



## Assessment of Knowledge, Attitude and Practice of HIV prevention of mother to child among pregnant women attending Ayder referral hospital, Mekelle, Ethiopia, 2012

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### Abstract

*Mother-to-child transmission could occur during pregnancy, labor and delivery; and after childbirth by breastfeeding. The prevention of HIV transmission from mothers living with HIV to their infants is built around the routine offer of HIV counseling and testing to all pregnant women along with other interventions. To assess knowledge, attitude and practice on PMTCT service among pregnant women attending ANC clinic in Ayder referral hospital. The study was conducted in Mekelle, the capital city of Tigray regional state from November 2012 to Jan 2013. A cross sectional descriptive study was conducted with quantitative approach method in Ayder referral hospital. Of the total interviewed pregnant women all goes to the health institution for ANC follow up 187(100%), mothers, have knowledge about HIV 180(96.25%), know more than two ways of transmission 129(71.67%), know more than two ways of protection for HIV 147(81.67%), know HIV can transmit from mother to child 180(96.26%), heard about PMTCT 180(96.26%), and heard about PMTCT from health center 118(65.55%). Study revealed that there is high knowledge about HIV but poor women's practice on the breast feeding practice. This finding indicated that participants had a positive attitude towards PMTCT services. Majority of the women didn't influence by their partners but men involvement is necessary for the encouragement and sensitization to accompany their partners for attending counseling services.*

**Key words:** Knowledge, Attitude and practice, PMTCT and women.

### INTRODUCTION

Mother-to-child transmission could occur during pregnancy, labor and delivery; and after childbirth by breastfeeding. The prevention of HIV transmission from mothers living with HIV to their infants is built around the routine offer of HIV counseling and testing to all pregnant women along with other interventions (Dunn et al. 1992). Provider-initiated routine counseling and testing using the opt-out approach is recommended for all clients seen within the context of maternal care in Ethiopia (FHD) 2001. HIV preventive programs, including the Prevention of Mother to Child Transmission of HIV are potentially the most effective health interventions in reducing maternal, neonatal and child morbidity and mortality. This will be implemented with the routine ANC services.

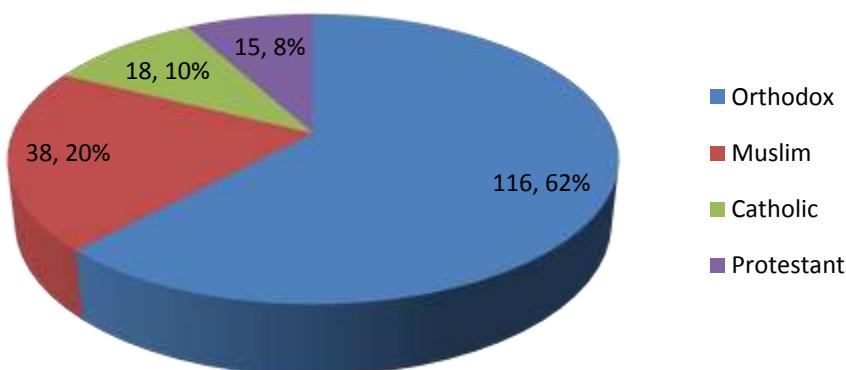
In PMTCT program, World Health Organization promotes a comprehensive strategic approach for the prevention of HIV infection in infants and young children. These are primary prevention of HIV infection; prevention of 3 unintended pregnancies among women living with HIV; prevention of HIV transmission from mothers living with HIV to their infants; and treatment, care, and support of HIV infected women, their infants and their families. The prevention of HIV transmission

from mothers living with HIV to their infants is built around the routine offer of HIV testing and counseling to all pregnant women; counseling on infant feeding supporting exclusive breastfeeding; safer obstetrical practices; and ensuring availability of antiretroviral drugs and other supplies for PMTCT (UNAIDS and WHO 2007, WHO 2006).

HIV infection Without intervention, the risk of mother-to-child transmission of HIV is 15-30% in non-breast feeding populations; breastfeeding by an infected mother increases the risk by 5-20% to a total of 20-45%. Studies have also shown that MTCT of HIV varies with the duration of breast-feeding and pattern of infant feeding.

The MTCT rates by duration of breast feeding vary between, 25-35% if breast feeding through 6 months and 30-45% if there is breast feeding through 18-24months (Dunn DT, et al 1992; Family Health Department. 2001; Decock KM et al. 2000).

Studies showed that a small proportion of mothers in the study area had sufficient knowledge about MTCT (38.8%), PMTCT of HIV (41.8%), and infant feeding options recommended to HIV positive women (30.5%). However, the knowledge of mothers about MTCT of HIV



**Figure 1:** Religion of the pregnant women of the target population in Ayder referral hospital ANC clinic, from December 2012 to January 2013.

during pregnancy, delivery, and breastfeeding is more than the 6% reported in the 2000 Demographic Health Survey of Ethiopia (Demissie et al; 2009).

This study tries to compare the current study from the previous studies in relation to PMTC within similar situations.

## METHODS AND MATERIALS

The study area, Ayder referral hospital is found in Mekelle town Tigray region, Ethiopia. This Hospital runs all the many services while preparations are underway to launch post-mortem/forensic medicine services. Based on the standards of the MOH this referral hospital gives service about 8 million people in the country. Total staff members are 35 Specialists and 41 medical doctors, 424 clinical staff, 163 supporting staff and 40 are contract workers.

The study design was institutional based cross-sectional study design. The source population was all clients who visit the Antenatal clinic unit of the hospital during the study period. The study population was all pregnant women who visit the hospital's Antennal clinic unit at the time of data collection period and willingness to participate in the study will be recruited. The sample size for the study was determined using single population proportion and correction formulas. Data was collected using standardized structured questionnaire and two trained nurses for data collection were recruited. Continuous follow up and supervision was made by the principal investigator throughout the data collection period.

Data collection was accomplished within eight weeks with interviewer administered structured questionnaire data collection tool was used. To assure data quality, training and orientation was given for the data collectors by the principal investigator. The questionnaire was initially prepared in English and then translated in to

Tigrigna version. The Tigrigna version was again translated back to English to check for consistency of meaning. Moreover questionnaire was pre-tested and necessary corrections and amendment was considered.

The collected data was reviewed and checked for completeness and consistency by principal investigator on daily bases at the spot during the data collection time. The data was entered in to EPI-INFO version 3.5.1, exported to SPSS then the data was cleaned and analyzed using SPSS version (Newell, 2004) software statistical packages.

Ethical clearance was secured from the Mekelle University College of health science research and community services. Respondents were informed about the purpose of the study then information was collected after obtaining verbal consent from each participant. Respondents were allowed to refuse or discontinue participation at any time they want. Information was recorded anonymously and confidentiality and beneficence was assured throughout the study period.

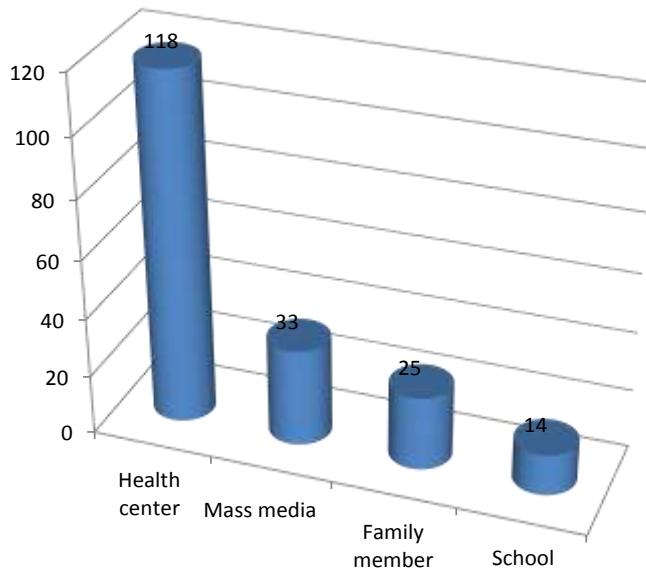
Data collectors had request first for respondents consent orally before starting interviewing and created comfortable environment and keep privacy and confidentiality.

## RESULT

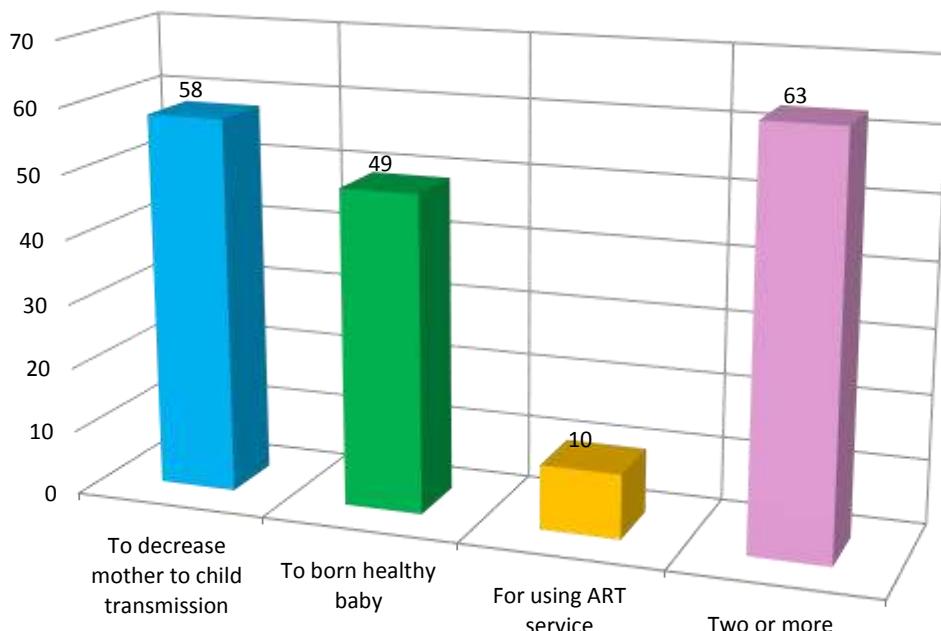
### Socio demographic characteristics of the study units

A total of 187 pregnant women were interviewed with a mean age of 25.94 with a standard deviation of  $\pm 5.6$ . The majority participants were Orthodox religion 116(62.03%) Figure 1, in marital status married 153(81.82%), Tigre ethnicity of 152(81.28%) and merchants of 65(34.75%) among different occupations.

Out of the total study units all pregnant women attend ANC follow up 187(100%), know about HIV 180(96.26%), know more than two ways of transmission 129 (71.67%),



**Figure 2:** Source of Information about HIV in pregnant women, in Ayder referral hospital ANC clinic, from December, 2012 to January, 2013.



**Figure 3:** Knowledge about benefits of PMTCT service among pregnant women in Ayder referral hospital ANC clinic, from December 2012 to January 2013.

know more than two ways of protection for HIV 147(81.67%), know HIV can transmit from mother to child 180(96.26%), heard about PMTCT 180(96.26%), and heard about PMTCT from health center 118(65.55%) Figure 2.

Of the total interviewed pregnant women all goes to the health institution for ANC follow up

187(100%), mothers, have knowledge about HIV 180(96.25%), know more than two ways of transmission 129(71.67%), know more than two ways of protection for HIV 147(81.67%), know HIV can transmit from mother to child 180(96.26%), heard about PMTCT 180(96.26%), and heard about PMTCT from health center 118(65.55%) Figure 3.

Of the total women 8(4.27%) were positive for HIV/AIDS, 164 (87.70%) of them were disclose their results and among those 87.7% of them disclose their results to their husbands.

Some of the pregnant women were not disclose their results because of 12(75%)fear of stress from HIV positive status, 166(88.8 %) decide to delivered in the health facility, 169(90.4%) believed that women having HIV should not breast feed their babies.

More than half of the study participants 97 (51.9%) do not have used condom previously. Most of the women 127(67.74%) have no partner influence on them in the case of HIV/AIDS related issues. Of those who have believed HIV positive women are breast feed their baby18 (9.6%) half of them believe that used exclusive breast feeding

## DISCUSSION

The present study set out to examine knowledge and attitude towards PMTCT strategies were identified. Of the total women interviewed about PMTCT had knowledge of 180(96.26%), However had sufficient knowledge of mothers about PMTCT of HIV during pregnancy, delivery, and breastfeeding is more than the 41.8% reported from the study in Jimma town, It could be due to the situation that the current study was conducted four years after initiation of PMTCT program in the city.

The study findings show that some of the respondents 63(33.7%) have an attitude to use PMTCT either to born healthy baby, to prevent mother to child transmission or ART use as compare to the study was done in Jimma town 62.4% had good attitude towards PMTCT. This would be because of continuous health education brings a good behavioral change (attitude) than the findings in this study.

Out of 187 of mothers visited health institutions for antenatal care and 96.26% used VCT service during their last pregnancy, as compare to the study in Jimma town (35.7%) used VCT service. This is due to the present study finding had good practice on VCT than the study was done in Jimma town, because the current situation has favorable condition to get VCT service, which is currently, Ethiopia use opt-out approach for VCT service. In this study majority of the participants were aware of the possibility of an infected pregnant woman transmitting infection to her unborn child. This may be contributed by the National Sensitization on HIV/AIDS through schooling, friend, family member or mass media.

This finding shows that most of the women knows about HIV , more than two ways of HIV transmission, and they had known how HIV/AIDS can be protected with more than two ways of HIV/AIDS protection. Looking for their attitude in this study indicates that most of the interviewed women still have a fear because of stigma and discrimination.

Despite this knowledge, less than half of the respondents recognized transmission of HIV during pregnancy, majority women mentioned not breast feeding as the time when PMTCT occurs. In rural Nigeria more than half of the pregnant women recognized pregnancy as the time during which PMTCT occurs. This may show that more public sensitization is needed or more counseling sessions for pregnant women. This is a positive finding because knowing that there are ways to prevent the unborn child may help mothers to seek antenatal services early.

The study revealed that HIV positive pregnant women are two times more knowledgeable than HIV negative women. This may be due to the fact that being HIV positive raises concerns about one's health and that of the unborn child. Also during counseling HIV positive pregnant women are given additional information on ARV prophylaxis, infant feeding issues, disclosure and partner testing.

The attitude a person has on something may affect the interest of that person knowing or utilizing it. Most of the pregnant women felt that it was important for pregnant women to be tested for HIV and a few did not see the importance of knowing. The reason for this may be fear of being stigmatized by the community. It was also found in Uganda that pregnant women felt that knowing their HIV status is a terrible thing.

## CONCLUSION AND RECOMMENDATIONS

Transmission during pregnancy is about 5 – 10%, during labor and delivery is 10 – 20% and during breastfeeding is 10 – 15 %. (WHO, 2006.). Without interventions, there is a 20-45% chance that a baby born to an HIV-infected mother will become infected.

This study revealed that the pregnant women have good general knowledge and attitude but poor practice on HIV/AIDS prevention. This finding indicated that participants had a positive attitude towards PMTCT. Most of the women do not have influence from their partner, in the future men involvement is necessary and they need to be encouraged and sensitized from the communities to accompany their partners to the clinic and attend counseling sessions, this will help equip them both with the necessary information on PMTCT.

Most of the pregnant women felt that it was important for pregnant women to be tested for HIV and a few did not see the importance of knowing. Therefore it is important to counsel pregnant women thoroughly and adequately so they can have this very useful information to prevent mother to child transmission in their present as well as future pregnancies. Being open about one's HIV status is one of the most powerful ways to reduce HIV-related stigma.

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