dire Dawa Regional Health Bureau wrote a letter to respective health facilities. Then, study permit was granted from each health facility in accordance with the letter from Dire Dawa Regional Health Bureau. Verbal informed consent was obtained from each study participant prior to the administration of questionnaire after the purpose of the study was explained to respondent. Confidentiality was maintained by omitting their personal identifications such as names were not recorded and the privacy was ensured. So that the instruments and procedures were not cause affect the study subject.

4.12 Dissemination of result

Study result will be given to relevant bodies such as Addis Ababa University, College of Health science; School of Public Health, Dire Dawa Health Bureau, Federal Ministry of Health, Zonal and District Health Offices and partners sponsor the project.

Finally, Attempts will be made to present the results on scientific conferences and to publish the results of the study on local and/or international journals.

5. RESULT

Quantitative findings

Socio-demographic and obstetric characteristics of respondents

A total of 389 pregnant women attending antenatal care in Dire Dawa were approached. All of them participated in the questionnaire interviews (i.e. response rate of 100%). Of the total 389 pregnant women attending ANC in Dire Dawa health facility, 60.9% (237/389) of the women were attending ANC in Health Centers, while 39.1% (152/389) were attending ANC in Dil Chora Hospital.

About 53.2% of the interviewed pregnant women aged between 25 to 34 years, 40.9% between the ages of 15 to 24 years and 5.9% aged above 35 years. The mean age (±SD) of the entire respondents was 25.8±5.1 years. Majority of the respondents were Muslim 63.8% (248/389) followed by Orthodox Christian about 29.8 % (116/389).

The majority of the pregnant women 96.4% (375/389) were currently married. Of the total pregnant women about in 45% (175/389) were Oromo ethnicity followed by Amhara 23.1% (90/389). Of the total pregnant women, 78.9% had formal education at primary level or above. Regarding occupational status of the respondents most of them were housewives 49.4% (192/389).From the total pregnant women who estimated average monthly income 74% (288/389) earned greater than or equal to 1000 ETH Birr. Table 1 shows the socio-demographic characteristics of pregnant women attending ANC in public health facilities in Dire Dawa.

Table1. Socio-demographic characteristics of the pregnant women attending ANC in public health facilities, Dire Dawa, 2014

Variables	Frequency(n=389)	Percentage (%)
Type of health facility		
Health center	237	60.9
Hospital	152	39.1
Age in years		
15-25	159	40.9
25-34	207	53.2
35+	23	5.9
Religion		
Muslim	248	63.8
Orthodox Christian	116	29.8
Others	25	6.4
Marital status of the participant		
Currently married	375	96.4
Currently not married(single, divorced and widowed)	14	3.6
Ethnicity		
Oromo	175	45.0
Amhara	90	23.1
Somali	52	13.4
Others	72	18.5
Educational status		
Illiterate	82	21.1
Literate	307	78.9
Occupation		
Housewife	192	49.4
Merchant	112	28.8
Government employee	63	16.2
Others	22	5.7

Means of transportation		
Bajaj	207	53.2
On foot	124	31.9
Others	58	14.9
Average monthly income in Birr		
<1000 ETH Birr	100	26
>=1000 ETH Birr	288	74

Obstetric History

Concerning the obstetric history of the pregnant women, majority of the respondent 71.2% (277/389) reported that they have had two or more ANC visits. Concerning the Gestational age, majority of the pregnant women 60.2% (234/389) were reported a gestational age more than 25 weeks while 40.1% (156/389) reported having three or more pregnancies and 79.7% (310/389) reported to have two or less alive children currently. Table 2 shows obstetric history of the pregnant women attending ANC in public health facilities in Dire Dawa.

Table2.Obstatric histories of the participants attending ANC in public health facilities, Dire Dawa Administrative town, 2014

Variables	Frequency(n)	Percentage (%)
Number of ANC visit		
One	112	28.8
Two or more	277	71.2
GA of the current pregnancy		
<12	25	6.4
12-24	130	33.4
25+	234	60.2
Number of pregnancy		
One	112	28.8
Two	121	31.1
Three or more	156	40.1
Number of alive children		
Two or less	310	79.7
Three or more	79	20.3

Knowledge and attitude of pregnant women about MTCT of HIV and PMTCT

The majority of the respondents 78.9% (307/389) replied that HIV could be transmitted from mother to child of whom 93.8% (288/307) knew that MTCT can be prevented.

From the pregnant women attending ANC clinic who knew about MTCT of HIV, 46.9% (144/307) had awareness about the fact that MTCT can occur during pregnancy, 39.1% (120/307) during labor and delivery and 43.9% (135/307) through breast feeding. About 6.2% (19/307) of the pregnant women did not know the correct ways of HIV transmission from mother to child although they reported the possibility of transmission. This awareness was associated with age of the pregnant women [AOR= 4.4(95%CI) (2.6-7.6)], educational status of the husband [AOR =9.9(95%CI) (4.5-21.4)] and having awareness about PMTCT [AOR =8.4(95%CI) (4.9-14.5)]. The interpretation for the above mentioned values included, those pregnant women who aged between 25-34 years were 4.4 times more likely to have awareness about MTCT of HIV than others age groups (15-24 and >35 years of age).Those pregnant women with literate were 9.9 times more likely to have awareness about MTCT of HIV. Those pregnant women who have awareness about PMTCT were 8.4 times more likely to have awareness about MTCT of HIV.

Among the women who knew about PMTCT, 82.3% (237/288) were aware of the availability of prophylactic ARV drugs, 19.8% (57/288) informed about avoiding breast feeding to prevent MTCT, 9.0% (26/288) knew that safe delivery practice (such as cesarean section) can prevent MTCT, and 1.0% (3/288) of the respondents reported that avoiding any

contact with their child prevent MTCT of HIV and 5.6% didn't know the exact prevention methods. The awareness on PMTCT was associated with educational status of the pregnant women [AOR =0.12(95%CI) (0.02-0.72)], educational status of husband [AOR= 0.19(95%CI) (0.045-0.84)], have awareness about MTCT of HIV [AOR=4.26(95%CI) (2.16-8.38)] and having information about VCT [AOR=4.56(95%CI) (1.68-12.39)].

That means those pregnant women who have awareness about MTCT of HIV were 4.2 times more likely to have awareness on PMTCT. Table 3 shows knowledge on MTCT of HIV and PMTCT by pregnant women attending ANC in public health facilities in Dire Dawa.

Table3. Knowledge on MTCT of HIV and PMTCT by pregnant women attending ANC in public health facilities, Dire Dawa, 2014

Variables	Frequency(n)	Percentage(%)
Have awareness about MTCT of HIV(n=389)		
Yes	307	78.9
No	82	21.1
Expected time of MTCT of HIV reported by pregnant women		
During pregnancy	144	46.9
During delivery	120	39.1
During breast feeding	135	43.9
Knowing all means of transmission	27	8.7
Did not know the correct time of transmission	19	6.2
Have awareness about PMTCT(n=288)		
Yes	288	93.8
No	19	6.2
Methods of PMTCT reported by pregnant women		
Aware of availability of ART prophylaxis	237	82.3
By avoiding breast feeding	57	19.8
Use of safe delivery(aware of cesarean section)	26	9.0
Knowing all methods of prevention	7	2.4
Didn’t know the exact prevention methods	16	5.6

From the total pregnant women, about 74.3% (289/389) of the pregnant women discussed with their counselors about having HIV test, 14.4% (56/389) about HIV test results, 11.6% (45/389) about issues arising from HIV test result and other issue 16.7% (65/389). About 21.9% of the participants had discussions with the counselors on issues associated to MTCT and PMTCT. Of the total pregnant women, 84.1% (327/389) reported that they had discussions with their partners about issues related to ANC services and HIV testing. Generally 88.7% of the pregnant women replied that their partners have positive attitudes towards ANC services and HIV testing.

Utilization of PMTCT services by antenatal care attendees in Dire Dawa

HIV counseling and testing by pregnant women

Of the 389 interviewed pregnant women, 372(95.6%) reported that they were tested for HIV in the current pregnancy. Only 4.4% of the respondents reported that they were not tested for HIV. The main reasons raised by pregnant women who were not tested for HIV included fear of rejection by husband 35.3% (6/17), fear of stigma 35.3% (6/17),fear of being positive for HIV 11.8% (2/17) and lack of awareness 17.6% (3/17). Out of those pregnant women who were tested for HIV, about eleven (3%) were sero-positive. From the total eleven (3%) HIV positive pregnant women, nine (81.8%) of them were linked to ART service.

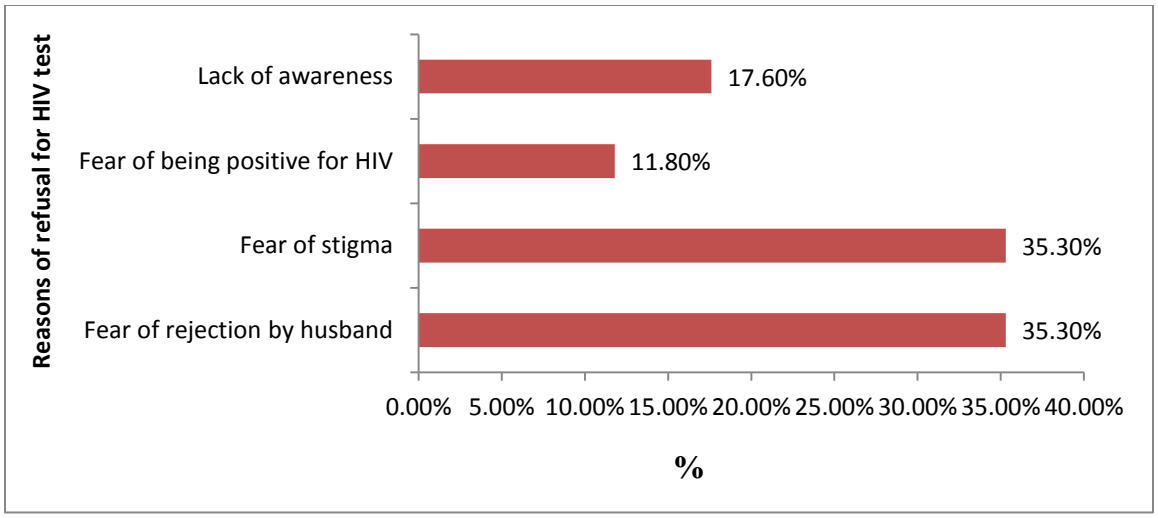

Figure3.Reasons cited by pregnant women who were not tested in public health facilities in Dire Dawa, June 2014

Of the pregnant women who knew their husband's HIV status, about 71.5% (278/389) reported that their husbands were tested for HIV in current pregnancy and 28.5% (111/389) of participants' husbands were not tested. The pregnant women reported reasons why their husbands were not tested for HIV. The reasons included shortage of time 79.2% (88/111), fear of rejection 9% (10/111), fear of stigma 1.8% (2/111) and fear of being positive for HIV 13.5% (15/111).Table 4 shows reasons reported by pregnant women why their husband's were not tested for HIV.

Table4. Reasons reported by pregnant women why their husband's were not tested for HIV

Variables	Frequency(n)	Percentage (%)
Husbands HIV status reported by pregnant women		
Yes	278	71.5
No	111	28.5
Reasons why their husbands were not tested for HIV reported by the pregnant women		
Shortage of time	88	79.2
Fear of rejection	10	9
Fear of stigma	2	1.8
Fear of being positive for HIV	15	13.5

The qualitative finding also supports the above findings in quantitative study;

"Most pregnant women are not willing to disclose their status to their husbands/partners due to fear of divorce and stigma, almost all mothers were counseled and tested alone without the involvement/knowledge of their male partner, even if she accepts the test result he is not voluntary to come to the facility" (Key informant from Dil Chora hospital).

Regarding number of ANC visit, majority of the pregnant women 71.2% (277/389) had more than two ANC visits. Of the total pregnant women, about 78.7% (306/389) reported that they came to the health facility by their own decision, 12.9% (50/389) referred, 4.1% (16/389) initiated by their friends and 4.3% (17/389) by chance.

Time spent for waiting and discussion with counselor was also asked and 77.9% (303/389) reported waiting time for the service took greater than 10 minutes. About 73% (284/389) of the participants reported time spent with counselor took greater than 15 minutes.

Of the pregnant interviewed, 77.4% replied that the time they spent during the visit was reasonable, and 19.8% reported that it was too long.

Concerning satisfaction of pregnant women with services they received from the health facility, nearly all women 99% were generally satisfied with the service they had during the current visit of the health facility. Of the pregnant women interviewed, about 93.1% reported adequacy of privacy and confidentiality during service provision. About 17.5% of the respondents replied that they wished to have a different counselor than the current one. Of the total participants, about 76.1% preferred to have the same counselor before and after the test.

Of the tota1 participants 17% of the respondents were not interested in HIV testing and about 4.4% of them preferred not to have a discussion about HIV/AIDS during ANC visit.
The respondents also interviewed about whether they came back or not, about 87.9% of them replied that they will come back to the health facility for ANC service.

Factors associated with PMTCT service utilization

About 95.6% (372/389) counseled mothers were tested for HIV. The prevalence of HIV sero-positivity among ANC clients was low, 11 (3%). Of all HIV positive pregnant women 81.8% (9/11) were provided ART prophylaxis.

In bivariate analysis, association of socio-demographic variables and other factors, and HIV counseling and testing were assessed. Literate women were 3.6 times more likely to accept HIV testing as compared to illiterate ones [COR=3.6(95%CI) (1.3-9.5)]. Pregnant women who had literate partners were 5.1 times more likely to accept HIV testing

[COR=5.1(95%CI) (1.7-15.6)]. Those pregnant women whose current partner tested for HIV were 4.9 times more likely to accept HIV testing [COR =4.98(95%CI) (1.8-13.8)].Those women whose husband had positive attitude towards ANC and HIV testing were 8.3 times more likely to accept HIV testing [COR=8.3(95%CI) (3.0-22.8)] .Pregnant women who were aware about PMTCT were 4.4 times more likely to accept HIV testing [COR=4.4 (95%CI) (1.6-11.9)].Pregnant women with high average monthly income were 5.7 times more likely to accept HIV testing [COR=5.74(95%CI) (2.1-15.9)]. Women who have awareness about the availability of ART prophylaxis were 3 times more likely to accept HIV testing [COR=3(95%CI) (1.1-8.3)].Pregnant women who had information about MTCT of HIV were 4.6 times more likely to accept HIV testing [COR=4.6(95%CI) (1.7-12.3)]. Pregnant women who had information about VCT were 8.5 times more likely to accept HIV testing [COR=8.5(95%CI) (3.1-23.5)]. Those pregnant women having same counselor for discussion before and after testing were 3.9 times more likely to accept HIV testing [COR=3.9(95%CI) (1.4-10.3)].

After controlling the effects of cofounders in multivariate logistic regression analysis, pregnant women with high monthly income were 3.7 times more likely to accept HIV testing as compared to pregnant women with lower monthly income [AOR =3.7(95%CI) (1.2-11.5)]. Pregnant women who have awareness about VCT were 4.4 times more likely to accept HIV testing [AOR=4.4(95%CI) (1.1-17.6)]. Those pregnant women who preferred having of same counselor for discussion before and after the test were 3.6 times more likely to accept HIV testing [AOR=3.6(95%CI) (1.2-10.7)].

Table5. Bivariate and Multivariate logistic regression analysis of PMTCT service utilization among ANC attending pregnant women in public health facilities, Dire Dawa city, 2014

Variables	Utilized PMTCT	Not utilized PMTCT	COR(95%CI)	AOR(95%CI)
Educational status of the participant				
Literate	298	9	3.6(1.3-9.5)	0.53(0.1-2.5)
Illiterate	74	8	1	1
Having information about VCT				
Yes	337	9	8.5(3.1-23.5)	**4.4(1.1-17.6)**
No	35	8	1	**1**
Current partner tested for HIV				
Yes	272	6	4.98(1.8-13.8)	1.7(0.4-7.2)
No	100	11	1	1
Husband positive attitude towards ANC and HIV testing				
Yes				
No	336	9	8.3(3.0-22.8)	2.5(0.6-10.7)
	36	8	1	1
Educational status of the husband				
Literate	344	12	5.1(1.7-15.6)	1.5(0.3-7.1)
Illiterate	28	5	1	1
Having awareness about PMTCT				
Yes	281	7	4.4(1.6-11.9)	1.8(0.2-15.8)
No	91	10	1	1

Average monthly income				
>=1000 Birr	282	6	5.74(2.1-15.9)	**3.7(1.2-11.5)**
<1000 Birr	90	11	1	**1**
Having awareness about MTCT of HIV				
Yes	299	8	4.6(1.7-12.3)	1.8(0.4-7.2)
No	73	9	1	1
Having awareness about availability of ART prophylaxis				
Yes	231	6	3(1.1-8.3)	0.52(0.1-3.8)
No	141	11	1	1
Having same counselor for discussion before and after testing				
Yes	288	8	3.9(1.4-10.3)	**3.6(1.2-10.7)**
No	84	9	1	**1**

6. DISCUSSION

The main aim of PMTCT is to reduce the transmission of HIV infection from HIV infected mothers to children. To achieve this aim the service has to be available to be used by pregnant mothers.

This section describes the findings of the study and has been grouped into; the magnitude of PMTCT service utilization (HIV counseling and testing and ART linked), and factors that facilitate PMTCT service utilization.

In this study, it is demonstrated clearly that counseling and testing is acceptable to pregnant women and well adopted by study participants. Likewise, 372 (95.6%) of the pregnant women attending ANC in this study had undertook counseling and testing at the time of the study. The high level of counseling and testing and its uptake among the participants was different from the study reported from Gambella (75.6%), Gondar (82.5%) and Uganda (85%) (27,32, 36). This findings are comparable with those similar studies in Addis Ababa (93.8%), Arba Minch (100%), and Tanzania (98%) (13,34,39). The justification for the lower counseling and testing for HIV in Gambella, Gondar and Uganda are due to lower educational status of the pregnant women compared to pregnant women attending ANC in Dire Dawa. The explanation for the high HIV counseling and testing in Dire Dawa and others similar studies are because of high educational status of the pregnant women, had more than one ANC visits and their ages were above 25 years.

The findings of the survey show that about 88.9% of the antenatal attendees had awareness on VCT in antenatal settings in contrast with findings reported in Uganda (33). In Uganda,

utilization of HIV testing in antenatal settings was found to be 4% in a household survey of women with infants where 97% of the women had attended antenatal care (1).

Very few respondents reported that they were not tested (4.4%). Fear of rejection by husband, fear of stigma, fear of being positive for HIV and lack of knowledge were factors cited as reasons for pregnant women not to undergo HIV testing. More than 96% of the HIV tested women had three or more number of consultations to the health facility. Almost all women who made three or more visits to the health facility were tested for HIV, indicating that as the number of visits increases the chance of receiving HIV testing increases.

Among the pregnant women attending ANC in public health facilities in Dire Dawa, those with positive test result were very low (11/372) but out of those positive pregnant women about 81.8% (9/11) linked to ART service which is higher as compared to most of the studies done inside and outside the country. This finding is higher than most of studies done in Ethiopia; Addis Ababa (9%), Hawassa (9.8%) and Jimma (1.1%) among pregnant women(13,24,37) but comparable with the study conducted in Resource limited setting (75%)(38). The justification for the high prevalence in this study is the pregnant women have awareness about PMTCT and availability of PMTCT services. The explanation for the low PMTCT service utilization in Addis Ababa and Hawassa are due to time variation and the delivery of PMTCT services was not strong as recent time.

Of the total pregnant women (78.9%) replied that HIV could be transmitted from mother to child and these findings are higher than study done in SNNPR (60.7%)(20), but lower than study conducted in Arba Minch (92%), Addis Ababa (90.3%), Hawassa (95.5%), and

Tanzania(98%) among pregnant women(13,21,24). The reason for the case of SNNPR is because of low educational status by the pregnant women, most of the participant's educational status are within primary and below level. The justification for the above mentioned studies for high awareness about MTCT of HIV are due to high educational status by the participants and high antenatal care visits. In this study awareness about MTCT of HIV is related to educational status of the husband and having information about PMTCT. Women's awareness of transmission of HIV from an infected woman to her child is contrary with the magnitude of voluntary counseling and testing. Pregnant women who reported that they should have testing for the sake of knowing their own HIV status did not show an understanding of the importance of voluntary counseling and testing during pregnancy. This indicates that women need to be well informed about the possibility of transmission of HIV across the placental barrier to increase their confidence in voluntary counseling and testing.

In this study awareness on the main ways of MTCT of HIV by pregnant women were 46.9% during pregnancy, 39.1% during labor and delivery and 43.9% during breast feeding which is lower than study done in Northern Tanzania (during pregnancy 61.5%, during delivery 97.2% and during breast feeding 99.8%) .The justification for this difference is because of high ANC follow up in Tanzania about 87.8% while in Dire Dawa (43.2%) among pregnant women.

In this study about 93.8% of pregnant women knew that MTCT of HIV can be prevented which is comparable with the study conducted in Arba Minch and Nakuru Kenya among pregnant women, (90.3%) and (90.8%) respectively (21, 40) but higher than study done in

Malawi (75%) and in Hawassa (82.3%)(20,22). The explanation for this difference is in case of Malawi there are lower level of awareness about VCT (97.3%) and MTCT of HIV (92%).

In this study in bivariate analysis there is an association between PMTCT service utilization and some independent variables like educational status, monthly income, having awareness about PMTCT, having husband with positive attitude towards ANC and HIV testing and current partner tested for HIV. In multivariate logistic regression analysis, there is statistical significance between PMTCT service utilization and independent variables after controlling for cofounders. Pregnant women having high monthly income were more utilized PMTCT services as compared to those with low monthly income. Those pregnant women who have awareness on VCT were more utilized PMTCT services. In addition those pregnant women who preferred to have same counselor for discussion before and after the test more utilized PMTCT services as compared to other. But because of different setting the factors that influence PMTCT service utilization differs (i.e. the factors that used as facilitating factors in Hawassa might not be a factor in Dire Dawa).

Strengths and limitations of the study

Strengths

Strengths of the study include the use of mixed methodology. 100% response rate

Limitations

As this is a cross sectional study design establishing causal relationship is impossible in this study.

The second limitation of the study is that interviews were conducted within health facilities, so that it is possible that relatively high levels of satisfaction reported by respondents because clients are not willing to express negative opinions about the services when interviewed at health facility.

Thirdly, the findings are not generalizable to all pregnant women in Dire Dawa because it is based on self selected participants.

The fourth limitation is there may be self selection bias by pregnant women to come to the public health facilities or those pregnant women who knew their HIV status may not come for ANC check up until delivery. Only those women who knew that they are negative for HIV might come to health facility.

7. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

In general utilization of PMTCT services at ANC clinic was found to be high both in terms of HIV testing and ART use by pregnant women in Dire Dawa. Having awareness about VCT by the pregnant women, having high average monthly income and preferring to have same counselor for discussion before and after the test were facilitating factors for utilization of PMTCT services.

In addition the qualitative findings show the need for improvement of the services in areas like partner involvement, increasing community awareness about MTCT of HIV and PMTCT, including involving traditional healers.

Recommendations

Based on the study findings, the following activities are recommended to be achieved by the following bodies;

For Programmers/Stakeholders

- Promote male involvement in maternal health services particularly focusing on ANC and PMTCT services.
- Overall coverage improvement has to be through service expansion to the primary health care units by integrating maternal and child health care services and increasing partner and community awareness for better utilization.

For Researchers

- Further research is needed on determinants of PMTCT services.

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Annexes

Annex I: Informed consent and data collection tools

Section 1: Informed consent

Information on the purpose of the study

Hello! My name is _____ and I am working on the study about facilitating factors to PMTCT service in Dire Dawa. The aim of this study is to assess facilitating factors to the PMTCT service and its acceptability by pregnant women attending public health facilities to find out solutions to improve the service. I would very much appreciate your participation in this study. The study participants will be all pregnant women visiting public health facilities. Participation in this study is voluntary, and you have the right to withdraw at any time, not to answer any individual question or all of the questions. However, I hope that you will participate in this study. There will be no risk for any response that you are going to give me. Your name and address will not be recorded on the questionnaire. Therefore, your honest and real responses are very important to rely on for better decision making. The information which you provide us will be a feedback for both the governmental and non-governmental organizations to improve the quality of PMTCT services. It will take you between 15 and 30 minutes to complete the questionnaire. Whatever information you provide me will be kept strictly confidential, and the privacy will be ensured.

At this time, do you want to ask me anything about this study?

Client Consent Form

I am informed all about the purpose and benefit of the study and I have understood that no information about me will be exposed to other party. After taking all the above into consideration, I the undersigned have:

1. Agreed to participate in the study. If so, Continue
2. Disagreed to participate in the study. If so, Say “Thank you” and discontinue.

Data collector’s: Signature _____date_____

Section 2: Data collection tools

PART I: –Socio-demographic characteristics

Name of health institution:_____

Interview date in G.C.: _____

Name of the interviewer: _____

S.NO.	Questions	Coding categories	**Skip**	**Code**
1.	Type of health facility	1.Hospital 2.Health center		
2.	How old are you? Completed years of age	_____ Years.		
3.	What is your religion?	1. Orthodox 2. Muslim 3. Protestant 4. Catholic 5.Others,specify)_____		
4.	What is your marital status?	1. Married 2. Single 3. Divorced 4. Widowed 5. Others, specify		
5.	What is your educational status?	1. Illiterate 2. Illiterate, but able to write and read 3. Grade 1-6 4. Grade 7-12 5. College and above		
6.	What is your ethnic group?	1. Oromo 2. Amhara		

		3. Guraghe 4. Tigre 5.Somali 6. Others, specify		
7.	What is your occupation?	1.Housewife 2. Merchant 3. Government employee 4. Student 5. Daily laborer 6. Others, specify		
8.	What is your husband's educational status?	1. Illiterate 2. Illiterate, but able to write and read 3. Grade 1-6 4. Grade 7-12 5. College and above		
9.	What is your average monthly income?	1. ———— Birr 2.Others, specify_____		
10.	What means of transportation did you use to come to this health facility	1.private car 2.bus 3.bajaj 4.On foot 5.Others,specify		
11.	What amount of time did it take you to reach this health facility from your home?	_____minutes I don't know		
12.	Is this facility convenient to you to continue your care here in the future?	Yes _1 No _ 2		
13.	How many weeks pregnant are you now?	_____		
14	How many pregnancies do you ever had?	_____		

15	How many living children do you have?	_____			
16.	Have you talked to your counselor today about:		Yes	No	
	• Having an HIV test				
	• Receiving test results				
	• Issues arising from an HIV test taken Some time ago				
	• Other issues (specify)				
17.	Do you know that HIV can be transmitted from a mother to her child?	Yes _1 No_2 I don't know			
18.	If the answer to Q.17 is "Yes", When can HIV be transmitted from a mother to her child?	1. During pregnancy 2. During child birth 3. After child birth during breast feeding I don't know Others,specify_____			
19.	Do you have information about VCT?	Yes__1 No__2			
20.	Which time is appropriate to have VCT?	1.Any time 2.At marriage 3.After unsafe sex 4.During pregnancy 5.Others,specify___			
21.	Have you heard about PMTCT?	Yes__1 No__2		If "No" pass to Q.23	
22.	What ways of prevention do you know?	1.ART Prophylaxis 2.Avoid breast feeding			

		3.Cesarean section 4.Avoid any contact with the child			
23.	Have you discussed with your counselor today about:	Yes	No		
	□HIV/AIDS				
	□Infant feeding practice				
	□MTCT & PMTCT				
24.	`Have you discussed with your current partner about ANC service and HIV testing	Yes _1 No _2 Nocurrent partner _3			
25.	Is your current partner positive about ANC and HIV testing?	Yes _1 No_2			
26.	Are you tested for HIV in your current pregnancy?	Yes_1 No_2		**If "Yes" Pass to Q.28**	
27.	If "No", what is your reason for not being tested?	1. Fear of rejection by my partner/husband 2. Fear of stigma and discrimination 3.fear of being tested positive for HIV 4.Others, specify __			
28.	Did you collect your test result?	Yes_____ No_____			
29.	If the answer to Q.28 is yes, what is your current HIV status?	Positive_____ Negative_____			
30.	After knowing your status were you linked to PMTCT services?	Yes_____ No_____			

31.	Is your current partner tested for HIV in the time of your current pregnancy?	Yes _1 No _2		
32.	If "NO", what is his reason for not being tested?	1. Fear of rejection by me 2. Fear of stigma and discrimination 3. fear of being tested positive for HIV 4. I don't know		
33.	Do you think that ANC, institutional delivery and postnatal care have significance in prevention of HIV from mother to child?	Yes__1 No__2		
34.	Why did you come to the ANC clinic?	1. For ANC checkup 2. To test for HIV 3. To receive treatment to protect my baby from HIV		
35.	How many visits have you made to your counselor at this clinic?	_____visits		
36.	Are you happy with the session you had today?	Yes _1 No _2		
37.	How did you first come to this health facility?	1. by myself 2. Referred (specify by whom) 3. partners/friend 4. by chance 5. others,specify		
38.	How much time did you spend: (in minute)			
	□Waiting to see your counselor today	_____minute		

		□In the session with your counselor Today	_____minute		
		▪ Waiting to get HIV test result	_____minute		
39.	Would you say that the amount of time you spent was:		Too much _1 Just right (reasonable) _2 Too short _3		
40.	Are you satisfied with the technical competence of the counselor?		Yes _1 No _2		
41.	Did you feel comfortable with your counselors handling of the client?		Yes _1 No _2		
42.	Was there enough privacy during your counseling?		Yes _1 No _2		
43.	Do you wish you had a different counselor (different sex, older, younger)?		Yes _1 No _2		
44.	Were you able to see the same counselor for discussion both before and after the test?		Yes _1 No _2		
45.	Is there anything you did not like during the discussion about HIV/AIDS? If *yes*, please what is it? _____		Yes _1 No _2		
46.	Would you have preferred that HIV/AIDS not be discussed during your antenatal visit? Why? _____		Yes _1 No _2		
47.	Would you come back to this clinic for your care?		Yes _1 No _2		
48.	If a friend or relative were in a similar position to you before you came to the service, would you recommend that he/she came to the service? If Yes, why? _____ If No, why not? ____		Yes_1 No _2		
49.	What do you suggest to be improved about health care services given in this facility?		Yes-1 No-2		

51.	If the answer to Q.47 is yes, what? Specify	_____		
52.	Did you or your partner use condom during sexual intercourse in this pregnancy?	1. Yes, every time 2. Yes, a few times 3. Yes, once or twice 4. Not at all		

Exit interview Questionnaire in Amharic Version

የስምምነት የፈቃደኝነት ማረጋገጫ ቅጽ

የጥናት መረጃ

እንደምን ነዎት? ስሜ _____ ይባላል፡፡ የመጣሁት ከአዲስ አበባ ዩኒቨርሲቲ ነዉ፡፡በድሬዳዋ ከተማ አስተዳደር በኤች አይ ቪ ኤድስ ከእናት ወደ ልጅ መተላለፍ መከላከያ መንገድ ላይ ምርምርና ጥናት ላደርግ ነው፡፡ ይህ ጥናት የሚካሄደው የኤች አይ ቪ ኤድስ ቫይረስ ከእናት ወደ ልጅ እንዳይተላለፍ የሚረዱና ለእናቶች የሚሰጡ አገልግሎቶች እንዳይሳኩ የሚያደርጉ ችግሮችን ለይቶ ለማወቅና ለማስወገድ ነው፡፡ የጥናቱ ተሳታፊዎች የሚመረጡት በዕጣ ነው፡፡ ስለዚህ እርስዎም የተመረጡት በዕጣ ነው፡፡ እርስዎ የሚሰጡን መረጃዎች ለአገልግሎት አቅርቦትና ጥራት መሻሻል ከፍተኛ አስተዋጽኦ ያበረክታሉ፡፡ በጥናቱ ወቅት እርስዎ የሚሰጡን ማናቸውም አይነት መረጃዎች ለሌላ አካል ተላልፈው አይሰጡም፡፡ የእርስዎ ስም ወይም ማንነት አይመዘገብም፡፡ማንኛውም በዚህ ጥናት የሚሳተፍ ወይም በዚህ ጤና ድርጅት ውስጥ የሚሰራ ሰው ስለ እርስዎ ምንም አይነት መረጃ አይነገረውም፡፡

በጥናቱ ላይ ያለመሳተፍ፣ በፈለጉት ሰዓት መጠይቁን የማቋረጥና መመለስ የማይፈልጉትን ጥያቄዎች የመተው ወይም ያለመመለስ ሙሉ መብት አለዎት፡፡በጥያቄው መሳተፍዎም ሆነ ያለመሳተፍዎ በሚያገኙት የጤና አገልግሎት ላይ የሚኖረው አዎንታዊም ሆነ አሉታዊ ተፅዕኖ የለም፡፡ ቃለ መጠይቁን በሙሉ ለማጠናቀቅ በአማካይ 30 /ሰላሳ/ ደቂቃ ያህል ይፈጃል፡፡ ከእርስዎ የሚገኘው መረጃ መንግስትና ሌሎች ድርጅቶች የአቅርቦቱን ጥራት ለማሻሻል ለሚያደርጉት እንቅስቃሴ ከፍተኛ አስተዋጽኦና ድጋፍ ይኖረዋል፡፡ ተጨማሪ መረጃ ከፈለጉ ወይዘሪት አሊያ ኑሪን በስልክ ቁጥር 0938493450 ማነጋገር ይችላሉ፡፡
የመረጃ ሰብሳቢው ስምና ፊርማ _____ቀን _____

_____

የስምምነት ቅጽ

ስለ ጥናቱ አላማና ጥቅም በሙሉ ተነግሮኛል፡፡ እኔን የሚመለከቱ ማናቸውም አይነት መረጃዎች ለሌላ አካል ተላልፈው እንደማይሰጡም ተነግሮኛል፡፡ እኚህን ከላይ የተጠቀሱትን ሁኔታዎች ከግንዛቤ በማስገባት በዚህ ጥናት ላይ ለመሳተፍ፤

1. በፈቃዴ ተስማምቻለሁ ☐ መጠይቁን ይቀጥሉ፡፡
2. አልተስማማሁም ☐ አመስግነው ወደ ሌላ ተጠያቂ ይለፉ፡፡

የመረጃ ሰጪው ግለሰብ ፊርማ _____ቀን _____

በድሬዳዋ ከተማ በ "PMTCT" አገልግሎት ዙሪያ የተጠቃሚዎች የአመለካከትና የአጠቃቀም ሁኔታን ለመገምገም የሚረዳ መረጃ ለመሰብሰብ የተዘጋጀ ቃለ መጠይቅ ቅጽ (Exit Interview)

<u>የካቲት 2006 ዓ.ም.</u>

የጤና ተቋሙ ስም፡ _____ **መጠይቁን የሞላው ሰዉ ስም** _____

_____

የክፍለ ከተማ ስም፡ _____

መጠይቁ የተሞላበት ቀን፡ __/_____/_____ **የመጠይቁ ቁጥር** _____

ተ.ቁ	ጥያቄ	መልስ	ይለፍ	ኮድ
1	የጤና ድርጅት ዓይነት	ጤና ጣቢያ 1 ሆስፒታል 2		
2	የመረጃ ሰጪው እድሜ በዓመት	_____ ዓመት		
3	የምን ዓይማኖት ተከታይ ነዎት?	ኦርቶዶክስ ክርስቲያን 1 ሙስሊም 2 ኘሮቴስታንት ክርስቲያን 3 ካቶሊክ ክርስቲያን 4 ሌላ /ይገለጽ/ _____5		
4	የጋብቻ ሁኔታዎ ምን ይመስላል?	ያገባች 1 ያላገባች 2 የተፋታች 3 ባሏ የሞተባት 4 ሌላ /ይገለጽ/ _____5		
5	የትምህርት ደረጃዎ ምን ይመስላል?	ጭራሽ ያልተማረች 1 ማንበብና መጻፍ የምትችል 2 አንደኛ ደረጃ (1-6) 3 መለስተኛ ና ሁለተኛ ደረጃ (7-12) 4 ከፍተኛ ደረጃ (ኮሌጅ ና ከዛ በላይ) 5		
6	ብሄርዎ ምንድነው?	ኦሮሞ 1 አማራ 2 ጉራጌ 3 ትግሬ 4 ሶማሊ 5 ሌላ /ይገለጽ/ _____6		
7	በአሁኑ ጊዜ ዋነኛ ሥራዎ ምንድነው? /አንድ መልስ ብቻ ያክብቡ/	የቤት እመቤት 1 ነጋዴ /የግል ሥራ/ 2 የመንግስት ሠራተኛ 3 ተማሪ 4 የቀን ሰራተኛ 5 ሌላ /ይገለጽ/ _____6		
8	የባለቤትዎ የትምህርት ደረጃ ምን ይመስላል?	ጭራሽ ያልተማረ 1 ማንበብና መጻፍ የሚችል 2 አንደኛ ደረጃ (1-6) 3		

		መለስተኛ ና ሁለተኛ ደረጃ (7-12) 4 ከፍተኛ ደረጃ (ኮሌጅ ና ከዛ በላይ) 5		
9	የርስዎ ወርሃዊ ገቢ በአማካይ ስንት ብር ይሆናል?	_____ ብር ሌላ /ይገለጽ/ _____		
10	ወደዚህ ጤና ድርጅት ሲመጡ የተጠቀሙት የትራንስፖርት ዘዴ ምን ዓይነት ነው?	የግል መኪና 1 የህዝብ ትራንስፖርት(አውቶብስ ታክሲ) 2 ባጃጅ 3 በእግር 4 ሌላ /ይገለጽ/ _____ 5		
11	ከቤትዎ ተነስተው እዚህ ጤና ድርጅት እስኪደርሱ ድረስ በደቂቃ ምን ያህል ጊዜ ወሰደብዎት?	_____ ደቂቃ አላውቅም		
12	ወደ ፊት የእርግዝና ክትትልዎን የሚከታተሉት እዚሁ ጤና ድርጅት ነው?	አዎ 1 አይደለም 2		
13	የአሁኑ እርግዝናዎ ዕድሜ በሣምንት ሲቆጠር ምን ያህል ጊዜ ይሆነዋል?	_____ ሣምንት አላውቅም		
14	ይህ የአሁኑ እርግዝናዎ ለስንተኛ ጊዜ ነው?	_____ በቁጥር		
15	ስንት በሕይወት ያሉ ልጆች አሉዎት?	_____ በቁጥር		
16	የጤና ባለሙያውን ዛሬ ያማከሩት ወይም ያነጋገሩት ስለ ምንድን ነበር? ○ ለሚጠቀሱት መልሶች በሙሉ "1" ያክብቡ ○ ሌላስ በማለት ተጨማሪ መልሶችን እንዲሰጡ ያበረታቱ	<u>አዎ</u> <u>የለም</u> የኤች አይ ቪ ምርመራን ስለማድረግ 1 2 የምርመራ ውጤትን ስለመቀበል 1 2 የኤች አይ ቪ ውጤትን ከመቀበል ጋር ተያይዘው ስለሚመጡ ጉዳዮች 1 2 ሌላ (ይጠቀስ)_____		
17	የኤች አይቪ ቫይረስ ከእናት ወደ ልጅ ይተላለፋል?	አዎ 1 አይደለም 2 አላውቅም 3		
18	የጥያቄ 17 መልስዎ "<u>አዎ</u>" ከሆነ የኤች አይ ቪ ቫይረስ ከእናት ወደ ልጅ የሚተላለፈው በየትኛው ጊዜ ነው? ○ ለሚጠቅሱት መልሶች በሙሉ "1"ን ያክብቡ ○ ሌላስ በማለት ተጨማሪ መልሶችን እንዲሰጡ ያበረታቱ	<u>አዎ</u> <u>የለም</u> በእርግዝና ጊዜ 1 2 በወሊድ ጊዜ 1 2 ከወሊድ በኋላ ጡት በማጥባት 1 2 አላውቅም 1 2 ሌላ (ይጠቀስ)_____		
19	ስለ ፍቃደኝነት ላይ የተመሰረተ የኤች አይ ቪ ኤድስ ምክክር ና ምርመራ ያዉቃሉ?	አዎ 1 አይደለም 2	አይደለም ከሆነ ⟶	

20	የጥያቄ 19 መልስ አዎ ከሆነ ይህ በፍቃደኝነት ላይ የተመሰረተ የኤች አይ ቪ ኤድስ ምክክርና ምርመራ መቼ ቢሆን ይመርጣሉ?	ማንኛውም ጊዜ 1 ትዳር ሲመሠረት 2 ጥንቃቄ የጎደለዉ ግብረ-ስጋ ግኑኝነት ከተፈፀመ በኋላ 3 በእርግዝና ጊዜ 4 ሌላ (ይጠቀስ)_____ 5	21	
21	ስለ ኤች አይ ቪ ኤድስ ከእናት ወደ ልጅ መተላለፊያ መከላከያ መንገድ እንደ አለ ሰምተዉ ያዉቃሉ ?	አዎ 1 አይደለም 2	አይደለም ከሆነ ⟶ 23	
22	የጥያቄ 21 መልስ አዎ ከሆነ እርስዎ የምታዉቁ መከላከያ መንገድ ምንድነዉ ?	የኤች አይቪ ኤድስ ክትባት መድሃኒት መዉሰድ 1 የእናትን ጡት መከልከል 2 በወሊድ ጊዜ በቀዶ ጥገና መዉለድ 3 ማንኛዉንም ንኪኪ ከልጇ ያለ ማድረግ 4		
23	ከአማካሪ የጤና ባለሙያ ጋር ዛሬ ስለ ምን ተወያዩ? ○ ለሚጠቅሱት መልሶች በሙሉ “1”ን ያክብቡ ○ ሌላስ በማለት ተጨማሪ መልሶችን እንዲሰጡ ያበረታቱ	አዎ የለም ስለ ኤች አይ ቪ ኤድስ 1 2 ስለ ሕጻን ልጅ አመጋገብ 1 2 ስለ ኤች አይ ቪ ኤድስ ከእናት ወደ ልጅ መተላለፊያ እና መከላከያው 1 2 ሌላ (ይጠቀስ)_____		
24	አሁን አብሮት ካለው የትዳር ወይም የወሲብ ጓደኛው ጋር ስለ እርግዝና ክትትልና ስለ ኤች አይቪ ኤድስ ምርመራ ተወያይተው ያውቃሉ?	አዎ 1 አይደለም 2 በአሁኑ ጊዜ የወሲብ/የትዳር ጓደኛ የለኝም 3		
25	አሁን አብሮት ያለው የትዳር ወይም የወሲብ ጓደኛው ለእርግዝና ክትትልና ለኤች አይ ቪ ኤድስ ምርመራ አዎንታዊ ወይም ቀና አመለካከት አለውን?	አዎ 1 አይደለም 2		
26	በአሁኑ እርግዝናዎ ወቅት የኤች አይ ቪ ኤድስ ምርመራ አድርገዋል?	አዎ 1 አይደለም 2	አይደለም ከሆነ ⟶ 28	
27	የጥያቄ 22 መልስዎ **“አይደለም”** ከሆነ፤ ያልተመረመሩበት ምክንያት ምንድን ነው? ○ ለሚጠቅሱት መልሶች በሙሉ “1”ን ያክብቡ ○ ሌላስ በማለት ተጨማሪ መልሶችን እንዲሰጡ ያበረታቱ	አዎ የለም የትዳር ጓደኛዬ አይቀበለኝም ብዬ 1 2 መገለልና መድልዎን ፈርቼ 1 2 ኤች አይ ቪ ኤድስ ፖዝቲቭ እሆናለሁ ብዮ ስለፈራሁ 1 2 አላውቅም 1 2 ሌላ (ይጠቀስ)_____		
28	የምርመራ ዉጤትዎን አውቀዋል?	አዎ 1 አይደለም 2		
29	የጥያቄ ቁጥር 28 መልስዎ አዎ ከሆነ ዉጤቶ ምን ነበር?	ፖዝቲቭ 1 ነጌቲቭ 2		

30	የምርመራ ውጤትዎን ካወቁ በኃላ የኤች አይቪ ቫይረስ ከ እናት ወደ ልጅ መተላለፊያ መከላከያ ማዕከል ተጣምረዋል?	አዎ 1 አይደለም 2		
31	በአሁኑ እርግዝናዎ ወቅት አሁን አብሮት ያለው የትዳር ወይም የወሲብ ጓደኛዎ የኤች አይ ቪ ኤድስ ምርመራ አድርገዋል?	አዎ 1 አይደለም 2 አላውቅም 3		
32	የጥያቄ 31 መልስ "**<u>አይደለም</u>**" ከሆነ፤ ያልተመረመሩበት ምክንያት ምን ይመስለዎታል? ○ ለሚጠቅሱት መልሶች በሙሉ "1"ን ያክብቡ ○ ሌላስ በማለት ተጨማሪ መልሶችን እንዲሰጡ ያበረታቱ	<u>አዎ</u> <u>የለም</u> የትዳር ጓደኛዬ አትቀበለኝም ብሎ 1 2 መገለልና መድልዎን ፈርቶ 1 2 ኤች አይ ቪ ኤድስ ፖዝቲቭ እሆናለሁ ብሎ ስለፈራ 1 2 አላውቅም 1 2 ሌላ (ይጠቀስ)_____		
33	የእርግዝና ክትትል ማድረግ፣በጤና ድርጅት መውለድና ከወሊድ በኃላ የሚሰጥ አገልግሎት የኤች አይ ቪ ቫይረስ ከእናት ወደ ልጅ መተላለፊያ መከላከያ መንገድ ውስጥ ሚና አለዉን?	አዎ 1 አይደለም 2 አላዉቅም 3		
34	ወደዚህ የወሊድ ክትትል ክሊኒክ ዛሬ ለምን ምክንያት መጡ? ○ ለሚጠቅሱት መልሶች በሙሉ "1"ን ያክብቡ ○ ሌላስ በማለት ተጨማሪ መልሶችን እንዲሰጡ ያበረታቱ	<u>አዎ</u> <u>የለም</u> የእግርዝና ክትትል ለማድረግ 1 2 የኤች አይ ቪ ምርመራ ለማድረግ 1 2 ሕፃኔን ከኤች አይ ቪ ቫይረስ እከላከል ዘንድ ህክምና ለመውሰድ 1 2		
35	ለአሁኑ እርግዝናዎ በዚሁ ክሊኒክ አማካሪዎ ከጤና ባለ ሙያ ጋር በአጠቃላይ ምን ያህል ጊዜ ጉብኝት አደረጉ?	_____ጉብኝት		
36	ዛሬ በነበረዎት የጉብኝት ጊዜ ተደሰተዋል?	አዎ 1 አይደለም 2		

37	ወደዚህ የጤና ድርጅት ለመጀመሪያ ጊዜ የመጡት እንዴት ነበር?	በራሴ 1 ማዘዣ ተሰጥቶኝ 2 (በማን እንደሆነ ይገለጽ)_____ በጓደኛዬ ጥቆማ ተደርጎልኝ 3 በአጋጣሚ 4 ሌላ (ይጠቀስ)_____5		
38	በዚህ ጤና ድርጅት ውስጥ ዛሬ በቆዩበት ጊዜ ከዚህ በታች ለተዘረዘሩት ለእያንዳንዱ አገልግሎት በደቂቃ ምን ያህል ጊዜ እንደፈጁ ገምተው ይንገሩኝ፡			
	ሀ. ከአማካሪ የጤና ባለ ሙያ ጋር እስከሚገናኙ ድረስ የወሰደብዎት የቆይታ ጊዜ	_____ደቂቃ		
	ለ. ከአማካሪ የጤና ባለ ሙያ ጋር የቆዩት ጊዜ	_____ደቂቃ		
	ሐ. የኤች አይቪ ምርመራ ውጤትን ለመቀበል የወሰደብዎት ጊዜ	_____ ደቂቃ		
39	በዚህ ጤና ድርጅት ውስጥ ያደረጉት የቆይታ ጊዜ በአጠቃላይ ሲታይ እንዴት ነበር?	በጣም ረጅም ነበር 1 ትክክለኛ ነበር 2 በጣመ አጭር ነበር 3		
40	በዛሬው ቀን በአማካሪዎ ባለ ሙያ ክህሎት (ብቃት) ተደስተዋልን?	አዎ 1 አይደለም 2		
41	በአማካሪዎ ባለ ሙያ የተገልጋዮች አያያዝና መስተንግዶ ተደስተዋልን?	አዎ 1 አይደለም 2		
42	ከአማካሪዎ ባለ ሙያ ጋር የነበረዎት የምክክር ጊዜ ሚስጥርዎን ለመደበቅ የሚያስችል ነበር?	አዎ 1 አይደለም 2		
43	በዛሬ ቆይታዎ ጊዜ አማካሪዎ ሌላ ሰው ቢሆን ይሻልዎት ነበር? (የተለየ ጾታ፣ በዕድሜ)	አዎ 1 አይደለም 2		
44	ከኤች አይ ቪ ምርመራ በፊትና በኋላ ያጋጠመዎት አማካሪ አንድ ሰው ብቻ ነበር? /በዚሁ ጤና ድርጅት የኤች አይ ቪ ኤድስ ምርመራ ካደረጉ ብቻ/	አዎ 1 አይደለም 2		
45	በምክክርዎ ጊዜ ስለ ኤች አይ ቪ ኤድስ ምክክር ያልወደዱት ነገር ነበር?	አዎ 1 አይደለም 2		
46	የጥያቄ 42 መልስዎ **"አዎ"** ከሆነ፤ ይህ ያልወደዱት ነገር ምን ነበር?	_____		
47	በእርግዝና ክትትልዎ ጊዜ ስለ እች አይቪ ኤድስ ውይይት ባይኖር ይመርጡ ነበር?	አዎ 1 አይደለም 2		
48	የጥያቄ 44 መልስዎ **"አዎ"** ከሆነ፤ለምን?	_____		
49	ለአሁኑ እርግዝና ክትትልዎ ወደዚሁ ጤና ድርጅት ተመልሰው ይመጣሉ /መምጣት ይፈልጋሉ/?	አዎ 1 አይደለም 2		
50	ይህንን አገልግሎት ከመጠቀምዎ በፊት አንድ ጓደኛዎ ወይም ዘመድዎ በርስዎ ቦታ ቢሆን ኖሮ ይህንን አገልግሎት	አዎ 1 አይደለም 2		

	እንዲጠቀም/እንድትጠቀም ይመክራሉ?			
51	የጥያቄ 49 መልስዎ **"አዎ"** ከሆነ፤ ለምን?	_____		
52	የጥያቄ 49 መልስዎ **"አይደለም"** ከሆነ ለምን?	_____		
53	የጥያቄ 52 መልስዎ **"አዎ"** ከሆነ፤ ለስንት ሰዎች?	_____ በቁጥር		
54	በአሁኑ እርግዝና ክትትል እርስዎ መሻሻል አለበት የምትሉት ነገር አለ ?	አዎ 1 አይደለም 2		
55	የጥያቄ 55 መልስዎ **"አዎ"** ከሆነ ይገለፅ	_____		
56	በአሁኑ እርግዝናዎ እርሶዎ ወይም ባለቤትዎ ኮንዶም ተጠቅማችዉ ታዉቃላችዉ?	አዎ ፤ሁሌ 1 አዎ፤አንዳንዴ 2 አዎ፤አንዴ ወይም ሁለቴ 3 በጭራሽ አልተጠቀምንም 4		

ይህ የመጠይቁ ማጠቃለያ ነው፡፡ ጊዜውን መሰዋእት በማድረግ ጥያቄያችንን ስለመለሱልንና በአጠቃላይ ላደረጉልን ትብብር በጣም እናመሰግናለን፡፡

መረጃ ሰብሳቢ ስምና ፊርማ _____

Annex II: Key informant in-depth interview guide on quality of PMTCT services.

Information sheet

Informed Consent

Introduction: Hello, iam Aliya Nuri, I came from Addis Ababa University, School of Public Health. I am going to conduct study on facilitating factors to the prevention of mother-to-child transmission of HIV in Dire Dawa. So, I am here to collect information about facilitating factors to the prevention of mother-to-child transmission of HIV (PMTCT) service utilization in Dire Dawa. The purpose of this study is to assess factors that favor the effective provision and utilization of PMTCT services.

Participation in this interview or discussion is based on your willingness; you can withdraw from the discussion or study at any time. I would very much appreciate your participation in this study. In addition, your personal identification will not be recorded or written. The interview data will be handled by me and my advisors only.

I will assure you that whatever information you are providing me will only be used for the study purpose .While iam collecting the data it is difficult to write down everything, therefore I will tape record our discussion. Finally, if you have any questions please ask either during the interview or afterwards. I greatly appreciate your taking time to speak with me.

Are you willing to participate in the study?

If yes, proceed; if no, thank and stop here.

_____

(Signature of interviewer certifying that respondent has given informed consent verbally)

Key informant in-depth interview guide on quality of PMTCT services.
Name of the health facility: _____

Health facility type (health center or hospital): _____

Date of interview: _____

Position of respondent: _____

Section II. Interview Guiding Questions

Guide Questions

1. Can you please tell me how do you understand facilitators to maternal health services?
2. How do you explain the facilitators to the implementation of PMTCT services in Dire Dawa ?

Probe:

- Determinants
- Any change over time
- Any new institutional intervention strategies to reduce the barriers

3. Can you please tell me the major barriers that affect PMTCT service in your area?

Probe:

- Acceptance of services by users
- Related to providers
- Provider's professional competence
- Facilities, equipment and supplies
- Supervision
- Others

4. What do you think about the status of community PMTCT interventions in your locality?

Probe:

- TBA, Mothers Group

5. What changes have been brought by urban health extension workers?

Probe: PMTCT acceptance and service utilization

6. What should be done to reduce or avoid barriers to PMTCT services in your locality?

Probe:

- Advocacy to scale up the acceptance of PMTCT services
- Ongoing training and supervision for providers
- Infrastructure strengthening and provision of equipment and supplies and others

7. Who do you think is responsible to reduce the factors that affect PMTCT service programs?
8. To support the PMTCT program, is there any a community support group or organizations for pregnant HIV positive woman? If yes, mention them.
9. PMTCT service is given at the health facilities in Dire Dawa; do you think that most beneficiaries are utilizing this service? If yes, what are the pulling factors to these services? If not, what are the pushing factors? Why?
10. To maximize the PMTCT service utilization what do you recommend.
11. In your opinion, what are the factors that affect pregnant women's PMTCT service utilization at the health facilities?
12. What are the major problems that you experience working as a counselor?
13. How do you see your role in PMTCT? What does counseling involve?
14. What do you say to the women about:

a. PMTCT

b. Disclosure

c. Partner involvement

d. Infant feeding

e. Nevirapine

f. Sex

Background of the respondents

General Information about Key Informants

Key informant	**Age (yrs)**	**Sex**	**Professional background**	**Position**	**PMTCT training**	**Year of experience**

Thank You!

General information about key informants

Key informant	Age	Sex	Educational background	Position	Year of experience as counselor	Taking PMTCT training
1	28	Male	Midwife	Head of ANC at HC	2 years	Yes
2	37	Female	Midwife	Head of ANC at HP	8 years	Yes
3	24	Male	Midwife	Head of ANC at HC	1 year	No
4	23	Female	Midwife	Head of ANC at HC	2 years	Yes
5	30	Female	Midwife	Head of ANC at HC	6 years	Yes
6	40	Female	Nurse	Head PMTCT at Dire Dawa RHB	12 years	Yes

Note: HC-Health center
HP-Hospital
RHB-Regional Health Bureau

Main themes highlighted as facilitating factors to PMTCT utilization by 6 Key informants in Dire Dawa, 2014.

Theme	Description
1. Increasing partner involvement	Most of the health professional reported partner testing as a big Problem. Increasing husband participation in PMTCT service is essential.
2. Increasing awareness of the community	Awareness creation about MTCT of HIV and PMTCT by the community giving health education for the community including partner, so that the pregnant women may be comfortable to come to the health facility.
3. Increasing accessibility	There are geographic barriers for some rural area around, Dire Dawa where there are no taxis even difficult for ambulance at time of labor.
4. Involving traditional healers	Most of pregnant women have knowledge on PMTCT services but they do not practice when they go home, the reason is just there are traditional healers who discourage them.