ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH

UPTAKE OF ANTIRETROVIRAL PROPHYLAXIS AMONG HIV POSITIVE PREGNANT WOMEN IN SOUTH WOLLO ZONE EAST AMHARA REGION

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ABBREVIATIONS AND ACRONYMS

AAU	Addis Ababa University
AIDS	Acquired immunodeficiency syndrome
ANC	Antenatal care
ART	Antiretroviral therapy
ARV	Antiretroviral
AZT	Zidovudine
CI	Confidence Interval
GA	Gestational age
MTCT	Mother to Child Transmission
NGO	Non- Government Organization
NNRTI	Non-Nucleoside Reverse Transcriptase Inhibitors
NRTI	Nucleoside Reverse Transcriptase Inhibitor
OR	Odds ratio
PEPFAR	President's Emergency Plan for AIDS Relief
PI	Principal investigator
PLWHA	People living with HIV/AIDS
PMTCT	Prevention of mother to child transmission of HIV
RH	Reproductive health
Sd- NVP	Single dose nevirapine
UNGASS	United Nations General Assembly special session on HIV/AIDS
Unicef	United Nation's children Fund.
VCT	Voluntary counseling and testing
WHO	World Health organization

Abstract

Background – Mother to child transmission remains the most significant route of HIV infection among children. For the prevention of mother to child transmission of HIV a package of services including HIV counseling and testing, provision of antiretroviral prophylaxis drugs for mothers and babies, safe delivery practices and infant feeding counseling is made available. The effectiveness of PMTCT program largely depends on utilization of prophylactic antiretroviral drugs by the women and their babies.

Objective: This study was intended in general to assess the uptake of antiretroviral prophylaxis among HIV positive parturient women (and specifically to determine the magnitude of antiretroviral prophylactic uptake, to describe factors affecting the uptake and to describe the extent of partner involvement) in South Wollo Zone, East Amahra Region, Northeast Ethiopia

.**Methods:** Institution-based cross sectional study was conducted among 356 HIV positive pregnant women at five selected health facilities in South Wollo Zone,East Amhara Region, North east Ethiopia between January 2010 and March 2011. All clients were interviewed until decided sample size obtained. Descriptive statistics was used to assess uptake of antiretroviral prophylaxis. Associated factors with uptake were assessed using odds ratios and 95% Confidence Intervals. Four in-depth interviews/among PMTCT services counselors and Woreda Health Office PMTCT coordinators/ were conducted to complement the quantitative survey.

Result - Of 356 HIV-positive pregnant women interviewed, 151(42.4%) started antiretroviral prophylaxis, 101(28.4%) were initiated on combination ART and clinical care beyond PMTCT. Thirty two (8.9%) their gestational age was less than 28 weeks. 72(20.2%) did not start antiretroviral prophylaxis at their 28 weeks of gestational age.

Conclusion- -Accessibility of comprehensive PMTCT services have paramount benefits in effective implementation of ARV prophylaxis uptake. Much of significant associations between variables did not show. It might be related to limitation of study design used. Stigma was not considered as a barrier for ARV prophylaxis in this particular study area.

Key words – HIV-positive pregnant woman, PMTCT, ARV prophylaxis.

1. Introduction

1.1 Background

The human immune deficiency virus /HIV/ pandemic is one of the most serious health crises the world faces today. AIDS has killed more than 25 million people since 1981 and an estimated 38.6 million people are now living with HIV, of whom about 2.3million are children. Globally, around 11% of HIV infections are among babies who acquire the virus from their mothers. In 2008, around 430,000 children aged 14 or younger become infected with HIV. More than 90% of these newly infected children are babies born to women with HIV, who require the virus during pregnancy, labour or delivery, or through their mother's breast milk. Over nine-tenths of such transmission occur in sub-Saharan Africa. Current estimate suggests that 600,000 children are newly infected annually world wide and over 200,000 children below age 5 are living with the virus in Ethiopia. Drugs are available to minimize the dangers of mother to child HIV transmission, but these are still often not reached to the places where they are most needed (1).

In most infected women, HIV does not cross the placenta to the fetus, and the placenta may actually shield the fetus from HIV.. However; if the mother has placental infection during pregnancy, or if the mother has advanced immunodeficiency associated with AIDS, this protection from the placenta may break down (1). Many infants who acquire HIV during labour and delivery do so by sucking, imbibing, or aspirating maternal blood or cervical secretions that contain HIV. Other can acquire HIV through the mixing of fetal and maternal blood as the placenta separates. Prolonged rupture of membranes /more than 4 hours/, chorio-amnioitis or other infection and invasive obstetrical procedures increase the baby's contact with mother's blood (2). Prevention of mother to child transmission of HIV is one of the strategies that will help countries in achieving MDGs 4,5 and 6. The risk of mother-to-child transmission of HIV can be reduced to under 2% by interventions that include antiretroviral (ARV) prophylaxis given to women during pregnancy, labour and postnatal to the infant in the first weeks of life, skilled delivery, obstetrical interventions including elective caesarean section and avoidance of breast feeding in many parts of the developed world. By the end of 2006, only 8 countries exceeded the 40% ARV prophylaxis uptake mark required to achieve the 2005 PMTCT United Nations General Assembly Special Session on HIV/AIDS (UNGASS) target of reducing new infections in children by 20%. But in Sub-Saharan Africa, the uptake of PMTCT interventions remains low,

generally around 20%. Globally, between 2007-2008, the proportion of pregnant women tested HIV increased from 15 percent to 25 percent, and the proportion of pregnant women living with HIV who received antiretroviral prophylaxis for PMTCT increased from 16 percent to 30 percent, East and South Africa made the most progress (3).

According to study released by the international treatment preparedness coalition, Bloomberg reports, two-thirds of HIV-positive pregnant women in the developing world do not have access to treatment to prevent mother to child HIV transmission (3).

As mother and child health is a key factor for any sustainable developments, prevention of MTCT of HIV must be a priority. Antenatal care and VCT are entry points for prevention and care but are presently frequently lacking or not fully operational. Drugs for prophylaxis and treatment of opportunistic infections should be made available, affordable and sustainable (4).

1.2 Rationale of the study

In Ethiopia, despite an increase in the number of health centers providing prevention of mother to child transmission /PMTCT/ services, the proportion of HIV positive pregnant women who receive antiretroviral drugs/ARVs/ for PMTCT remains low (4).

As most developing countries, Ethiopia faces many challenges in combating the MTCT epidemic: Among the challenges food insecurity, limited capacity of the health system, difficulty accessing most-at-risk populations/MARPs/, limited data on other potentially high risk and vulnerable populations, gaps in surveillance and research activities , low uptake of antenatal care, and the dynamic of working with partners are included (5).

The magnitude of mother to child transmission of HIV is estimated to be the highest in Amhara region of Ethiopia, where, in East Amhara (South Wollo) is one of the affected area in the region (5). Hence, knowing the uptake of using long and short term combined, antiretroviral prophylactic regimens and factors affecting it helps government bodies, NGOs, policy makers, programmers and communities of the area to design feasible methods of prevention and control of infections in this particular area where no similar study has been done so far.

2. Review of Literature

2.1- Overview of PMTCT Service

WHO and UNICEF, in collaboration with global partners, have developed the Guidance for Global Scale up of the prevention of Mother – to- child transmission of HIV to provide timely support to countries to accelerate scaling up of national PMTCT programmers. The guidance promotes the integration of PMTCT and links with maternal, newborn and child health services (6).

Several recent initiatives have presented an opportunity for countries to increase the coverage and effectiveness of PMTCT program. The international community re-energized the fight against the HIV pandemic through a commitment to universal access to prevention, care and treatment services when, at a summit in July 2005, WHO member states review progress towards the achievement of UNGASS targets for preventing HIV infection in infants and young children, and build consensus on priority action that global partners, national governments and all implementers could take to move faster towards achieving universal access by 2010(6).

2.1.1 -Abuja call to action

In 2005, representatives of governments, multilateral agencies, development partners, research institutions, civil societies and people living with HIV assembled at the PMTCT High level Global Partners Forum in Abuja, Nigeria which resulted in a' Call to Action' for the elimination of HIV infection in infants and children and HIV –and AIDS free generation(6).

2.1.2 United Nations General Assembly special session/ UNGASS/ on HIV/AIDS

The declaration of commitment of UNGASS in June 2001 has set the goal of reducing the proportion of infants infected with HIV by 20% by the year 2005 and by 50% by the year 2010, by means of(7):-

- Ensuring that 82% of pregnant women accessing antenatal care receive information, counseling and other HIV prevention services.
- Increasing the availability of and providing access for HIV- infected women and babies to effective treatment to reduce MTCT (7).

2.1.2 United Nations Comprehensive Approach

Prevention of mother-to-child transmission of HIV is a comprehensive approach to reduce the numbers of new HIV infection in infants and children

The UN four pronged stra tegy for PMTCT addresses a broad range of HIV-related prevention, care, and treatment and support needs of pregnant women, their children and families. They are:

1-The primary prevention of HIV infection among women, especially young women

2- The prevention of unintended pregnancies among HIV- infected women.

3- Provision of specific interventions to reduce HIV transmission from HIV-infected women to their infants.

4- Provision of treatment, care, and support for HIV-infected mothers, their infants and families (8).

PMTCT activities require close collaboration synergy across multiple community and health care settings. Reproductive health settings are the main access points to reach women of childbearing age. The most important step is to increase the entry point for all pregnant women to access counseling and testing services their by having the opportunity to receive ARV prophylaxis, postnatal care and other services in the health facility. Capacity building of health care professionals and lay providers opt out approach and clients' services satisfaction in continuity of care are most critical interventions (9).

By the end of 2006, 71 countries were implementing national PMTCT programmers and had defined country specific policies and strategies. Approximately half of these countries have developed national scale-up plans with clearly defined population based targets and time bound benchmarks. According to a study released (May 22 , 2009) by the international treatment preparedness coalition, Bloomberg report, of the 1.5 million HIV positive pregnant women each year in the developing world, about one third receive any kind of drug therapy at all. The report said, added that most of the treatment is inadequate and fails to prevent MTCT. According to the report, eight years after world governments pledged to cut the number HIV cases among infants in half by 2010. Only about 8% of pregnant women in developing countries are receiving the complete triple-dose combination therapy widely used in wealthy nations (10).

2.2 Access to PMTCT service and coverage

All HIV-infected pregnant women who are not in need of ART for their own health require an effective ARV prophylaxis strategy to prevent HIV transmission to the infant. ARV prophylaxis should be started from as early as 14 weeks gestation (second trimester) or as soon as possible when women present late in pregnancy, in labour or at delivery. The provision of maternal triple ARV prophylaxis during pregnancy in women who are not eligible for ART results in very low intrauterine and peripartum transmission rates (11).

Majority of HIV positive pregnant woman in developing world lack access to PMTCT services. Two thirds of HIV positive pregnant women in the developing world do not have access to treatment to prevent mother to child transmission, which could lead to 370,000 new HIV cases annually among infants (12). Many studies in high HIV prevalence settings have reported low coverage of PMTCT services. A study done in Vietnam, Hanoi, showed that only 44% and 20% of the women had received minimal and comprehensive PMTCT services, respectively. 17% of the women did not receive any services. 42% of women received no counseling. The women reported being limited by lack of knowledge and information due to poor counseling, gaps in PMTCT services, and fear of stigma and discrimination. HIV testing was done too late for optimal interventions and poor quality of care by health facility was frequently mentioned (13).

Result of many studies in high HIV prevalence setting, such as sub-Saharan Africa, suggested that PMTCT coverage was low, and explored the gaps at each stage of PMTCT cascade of services. The risk of mother to child transmission can be reduced to less then 2% with the package of evidence-based interventions including ARV prophylaxis and treatments combined with elective caesarean section and avoidance of breast feeding. MTCT can occur during pregnancy, birth or through breast feeding. Over 90% of new infections in infants and young children occur through MTCT(14). In 2008 estimated 1.4 million pregnant women in low and middle income countries were living with HIV, of whom 90% were from just 20 countries. All but one (India) are in Sub Saharan Africa. It is in these countries that WHO can have the greatest impact on infections averted and lives saved, especially the 10 countries with the highest number of pregnant women with HIV, where 75% of the need for PMTCT services is found(15).

More effective, integrated PMTCT interventions at the regional and country levels in these high burden countries will help advance the global PMTCT effort towards elimination of paediatric HIV, and make significant progress towards the MDGS. From these 20 countries with the highest HIV disease burden among pregnant women as stated above, the Ethiopian estimated percentage of pregnant women living with HIV receiving antiretroviral to reduce the risk of mother to child transmission of HIV is around 17%(16).

Infants and children in Sub-Sahara Africa countries are affected by HIV/AIDS in multiple ways, suffering severe social, health, economic, and psychological consequences. Those perhaps most directly affected, however, are children who acquire HIV/AIDS through MTCT. They face severe morbidity and a near-certain early death where sophisticated and costly treatments are virtually nonexistent, and even the availability of basic medicines to treat opportunistic infections is likely to be erratic. In developing nations, where resources are in short supply but where most of the HIV infected people live, preventing mother-to-child transmission presents many challenges. The first is that breastfeeding is the cornerstone of infant feeding among other benefits many studies have demonstrated that breastfeeding protects the newborn infant against diarrhea and pneumonia, two leading causes of infant morbidity and mortality. Even now during the current HIV pandemic, the majority of infants are born to uninfected women. Hence uninfected women and women of unknown status should still be encouraged to breast feed their infants. Preliminary data suggest that exclusive breastfeeding may be associated with lower risk of breast milk transmission of HIV. Voluntary counseling and testing /VCT/ services to make widely available and how to share information with others who are working with the HIV infected woman without violating her confidentiality and exposing her to stigmatization are the two other big challenges respectively (17). Renewed efforts are urgently required to increase access, coverage and effectiveness of PMTCT programs to prevent HIV infection in infants and young children. Antiretroviral prophylaxis uptake is used as one of the national indicators to assess PMTCT program achievement (17).

2.3 Antiretroviral Prophylaxis uptake

WHO introduced several simplifies anti-retroviral /ARV / prophylaxis regimens. However, experiences in many countries suggested that ARV prophylaxis for PMTCT alone had only limited impact. Even for facilities where ARV prophylaxis was available still a number of pregnant women would drop out at different steps of the health care process. Many countries

reported low uptake of HIV testing. The most important barrier to use the services was sound to be fear of stigma and discrimination among HIV positive pregnant women. Poor counseling or lack of counseling meant that HIV positive pregnant women lacked awareness on PMTCT opportunities, which limited their access to these services (18).

According to WHO 2008 report, percent of HIV positive women receiving ARV prophylaxis in Sub- Saharan Africa, Eastern and Southern Africa; and total low-and middle- income countries was 43%, 58% and 45% respectively. Again rates of ARV prophylaxis coverage in countries with largest number of pregnant women with HIV; in Nigeria 10%, India 36%, Coted'ivoire 41%, Lesotho 57% and Botswana 95% respectively(19).

Efforts to improve basic ANC services alongside introducing PMCT have increased the number of new ANC client's acceptance of HIV counseling and testing and uptake of ARV prophylaxis. Countries that have made good progress share a number of characteristics. Strong political leadership and commitment from national governments the development and implementation of national scale up plans with population- based targets and the establishment effective national management and coordination mechanisms are critical to success. In Ethiopia, Despite an increase in the number of health centers providing prevention of mother to child transmission /PMTCT/ services, the proportion of HIV positive pregnant women who receive antiretroviral drugs/ARVs/ for PMTCT remains low . In 2009, only 8 percent of HIV-positive pregnant women received ARV Prophylaxis.

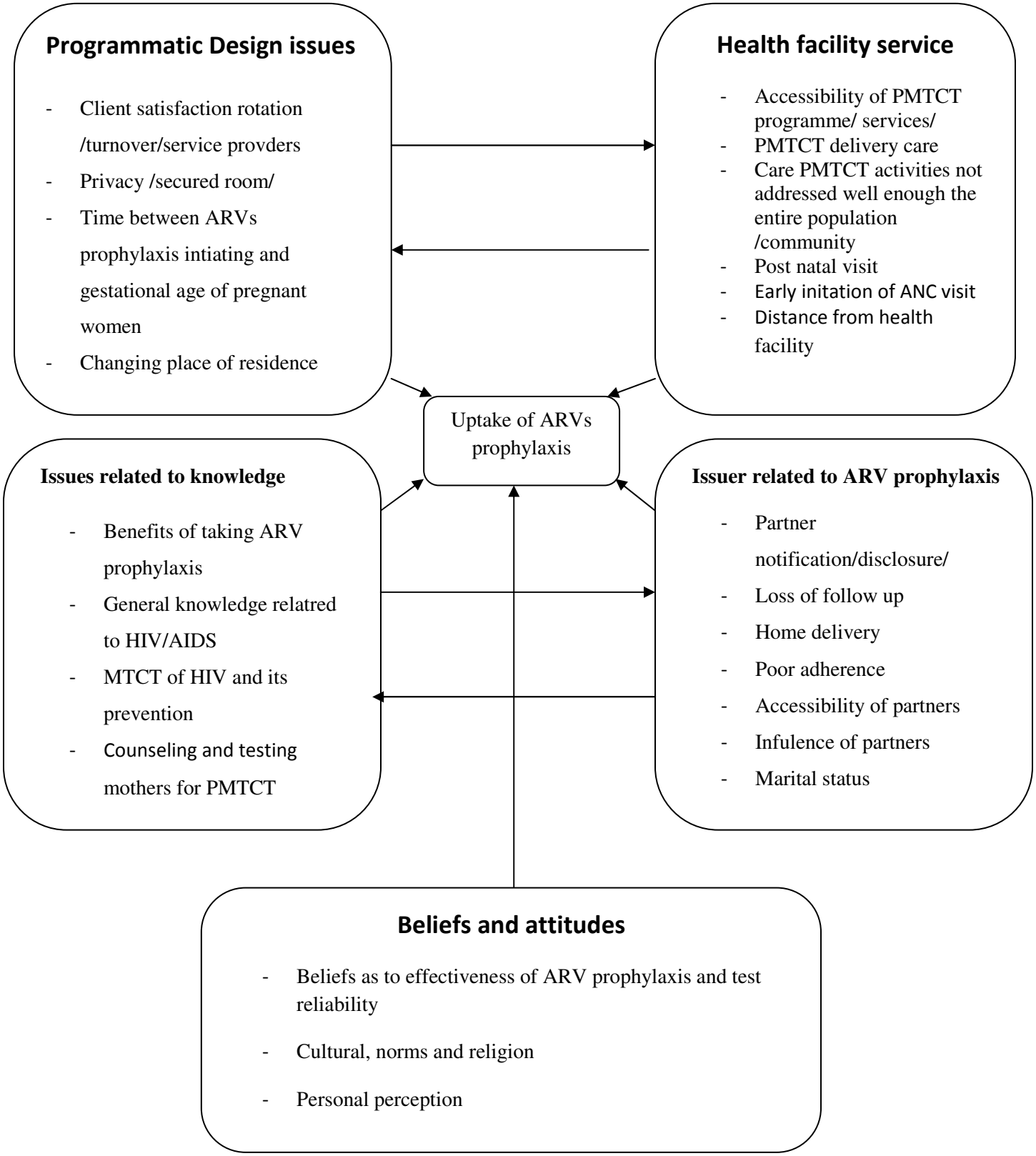
As most developing countries, Ethiopia faces many challenges in combating the MTCT epidemic: food insecurity, limited capacity of the health system, low uptake of antenatal care, and the dynamic of working with partners. Factors related for low uptake of antiretroviral prophylaxis in Ethiopia include limited human resource and infrastructure, low utilization of maternal, newborn and chilled health low ANC coverage, women received, or counseling that lacked information about PMTCT and the options for women to receive PMTCT. The situation of HIV/AIDS in Amhara region is one of the worst in the country with persistently prevalence particularly of the urban estimates.

2.4 HIV prevalence, women and their sexual partner in PMTCT

When we talk about HIVAIDS prevalence, there are lots of studies dealing with women HIV prevalence. Women are biologically economically socially and culturally more vulnerable to infection than men. As wives and mothers, HIV-positive pregnant women have to face more difficult situations than others. For millions of women, their ability to make decisions and to act upon them is hampered by their socio-economic circumstances. Women have little or no control over their risk of becoming infected with HIV. Most HIV-positive pregnant women become HIV-positive and unintentionally pregnant by their sexual partners, because of unsafe and unprotected sex. Experience from Uganda/2006/ demonstrates that most women are infected by their sexual partner they have (20).

In general, men are in control of deciding when, where, and how sex will take place and this put women at greater risk for transmission of HIV and whether male condoms are used. Furthermore, in most countries, one of the biggest barriers to women utilizing PMTCT services is limited male involvement. The PMTCT program mandates husbands to accompany their wives when they go for antenatal care services and HIV testing, even though the program demands too much from the woman.

ANNEX- Conceptual frame work:- Factors influencing uptake of ARVs prophylaxis (12,21,22,23)



3 Objectives

3.1 General Objective

To assess the uptake of antiretroviral prophylaxis among HIV positive pregnant women in south Wollo zone, Amhara Regional State, Ethiopia.

3.2 Specific Objective

1. To determine the magnitude of antiretroviral prophylactic uptake among HIV positive pregnant women in south Wollo Zone.
2. To describe factors affecting the uptake of antiretroviral prophylaxis among HIV positive women in south Wollo Zone.
3. To describe the extent of partner involvement in antiretroviral prophylaxis uptake among HIV positive.

4. Methodology

4.1 Study area and Period

The study was conducted in south Wollo zone from January 2010 to March 2011.

South Wollo zone is one of the 11 zones in Amhara National Regional State. Dessie town, the capital of the zone, is one of the historical towns in the country and which is the administrative and business centers of north east Ethiopia, located 401 km north of Addis Ababa(24).

Administratively the zone is structured in to 23 woreda, 45 urban and 505 rural Kebeles. The total population of the zone is 2,870,476. Male 1,423,756 and 1,446,720 females. Of these 344457 (12.4%) live in urban and 2,526,019 (87.6%) resides in rural area (24).

In the zone there are three government hospitals, three private hospitals, 33 health centers, and 455 health posts. According to South Wollo zonal health department /2010 G.C. ten top list of morbidity annual report, HIV/AIDS, acute febrile illness, respiratory tract infection, and malnutrition complicated by overcrowding was the main health problems of the zone (25).

4.2 Study design

A cross-sectional study was conducted using both quantitative and qualitative methods. In the quantitative survey, facility based cross-sectional data collection was conducted using structured and pre-tested interviewer-administered questionnaire and in qualitative interview, in-depth interview has been used to complement the quantitative survey.

4.3 Study population

4.3.1 Source population

- All antenatal care attendants in the catchment area of selected health institutions, (n=6500)

4.3.2 Study population

All ANC clients who were HIV tested and have positive result.in south Wollo zone, Amhara Regional State.

4.3.3 Sample size calculation

Sample size /n/ for the study was calculated using following single population proportion (p) formula as (26).

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

Where n is sample size, P was the proportion of the uptake of antiretroviral prophylaxis in HIV positive parturient women and d, the margin of error.

The local available data for the value of P was taken as 17%. (WHO, UNAIDS, HIV/AIDS interventions in the health sector progress report 2009).

Allowing 4% for expected margin of error (d) and with 95% confidence level ($Z \alpha/2=1.96$)

The sample size was caculated to be **339** and adding 5% for non-response rate. Then the total required sample size was **356**

4.3.4 Sampling Procedure

Five Health facilities who were implementing selected based on comprehensive PMTCT programme /include testing with counseling, access to HIV infection staging for treatment, long & short course antiretroviral prophylaxis for mothers and exposed children and infant formula / were selected using purposive sampling method. Every pregnant woman who was HIV positive before and during data collection including HIV positive mother who gave birth within the last 42 days of begining data collection were included for interview consecutively.

For the qualitative study, purposive sampling was employed. PMTCT counselors and woreda health office PMTCT coordinators, and those who were on active duties at the time of study in all study facilities were involved.

4.4 Data collection

4.4.1 Data Collection procedure

Data were collected using a pretested structured questionnaire by reviewing previously done similar studies. Again relevant questionnaire related to the objective of study has been added. The questionnaire pretested before actual administration in a similar setting to ensure accuracy. And has been translated in to Amharic and back to English to ensure its consistency. Every HIV positive pregnant woman attending the ANC clinic was interviewed consecutively until the required sample size was obtained. The interview was conducted at five health institutions providing comprehensive PMTCT services in South Wollo Zone, East Amhara. Data collectors approached clients by greeting and introducing themselves then they explained the purpose of

the study and ask for verbal consent. Interview was in a private setting at health institutions. Data collectors /counselors in PMTCT service/ were recruited on voluntary bases from the same health institution.

Qualitative study/In-depth interview

In-depth interview were an important tool to explore more detailed information. Before the data collection the separate guidelines and questions were prepared. The questions were based on the research objectives. It include the cultural issues, use of PMTCT service, scale up PMTCT services, limitation of ARV prophylaxis and client satisfaction to the services (appendix).

A total of 5 PMTCT services Counselors and 3 woreda health office coordinators were participated in the in-depth interviews. In-depth interview was conducted using the aid of guides for the each of the study groups to provide general view for the interview. The PI conducted interviews and conducted in Amharic. The interview lasted approximately 50 minutes on average. Interviews were made in private room at two places of study site/ Dessie and Kombolcha / where the participants were working. Participants were requested to be interviewed with the explanation of the objectives of the study and verbal consent.

Inclusion and Exclusion Criteria

HIV positive women who gave birth within the last 42 days of beginning data collection and those pregnant women who attend antenatal care during data collection period.

- Pregnant women who attend antenatal visit but not confirmed HIV positive has been excluded from the study. In addition, pregnant women those who mentally retarded or abnormal, those who have physical communication barrier and critically ill has been excluded.

4.4.2 Study Variables

Independent variables: Socio-demographic variables (age, sex, marital status, residence, ethnicity), socio-economic variable (income), and HIV sero-status

Dependent variables: uptake of antiretroviral prophylaxis for PMTCT.

4.4.3 Operational definitions

Antenatal care (ANC)- the care given to pregnant women and her unborn fetus.

PMTCT –an acronym for "Prevention of Mother to Child Transmission of HIV." In this study stands for taking long course antiretroviral /zidovudine / prophylaxis during pregnancy starting at 28 weeks of gestational age.

ARV prophylaxis – In this study stands for long term use of antiretroviral drug to reduce mother to child transmission of HIV.

Uptake ARV prophylaxis:- Antiretroviral drug taken in to a body to prevent Mather to child transmission of HIV.

4.5 Data processing and analysis

The collected data was entered using EPI-info version 3.5.1 and analysis was done using EPI-info and SPSS version 15.0 software. Proportions, percentages, and graphs were used for description as appropriate. Odds ratio with confidence intervals was computed to assess the presence and degree of association between dependent and independent variables. P-Value of 0.05 was set as a cut-off point for the significance of the association between the variables. Multiple logistic regression analysis was carried out to see independent effect of each variable on the outcome.

For in-depth interviews, I wrote every thing heard during the interview. I used a recorder when I did interviews. I categorized, described, classified and interpreted the data; and then I wrote my finding and made conclusions.

4.6 Data quality management

Questionnaire was designed carefully and was translated first into Amharic and back translated to English to assure its consistency. Questionnaire has been checked for completeness on a daily basis by supervisor. The questionnaire was pre-tested in a similar setting before its administration. To keep quality of data again, the data collectors and supervisors were provided with intensive training. Supervision and spot checking was conducted regularly by supervisors and principal investigator. Errors during data entry was corrected timely and again data cleaning editing was given due attention.

4.7 Ethical consideration.

Ethical clearance was obtained from the ethical clearance committee of College of Health Sciences, Addis Ababa University through School of Public Health before the study implementation. Permission was obtained from each Woreda administration, Woreda Health Office and health facility. Prior to interview, data collectors informed study participants and request for consent.

5. Results

5.1 Socio-demographic characteristics

A total number of 356 HIV infected pregnant women were included in this study. The age ranged between 15 to 44 years with mean age of 26.5. Two hundred seventy (75.8%) urban and eighty six (24.2%) were rural dwellers. Forty eight (13.5%) of rural dwellers traveled more than 1 hours to reach a health facility with PMTCT service. One hundred ninety nine (55.9%), one hundred forty six (41%) and eleven (3.1%) of them believe in orthodox, Islam and other religion respectively. One hundred six (29.8%) of the respondent had never formal schooling and one hundred fifty two (42.7%) attended secondary and college education. Two hundred seventy nine (78.4) were married. Two hundred twenty one (62.1%) were house wives. Amhara was the dominant ethnicity (99%). From all respondents two hundred eighty six (80.3) had no regular means of income (Table 1).

Table1: Socio-demographic characteristics of HIV positive pregnant women receiving ARV prophylaxis, in South Wollo Zone, April 2011

Variables (n=356)	Frequency	percent
Age/year/		
15-24	129	36.2
25-29	123	34.6
30-34	63	17.7
35-44	41	11.5
Residence		
Urban	270	75.8
Rural	86	24.2
Religion		
Orthodox	199	55.9
Muslim	146	41
Others	11	3.1
Marital status		
Married	279	78.4
Single- never married	11	3.1
Others	66	18.5
Educational status		
Do not read and write	106	29.8
Primary	98	27.5
Secondary and above	152	42.7
Occupation		
Unemployed	89	25
House wife	221	62.1
Government employee	46	12. 9
Means of income		
Yes	70	19.7
No	286	80.3

5.2 Magnitude of ARV prophylaxis uptake

Of 356 HIV-positive pregnant women interviewed, one hundred fifty one (42.4%) started zidovudine ARV prophylaxis at their gestational age of 28 weeks; and one hundred and one (28.4%) eligible HIV positive pregnant women were initiated on combination ART and clinical care beyond PMTCT. Thirty two (8.9%) of respondent's gestational age was less than 28 weeks. Seventy two (20.2%) did not start antiretroviral prophylaxis at 28 weeks of their gestational age.

5.3 Knowledge and attitude towards PMTCT/ARVs services

Three hundred four (85.4%) of interviewee support the idea that every pregnant woman tested for HIV and their husband/partner should be tested with the pregnant woman. In case of the view of their husband/partner regarding HIV screening, 262(73.6%) wanted to have couple testing. 51(14.3%) of their husband want the wife to be tested alone. 27(7.8%) doesn't want to discuss at all about the issue.

In the case of mother to child transmission of HIV, two hundred forty six (69.1%) of the respondents said that HIV transmission occur during pregnancy, delivery and during breast feeding. And 87 (24.4%) said only during pregnancy, 14 (4%) only during delivery and 9(2.5%) only during breast feeding. Out of the total respondents, 313 has ever heard how mother to child transmission of HIV can be prevented, 238 said chemotherapy, 42 vaccinations and 11 traditional-therapies. And again 22 participants said mother-to child transmission of HIV could be prevented by both chemotherapy and vaccination.

Three hundred forty five (96.9%) of study subjects think that all children born from HIV infected women would be infected by HIV and seventy two (20.2%) think ARV prophylaxis can absolutely prevent mother-to-child transmission of HIV. Regarding termination of pregnancy 24(7%) of total interviewee had wanted to termnate their pegnancy before it is viable fetus. In terms of breast feeding, 233 women prefer to exclusive breast feeding to feed their babies, while the other 92 women chose exclusive formula feeding, and 14 mixed feeding. With respect to the desired number of additional children 275(77.2%) need to have no more pregnancy and the rest 81(22.8%) need to have more pregnancy in the future(Table 3).

All of the 356 HIV positive women were asked about the reason for which many other pregnant women following ANC will not be voluntary to provide blood samples for HIV testing. They mentioned 41(11.5%) they assume themselves no risk of HIV, 86(24%) do not like to give blood at all , 22(6.2%) afraid of the consequences(in the community) of knowing that they might be positive , 102(28.7%) did not want respond , 15 (4.2%) afraid of coping with positive HIV status , and the remaining 90(23.3%) mentioned different reasons (table 2).

Table 2: knowledge, perceptions and attitude towards PMTCT/ART, south Wollo zone, east Amhara Region, April, 2011 (N=356).

Variables	Frequency	Percent
Supporting the idea that every pregnant woman should be tested for HIV		
Yes	304	85.4
No	17	4.8
Not sure	6	1.7
No responding	29	8.1
Have ever heard of MTCT of HIV		
During pregnancy, delivery and breast feeding	246	69.1
MTCT only during pregnancy	87	24.4
MTCT only during delivery	14	3.9
MTCT only during breast feeding	9	2.5
How MTCT of HIV can be prevented?		
Chemotherapy	238	76
Vaccination	42	13.4
Others	33	10.5
All children born from HIV infected woman will be infected by HIV		
Yes	345	97
No	11	3
Did ARV prophylaxis absolutely prevent MTCT of HIV?		
Yes	72	20
No	284	80
Desire of future pregnancy		
Yes	81	22.7
No	275	77.3

5.4 HIV test result disclosure/notification

From all respondents, 247(69.4%) of their husbands/partners tested for HIV and of which, 186(75.3%) were HIV positive and 61(24.7%) were negative. 109(30.6%) did not tested for HIV for different reasons.

Three hundred and seventeen (89.0%) of the women had disclosed their HIV status to anyone. 213(67.2%) disclosed to their husband/sexual partner/, while the rest 104(32.8%) of the women disclosed to their family members and friends (Table 3).

Table 3: HIV test result disclosure, south Wollo zone east Amhara Region, April, 2011

Variables	Frequency	Percent
Husband/partner/ tested for HIV (n=356)		
Yes	247	69.4
No	109	30.6
HIV tested result (n=247)		
Positive	186	75.3
Negative	61	24.7
Result disclosure/notification (n=356)		
Yes	317	89
No	39	11

5.5 Factors affecting ARV prophylaxis uptake

Out of total respondents in this study, 20.2% of them did not start antiretroviral prophylaxis or antiretroviral therapy due to different factors. Some of these factors they stated were; they did not come to health institution, they did not know when to start antiretroviral prophylaxis, refusal of husbands and no antiretroviral drugs were available in the health facilities (Figure 1).

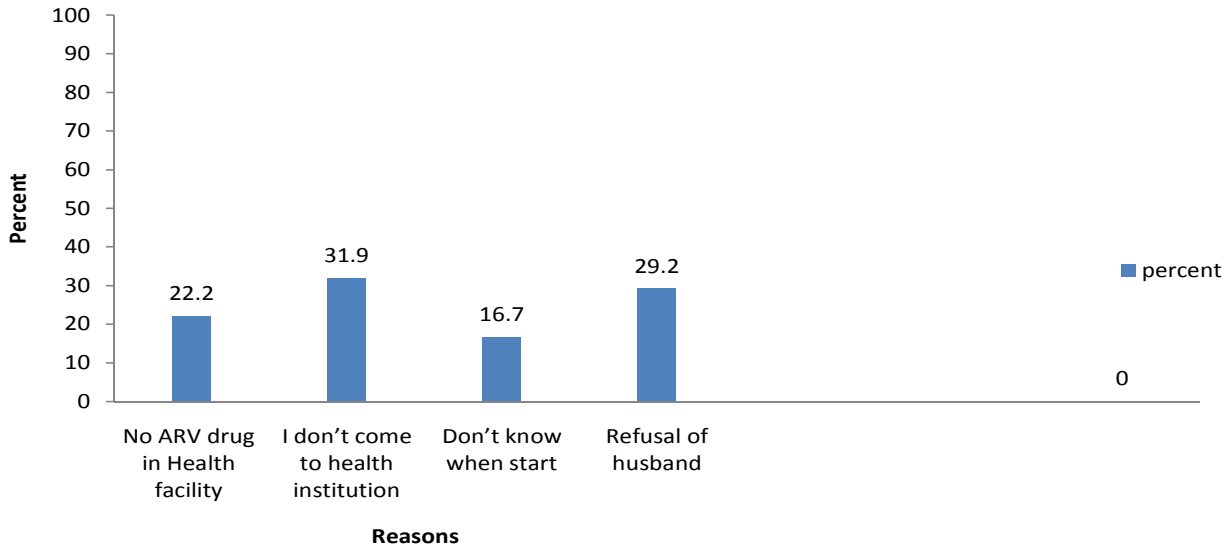


Figure 1. Reasons of HIV infected pregnant women who didn't take ARV prophylaxis at their 28 weeks of gestational age, south Wollo zone east Amhara Region, April, 2011(N=72)

Following husbands/sexual partners HIV testing, 107(30.0%) of women's husbands/sexual partners did not test for HIV. Refusal was the main barrier for not testing (Figure2).

Figure 2: Reasons showing HIV positive pregnant womens' husbands/partners did not tested for HIV, south Wollo zone east Amhara Region, April, 2011 (N= 107).

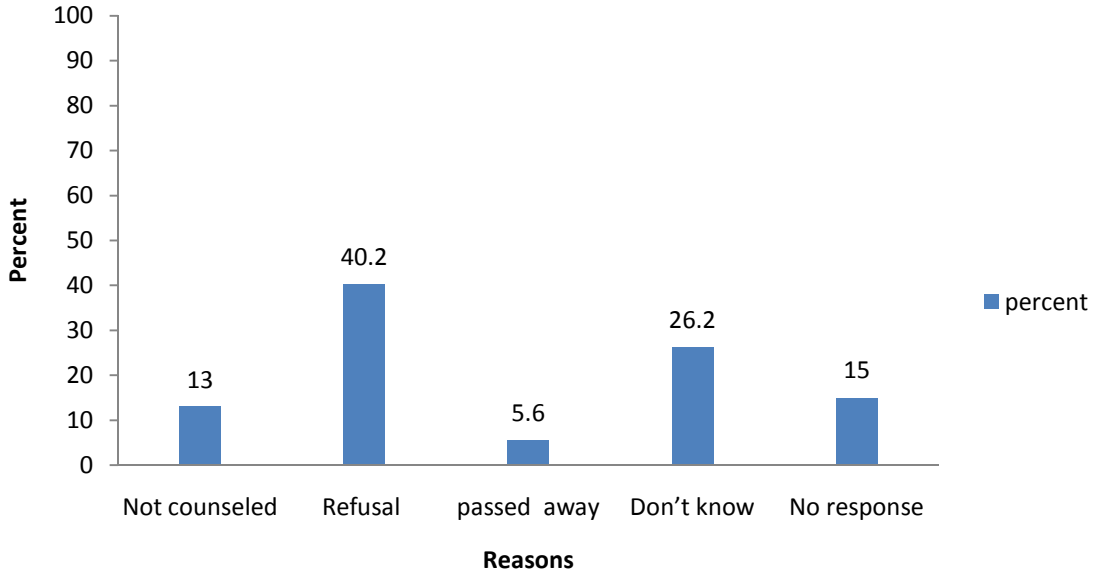


Table 4: Crude odd ratio and P-value of Socio -Demographic Variable

Variable		P-value	COR
Residence address rural		0.71	0.91(0.56,1.5)
age		0.21	1.0.
	1	0.41	1.2(076,1.90)
	2	0.62	1.20(59,2.44)
	3	0.018	1
Religion			
	Orthodox	0.063	**7.16(0.89,56.98)**
	Muslim	0.044	**8.48(1.06,67.97)**
	Others	0.11	1
Martial Status			
	Married	0.27	1
	Single	0.11	**0.29(0.06,1.35)**
	Others	0.68	**0.9(0.52,1.5)**
Education			
	Unable to read & write	0.29	**0.74(0.43,1.29)**
	Primary	0.17	**0.70(0.43,1.16)**
	Secondary & above	0.36	1
Occupation			
	unemployed	0.57	0.81(.39,1.66)
	House wife	0.42	0.76(.40,1.44)
	Gov't employee	0.77	1
Income			1
		0.32	1.31(0.77,2.25)

Table 5. Crude odd ratio and P-value of Knowledge and attitude related variables

Variables	p-value	COR
-Disclose of HIV test result	0.63	1.14(0.6,1.98)
	0.005	1
-Know MTCT of HIV	0.73	1.24(0.35,4.4)
		1
-Know MTCT of HIV	0.32	1
during pregnancy	0.086	**2.07(1.06,4.0)**
-MTCT during delivery	0.61	1.34(0.44,4.11)
-MTCT during delivery	0.43	1
-MTCT during	0.58	1.49(0.37,6.01)
breast feeding	0.44	1
-Knowledge heard how MTCT	0.94	0.097(0.51,1.86)
can be prevented	0.63	1
-Chemotherapy	0.62	0.89(0.58,1.38)
mentioned	0.63	1
-Vaccination	0.29	**1.42(0.74,2.69)**
Mentioned	0.58	1
-Traditional therapy	0.41	0.60(0.18,2.0)
mentioned	0.57	1
-Didn't know	0.16	**4.5(0.53,37.9)**
how MTCT can	0.13	1
prevented		
-Other Mentioned	0.68	1.3(0.37,4.5)
	0.51	1
-Support the idea	0.47	1.0(0.99,1.01)
that every pregnant		

Continued…

woman treated for	0.002	1
HIV		
-Partner testing	0.591	0.96(0.86,1.09)
for HIV	0.123	1
-HIV test result of	0.29	1
husband/sexual partner	0.65	**1.14(0.64,2.0)**
	0.11	0.18(0.02,1.5)
	0.34	1.77(0.54,5.79)
-Do you think all children	0.16	**2.44(0.71,8.5)**
born from HIV positive		
woman infected by	0.065	1
HIV		
-Think ARV prophylaxis	0.138	1
absolutely prevent	0.47	1.17(0.76,1.82)
MTCT	0.089	0.26(0.05,1.23)
-Is there reasons that would	0.107	**0.87(0.74,1.03)**
prevent HIV positive	0.77	1
pregnant woman from		
taking ARV drug		
during pregnancy		
-There is reason that	0.57	0.99(0.97,1.01)
prevent taking		1
ARV drug		
-Breast feeding option	0.61	0.99(0.97,1.0)
	0.01	1
-Future pregnancy	0.55	1.16(0.7,1.94)
	0.21	1

Selected variables from table 4 and 5 with p-value less than 0.3 have taken to multiple logistic regresssion analysis to see significant associations between dependent and independent variables (table 6)

Table 6: Variables associated with up take of ARV prophylaxis among HIV-positive pregnant women, south Wollo zone east Amhara Region, April, 2011

Variables	ARV prophylaxis uptake		P-Value	COR	AOR 95%CI
	Yes (n=151)	No (n = 205)			
Education					
Unable to read and write	51 (33.8%)	55(26.8)	0.29	0.74(0.43.1.295)	1.31(0.67,2.54)
Primary	40 (26.5%)	58(28.3%)	0.17	0.70(0.43,1.14)	1.3(0.68,2.53)
Secondary and above	60(39.7%)	92(44.9%)	0.36	1.000.	
Religion					
Orthodox	83(55%)	116 (56.8%)	0.063	1.000.	**10.24(1.21,86.4)**
Muslim	67(44.4%)	79 (38.5%)	0.044	0.29(0.06,1.35)	**13.56(1.58,116)**
Others	1(0.7%)	10 (4.9%)	0.114	0.9(0.52,1.5)	
Martial Status					
Married	121(59.9%)	92 (61.7%)	0.27	1.00.	
Single	52 (34.9%)	75(37.1%)	0.114	0.29(0.06,1.35)	0.316(0.03,3.29
Others	5(3.4%)	6(3%)	0.68	0.9(0.52,1.5)	0.93(0.47,1.85)
Do you have regular means of income					
Yes	26(17.2%)	125(82.8%)		1.000.	
No	44(21.5%)	161(78.5%)	0.32	1.31.(0.77,2.25)	1.39(0.65,2.9)
Do you know MTCT during pregnancy?					
Yes	30(19.9%)	57(27.8%)		1.00.	
No	121(80.1%)	148(72.2%)	0.086	1.55(0.94,2.6)	**2.07(1.06,4.05)**
Is there vaccination to prevent MTCT					
Yes	21(13.9%)	21(10.2%)		1.42(0.74,2.69)	
No	130(86.1%)	184 (89.9%)	0.29	1.000.	1.10(0.49,2.46)
I don't know how MTCT can be prevented					
Yes	1(0.7%)	6(2.9%)		1.000.	
No	150(99.3%)	199(97.1%)	0.16	4.52(0.54,37.9)	0.13(0.014,1.16)
Do you think all children born from HIV positive woman will be infected By HIV?					
Yes	144(95%)	201(98%)		1.000.	
No	7(4.6%)	4(2%)	0.16	2.44(0.70,8.50)	2.72(0.38,19.08)
Is there any reason that would HIV Positive pregnant woman from taking ARV drug during pregnancy					
Yes	55(36.4)	79(38.5%	0.138	1.000.	
No	94(62.3)	115(56.1%)	0.474	1.17(0.76,1.82)	1.04(0.59,1.83)
Not Sure	2(1.3)	11(5.4%)	0.089	0.26(0.05,1.23)	0.19(0.04,1.12)
Result of partner test HIV test result of women's' husband /sexual partner					
Positive	55(36.4%)	104(70.7%)	0.29	1.000.	
Negative	28(23.7%)	31(21.1%)	0.65	1.14(0.64,2.06)	0.99(0.52,1.89)
Don't know	1(0.8%)	7(4.8%)	0.11	0.18(0.02,1.5)	**0.08(0.01,0.80**
No response	7(5.9%)	5(3.4%)	0.34	1.77(0.54,5.79)	2.24(0.56,9.16)

As indicated in table 6, multiple logistic regression analysis shows that, who were orthodox in religion were 10.24 times more likely not to(less likely) take antiretroviral prophylaxis with AOR 10.24(1.21, 86.4). While being Muslim 13.56 times more likely didn't take antiretroviral prophylaxis.

Those who said that, HIV cannot be transmitted during pregnancy were 2 times more likely not to take antiretroviral prophylaxis with AOR 2.07(1.06, 4.05).

Those who did not know HIV-sero-status of their husbands were found 0.08 times less likely to take antiretroviral prophylaxis.

All other variables did not show statistically significant association with antiretroviral prophylaxis

5.6 Qualitative data finding/ In-depth interview summary result/

A: Measures to scale up PMTCT/ARV prophylaxis uptake coverage

1. **Awareness creation**

All most all interviewees in one group suggested that "PMTCT is an issue of infant/child investment. It should be the responsibility of every individual. All people do awareness creation, advocacy, open discussion and involve in decision making.

2. **Strengthen and scale up ANC interventions.**

"Early HIV testing and counseling in antenatal and delivery care settings, ART for pregnant woman eligible for treatment, ARV prophylaxis for MTCT prevention, safer obstetric practices, and infant feeding counseling are the mandatory to implement PMTCT activities effectively."

3. Sustainable Health Education – Community and facility based education, community conversation, peer group discussions /mother support groups (MSGs)/ and act as friendly manner among pregnant woman. Mother support groups are familiar to PMTCT activities, cost-effective and successful in promoting ARV prophylaxis uptake & facility-based deliveries.

B. Factors influencing PMTCT/ARV uptake

Accessibility – there was not ART/PMTCT center in their surroundings/nearby health institution/ for those who live in rural area. Financial deficit and availability of transportation means were repeated complaints of the clients.

In general, no ANC visit , lack of early awareness and HIV testing ,stigma &discrimination and assuming themselves as no HIV risk are most basic reasons frequently observed in which clients did not start ARV prophylaxis at appropriate time. / District PMTCT services coordinator/.

-Some clients complained on quality of care, professional competencies and flow of services was not integrated and time consuming.

C. Husband/sexual partner involvement in PMTCT/ARV activities

Husbands support their wives to use PMTCT service: Most of the HIV- positive pregnant women's husbands support their wives to use PMTCT services. Most clients said that "it is my husband who gave me money, he gave me psychological and social support, go health facility together: he supports me in many ways. No matter they were HIV positive or negative".

There were some women and more husbands/sexual partners who knew their HIV status and initiated ART, but hide their status from their partners, because they did not want disclose their condition and most of them were urban dwellers. Most women complained that the source of infection was their husbands. Both group of in-depth interviewee were summarized as:

-Stigma and discrimination is not an importance barrier for HIV-positive women to access the PMTCT services in area/study area/.

-Most of the respondents said that '' we did not use condoms, because, sometime we had no condom to use, I did not like it, no benefit later more because I already infected".

-"Most of the women did not refuse the use of PMTCT services".

-"Most women believed in and followed the health professionals' suggestion".

-Most HIV infected pregnant women think ARV prophylaxis to safe their child than ART.

6. Discussion

ARV prophylaxis is the main gateway in PMTCT service in preventing the transmission of HIV from infected mother to her child. This study has tried to assess the uptake of antiretroviral prophylaxis in HIV-positive pregnant women at five health facilities in south Wollo Zone.

Higher proportions of study had secondary and above educational level and this finding conform the reports from the same study in Kenya(19), which reported that uptake of ARV prophylaxis increases significantly with increasing level of education and the same report of that, majority of study groups had no means of income.

In this study¸ among all HIV-positive pregnant women, 42.4 % of HIV infected pregnant women had started antiretroviral prophylaxis at 28 weeks of their gestational age. Among all the respondents, 28.4% are on life long antiretroviral therapy. 20.2% of the clients did not take due to different reasons. This magnitude of uptake indicates high when national ARV prophylaxis coverage is considered (16). Relatively, high uptake of antiretroviral prophylaxis rate in this study has positive implication in the prevention of HIV transmission from women to their child. These levels of uptake of ARV prophylaxis indicated that, accessibility of ANC/comprehensive PMTCT services, people's awareness and knowledge towards HIV/AIDS and peer group discussion at study health facilities. As participants discuss with their peer group/mother to mother support group/, they obtained more information about the benefits and way of antiretroviral prophylaxis uptake, which in turn helps them to start antiretroviral drug at their appropriate gestational age and again they inform to other similar cases. Additionally, these finding imply that access to and utilization of reproductive health services help pregnant women living with HIV in taking their ARV prophylaxis. But this finding was low as compare to similar study done on uptake of antiretroviral prophylaxis in some African countries. In Zambia, for instance, 47.4% of the study subjects started ARV prophylaxis at 28weeks of gestational age. 41% in Coted'ivoire, 57% in Lesotho, and much lower than Botswana (95%). And it was higher than Nigeria 10 and India 36 percent respectively.

Majority (more than seventy percent) of the participants had information about HIV/AIDS, know the ways of transmission, how to prevent and benefits of HIV test result disclosure to partner were associated with high awareness and acceptance of PMTCT services.

How women perceive the ways of transmission of HIV, from the answers of respondents, 66.3% of them know HIV/AIDS is a contagious disease, could be transmitted during pregnancy, labor and delivery as well as during breast feeding.
Those who said HIV can not be transmitted during pregnancy were two times more likely not to take ARV prophylaxis.

Of all 356 pregnant women with HIV in this study, twenty four (7%) chose to terminate pregnancy. Similar study done inYining, China shown 5% of the study subjects and in the USA found that while 29% of HIV positive women acknowledge a desire for children, 31% of those women did not intend to have children. Women who intended to have children had fewer previous births than others. In Hong Kong, if HIV confirmed, 24% would terminate the pregnancy (27).

Among the women who desired future pregnancy, no one or only one to two children before, available of free ARV drugs and family pressure were the most important factors in their decisions. This finding was similar with that of study done in Zambia.

Research has shown that exclusive breast feeding is more feasible and beneficial to the infant in low income countries and has reduced risk of HIV infection (11,19). However, in this study, (65.5%) of women prefer to exclusive breast feeding to feed their babies, while the other (25.8) of women chose exclusive formula feeding, and (3.9%) mixed feeding. This indicated that study participants have better understanding of HIV transmission, in which mixed feeding and prolonged duration of breast feeding, as other risk for mother to child transmission of HIV.

Male involvement was found to be low in countries like Kenya, Tanzania, Zimbabwe, Zambia and similar condition in Ethiopia. However, where men were involved, there was high uptake of PMTCT interventions, low stigma, high number of disclosure and low domestic violence. Lack of male involvements leads to low HIV testing for and low uptake of PMTCT. Some of the reasons for men not getting involved was lack of information fear of HIV results and that the services are more feminine than inclusive. In this study, shown better male partners involvement; supporting PMTCT activities, low stigma, high disclosure rate. This could be due to intimacy of partner, good relationship, sharing of responsibilities and feelings with each other.

In this study, 69.4% of women's husbands/sexual partners have been tested for HIV with their wives/sexual partners. Not knowing the sero-status of husbands was found to be protective with AOR of 0.08(0.01, 0.80). This may be due to lower number of women reported didn't know the sero-status of their husbands. The disclosure by women of their HIV test result to husband/partner and significant others should be encouraged to get tested and improve the overall efficacy of prevention programs. The other important finding in this study was, 89% of study subjects were disclosed their HIV result to their husbands/sexual partners, family members and friends. This could be due to intimacy of partners/families, strength of their relationship, feeling of the responsibility, sources of information, knowledge about HIV/AIDS and accessibility of services which in turn caused to disclose their status. This is very important opportunity for the study area to prevent HIV infection of the husbands/sexual partners with a discordant sero-status and women who disclosed their HIV status are more likely to receive PMTCT/ARV services; which in turn reduces mother to child transmission of HIV moreover helps to trace other HIV at risk population. Similar study done in Rakai, Uganda(2010), 66.7% of HIV positive women, and the lowest rate among pregnant women tested in ANC in Sub-Saharan Africa(16.7-32%) were disclose their HIV sero-status, much lower than developed world(86-98%).

Different studies revealed that uptake of ARV prophylaxis is affected by multiple factors ; such as age, level of education, socio-economic status, culture , misconceptions to HIV/AIDS, occupation and marital status (18,19, 22,). Unlike other studies, occupation, educational status, income, age and marital status were not significantly associated with ARV prophylaxis uptake in this particular study. This could be related to the effect of confounders. Confounders might have masked the real relationship between uptake of ARV prophylaxis and some of these variables. Moreover, result of multivariate analysis for some variables that predicted ARV prophylaxis uptake in this study has wide confidence interval, which might be related to the limitation in the study design used. Cross-sectional studies are less effective in determining associations between variables.

The antenatal care is the first step to access PMTCT services for pregnant women, because they will not be covered by the PMTCT/ARV services if pregnant women did not use the antenatal care system. In prevention of mother-to-child transmission of HIV, the antenatal care system is crucial. If the pregnant women come to health institution earlier, they could know their HIV status earlier, and can have enough time to know their HIV clinical and immunological status and make the decision whether to initiate antiretroviral therapy or start ARV prophylaxis at their appropriate gestational age. Otherwise, they will miss the opportunity to take the medicine.
PMTCT service is not expanded and not integrated in to the existing maternal and child health structure for ARV prophylaxis to be implemented well, especially those who live far from health facilities in which comprehensive PMTCT service implemented and most male partner not integrated in to the services, furthermore, antenatal care visit by health care services is not also widely common (15).

In in-depth interview, one PMTCT coordinator stated that: 'most of the clients have no money to go to health facility and do prenatal care.' Other factor, some of them did not go to health institution because they feared being disclosed. In addition most of the pregnant women who have history of at risk of HIV did not want to have antenatal care visits.

Causes why HIV-positive pregnant women did not take ARV prophylaxis found in this study, were unable to go to health facilities, clients did not know when ARV prophylaxis started, refusal of husbands/sexual partners, no ARV drugs available, and fear of being identified as people living with HIV/AIDS /PLWHA/ by people and not PMTCT/ARV services centre nearby at their surroundings. This shows that there is a gap in dissemination of information, mass education, awareness creation, community participation/involvement, and generally, limitation of HIV/AIDS prevention strategies which can lead to poor access utilization of PMTCT services. Different researches also showed that HIV-positive women lack credible information on reproductive health limited their access to comprehensive PMTCT services.

As studies shown in most Sub-Sahara African countries, stigma and discrimination on HIV/AIDS has been a challenge to uptake of testing and uptake of interventions to PMTCT services (15, 19, and 20). However, from this finding, it was not a prominent barrier to implement PMTCT activities

To achieve virtual elimination of new child infections, effective prevention of MTCT requires a comprehensive approach that combines multiple interventions and PMTCT program must achieve high coverage of more effective ARV interventions to HIV-positive pregnant women. The extent of risk, MTCT, to the fetus and infant from ARV prophylaxis will likely vary by duration of uptake as well as number of drugs to which the mother took during antenatal care visits.

Additionally, as stated in qualitative study, access to information, peer group discussion and services accessibility were main contributing factors to the achievement of ARV prophylaxis uptake. Over all, increase in the public awareness of HIV prevention, changing attitude of people toward this illness and integrated and quality of ANC/PMTC care could have also contributed to the increased uptake of ARV prophylaxis for HIV infected pregnant woman in the population. The decline in the prevalence of HIV among pregnant women and their child could be a sign of the overall decline in the prevalence of HIV in this population.

Generally, In Ethiopia, heavy workload, lack of access to health services, poverty, poor Utilization of PMTCT Services among Pregnant women in social status and decision-making power, and lack of access to education are among the highly prevalent socio-cultural factors that potentially affect the health of women.

As mentioned in the quantitative and qualitative study of this research, the person who made the decision in the family was husband; men should have power in the family. Women were economically dependent. Most women in this research do not have any means of income; they could not earn money outside. Most of their lives were supported by their husbands, this could be the main reason, women more expose to HIV infection. Even though, most of the HIV-positive pregnant women's husbands supported their wives to PMTCT services.

As stated in in-depth interview of this study, most women complained that the source of infection was their husbands. Similar study shown in China (27), that, when women were asked how they though about their husbands infecting them with HIV, several women complained their husbands/sexual partners, but they did not want to divorce him**.**

7. Strength of the study

-The study is relevant and identified the magnitude and extent of zidovudine ARV prophylaxis uptake.

-Since no similar study done in the country, it can contribute as baseline information and reference for future investigations that examine level of ARV uptake, male involvement and detail reasons associated with PMTCT activities.

-It may be an entry point and basic asset to redesign program cycle for scale up and quality of PMTCT/ARV services coverage.

8. Limitations

- Collecting data within the given period of time was the big challenge.
- Difficult to establish temporal relationship due to cross-sectional nature of the study.
- Insufficient reference for zidovudine ARV prophylaxis uptake compared to nevirapine.
- Since the study was facility-based study in towns, in which comprehensive PMTCT activities were implemented, it may not be representative of the population as a whole.

9. Conclusions

- Based on the finding accessibility of comprehensive PMTCT services, mother to mother peer group discussion, and knowledge of HIV positive pregnant women about MTCT have paramount benefits in effective implementation of ARV prophylaxis uptake.

- From those study participants, who did not start antiretroviral prophylaxis at their 28 weeks of gestational age, the major barriers to utilizing antiretroviral services were not ANC visit and refusal of husbands/sexual partners

- Stigma and discrimination of HIV positive pregnant women by husband/sexual partner, family, and community was not consider as a barrier for ARV prophylaxis as stated in different studies.

- Uptake of antiretroviral prophylaxis by study subjects increase with increasing their level of education

- Most husbands/sexual partners of study subjects encourage their wives to use the PMTCT/ARV services, no matter they were tested for HIV or not. This was one positive factor influencing the behavior of HIV positive pregnant women to start antiretroviral prophylaxis at their appropriate gestational age.

10. Recommendation

- From the finding of this research, antenatal care is the basic entry point to access PMTCT services. Institution based, quality of antenatal care should be provided to clients. Universal accessibility of PMTCT services should be settled. Mother Support Group (peer group) should be encouraged and the responsible body should generate means of income.

- More effort is needed to ensure that mothers are fully informed about the benefits of PMTCT/ARV prophylaxis. Even though strong commitment is needed on primary prevention of HIV among women of reproduction age, much of the national effort for PMTCT services has been focused on provision of ARV prophylaxis.

- Traditional leaders, community health workers and health extension workers should play an important role in mobilizing partners to increase male involvement and empower women in PMTCT/ARV services.
- Similar research should be done especially at community level.
- Interventions need to be designed to promote early ANC visit, HIV testing and early enrollment HIV infected pregnant women in to PMTCT/ARV services in any health facilities and link women to facilities from the lowest community to health centers and hospitals as a part of a continuum of services.
- Sustainable monitoring and evaluation on PMTCT/ARV services should be implemented.

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Annex -3 Questionnaire

Questionnaire prepared to collect information to assess the uptake of ARV prophlaxis among HIV women in South Wollo zone 2010.

Identification

01–health Institution ----------

02-ID Number (Code) ----------

03- Date of Interview ----------

04	time of start of interview Morning ___/ Hr: __ _/___ Min. Afternoon ___/Hr___/___min.	05	Time of finish of 1 interview _ __/Hr: ___ /___ Min.	

Section 1: Socio Demographic Characteristics and Background Information

#	Question Item	Response	Code No	Skip to
06	Residence address	Urban Rural	1 2	
07	How long did it take you to reach here?	-Hr----------Min----------		
08	How do you travel to PMTCT service center	- Foot - Animal (hourse back) - Bickel - Cart - Taxi/automobile - Other specify	1 2 3 4 5 77	
09	Age of the respondent	In years ----------		
10	Religion?	Orthodox Islam Catholic Protestant Other (Specify)	1 2 3 4 77	

11	Marital Status	Married Single –never married Separated Divorced Widowed I do not want t respond to this question	1 2 3 4 5 99	
12	Number of pregnancy	----------		
13	Number of deliveries	----------		
14	Number of alive children (if any)	----------m----------F----------		
15	Educational Status	Unable to read and write Only able to read and write Attended elementary school (Grades 1-6) Attended (Grades 7-10) Attended (Grades 11-12) Attended University/ College	1 2 3 4 5 6 7	
16	Occupation	Jobless (No job) Student House wife Government employee Farmer CSW House maid Daily laborer Other (specify)	1 2 3 4 5 6 7 8 77	
17	ethnicity	Amhara Oromo Tigre Afar Guragie Other/specify/----------	1 2 3 4 5 77	
18	Do you have regular source Of income?	Yes No	1 2	

Section 2: Knowledge, Perceptions and Attitudes towards PMTCT/ARV

#	Question Item	Response	Code No	Skip to
19	Do you notify /disclosure/ your result	Yes No	1 2	
20	If yes ,to whom	- Husband/ sexual partner/ - Children - Mother - Sister - Friends - Other specify ----------	1 2 3 4 5 77	
21	If no, why?	- Stigma /discrimination/ - Family conflict /husband - Not necessary to notify - Other specify ---------- - I didn't want to respond	1 2 3 77 99	
22	Did your husband /partner /support you in uptake of ARV prophylaxis	Yes No Do not know	1 2 9	
23	If yes how	- Drug adherence - Financial support - psychological support - ANC support - Other/ specify/	1 2 3 77	
25	How you ever heard of mother to child transmission	Yes No Do not know	1 2 9	
26	If yes which way			

NO	Response	1=yes	2=no	3= I am not sure		
	During pregnancy	1	2	3		
	During delivery	1	2	3		
	During breast feeding	1	2	3		
	Other /specify/		77			

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

	Response	1= Mentioned	2= Not mentioned
	Chemotherapy (ARV prophylaxis)	1	2
	Vaccination	1	2
	Traditional therapy	1	2
	I do not know	1	2
	Other (Specify)	77	

	for HIV testing? (Do not read the alternatives more than one response is possible)		Afraid of copping with positive HIV status	1	2	
			Afraid of the consequences (in the community) of knowing that they might be positive	1	2	
			Do not like to give blood at all	1	2	
			Have very little blood left	1	2	
			The religious faith does not permit it	1	2	
			Cannot specify any reason	1	2	
			I do not want to respond to this question	1	2	
			Others (Specify)	77		
		-				
36	Most of the time pregnant women did not want to go to health institution for ANC visit ,can you give your suggestion			1= Mentioned	2= Not Mentioned	
		Unawareness		1	2	
		Work over lode		1	2	
		Distance of health institution		1	2	
		Cultural /religious factor		1	2	
		Financial deficit		1	2	
		Incompetency of health institution		1	2	
		Other specify		1	2	
		No response		1	2	
37	Do you think all children born from HIV infected women will be infected by HIV?		Yes			1
			No			2
			I don't know			3
			I don't want to respond			9
						99
38	Do you think ARV prophyaxis can absolutely prevent MTCT of HIV		Yes			1
			No			2
			I don't know			9
			I don't want to respond			99
39	Have you ever initiated ARV prophyaxis		Yes			1
			No			2
40	If no, why	-	Drug side effect			1
		-	Poor adherence			2
		-	Lack of transport			3
		-	Drug out of stock			4
		-	Miss appointment			5
		-	Other specify			77
41	While you gave birth previously do have taken		Yes			1
			No			2

	ARV prophylaxis			
42	If yes' when	- During pregnancy - During delivery - During post natal - In all phase	1 2 3 4	
43	If no what was the reason	- Home delivery - For gotten - No ANC visit - I were not infected by HIV - No drug at hand - unawareness of drug viability - other specify	1 2 3 4 5 6 77	
44	Do you think that a pregnant woman who is HIV positive should abort her pregnancy?	Yes No Not sure I do not want to respond	1 2 9 99	
45	Ife yes why	Unintended pregnancy Possibility of HIV Positive Child birth Possibility of fetal death Couldn't give care after birth (Other specify) I don't wont to respond	1 2 3 4 77 99	
46	What is your feeling towards the message conveyed about HIV/AIDS by PMTCT staff?	Appropriate Inappropriate I don't want to respond to this question Other/specify/	1 2 9 77	
47	If the response is inappropriate/bad, why? (Do not read the alternatives. More than one response is possible)	No / Response / 1= Mentioned / 2= Not mentioned Contact time not enough / 1 / 2 Discussions are not elaborated well / 1 / 2 Horribly/terrifying picture emphasized / 1 / 2 Testing Procedure not comfortable / 1 / 2 I do not like to respond to this question / 1 / 2 Other (Specify) / 77		
48	Is there any reason that	Yes		1

	would prevent a woman from taking drug during pregnancy	No	2
49	If yes – what are the reason	- Unawareness - Transport (destance of PMTCT) - Financial deficiet - Partner refusal - Cultural influence - Othr specifiy ----------	1 2 3 4 5 77
50	Do you take (start) ARV prophylaxis	Yes No I do not want respond to this question	1 2 3
51	If the response is no, Why ?		

	Response	1= Mentioned	2= Not mentioned
	My GA is lees sane 28 weeks		
	I don't believe that ARV prophylaxis is effiective	1	2
	I am on ART	1	2
	Fear of being identified as PLWHA by people (husband, family. Or neighbor)	1	2
	Fear of Drug side effect	1	2
	I do not like to respond to this quesiton	1	2
	I don't want to take it No ARV drug I don't come to health center I don't know when it is started Refusal of my hasband /partner	1 1 1 1 1	2 2 2 2 2
	Other (specify)	77	

52	what motivated you to have HIV test	- Counselling /initated by provider at health facility visit/ - To know my status - to plan for marriage - partner pressure - (other specify)	1 2 3 4 77

53	what may motivate you to initiate and/or continue with ARV prophylaxis or treatment	- Counselling /initated by provider at health facility visit/ - To know my status - to plan for marriage - to safe my fetus/my child/ - Husband /partner/ pressure - Other specify	1 2 3 4 5 77	
54	How would be the best option for feeding an enfant born to HIV positive mother	- EBF - Stop BF and provide formula feding - Contini BF and provide formula fiding - Mix both BF as well as suplumentry feeding - Not sure - Other specify	1 2 3 4 6 77	

በአዲስ አበባ ዩኒቨርሲቲ ህክምና ፋኩልቲ የህብረተሰብ ጤና ት/ቤት በደቡብ ወሎ ዞን ኤች አይ ቪ በደማቸው በተገኘባቸው ነፍሰጡር ሴቶች ቫይረሱ ወደ ጽንሱ እንዳይተላለፍ ለማድረግ የሚወሰደውን የጸረ ኤች አይ ቪ መድሀኒት አወሳሰድና ምክንያቶች ጭምር ለማወቅ ለሚደረገው ጥናት መረጃ መሰብሰቢያ የተዘጋጀ መጠይቅ

<u>መለያ</u>

01- **ጤና ድርጅት**----------

02- **መለያ ቁጥር** ----------

03- **መጠየቁ የተከሄደበት ቀን** ----------

ተ.ቁ	መጠይቅ	ዝርዝር መልስ		የመልስ መለያ	ይለፍ
004	ጠይቅ የተጀመረበት ጊዜ ሰዓት----------ደቂቃ----------፡፡	005	የተጠናቀቀበት ጊዜ ሰዓት----------ደቂቃ---------፡፡		

ንዑስ ክፍል 1) **አጠቃላይ መረጃ**

ተ.ቁ	መጠይቅ	ዝርዝር መልስ	የመልስ መለያ	ይለፍ
06	**የመኖሪያ አካባቢ**	**ከተማ** **ገጠር**	1 2	
07	**እዚህ ጤና ተቋም ለመድረስ ምን ያህል ጊዜ ወሰደብ**?	----------		
08	**ወደ ህክምና መስጫ የሚመጡት በምንድን ነው**;	- **በእግር** - **በእንሰሳ/በፈረስ በቅሎ/** - **ሞተር ሳይክል** - **ጋሪ** - **መኪና** - **ሌላ ካለ ይጠቀስ**	1 2 3 4 5 77	

09	ዕድሜ ስንት ነው?	-		
10	ሐይማኖት ምንድን ነው?	ኦርቶዶክስ ክርስቲያን እስልምና ካቶሊክ ፕሮቴስታንት ሌላ (ይገለፅ)	1 2 3 4 77	
11	በአሁኑ ሰዓት የጋብቻ ሁኔታ እንዴት ነው?	ባለትዳር በፍፁም አግብቼ አላውቅም ከባለቤቴ ጋር ተለያይተን ነው የምንኖረው (ነገር ግን አልተፋታንም) ተፋትቻለሁ ባለቤቴ ከዚህ ዓለም በሞት ተለይቷል ለዚህ ጥያቄ መልስ መስጠት አልፈልግም	1 2 3 4 5 99	
12	የእርግዝና ብዛት	----------		
13	የወሊድ ብዛት	----------		
14	ልጆች ካለዎት ብዛታቸው ስንት ነው?	----------		
15	እርሶ ያጠናቀቁት ከፍተኛ የትምህርት ደረጃ ምንድን ነው?	ማንበብና መፃፍ አልችልም ማንበብና መፃፍ ብቻ እችላለሁ ከ1ኛ-6ኛ ክፍል ተምሬአለሁ ከ7ኛ-8ና ክፍል ተምሬአለሁ ከ9-12ኛ ክፍል ተምሬአለሁ ከፍተኛ ትምህርት ተምሬአለሁ	1 2 3 4 5 6	
16	መደበኛ ሥራ ምንድ ነው? ምንድነው?	የቤት እመቤት የመንግስት ሠራተኛ ገበሬ ነጋዴ	1 2 3 4	

		ሴተኛ አዳሪ የቤት ውስጥ ሰራተኛ (ተቀጣሪ) የቀን ሥራ ሌላ (ይገለፅ)	5 6 77	
17	ብሄር	- አማራ - ኦሮሞ - ትግሬ - አፋር - ጉራጌ - ሌላ ካለ	1 2 3 4 5 77	
18	ቋሚ የገቢ ምንጭ አለዎት;	- አዎ - የለኝም	1 2	

ንዑስ ክፍል 2 ኤች አይ ቪ ከእናት ወደ ልጅ መተላለፍን በተመለከተ ዕውቀት እሳቤና አመለካከት

ተ.ቁ	መጠይቅ	ዝርዝር መልስ	የመልስ መለያ	ይለ ፍ
19	እራስዎን/ውጤትዎን/ ለሌላ አሳውቀዋል	- አዎ - አላሳወቅኩም	1 2	
20	መልስዎ አሳውቄያለሁ ከሆነ ለማን	- ለባልተቤቴ - ለልጆቼ - ለእናቴ - ለእህቴ - ለጓደኞቼ - ሌላ ካለ ይገለጽ----------	1 2 3 4 5 77	
21	መልስዎ አላሳወኩም ከሆነ ለምን	- መድሎና መገለል ስለሚያመጣብኝ - ከባልተቤቴ ጋር ግጭት	1 2 3	

		ስለሚፈጥር - ማሳወቁ አስፈላጊ ስላልሆነ - መልስ መስጠት አልፈልግም - ሌላ ካለ ይገለጽ----------	4 5 77	
22	ባልተቤትዎ በመድሀኒት አወሳሰድ ላይ እገዛ ያደርግሎታል	- አዎ - አያደርግልኝም	1 2	
23	መልስዎ አዎ ከሆነ እንዴት	- በመድሀኒት አወሳሰድ ጥንቃቄ ላይ - የገንዘብ ድጋፍ - የስነልቦና ድጋፍ - የነፍሰጡር ክትልል ድጋፍ - ሌላ ካለ ይገለጽ----------	1 2 3 4 77	
24	የኤች አይ.ቪ ህዋስ ከሰው ወደ ሰው እንዴት እንደሚተላለፍ ሊነግሩኝ ይችላሉ?			

ዝርዝር ምርጫ	1= ተጠቅሟል	2= አልተጠቀሰም
በግብረ ስጋ ግንኙነት	1	2
መርፌ በመወጋት	1	2
ደም በመለገስ	1	2
በእርግዝና ወቅት ከእናት ወደ ጽንስ	1	2
በወሊድ ጊዜ ከእናት ወደ ልጅ	1	2
ጡት በማጥባት	1	2
እንዴት እንደሚተላለፍ አላውቅም	1	2
ሌላ (ይገለፅ)		

25	ኤች አይ ቪ ከእናት ወደ ልጅ እንደሚተላላፍ ሰምተው ያውቃሉ	አዎ አላውቅም	1 2
26	መልስዎ አዎ ከሆነ በምን ሁኔታ		

ዝርዝር መግለጫ	1= አዎ	2= አይደለም	3= እርግጠኛ አይደለሁም
በእርግዝና ወቅት	1	2	3
በወሊድ ወቅት	1	2	3
ጡት በማጥባት ወቅት	1	2	3

27	ከሆነ ኤች አይ ቪን ከእናት ወደ ልጅ እንዳይተላለፍ ማድረግ እንደሚቻል ሰምተው ያውቃለሁ?	አዎ ሰምቼ አላውቅም	1 2
28	መልስዎ አዎ የኤች አይ ቪን ህዋስ ወደ ጽንስ እንዳይተላለፍ ማድረግ የሚቻልበት መንገድ ካለ ሊነግሩኝ ይችላሉ?		

ተ.ቁ	ዝርዝር መግለጫ	1= ተጠቅሷል	2= አልተጠቀሰም
201	በዘመናዊ ህክምና መድኃኒት በመውሰድ	1	2
202	ክትባት በመውሰድ	1	2
203	በባህላዊ ሕክምና	1	2
204	ምንም አላውቅም	1	2
205	ሌላ (ይገለፅ)		

29	እያንዳንዷ ነፍሰጡር ሴት የኤች አይ ቪ ምርመራ ታድርግ የሚለውን ሀሳብ	አዎ አልደግፍም እርግጠኛ አይደለሁም	1 2 9

	ትደግፊያለሽ	ለዚህ ጥያቄ መልስ መስጠት አልፈልግም	99	
30	መልስ አዎ ከሆነ ባሎችሽ አብረው የኤች አይ ቪ ምርመራ ማድረግ አለባቸው?	አዎ የለባቸውም እርግጠኛ አይደለሁም	1 2 9	

ተ.ቁ	መጠይቅ	ዝርዝር መልስ	የመልስ መለያ	ይለፍ
31	ባለቤትሽ በኤች አይ ቪ ምርመራ ላይ ምን አይነት አለመካከት አለው?	አብረን እንድንመረመር ይፈልጋል እኔ እንድመረመር ይፈልጋል ለራሱ ግን ከይፈልግም እኔ እንድመረመር አይፈልግም ፈፅሞ በጉዳዩ ላይ መወያየት ኤፈልግም ለዚህ ጥያቄ መልስ መስጠት አልፈልግም	1 2 3 4 9 99	
32	ባልተቤትዎ ወይም የፍቅር ጓደኛዎ ኤች አይ ቪ ተመርምሯል	- አዎ - አልተመረመረም - አላውቅም - መልስ መስጠት አልፈልግም	1 2 9 99	
33	መልስዎ አዎ ከሆነ ውጤቱ ምን ሆነ	- ፖሰቲቭ - ኔጌቲቭ - አላውቅም - መልስ መስጠት አልፈልግም	1 2 9 99	
34	መልስዎ አልተመረመረም ከሆነ ለምን	- ካውንስል አልተደረገም - ፈቃደኛ አልሆነም - በህይወት የለም - አላውቅም - መልስ መስጠት አልፈልግም	1 2 3 9 99	
35	የጤና ክትትል የሚያደርጉ ነብሰጡር ሴቶች የኤች አይ ቪ ምርመራ ለማድረግ ፍቃደኛ	1= ተጠቅሷል 2= አልተጠቀሰም		

	የማይሆኑበት ምክንያት ምን ሊሆን ይችላላል ብለው ያስባሉ		ለኤች አይ ቪ የተጋለጡ መስሎ ስለማይታያቸው	1	2		
			ስለ ኤድስ አስከፊነት ለመወያያት ስለማይፈልጉ	1	2		
			ደም መስጠት ስለማይፈልጉ	1	2		
			ሌሎች ሰዎች በምርመራ ወቅት እንዳያዩዋቸው ስለሚፈሩ	1	2		
			ለመመርመር ከባልቤቴ ጋር መወያየት ስለሚያስፈልገኝ	1	2		
			የኤች አይቪን ሁኔታ ማወቅ ጥቅም ስለሌለው	1	2		
			በባህልና እምነት ተፅዕኖ ምክንያት	1	2		
			መድሎ እና መገለል ስለሚኖርብኝ		2		
			ሌላ ካለ ይገለፅ	77			
			መልስ መስጠት አልፈልግም	99			
36	አብዛኞቹ እናቶች ለነብሰጡር የጤና ክትትል ደወ ጤና ድርጅት አይመጡም ለምን ይመስልሻል	ባለማወቅ የስራ ጫና የበሽተኛ ብዛት ስላለ የጤና ድርጅቱ እርቀት የባህልና እምነት ተጽእኖ የገንዘብ እጥረት የባለሙያ ብቃት ማነስ መልስ የለኝም ሌላ ካለ ይገለጽ----------	1 2 3 4 5 6 7 9 77				
37	ሁሉም የሚወለዱ ህጻናት በኤች	- ይያዛሉ	1				

	አይ ቪ ይያዛሉ ብለው ያስባሉ	- አይያዙም	2	
38	ቫይረሱ ወደ ጽንሱ እንዳይተላለፍ የጸረ ኤች አይ ቪ መድሀኒት ሙሉ በሙሉ እንዳይተላለፍ ያደርጋል	- አዎ - አያደርግም	1 2	
39	የጸረ ኤች አይ ቪ መድሀኒት መውሰድ ጀምረው አቋርጠዋል	- አቋርጫለሁ - አላቋረጥኩም	1 2	
40	መልስዎ አቋርጫለሁ ከሆነ ለምን	- የመድሀኒት የጎንዮሽ ችግር - አወሳሰዱ ስላልገባኝና ትኩረት ካለማድረጌ የተነሳ - መድሀኒት ከጤና ድርጅት ለማምጣት የትራስፖርት ችግር ስላጋጠመኝ - መድሀኒቱ ስላለቀ - ቀጠሮ ስላሳለፍኩ - ሌላ ካለ ይገለጽ	1 1 1 1 1 1 1 1	2 2 2 2 2 2 2 2
41	ከዚህ በፊት ስትወልጂ ኤች አይ ቪ መከላከያ መድሀኒት ወስደሽ ነበር	- አዎ - አልወሰድኩም	1 2	
42	መልስዎ አዎ ከሆነ በምን ጊዜ	- በእርግዝና ጊዜ - በወሊድ ጊዜ - ከወሊድ በኋላ - በሁሉም ወቅት	1 2 3 4	
43	መልስዎ አልወሰድኩም ከሆነ ለምን	- ቤት ውስጥ በመውለዴ - ስለረሳሁ - የነብሰጡር ክትትል ስላለደኩ - መድሀኒት መኖሩን ስላላወኩ - ሌላ ካለ ይገለጽ	1 2 3 4 77	

44	ከኤች አይ ቪ ጋር የምትኖር ነፍሰጡር እናት ጽንሱን ማስወረድ አለባት ብለው ያምናሉ?	አዎ አላምንበትም እርግጠኛ አይደለሁም ለዚህ ጥያቄ መልስ መስጠት አልፈልግም	1 2 9 99	
45	መልሶ አዎ ከሆነ ለምን	ያልተፈለገ እርግዝና በመሆኑ በኤች አይቪ ተይዞ ሊወለድ ስለሚችል ሞቶ ሊወለድ ስለሚችል ከወለድኩ በኋላ ተንከባክቤ ማሳደግ ስለማልችል ሌላ ካለ ይገለፅ መልስ መስጠት አልፈልግም	1 2 3 4 77 99	
46	በዚህ ጤና ጣቢያ/ሆስፒታል የእናቶችና ሕፃናት እንክብካቤ ክፍል በኤች አይ ቪ ዙሪያ ስለሚሰጠው ትምህርት ይዘት እንዴት ያዩታል?	ጥሩ ነው መጥፎ ነው ለዚህ ጥያቄ መስጠት አልፈልግም ሌላ (ይገለፅ)	1 2 9 77	

ተ.ቁ	መጠይቅ	ዝርዝር መልስ		የመልስ መለያ	ይለፍ
47	መልስ መጥፎ ነው ከሆነ ምክንያቱን ቢገልጹልኝ (ከአንድ በላይ መልስ መስጠት ይቻላል ምርጫው ግን አይነበብም)	ዝርዝር መገለጫ	1= ተጠቅሷል	2= አልተጠቀሰም	
		ለውይይት የሚሰጠው ጊዜ በቂ ስላልሆነ	1	2	
		በጥልቀት ውይይት ስለማይደረግ	1	2	
		በኤድስ አስከፊ ገጽታ ላይ ስሊተኮር	1	2	
		የምርመራ ሂደቱ ምቹ ስላልሆነ	1	2	
		ለዚህ ጥያቄ መልስ	1	2	

		መስጠት አልፈልግም				
		ሌላ (ይገለፅ)				
48	ነፍሰጡር ሴቶች ኤች አይ ቪ ከእናት ወደ ልጅ እንዳይተላለፍ ለማድረግ የሚታዘዘውን መድሐኒት እንዳይወስዱ የሚከለክላችው ምክንያት አለ?	አዎ የለም እርግጠኛ አይደለሁም			1 2 9	
49	መልስዎ አዎ ከሆነ ምክንያቶቹ ምንድን ናቸው?(ከአንድ በላይ መልስ መስጠት ይቻላል)	አለማወቅ የትራንስፖርት ችግር የገንዘብ እጥረት የባለቤቴ ተቃውሞ የባህልና የእምነት ተጽእኖ ሰዎችን መፍራት ሌላ ካለ ይገለፅ			1 2 3 4 5 6 77	
50	ኤች አይቪ ከእናት ወደ ልጅ እንዳይተላለፍ የሚያደርገውን የፀረ ኤች አይቪ መድሃኒት መውሰድ ጀምረዋል?	አዎ አልጀመርኩም መልስ መስጠት አልፈልግም			1 2 99	
51	መልስዎ አልጀመርኩም ከሆነ ለምን ? (በርካታ መልስ መስጠት ይችላሉ)		1= ተጠቅሷል	2= አልተጠቀሰም		
		የመውሰጃዬ ጊዜ ስላልደረሰ (እርግዝናዬ 28 ሳምንት ስላልደረሰ)	1	2		

		መድሐኒቱ ውጤታማ ነው ብዬ ስለማላምን	1	2		
		ቋሚ የፀረ ኤች አይቪ መድሐኒት ስለምወስድ	1	2		
		መድሎና መገለል ስለምፈራ	1	2		
		የመድሐኒቱን የጎንዮሽ ችግር ስለምፈራ	1	2		
		መድሐኒቱን መውሰድ ስለማልፈግ	1	2		
		መድሐኒቱን ማግኘት ስላልቻልኩ	1	2		
		ጤና ድርጅት ስላልሔድኩ	1	2		
		መድሐኒቱ መቼ መጀመር እንዳለበት ስለማላውቅ	1	2		
		ባለቤቴ ስለተቃወመ	1	2		
		ሌላ ካለ ይገለፅ	77			
52	ኤች አይቪ ለመመርመር ምን አነሳሳሽ	በጤና ባለሙያ ካውንስል ስለተደረግኩ ምንነቴን ለማወቅ ለጋብቻ ባለቤቴ ስለገፋፋኝ ሌላ ካለ ይገለጽ			1 2 3 4 77	
53	ኤች አይቪ ከእናት ወደ ልጅ እንዳይተላለፍ	በጤና ባለሙያ ካውንስል ስለተደረግኩ የፀነስኩትን ልጅ ለመጠበቅ (ቫይረሱ እንዳተላለፍበት ለማድረግ			1 2	

	ለማድረግ የሚወሰደውን መድሐኒት ለመጀመርና በቀጣይም በተከታታይ ለመውሰድ ምን አነሳሳሽ	ባለቤቴ ስለገፋፋኝ ሌላ ካለ ይለጽ	3 77	
54	ከኤች አይ ቪ ጋር የምትኖ እናት ልጇን ለመመገብ ጥሩው መንገድ ምንድን ነው?	የእናት ጡት ወተት ብቻ አቅም ካለ ጡት ማጥባቱን አቁሞ የጡጦ ምግብ "formula food" መጀመር የመግዛ አቅም ከሌላት ጡቷን ብቻ ማጥባቷን መቀጠል ጡቷን እና የጡጦ ምግብ እያፈራረቁ መስጠጥ ምን እንደሚሻል እርግጠኛ አይደለሁም ለዚህ ጥያቄ መልስ መስጠት አልፈልግም ሌላ (ይገለፅ)	1 2 3 4 5 9 77	

አመሰግናለሁ

የመረጃ ሰብሳቢ ስም ----------ፊርማ ---------- ቀን ----------

የተቆጣጣሪው ስም ---------- ፊርማ ---------- ቀን ----------

Annex -

1.- Information sheet: - This sheet was to be read for the participants of the study.

Good morning / afternoon , my name is _____and I am one of the data collectors for the study being conducted by Addis Ababa University, college of health sciences on uptake of antiretroviral prophylaxis among HIV positive pregnant women in South Wollo Zone. You are selected to be participant of this study if you give me consent after you have understood the following information sheet:

Title of the study:- cross sectional study on uptake of antiretroviral prophylaxis among HIV positive pregnant women.

Background of the study: - HIV is one of the most serious health crises the world faces today. Globally, around 11% of HIV infections are among babies who acquire the virus from their mothers. Over nine – tenths of such transmission occurs in sub Saharan Africa including Ethiopia.

Objective of the study:- to assess the uptake of antiretroviral prophylaxis among HIV positive pregnant women in South Wollo, North East Ethiopia.

Benefit of the study: - The participant will not get any direct benefit for being participant.

- The result can be used as a baseline for further studies that could be done in this zone.
- The result will be used to design prevention and control measures of the disease.
- The result will be disseminated to the zonal health department & regional health bureau.
- Any body that was found to be sick during the survey, information was given to visit the nearby health institution.

Harm of the study:- the study has no any harm except that participant spend up to 33 minute for the interview.

Right of the participants:-

- Participation was the full right
- No participating was the full right
- The participant could stop participating in the study at any time.
- The participant could skip question which she did not went to respond
- During the interview, the participant could ask questions which were not clear

Confidentiality: - the secrecy of any information forwarded was maintained.

1. <u>የጥናቱ መግለጫ</u>

(መረጃ ለመስጠት ለሚሳተፍ ግለሰቦች የሚነበብ)

ጤና ይስጥልኝ እንደምን አደሩ/ ዋሉ? ስሜ_____ይባላል፡፡

የመጣሁት ከ_____ሲሆን ኤች አይቪ በደማቸዉ ዉስጥ በተገኘባቸዉ ነፍስጡር ሴቶች ቫይረሱ ወደ ድንሱ እንዳይተላለፍ ለማድረግ የሚወስደዉን የፀረ ኤች አይቪ መድሐኒት አወሳሰድ ላይ በአዲስ አበባ ዩኒቨርስቲ ጤና ሳይንስ ኮሌጅ ለሚካሄደዉ ጥናት መረጃ በመሰብሰብ ላይ ከሚገኙት መካከል አንዱ/ዶ ነኝ እርሶዎ ከዚህ በታች የማነብለዎትን የጥናቱን መግለጫ ተገንዝበዉ ፍቃደኛ ከሆኑ መረጃ በመስጠት የዚህ ጥናት ተሳታፊ እንድሆኑ ተመርጠዋል

<u>የጥናቱ ርእስ</u>፡ ኤች አይቪ በደማቸዉ በተገኘባቸዉ ነፍሰጡር ሴቶች ቨይረሱ ወደ ፅንሱ እንዳይተላለፍ ለማድረግ የሚታዘዘዉን የፀረ ኤች አይቪ መድሐኒት አወሳሰድ፡፡

<u>መግቢያ</u> ፡ በአሁኑ ወቅት አለምን ከተጋፈጡበት አደጋዎች ኤች አይቪ አንዱና ዋነኛዉ ነዉ በአለም ላይ 11 የሚሆነዉ የበሽታዉ ስርጭት ቫረሱ በእናታቸዉ ምክንያት የሚተላለፍባቸዉ ህፃናት ናቸዉ ቫይረሱ ከእናት ወደ ልጅ ከሚተላለፍዉ ከአስሩ ከዘጠኝ በላይ የሚሆነዉ ኢትዩጲያን ጨምሮከሰሀራ በታች ባሉት ሀገሮች ነዉ ፡፡

<u>የትናቱ ዓላማ</u>፡ ኤች አይቪ ቫይረስ በደማቸዉ በተኘባቸዉ ሴቶች ቫይረሱ ወደ ፅንሱ እንዳይተላለፍ ለማድረግ የሚታዘዘዉን የፀረ ኤች አይቪ መድሐኒት አወሳሰድ ማወቅ

<u>የጥናቱ ጥቅም</u> ፡ ተሳታፊዎች ተሳታፊ በመሆናቸዉ የሚያገኙት ምንም ጥቅም የለም

- ከዚህ ጥናት የሚገኘዉ ዉጤት በዞኑ ለወደፊት ለሚጠኑ ተመሳሳይ ጥናቶች እንደመነሻ ግብአት ያግለግላል፡፡
- የጥናቱ ዉጤት በሽታን ለሚከላከልና ለመቆጣጠር የሚያስችሉ መፍትሄዎችን ለመንደፍ ይጠቅማል ፡፡
- የጥናቱ ዉጤት ለደቡብ ወሎ ዞን ጤና መምሪያና ለአማራ ክልል ጤና ጥበቃ ቢሮ ይገለፃል፡፡
- ይህ መረጃ በሚሠበሠብበት ወቅት የታመመ ሰዉ ከተገኙ በቅርብ ወደ ሚገኝ ጤና ተቋም ሄደ እንድታከም ምክር ይሳጣል፡፡

<u>የጥናቱ ጉዳይ</u> ፡ የቃለ መጠይዉ ተሳታፊዎች ከ25 እስከ 33 ደቂቃ የሚደርሰ ጊዜ ከማባከን ዉጭ በጥናቱ ተሳታፊ በመሆናቸዉ የሚደርስባቸዉ ምንም አይነት ጉዳይ የለም

የቃለ መጠይቁ ተሳታፊዎች መብት

ከዚህ ጥናት መሳተፍ ሙሉ መብት ነዉ

በዚህ ጥናት አለመሳተፍ ሙሉ መብቶች ነዉ በመሳተፍ ላይ እያሉ በማኘኛዉም ሰዓት ማቋረጥ ይቻላል ከጥያቄዎቹ ዉስጥ ለመመለስ የማይፈልጉትን ጥያቄ አለመመለስ ይቻላል፡፡

በቃለ መጠይቁ ወቅት ግልፅ ያልሆነን ነገር መጠየቅ ይቻላል፡፡

የጥናቱ ሚስጥራዊነት ፡ የተሳታፊዉ ማንነት በሚስጥር ይያዛል ጥያቄ አለዎት?

አመሠግናለሁ!

2. Informed consent form

I --------have well understood the study information sheet read above.

And now I am in a position -------- to participate in the study by giving information.

To be voluntary ⟶sign below and conduct interview

Not to be voluntary⟶ go to the next client

Signature of the interviewer **----------**

(Signature of the interviewer certifies that informed consent has been given verbally by the respondent)

Questionnaire identification number _____

Name of the Interviewer _____Signature_____date _____

Name of the supervisor _____Signature _____date _____

Address of the investigator:

- Mob. =0914-71-65-27

-email = Al.hus99@Yahoo.Com.

For further question/ information use the address of the IRB medical faculty:

-Addis Ababa University, Faculty of medicine

-Phone number= 011-5-53-87-34

-email= aaumfirb@yahoo.com

2. የፍቃደኝነት መጠየቂያ ቅጽ

እኔ---------የጥናቱ መግለጫ ተነቦልኝ/አንብቤ እና ተገንዝቤ መረጃ በመስጠት የጥነቱ ተሳታፊ ለመሆን:-

ፍቃደኛሁኛለሀ ⟶ ፊርመህ/ሽ መጠይቁን ሙላ

ፍቃደኛ አልሆንኩም ⟶ ወደሚቀጥለው እለፍ/ፊ

የመረጃ ሰብሳቢው ፊርማ----------

(የመረጃ ሰብሳቢው ፊርማ መኖር ግለሰቧ የጥናቱ ተሳታፊ ለመሆን ፍቃደኛ መሆናቸውን ያመለክታል)

የመጠይቁ መለያ ቁጥር----------

የመረጃ ሰብሳቢው ስም---------- ፊርማ---------ቀን----------

የተቆጣጣሪው ስም---------- ፊርማ----------ቀን----------

የተመራማሪው አድራሻ:-

ሞባይል: 0914-71-65-27

ኢሜል:

ለበለጠ ጥያቄ/መረጃ የሚከተለውን የተቋሙን ገምጋሚ ቦርድ አድራሻ ይጠቀሙ
-አዲስ አበባ ዩኒቨርሲቲ ሜዲካል ፋካልቲ
-ስልክ= *011-5-53-87-34*
ኢሜል: aaumfirb@yahoo.com

Interview guidelines for the qualitative study

The in-depth interviews among PMTCT counselors and woreda health office coordinators cover a range of topics including

1-PMTCT /ARV prophylaxis related knowledge attitudes and perceptions.

2-Feeling, attitudes and beliefs regarding ARV prophylaxis

3-Strengths and weaknesses in the PMTCT/ARV prophylaxis service delivery

4-Perceived social impact of being HIV Positive pregnant regarding to wife – husband interaction, family and in the community

5-Reasons that many women do not visit ANC while pregnant

6-Reasons that many pregnant women trend to decline HIV testing upon group education and individual counseling

7-The reason that HIV positive pregnant women avoid taken ARV prophylaxis for PMTCT

8-Measures should be taken to scale up the program

9- Do you think ARV prophylaxis can absolutely prevent MTCT of HIV

10- How child behaving women mostly infected by HIV.

11- Do most HIV positive pregnant women want to have more pregnancy?

Declaration

1. Declaration of the principal investigator

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

Name- Ali Hussien

Signature_____

Place of submission – School of Public Health, College of Health Sciences,

Addis Ababa University

Date of submission: June 27, 2011

2. Approval of the primary advisor

This thesis work has been submitted for examination with my approval as university advisor.
Advisor's name - Fikre Enquoselassie (PhD, Associate professor)
Signature_____