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Factors Affecting Acceptance of HIV Counseling & Testing Among Antenatal Care Attendants: With Emphasis on Role of Male Partners

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Abstract— VCT is an entry point for Prevention of mother to child transmission of HIV infection. To increase uptake of Prevention of mother to child transmission interventions and to benefit more generally from HIV testing, the greater role of men is important. Facility based cross-sectional by design, conducted from March1 to April 1, 2011. The sample size was 422 and study subjects were selected by systematic random sampling. Acceptance of HIV testing among the interviewed pregnant women was (72.0%). Husband reaction, fear of rejection by the community and fear of positive test result were reasons reported that impede acceptance of HIV testing.

Index Terms— antenatal care visit, breast feeding as a means of MTCT, use of drug & avoid breast feeding as PMTCT, previous testing, disclose test results to their partners, partner approval & partners would accept invitations are predictors.

1 INTRODUCTION

An estimated 430 000 new HIV infections occurred among children under the age of 15 in 2009 globally. Most of these new infections are believed to stem from transmission in utero, during delivery, Post partum as a result of breast feeding. Vertical mother-to-child transmission accounts for an estimated 91% of pediatric HIV cases in sub-Saharan Africa **[1]**. It is estimated that without any intervention about 35% children born to HIV-infected mothers will be infected with the virus **(2).** This percentage has reportedly been reduced to levels as low as 2% in developed countries with the implementation of core PMTCT interventions and full uptake of HCT among ANC attending pregnant women **[3], [4].**

However, low uptake of HIV testing by antenatal women is challenging achievement of global commitment to reduce the proportion of infants infected with HIV and effectiveness of PMTCT programs in sub-Saharan Africa **[5].**

In Ethiopia, nowadays PMTCT programs being integrated within ANC service in health institutions. During ANC service, pregnant women are offered group counseling. It was found that however that after counseling there are many women who don't get tested the same day (about 40%). women are affected by different factors that can restrain them from HCT. PMTCT intervention is strongly focused on pregnant women who are usually tested alone, often without involving their partners. Lack of involvement of partners has been suggested as a reason for the low uptake of HCT and PMTCT interventions in some countries reports and studies **[6], [7]**. On national guideline of PMTCT program, the low level of male involvement was mentioned as a potential gap that indicates low program effectiveness **[8]**. In addition on Ethiopia Epidemiological Synthesis of HIV/AIDS, low men involvement was considered as one of the main challenges to increase access and provide quality PMTCT services **[9]**.

Studies in Ethiopia and other parts of the world indicate that HIV testing acceptance is encouraging to improve the PMTCT uptake. Stigma and discrimination, husbands' negative reactions and fear of positive test result were reasons that impede higher acceptance of the test **[5], [10], [11]**. Majority of the pregnant women do not decide independently for acceptance of HIV testing. Decision-making authority is commonly referred to their male partners. Male partners' involvement in HIV testing of pregnant women was found low. Pregnant women need their male partners' positive attitude and support to accept HIV testing **[10]**.

In the Ethiopian women traditionally are under influence of men and there is power imbalance between men and women**.** This could have great implication to acceptance of HIV testing and PMTCT program. There is limited data on the rate and role of male partner in acceptance of HCT uptake among pregnant women. Hence this study has assessed factors affecting acceptance of HIV testing among ANC attendees; described decision making of pregnant women on HIV testing and tried to indicate strategies to enhance the contribution of male partners in PMTCT services.

2 Methods and Materials

2.1 Study area and period

The study was conducted at health facilities which were providing both PMTCT & HIV counseling and testing in East Gojam Zone from March to April 2011, in five health centers: Tsedemariam, Yehidasew, Lega, Amber and Lumame health centers.

2.2 Study Design

Facility based cross- sectional study using mixed method

2.3 Study population

For Quantitative Study: Sampled pregnant women attending ANC who received HIV pre-counseling and testing in those public health centers.

For Qualitative Study: Purposive sample male partners, any pregnant women, health workers who were directly in-

volved in the provision of PMTCT/HCT service, woreda health office experts, zonal health department experts & NGO experts.

2.4 Sample size calculation

The sample size was determined by using single population proportion formula by assuming: P the proportion of pregnant women who undertake joint decision to be 50%, d margin of error (5%), $Z\alpha/2$ was critical value at 95% confidence level of certainty= 1.96, **n**= $Z\alpha/_2{}^2[p(1-p)]/d^2$ adding non-response rate of 10%, the required sample size was 422. A total of four FGD sessions were conducted (a total of 39 participants); two among pregnant women, two among male partner and 12 key informants.

2.5 Sampling procedure

The number of study units to be sampled from selected public health centers was determined using proportional allocation to size based on the number of client flow in the previous year of total average one month case load. Systematic random sampling was employed to select and approach each study subjects.

2.6 Data collection instrument

Structured interviewer administered questionnaire was used to collect the data which was adapted from different literatures, similar studies and modified according to the local context & objectives of this study. For both FGD & in-depth interview, semi structured discussion and interview guide was prepared. Client exit structured interviewer administered questionnaire interview for pregnant women at ANC clinics. Before the actual data collection, the quantitative questionnaire was pre-tested on 5% of the total sample size outside the study area. Ten trained diploma level clinical nurse graduates from medical college, two BSC nurse supervisors and two facilitators were recruited and participated throughout the data collection.

2.7 Data processing & analysis

For quantitative data, after data collection, each questionnaire was checked for completeness and code was given before data entry. Data was entered, cleaned, explored for outliers, missed values and missed variables and analyzed using SPSS version 16 statistical packages. Bivariate analysis was performed and then those variables that showed significant association with the outcome variable were included in a single model and multiple logistic regressions were conducted.

For the in-depth interview & FGD, after the interview data was transcribed word by word into the Amharic language and then translated into English language. Then similar ideas was grouped and summarized based on the key variables of the study.

2.8 Ethical Consideration

The study was obtained Ethical clearance from concerned authorities and offices. Similarly after clear discussion about the actual study written informed consent was obtained from each study subjects while the study subjects right to refuse was also be respected.

3 RESULTS

Socio-demographic characteristics

A total of 414 ANC attendants were participated in this study making the response rate of 98%. The mean age of respondents was 27 years with SD of 6.33. Most of the respondents, 380(91.8%), are currently married. Among the total respondents, 390(94.2%) are Orthodox Christians in religion. Four hundred thirteen (99.8%) respondents are Amhara in ethnicity. Greater than half of the respondents 223 (53.9%), are house wives, 83 (20.0%) are government employers and 53 (12.8%) are merchants by their occupation. The mean age of respondents' husband was 34 years with SD of 7.96. About (45.5%), (39.9%) of pregnant women and their partners had formal education respectively.

Knowledge of ANC Attendees on MTCT and PMTCT

Three hundred twenty one (77.5%) knew that a mother with HIV can pass the virus to her baby. Eighty four (20.1%) and forty two (10.1%) knew at least two and all the three mode of transmission (pregnancy, labor, and breast feeding) of MTCT respectively. About (24.4 %) didn't know what measures a HIV positive pregnant woman could take to prevent MTCT; the method of prevention of MTCT mentioned by the respondents: 182 (44.0%) use of drug, 202 (48.8%) avoid breast-feeding, 46 (11.1%) safe delivery service a means of PMTCT. Two hundred forty nine (60.1%) of the pregnant women knew the existence of PMTCT at the health facilities and 165 (39.9%) don't know the existence of the program.

HIV Testing Acceptance of pregnant women and HIV Counseling & Testing Services

Three hundred fifty three (85.3%) respondents had heard HIV counseling & testing. One hundred thirty (31.4%) of the respondents heard the presence of the service from multiple sources (mass media and health workers).

HIV testing acceptance was found to be 298 (72.0%). Respondents were asked to mentioned some of the reasons for refusal of HIV counseling & testing at ANC setting: (84.3%) of pregnant women were answered deal with stress of being positive; (45.2%) mentioned uncertainty about husbands reaction; (63.5%) fear of rejection by the community; (32.1%) due to non respect of confidentiality.

Decision Making of the ANC Attendees towards Acceptance of HIV Testing

Regarding decision making towards acceptance of HIV testing, one hundred forty six (35.3%) of pregnant women responded that they can decide independently, but 64.7% need their partner's involvement. Three hundred forty seven (83.8%) pregnant women have responded on the important of partner consultation prior to HIV testing but about sixty six (16.2%) of respondents did not need partner consultation. Some of their reasons were; (31.9%) said their partners always negative for them, (30.4%) responded they did not have a habit of discus-

sion, (24.6%) mentioned their partners was not willing to consult them and only (13.1%) said it is due to culture.
Health center staffs key-informants agreed that majority of pregnant women need consultation of their partner or nearby relatives. One of the center staffs key-informants said, "…*As to me the problem is community culture & value, even if our women accept HIV testing, most of them need consultation of their partners or nearby relatives……..without their partners consult anything they do…..just to respect community norms and cultures…"*

Role of male partner involvement in HIV testing of pregnant women

Only sixty five (15.7%) women were accompanied by their male partners to the health centres for ANC or HIV testing, but (84.3%) came alone or accompanied by relatives/friends. Some of the reasons why male partners not accompany with pregnant women at ANC clinic mentioned by the respondents were; men's would be overloaded with other works, pregnancy related services are considered as the task of pregnant women only, men's were not willing to go with us, fear of stigma & discrimination and fear of positive test result. As shown below fig. 1.

One of the key informants from zonal health department said *"... antenatal care as a modern health care practice is a shared domain between husbands and their pregnant wives. Male partners followed cultural practices and norms regarding antenatal care because of traditional norms expected from them in the society and due to this in this area accompany of male partners with pregnant women not as such common..."*

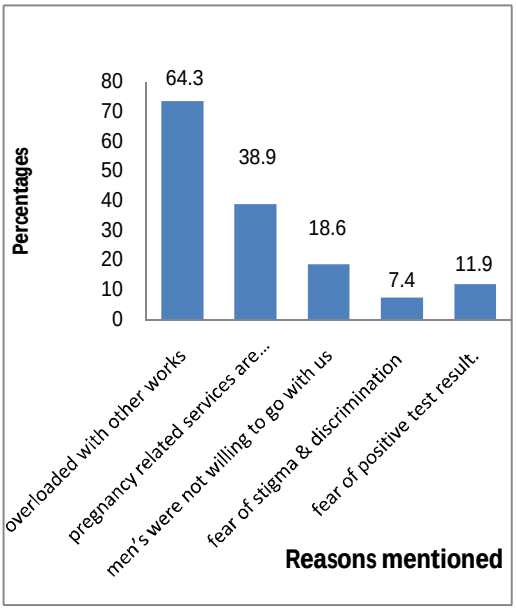

Figure 1: Reasons mentioned by the respondents why male partners not accompany with pregnant women at East Gojam public health centers ANC clinic, North-West Ethiopia, April, 2011

The women were asked whether their partner would come for HIV testing in their next visit. Two hundred seventy (65.2%) of the participants said that their partner may accompany them in the next visit, but the rest said their partners would not be willing. Some of the reasons were mentioned for refusing to join during the next visit; their partners are highly busy with different affairs, don't have a habit of open discussion, males don't have a practice of accompany with them at ANC clinics, fear of stigma & discrimination and fear of positive test result.
The respondents' reasons were also frequently reported by male FGD participants not to accept the invitation. One of the participants said: "*many male partners don't think that pregnancy related services are the task of men's due to cultural norms. The other reasons, fear of positive test result and community feeling for HIV/AIDS are major reasons, for example I am one of them to think like this…… As to me testing of HIV is like a death penalty…. If I convince myself to go, it would be a bad decision for me due to fear of positive test result, but now I don't believe (have the courage)…"*
Accordingly three hundred nine (74.6%) said that they would get approval but the rest one hundred five (25.4%) did not get approval. Some of the reasons mentioned were: (56.2%) of participants answered their partners were not willing; (27.6%) of pregnant women said did not ask their partners; (16.2%) of participants responded did not have a habit of discussion. Only two hundred nine (50.5%) had a habit of discussion on HCT and other health issues with their partner. Almost half of the study participants (49.5%) have no habit of discussion on HCT and other health issues with their partners.
Only (44.2%) pregnant women answered, their partners would help if their test result was found to be positive, but (32.4%) women responded that their partner might not sure them support if their test result was found to be positive and (23.4%) women responded that their partner would render them support if their test result was found to be positive. Most women in the focus groups regarded their husbands as difficult to deal with; a number of reasons for involving them were mentioned. These were mainly related to women's low decision-making status relative to men. Women were concerned about disclosing their HIV status to a partner who had not been tested.

Factors affecting acceptance of HIV testing among pregnant women

Association with acceptance of HCT rested with number of ANC visit, breast feeding as MTCT, use of drug & avoid breast feeding as PMTCT, prior HIV testing HCT, disclose HIV test result to your partner, partners' approval and those partners would accept invitation. The odds of Pregnant women who had got partners approval were 4 times to be tested than the odds of those who had no got partners approval (AOR= 3.85, 95% CI= (1.63, 9.07) and the odds of women who had prior HIV testing were 6 times to accept HCT than the odds of those who had no prior HIV testing (AOR= 5.8, 95% CI= (2.09, 16.25)

Table 1: Adjusted determinant factors of accepting HCT among ANC attendants at East Gojam public health centers ANC clinic,

North-West Ethiopia, April, 2011

Variables	Acceptance of HIV counseling & testing			
	Yes Num (%)	No Num (%)	COR(95% C.I)	AOR(95% C.I)
ANC visit				
First visit	158(53.0)	105(90.5)	0.1(0.03-0.48)*	**0.23(0.05-0.75)****
Second visit	113(37.9)	9(7.8)	0.9(0.2-4.5)	**1.1(0.4-7.6)**
Third & more	27(9.1)	2(1.7)	1	**1**
During post-partum period				
Yes	248(83.2)	46(39.7)	**7.5(4.7-12.2)***	**3.1(1.2,8.0)****
No	50(16.8)	70(60.3)	**1**	**1**
Use ART				
Yes	169(56.7)	13(11.2)	**10.4(5.6-19.3)***	**.4.4(1.7-11.5)****
No	129(43.3)	103(88.8)	**1**	**1**
Avoid breast feeding				
Yes	185(62.1)	17(14.7)	**9.5(5.4-16.8)***	**3.1(1.2-8.0)****
No	113(37.9)	99(85.3)	**1**	**1**
Ever had HCT				
Yes	185(62.1)	13(11.2)	**12.9(7.0-24.1)***	**5.8(2.1,16.2)****
No	113(37.9)	103(88.8)	**1**	**1**
Disclose test result				
Easy	251(84.2)	25(21.6)	**19.4(11.3-33.4)***	**16.7(6.9,40.3)****
Difficult	47(15.8)	91(78.4)	**1**	**1**
Partners approval				
Yes	251(84.2)	58(50.0)	**5.3(3.3-8.7)***	**3.8(1.6,9.1)****
No	47(15.8)	58(50.0)	**1**	**1**
Partners invitation				
Yes	213(71.5)	57(49.1)	**2.5(1.7-4.0)***	**2.5(1.1,5.8)****
No	85(28.5)	59(50.9)	**1**	**1**

4 DISSCUSSION

HIV testing in pregnancy is the gateway to accessing care for the mother and the child. The intervention in prevention of mother-to-child transmission (PMTCT) of HIV can only be applied to a woman whose status is known. Therefore determining the HIV status of pregnant women is a key factor to the success of any prevention program.

This study revealed that HIV testing acceptance among ANC attendees was found to be 72.0%. However it is higher than the 2009 national coverage (67.7%) **[12].** The difference between the study finding and the performance report of national level could result in underreporting of the health facilities. But it is lower than studies done from Ethiopia, Ghana and the Ethiopian government target which was set at 80% **[6], [13], [14]**. The possible reason why this finding is lower than other studies may be the accessibility & availability of IEC/BCC materials about MTCT/PMTCT& the scio-demographic characteristics difference of the current study respondents versus the other studies respondents. This implies that it is encouraging to increase PMTCT uptake in the area and more effort should be made to increase the acceptance rate. The most common reasons to refuse testing were need to discuss with partner, fear of HIV positive status, fear of loss of marital security, domestic violence and confidentiality.

The finding of this study also showed significant association between the number of antenatal visit and acceptance of prenatal HIV testing. This finding is consistent with studies conducted in Ethiopia, Adigrat and AA **[13], [15]**. This association between number of antenatal visit and acceptance of prenatal HIV testing may be explained by frequent exposure of mothers to information regarding HCT, MTCT and PMTCT during their follow up, which may influence the mother to take the test.

Respondents knowledge of PMTCT, those mentioned use of drug and avoid breast feeding were predictors of acceptance of HCT. Studies done in Ethiopia, Wolaita and Mekelle, knowledge about treatment that reduces mother-to-child transmission of HIV was found independently associated with testing **[10], [14]**. This finding also strengthens the fact that awareness on PMTCT is critical in increasing acceptance of HIV testing.

This study also revealed that the odds of pregnant women who had HIV testing in the past were six times to be tested than the odds of those women who had no prior HIV testing experience (AOR= 5.8, 95% CI= (2.09, 16.25). When adjusted for other variables prior HIV testing experience was independently and significantly associated with HCT acceptance. This finding was also reported by other studies. Studies conducted in Addis Ababa, Arbaminch Ethiopia, Barbados and Zambia indicated that having HIV test in the past was an independent factor positively influencing readiness for testing **[16], [17], [18]. [19]**. The possible explanation for association between previous testing and current one is that women who had HIV testing in the past are more likely to have change in their sexual behavior after knowing their serostatus.

Pregnant women who replied that it is easy to disclose test results were associated with associated with acceptance of HCT among pregnant women. This finding similar with a study done in wolaita **[10]**. The reasons respondents mentioned that why it is difficult to disclose test result were divorce, physical violence, .rejection and blame.

Sixty five (15.7%) of pregnant women were accompanied by male partners for ANC/ HIV testing. The result of this study is higher than studies done in wolaita which is 5.1% and AA it was less than 10% **[6], [10]**. But it is lower than the 25% level set by HAREG **[6].** It is consistent with a study done in Kenya (16%) **[20].** The finding of this study also showed pregnant women were associated with acceptance of HCT but not statistically significant. The study done in Tanzania also indicated that pregnant women were less likely to accept HIV testing if their partners did not accompany them **[21].** A study done in wolaita also reported that, those pregnant women accompanied by their partners were 1.3 times higher chances to accept HCT than if their partners did not accompany them **[10].** This reveals that it is highly to attract male partners to accompany spouses to ANC clinic sessions at least once during pregnancy. Key-informants

explained that a lack of community awareness about the importance of partner HCT and cultural beliefs that men should not participate in antenatal activities may explain low partner involvement. National and local VCT campaigns promoting couple counseling can be used to address barriers to testing male partners and increase awareness in the general public.

Women discussants said that, if a woman is HIV tested, but her husband does not agree to be tested, he has to be counseled about prevention. This will call men's attention to the problem and may make them more responsible. There is not much use in counselling and HIV testing women only. It is really necessary that men also be involved. One of the barriers was that men were not regarded as responsible for issues relating to pregnancy and childbirth. One of key-informants from the health facilities said that "…*If men were approached, there would be a chance to increase their involvement…*"

In this study 35.3% of pregnant women can independently decide to accept HIV testing. The figure is higher than studies done in India which is only 21% and Ethiopia, wolaita which is 27% **[10], [22]**. This difference may be due to time series of the studies conducted and the respondents of the current study improves of their decision making power through time & the other reason may be difference of the studies participants, the power and position they are given at household or community level. This can be explained by the fact that women hold lower social and economical positions than men and socially constructed aspects of male and female relationships within societies influenced the different health outcomes of women and men. Furthermore the qualitative part of this study showed that women's ability to decide for any health seeking behavior is determined by the power and position they are given in household. PMTCT interventions may be complicated by women's lack of decision-making authority, which is commonly deferred to their male partners; hence male partners appear to play an important role on women's decisions to accept HIV testing.

Partners test approval was significantly associated with acceptance of HIV testing among pregnant women. This finding is similar with a study done in Gambella region reported that women who thought their husbands would approve were almost six times to test than those who thought their husbands would not approve (AOR= 5.6, 95% CI= 2.8, 11.2) **[23].** The reasons of respondents those who didn't get partners approval were partners not willing, they did not have open discussion and did not ask them at all before testing of HIV.

5 Conclusion

HIV testing acceptance is encouraging to improve the PMTCT uptake. But, stigma and discrimination, husbands' negative reactions and fear of positive test result were some of the reasons that impede higher acceptance.

Two third of pregnant women do not decide independently for acceptance of HIV testing. Decision-making authority is commonly referred to their male partners.HIV testing acceptance is encouraging but men's involvement was found to be low. As a result of fear of rejection by community & deal with stress of being positive test result, large number of male partners didn't accompany with their partners at ANC clinics. Pregnant women need their male partners' positive attitude & support to accept HIV testing.

Recommendation

_Efforts should be given for intensive and continued information dissemination, to both pregnant mother and their partners, about prenatal HIV transmission, the role of HIV counseling and testing (HCT) on the prevention of mother-to-child transmission of the virus, and about the existence of intervention that reduce the possibility of prenatal transmission of the virus.

_Efforts must be made to achieve full attendance of ANC by all pregnant mothers. For this to be realized effective health promotion programs need to be emphasized.

_Health centers should use couple counseling as a strategy to improve male involvement;

_Couple counseling facilitated through couple-friendly ANC services could be taken as a strategy to minimize the difficulty that pregnant women face to disclose their HIV test result to their partner;

_Strengthen VCT within the health centers as well as outreach VCT sites;

_Counseled (tell) pregnant women's to invite their partners in the next, if they don't accompany with their partners;

_Male friendly counseling should be strengthened at PMTCT institutions.

_Regional health bureau should make the IEC/BCC activities of PMTCT tailored to improve male involvement;

_Organizations working on PMTCT program should give emphasis on involvement male partners;

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Table 1: Socio-demographic characteristics of ANC attending pregnant women at East Gojam public health centers, North-West Ethiopia, April, 2011

Socio-demographic characteristics	Number	Percent (%)

Age (year)		
15-24	144	34.7
25-34	194	46.9
35-45	76	18.4
Residence		
Urban	188	45.4
Semi urban	40	9.7
Rural	186	44.9
Educational level		
No formal education	225	54.5
Formal education	189	45.5
Number of pregnancy		
Primipara	156	37.7
Multi Gravida	203	49.0
Grand Multipara	55	13.3
No. of ANC visit		
First visit	263	63.5
Second visit	122	29.5
Third & more visit	29	7.0
Marital Status		
married	380	91.8
unmarried but in stable union	34	8.2
Respondents' occupation		
Employed in any organization	83	20.0
Unemployed	331	80.0
Husband's Occupation		
Employed in any organization	83	20.0
Unemployed	331	80.0
Husband's educational level		
No formal education	249	60.1
Formal education	165	39.9
Husband's Age in complete years		
21-30	181	43.7
31-40	164	39.6
41-50	55	13.3
51-60	14	3.4
Family monthly income		
<500 birr	298	72.0
>=500 birr	116	28.0
Length of years in relationships		
< 5	163	39.3
5-10	133	32.1
10-15	74	17.9
> 15	44	10.6
Total	414	100

Table 2: Association of socio-demographic characteristics and acceptance of HIV counseling and testing among ANC attendants at East Gojam public health centers ANC clinic, North-West Ethiopia, March – April, 2011

Variables	Acceptance of HIV counseling & testing		
	Yes Num (%)	No Num (%)	Crude OR (95% C.I)
Residence			
Urban	172(57.7)	16(13.8)	9.6(5.4,17.4)*
Semi urban	28(9.4)	12(10.3)	2.1(1.0-4.4)*
Rural	98(32.9)	88(75.9)	1
Educational level			
Formal education	170(57.0)	19(16.4)	6.8(3.9,11.7)*
Informal education	128(43.0)	97(83.6)	1
Respondents' occupation			
Employed in any organization	77(25.8)	6(5.2)	6.3(2.7-15.1)*
Unemployed	221(74.2)	110(94.8)	1
Family monthly income			
< 500 birr	194(65.1)	104(89.7)	0.2(0.1-0.4)*
>= 500 birr	104(34.9)	12(10.4)	1
No. of ANC visit			
First visit	158(53.0)	105(90.5)	0.1(0.03-0.48)*
Second visit	113(37.9)	9(7.8)	0.9(0.2-4.5)
Third & more visit	27(9.1)	2(1.7)	1
Husband's Occupation			
Employed in any organization	77(20.5)	6(3.4)	7.2(2.6-20.3)*
Unemployed	221(79.5)	110(96.6)	1
Husband's educational level			
Formal education	145(49.0)	20(17.2)	4.6(2.7-7.8)*
Informal education	153(51.0)	96(82.8)	1
Husband's Age			
21-30 years old	137(46.0)	44(37.9)	3.1(1.0-9.4)*
31-40 years old	119(39.9)	45(38.8)	2.6(0.9-7.9)
41-50 years old	35(11.7)	20(17.2)	1.75(0.5-5.7)
51-60 years old	7(2.3)	7(6.0)	1
Length of years in relationships			
< 5 years	120(40.3)	43(37.1)	1.7(1.0-2.9)*
5-10 years	105(35.2)	28(24.1)	2.3(1.3-4.0)*
> 10 years	73(24.5)	45(38.8)	1

N.B: *statistically significant (p<0.05) 1= reference group

Table 3: Association of knowledge about HIV / AIDS, MTCT, PMTCT and acceptance of HIV counseling and testing among ANC attendants at East Gojam public health centers ANC clinic, North-West Ethiopia, March – April, 2011

Variables	Acceptance of HCT

	Yes Num (%)	No Num (%)	Crude OR (95% C.I)
HIV/AIDS transmit through MTCT			
Yes	261(87.6)	60(51.7)	6.6(3.9-10.9)*
No	37(12.4)	56(48.3)	1
HIV/AIDS transmit through MTCT during pregnancy			
Yes	131(44.0)	17(14.7)	4.6(2.6-8.0)*
No	167(56.0)	99(85.3)	1
HIV/AIDS transmit through MTCT during delivery			
Yes	81(27.2)	3(2.6)	14.1(4.3-45.5)*
No	217(72.8)	113(97.4)	1
HIV/AIDS transmit through MTCT during postpartum period			
Yes	248(83.2)	46(39.7)	7.5(4.7-12.2)*
No	50(16.8)	70(60.3)	1
A woman is infected with the AIDS virus, is there any way to avoid MTCT			
Yes	260(87.2)	53(45.7)	8.1(4.9-13.4)*
No	38(12.8)	63(54.3)	1
know the existence of intervention which reduce MTCT Yes			
No	225(75.5)	24(20.7)	11.8(7.0-19.9)*
	73(24.5)	92(79.3)	1
Use antiretroviral drug can reduce MTCT Yes			
No	169(56.7)	13(11.2)	10.4(5.6-19.3)*
	129(43.3)	103(88.8)	1
Avoid breast feeding can reduce MTCT Yes			
No	185(62.1)	17(14.7)	9.5(5.4-16.8)*
	113(37.9)	99(85.3)	1
Safe delivery can reduce MTCT			
Yes	42(14.1)	4(3.4)	4.6(1.6-13.1)*
No	256(85.9)	112(96.6)	1

N.B: *statistically significant (p<0.05) 1= reference group

Table 4: Association of HIV Counseling & Testing Service factors and acceptance of HIV counseling and testing among ANC attendants at East Gojam public health centers ANC clinic, North-West Ethiopia, March – April, 2011

Variables	**Acceptance of HCT**

		Yes Num (%)	No Num (%)	Crude OR (95% C.I)
Ever heard of HCT				
Yes		272(91.3)	81(69.8)	4.5(2.3-7.3)*
No		26(8.7)	35(30.2)	1
Source of information Mass media				
Yes		186(62.4)	30(25.9)	4.8(2.9-7.7)*
No		112(37.6)	86(74.1)	1
Source of information Health works				
Yes		201(67.4)	50(43.1)	2.7(1.8-4.2)*
No		97(32.6)	66(56.9)	1
Somebody ever told about the benefit of HIV testing				
Yes				
No		256(85.9)	47(40.5)	8.9(5.5-14.7)*
		42(14.1)	69(59.5)	1
HCT is important for pregnant women				
Yes		253(84.9)	51(44.0)	7.2(4.4-11.6)*
No		45(15.1)	65(56.0)	1
Ever had HCT	Yes	185(62.1)	13(11.2)	12.9(7.0-24.1)*
	No	113(37.9)	103(88.8)	1
Disclose test result				
	Easy	251(84.2)	25(21.6)	19.4(11.3-33.4)*
	Difficult	47(15.8)	91(78.4)	1

N.B: *statistically significant (p<0.05) 1= reference group

Table 5: Association of role of male partners and acceptance of HIV counseling and testing among ANC attendants at East Gojam public health centers ANC clinic, North-West Ethiopia, April, 2011

Variables	**Acceptance of HIV counseling & testing**

		Yes Num (%)	No Num (%)	Crude OR (95% C.I)
Male partner accompany				
	Yes	59(19.8)	6(5.2)	4.5(1.9-10.8)*
	No	239(80.2)	110(94.8)	1
Partners coming with them ever before				
	Yes	99(33.2)	33(28.4)	1.6 (1.0-2.7)*
	No	199(66.8)	83(71.6)	1
Partners approval				
	Yes	251(84.2)	58(50.0)	5.3(3.3-8.7)*
	No	47(15.8)	58(50.0)	1
Partners invitation				
	Yes	213(71.5)	57(49.1)	2.5(1.7-4.0)*
	No	85(28.5)	59(50.9)	1
Partners consultation	Important	271(90.9)	76(65.5)	5.3(3.0-9.2)*
	Not Important	27(9.1)	40(34.5)	1
Need partner involvement before decision on acceptance of HCT				
	Yes	233(78.2)	35(30.2)	8.3(3.3-13.2)*
	No	65(21.8)	81(69.8)	1
Ever discussed about health issues (HCT) with your partner				
	Yes	175(58.7)	34(29.3)	3.4(2.2-5.4)*
	No	123(41.3)	82(70.7)	1
Test result was found to be positive, would your partner support				
	Yes	171(57.3)	12(10.3)	7.2(3.6-14.3)*
	No	38(12.8)	59(50.9)	0.3(0.2-0.6)*
	I am not sure	89(29.9)	45(38.8)	1

N.B: *statistically significant (p<0.05) 1= reference group