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Determinants of Provider Initiated HIV Counseling and Testing among patients visiting Health Care Facilities in Sheka Zone, South West Ethiopia

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Acronym

AIDS	Acquired Immuno Deficiency Syndrome
ANC	ANTENATAL CARE
ART	Anti-Retroviral Treatment
BSS	Behavioral Surveillance Survey
CI	Confidence Interval
CSA	Central Statistics Authority
DHS	Demographic Health Survey
FMOH	Federal Ministry of Health
HAPCO	HIV/AIDS Prevention and Control Office
HC	Health Center
HCT	HIV Counseling and Testing
HIV	Human Immuno Virus
IRB	Institutional Review Board
PIHCT	Provider Initiated HIV Counseling and Testing
PMTCT	Prevention of Mother to Child Transmission of HIV
USAIDS	Joint United Nations Program on HIV/AIDS
VCT	Voluntary Counseling and Testing
WHO	World Health Organization
ZHD	Zonal Health Department

ABSTRACT

Background: Ensuring widespread access to and utilization of HIV testing is a central element of a successful response to HIV/AIDS. Increasing the number of people who know their HIV status is an essential means of preventing HIV transmission and of improving the reach of treatment and care services. World Health Organization recommends; all adult patients visiting health facilities should be provided PIHCT as way forward in generalized HIV epidemic setting. Ethiopia has adopted routine HCT since 2007.After implementation of policy the magnitude and possible factors associated with accepting PIHCT were not well documented in Ethiopia in general and sheka zone in particular.

Method*:* Cross-sectional comparative study was employed in order to identify different factors contributing to accepting and non-accepting. Total of 484 subjects 363 acceptors and 121 non-acceptors were selected among physically and mentally capable of giving consent (as part country policy) patients Three acceptors were taken for each non acceptor .Face to face interview was employed using structured questionnaire. For data management and analysis SPSS 11 and Epi –info3.3.2 statistical soft wares were used.

Result. Fear of learning own HIV status, confidentiality and less risk perception were mentioned by majority of respondents as barrier of HIV testing. Also some attitude were highlighted as potential barriers ; PIHCT may lead to more violence against women related to test and may lead to avoidance of seeking other health care services for fear of HIV test. After all, being male, (AOR=2.02 CI (1.21, 3.36)) having previous history of HIV test (AOR=2.65 CI (1.60, 4.41)) and belief that ART can improve health of patients (AOR=0.45 CI (0.23, 0.90)) were found to be predictors of PIHCT acceptance.

Conclusion and Recommendation: In order to address universal access, implementers should take the above potential barriers under consideration .The authors believe emphasizing on informed consent, confidentiality and counseling can potentially solve most of the problems.

1. INTRODUCTION

HIV/AIDS became a major public health problem nowadays. UNAIDS and WHO have estimated that about 33.2 million people in the world were living with HIV/AIDS at the end of 2007. Sub-Saharan Africa continues to be the region most affected by the AIDS pandemic. More than two out of three (68%) adults and nearly 90% of children infected with HIV live in this region, and more than three in four (76%), AIDS deaths in 2007[1].

Ethiopia is one of the most affected countries in the region, with an estimated HIV/AIDS prevalence among adults (15-49 years) of 2.1%in 2007 [1, 2]. HIV testing is a central element of a successful response to HIV/AIDS. [3, 4] Surveys in sub-Saharan Africa have shown that a median of just 12% of men and 10% of women had been tested at least once in their life time [5].

According to DHS 2005 report among the adult population of age 15-49 years, only 4% of women and 6% of men have been tested for HIV at some time [6]

Since 2007, WHO/UNAIDS has recommended that countries with generalized HIV epidemics should adopt a policy of provider-initiated HIV testing (PIHTC) in clinical settings as part of the normal standard of care provided to individuals visiting the facility for any health related reason [4]. In 2004 by introduction of routine HIV counseling and testing in Botswana has shown an increase in the accessibility of HIV testing and consequently in the number of people who have chosen to test[5,6].

1.1. Statement of the problem

Routine HIV testing (opt-out) strategy is found to be more effective than its complement opt-in (client initiated or VCT) and mandatory tests in different countries for identification of large number HIV positive peoples [4, 7-9]. Ethiopia adopted this strategy since 2007 after recommendation of WHO UNAIDS for countries with generalized HIV epidemic by same year.[10] After implementation of policy the magnitude and possible factors associated with accepting PIHCT were not well documented in Ethiopia in general and sheka zone in particular.

1.2. Rationale of study

This study provided some information about the determinants of PIHCT services acceptance among clients visiting health centers and the knowledge gained will be particularly useful for concerned bodies to develop policies that will be favorable to attract more people to accept routine HIV testing and baseline for similar studies. This thesis tried to fill this gap of knowledge

2. LITERATURE REVIEW

2.1. The importance of PIHCT in HIV prevention and management

The vital role of provider initiated HIV testing is to identify larger number of HIV infected individuals unaware of their infection status and facilitating linkage to care.[4, 9] In Durban, South Africa by introducing routine voluntary HIV testing and counseling among outpatient clients physicians were able to identify more new HIV cases compared with standard of care testing based on referral to VCT site [7]Study on hospitalized pediatric patients of Routine counseling and antibody testing was able to identify large numbers of HIV sero-positive children in high prevalence settings[11].

Beyond identification more HIV positive client, HIV testing has played a vital role in behavioral change. In Kenya, one study conducted showed that after getting tested in health center based VCT Clients with multiple partner s showed significant reduction of sexual partners , numbers reporting STI symptoms decreased significantly and Condom use improved[12]. Study from urban Zimbabwe reported that routine antenatal HIV testing for preventing mother-to-child transmission of HIV (PMTCT) showed higher number Of women presenting for antenatal care during the first 6 months of routine HIV testing were tested for HIV compared with women during the last 6 months of the opt-in testing, with a corresponding increase in the numbers of HIV-infected women identified antenatally [13].

Evaluation for factors associated with a new diagnosis of HIV infection in a routine HIV testing program in South Africa investigators examined that a routine HIV testing program in South Africa, rates of previously undiagnosed HIV were highest among men, young and unmarried patients, and those with poorer HIV knowledge [14].

2.2. Facilitators for uptake of PIHCT

In studies it examined that demographic characteristic, knowledge about HIV /HCT, & availability of quality care are highly associated to acceptance of HCT

In one study to evaluate uptake and attitude to VCT among health care professional students in Kilimanjaro region, Tanzania found that all respondents were aware of the benefits of VCT and accepted VCT [15]

Believing that this policy would decrease barriers to testing, HIV-related stigma, violence toward women, and would increase access to antiretroviral treatment was identified as associated with acceptance routine HIV testing. [16]

2.3. Barriers to uptake of PIHCT

Negative attitude for health care professional, low risk perception [13] stigma, fears of receiving HIV positive result, lack of confidentiality, long distances to VCT, delay in returning test results were identified as factors limiting people to access traditional system. [17]

One study in Uganda identified factors influencing accessibility of VCT as consequences of a test result, influence of sexual partner, physical accessibility of VCT, awareness about HIV/VCT, perceived risk of HIV infection, need for linking VCT with care and perceived quality of care or VCT services[17]

Other study done in Uganda on pregnant women about acceptance of VCT showed that, women with secondary education , had prior testing were less likely to accept testing than their counterpart. In the same study, it was reported that women who had two sexual partners in past year were six times as likely to be HIV positive as those reported one sexual partner in the same year. [18]

One study reported that mothers who had tested positive were able to report at least one adverse social event including physical violence, verbal abuse, divorce or separation. [19]

A study couple concordance in home based VCT for HIV in Malawi revealed that education for male partner, exposure to mass-media for female and recent experience with STI symptoms for both were influential of test acceptance. [20]

Lack of HIV related knowledge , blaming persons with HIV/AIDS for their infection and life threatening character of difference were seen as most determinants of AIDS related stigma whereas main barriers for testing were fear of being stigmatized and fear of knowing own HIV positive status[21]. Qualitative analysis on role of HIV testing , counseling and treatment in coping with HIV/AIDS in Uganda , explored that misconception about the effectiveness and side effect of ART, delaying the decision to seek treatment , stigma and attached concern of HIV/AIDS related swift death is major barrier for VCT acceptance[22]. One study in South Africa came up with ever talking to partner about HIV/AIDS, ever participating love life program, a higher frequency of visiting clinic in past twelve months and non black race as determinant of HIV testing among youth 15-24 years[12]. Reasons women refusing HIV testing were spouse/family would not allow it, less risk perception and HIV testing during early pregnancy were mentioned in study influence consent to HIV testing among wives of heavy drunker in urban slum of India.[23] Study which assessed the response of HIV positive mothers to early knowledge of the status of their baby; before getting the result they were stressful .After the result, mothers of HIV negative were relived ,but mothers of HIV positive babies were generally distressed and expressed a responsibility of guilt. Both had similar hopes for future of their babies but timelines is short for mothers of HIV positive babies. Most women were formula feeding their babies but regretted not being breast feed. [24]

Correlates of HIV testing among women with high sexual and substance use risk in South Africa showed; educational level , alcohol and cannabis use, sexual trading and number of visits to a clinic for a medical treatment were significant associated to HIV testing .[25]

HIV related stigma as found to have relationship to the range of demographic, social, physical and health characteristics.[26] Other study examined ;occupation, age; transportation difficulties, health status ,ethnicity and high risk behavior, fear of unsolicited discloser and fear of stigma and discrimination that would result from taking the test were related to acceptance of HCT[27]

After implementation of routine HIV testing in Botswana a population based study on attitude practice and human right concern was assessed and they came up with routine testing appears to be widely supported and may reduce stigma.[16] Female gender, higher education ,more frequent health care visit, preserved access HIV testing and inconsistent condom use were correlates of testing were as stigmatizing attitude toward people living with HIV/AIDS was correlate of refusing test . In the same study barriers for testing were also identified as fear of learning own status, lack of perceived HIV risk and fear of having to change sexual practices with positive HIV test.[16, 28] VCT acceptance was lower among persons with no prior VCT, individuals with primary education, individuals who were HIV-positive and persons reporting condom use in the past 6 months. VCT acceptance was higher among the currently married and previously married [16]Studies done in Ethiopia on determinants of VCT, MTCT&PIHCT acceptance identified that; Higher education, marriage, high income, cohabiting of with spouse, knowledge of VCT MTCT,PICT&HIV and antenatal visit is highly associated to acceptance where as no risk perception, previous HIV test, fear of learning positive result and need of community support were highly associated to refusal.[29, 30]

3. OBJECTIVES

General objective

To identify determinants of PIHCT acceptance among patients visiting health care facilities in Sheka zone, South West Ethiopia, from February, 2009 to March, 2010

Specific objectives

- To identify factors that facilitates HCT services acceptance
- To identify barriers of HCT services acceptance

2. METHODOLOGY

4.1 Study design

A Cross sectional comparative study was employed to identify determinants of PIHCT acceptance among patients visiting health care facilities in Sheka zone.

4.2 Study area

This research was conducted in sheka zone, which contains an estimated population of 217,921, (110511(50.7%) males &107410 (49.3%) females) based on projection from 2007 population & housing census by the year2009/2010. It is one of the 13 zones in SNNPR. Masha, the capital of the zone is located 676 & 951kms to south west of Addis Ababa & Hawassa, the capital of SNNPR respectively. It is structured in to three woredas & two town administrations, those comprising of 10 urban &57 rural kebele. The dominant ethnic group is Shekacho and orthodox Christian is the religion followed by majority of the residents. There are 3HCs, 4GHCs 57 HPs and 15 private clinics in the zone. Seventy five percent of the populations are within 10kms radius to the institutions. There are two district hospitals in neighboring zone and region those are 50kms and 76kms from two of the HCs. The study was carried out in 3 town health centers; Masha, Tepi and Gecha health centers, the three larger health centers serving as referral center for nearby upgrading health centers& health posts. Masha health center is located at capital of the zone whereas Tepi and Gecha are located at capital of Tepi town administration & Andiracha wereda respectively.

Tepi health center has more than 28,500 outpatient visit last year (2001E.C annual report of ZHD). Masha health center & Gecha have served more than 18,500&16,000 by the same year. HIV testing and counseling has been operational in the form of VCT since 1996E.C in Tepi and Masha health centers and was introduced one year later in Gecha health center. By year 1998E.C PIHCT made available for patients showing signs & symptoms of underlying HIV infection. For pregnant mother visiting antenatal

care services (ANC), PMTCT is in place. In Masha &Tepi HCT is accompanied with ART since 1999E.C, but not still started in Gecha health center. Now PIHCT services are available for all clients visiting health institutions in sheka zone in three health centers.

4.3 Population

Source population

All adult patients visiting the health centers during February to March 2010 for different reasons (seeking care, treatment, care givers)

Study subject

All adults visiting the three health center willing and capable to participate in this particular study during the period

4.4 Sampling and sampling technique

Sample Size

For Sample size determination the following were taken under consideration to use formula for the difference between two population proportions by considering one variable assuming to bring difference in the two groups. Need of community support was assumed to bring the difference. (Factors affecting VCT acceptance among different professional and community groups in south and north Gondar administration zones, December 2005)

$$n_1 = \frac{\left(z \propto/_2 \sqrt{(1 + 1/r)\, p\,(1-p)} + Z\beta \sqrt{p_1(1-p_1) + p_2(1-p_2)} \right)^2}{(P1-p2)^2}$$

Where n1=the sample size for non- acceptors

Z α/2=critical value =1.96

Z β =power of the study = 80%

$\mathbf{p_1}$ = estimated community support

Among non acceptors=45.6%

$\mathbf{p_2}$ = estimated community support

Among acceptors=30.7%

p = pooled estimate of $p_1$and p_2

r = ratio 3 to 1

In this study, need of community support to be tested was the variable used to calculate the sample size with an estimated proportion[29] among non acceptors 45.6% and 30.7% among acceptors with power of 80%. Three acceptors were taken for each non acceptor to increase the power of the study. Accordingly 117non acceptors and 351 acceptors were needed. By considering 15% non response rate as the issue is too personal. (117X15%=17.55) was added on non acceptor and sum up to 135 by multiply by three produce 405 acceptors. Total of 540 individuals were included.

4.5 Sampling procedure

Inclusion criteria

- ✓ Client of any service delivery unit
- ✓ of any age greater than eighteen physically and mentally capable of giving consent(as part country policy) and interview during data collection time

Exclusion criteria

- o Client with documented HIV positive result in the same institution
- o Ever tested after three months from time of data collection.

Sampling was based on willing to participate in the study, to make representative sample probability proportional to size patient visited last year each health center was taken.

4.6. VARIABLES

Independent variables:

Socio demography, self reported health status, HIV risk behavior, HIV knowledge, HIV related stigma, Access to quality of medical care, perceived risk, Perceived barrier, History of HIV test, Information of PIHCT, attitude toward PIHCT, Confidentiality , Health care access and utilization.

Dependent Variable (outcome variable)

Acceptance of PIHCT or practically taking a test or declining to take a test

4.7 Operational definitions

Non -acceptors: an individual, parent (care giver) initiated to be tested by provider and refused to take during the study period.

Acceptors*:* an individual, parent (care giver) initiated to be tested by provider and willing to take during the study period.

Routine HIV counseling and testing: including HIV counseling & testing in standard care given in particular health facility

4.8 Data collection procedures

4.8.1. Data collection method

The research was a quantitative, cross sectional comparative study regarding clients' acceptance of provider initiated counseling and testing services.

Data was collected through face to face interviews by trained service providers and counselors. From clients seeking any health care services or coming with their families, mothers or care giver coming with their baby.

4.8.2 Data collection tool and its development

Structured questionnaire from BSS and other related surveys was adapted to fit with local situation and variable of outcome. The English version of the questionnaire was translated to Amharic and back to English to check its consistency

4.8.3 Data collection procedure

Participants were selected based on Inclusion and exclusion criteria by health care providers or counselors. Identifying clients was based on willingness to participate in the study. Three acceptors were selected, consecutively immediately after one non- acceptor was identified and interviewed until the sample size achieved.

4.9 Data processing

Data Entry and Analysis

Raw data obtained from each study participants was entered and cleared in to Epi info3.3.2 and exported to SPSS 11.0 version computer soft ware package for analysis. Frequency distribution and cross tabulation was constructed for the variables, Odds ratio and 95% confidence interval was calculated. To control potential confounders independent variables with p-value <0.3were entered in Multivariate logistic regression to calculate adjusted odds ratio with 95% confidence interval.

4.10 Data quality control

Before actual data collection the questionnaire was pre-tested and amendment was made to fit with the local situation. Adequate training was provided to data collectors & supervisors.

During data collection questionnaires were given similar code, checked for completeness by data collectors and supervisors on daily basis. Supervisors and principal investigator every two days problems encountered were discussed among the survey team & solved timely. Supervision of data collectors was included observation during actual data collection, checking subject eligibility & random revisit on 5% of interviewed subjects. During data coding & entry adherence to similar code given during collection was strictly followed and errors identified were traced back using similar code given to the questionnaire. During data analysis data was analyzed after thorough cleaning of data using Epi-info 3.3.2 version computer software.

4.11 Ethical considerations

Research on sensitive issues raises specific ethical concerns, therefore, informed consent was provided for the participants about purposes and objectives of the study, confidentiality, privacy, and benefits. Patients were interviewed individually in a separate room after ensuring that it does not cause any form of harm (moral, physical or emotional). The interviewers were trained to respect the respondents' comments, values, believes, decisions and choices. Participation was voluntary. Local ethical approval from institutional review board (IRB) Addis Ababa university faculty of medicine was acquired, after submitting all the necessary documents. Written informed consent was taken from the subjects for inclusion in the study. For non-acceptors advice was given at the end of interview accordingly. Acceptors was referred to have the test and to benefit from standard care if needed. In addition for Confidentiality, special identification numbers were used rather than names.

3. RESULT

5.1 Socio-demographic characteristics

About 484 participants (363 acceptors and 121 non-acceptors) had completed the interview and included in the analysis making the response rate of 89.6%. The mean age of participants was 26.5 (SD±7.5) years (26.62(±7.69) for acceptors versus**26.13** (±7.03 non-acceptors) and median age was 25(25for acceptors and 25for non-acceptors). Out of all the respondents, 308(63.6%) were males (52% of non-acceptors and 67.8% of acceptors).

Around Half (50%) of respondents have attended educational level of secondary school or above and only 31(6.4%) (9.1% of non-acceptors) of them were illiterate .Shekacho is dominant ethnic group, 255 (46.5) followed by Amhara 100 (20.7%), Kefa, Oromo and others. Majority of them are followers of Orthodox Christian 262 (54.1%) followed by protestant 163 (33.7%). Three hundred nine (63.8) participants are urban residents and around half of total participants, 244 (50.4%) were never married and 212 (43.8) currently married.

About 176 (36.4%) were governmental employees where as 133(27.5%) respondents had no formal job. Out of 198 total participants who had mentioned their monthly income, 97(20%) earned monthly 251-1000 ETB, 63 (13%) less than 251ETB and the rest38 (7.9%) above 1000 ETB. Most participants, 286(59.1%) did not know their monthly income

Table, 1: Socio-demographic characteristics of study participants, sheka zone, Feb.-Mar. 2010

Variables	Acceptor (363) No (%)	Non-Acceptor (121) No (%)	Total (484) No (%)
Sex			
Male	246(67.8)	62(51.2)	308(63.6)
Female	117(32.2)	59(48.8)	176(36.4)
Age			
median	**25**	**25**	**25**
mean	26.62(±7.69)	**26.13**(±7.03)	**26.13(±7.53)**
≤25	175(48.2)	58(47.9)	233(48.1)
25 or above	188(51.8)	63(52.1)	251(51.9)
Educational status			
Illiterate	20(5.5)	11(9.1)	31(6.4)
Reading and writing	58(16)	25(20.7)	83(17.1)
Primary	86(23.7)	34(28.1)	120(28.8)
Secondary	87(24)	24(19.8)	111(22.9)
TVT certificate or above	102(28.1)	27(22.3)	129(26.7)
Ethnicity			
Shekacho	164(45.2)	61(50.4)	255(46.5)
Amhara	81(22.2)	19(15.7)	100(20.7)
Kefa	43(11.8)	12(9.9)	55(11.4)
Oromo	37(10.2)	18(14.9)	55(11.4)
Others	38(10.5)	11(9.1)	49(10.1)
Religion respondent			
Orthodox	206(56.7)	56(46.3)	262(54.1)
Protestant	112(30.9)	51(42.1)	163(33.7)
Muslim	34(9.4)	8(6.6)	42(8.7)
Others	11(3)	6(5)	17(3.5)
Income(ETB)			
≤250	54(14.9)	9(7.4)	63(13)
251-1000	73(20.1)	24(19.9)	97(20)
>1000	34(9.4)	4(3.3)	38(7.9)
Don't know private income	202(55.6)	84(69.4)	286(59.1)
Residence			
Urban	240(66.1)	69(57)	309(63.8)
Rural	123(33.9)	52(43)	175(36.2)
Marital status			
Never married	190(52.3)	54(44.6)	244(50.4)
Currently married	153(42.1)	59(48.8)	212(43.8)
Previously married	20(5.5)	8(6.6)	28(5.8)
Frequency of visit			
1 or less/yr	113(31.1%)	46(38%)	159(32.8%)
1-2/yr	166(45.7%)	55(45.5%)	221(45.7%)
≥3/yr	84(23.2%)	20(16.5%)	104(21.5%)
Health status			
Excellent	127(35%)	49(40.5%)	176(36.4%)
Very good	57(15.7%)	26(21.5)	83(17.1%)
Fair	146(40.2%)	36(29.8%)	182(37.6%)
Poor	33(9.1%)	10(8.2%)	43(8.9%)

5.2 KNOWLEDGE ABOUT HIV/AIDS, METHODS OF TRANSMISSION & PREVENTION

All respondents were asked about HIV/AIDS, mode of transmission, methods of prevention and related misconceptions.78 (64.8%) non-acceptors and 268 (73.8%) acceptors think that HIV/AIDS is killer disease, 42(34.7%) non-acceptors and 140 (38.8%) knew HIV has life threatening nature.

Ninety six(79.3%) versus 304(83.7%), 63(52.1%) versus 214 (59%) and 61(50.4%) versus 239 (65.85%) non-acceptors and acceptors believes that HIV can be transmitted by sexual intercourse, from mother to child and by contaminated sharps respectively. On other hand 13(10.7%) versus 24(6.6%) and 13 (10.7%) versus 30(8.3%) non-acceptors and acceptors believes that can be transmitted by biting of insects respectively. Three (2.5%) of non-acceptors and 4(1.1%) did not know what HIV/AIDS.

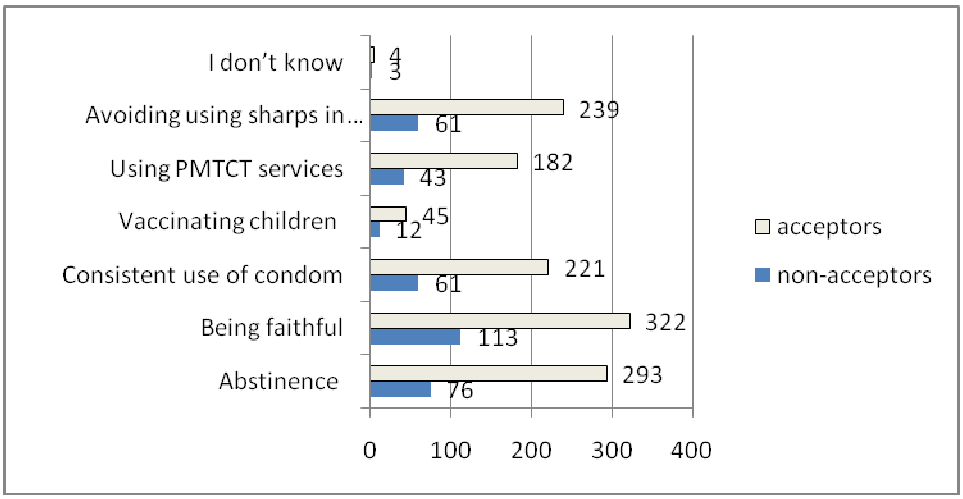

Fig 1: Pointed out HIV prevention methods and misconceptions Sheka zone, Feb.-Mar. 2010

Method of prevention mentioned by majority of respondents was being faithful (113(93.4%) Vs 322(88.7%)) followed by abstinence 76(62.8%) Vs 293 (80.7%) and consistent use condom (61(50.4)

Vs 221(60.9%)) PMTCT service and avoiding using sharps in common were among methods identified by respondents. On other hand vaccinating children was also identified as method of prevention by 9.9% non-acceptors and 12% of acceptors

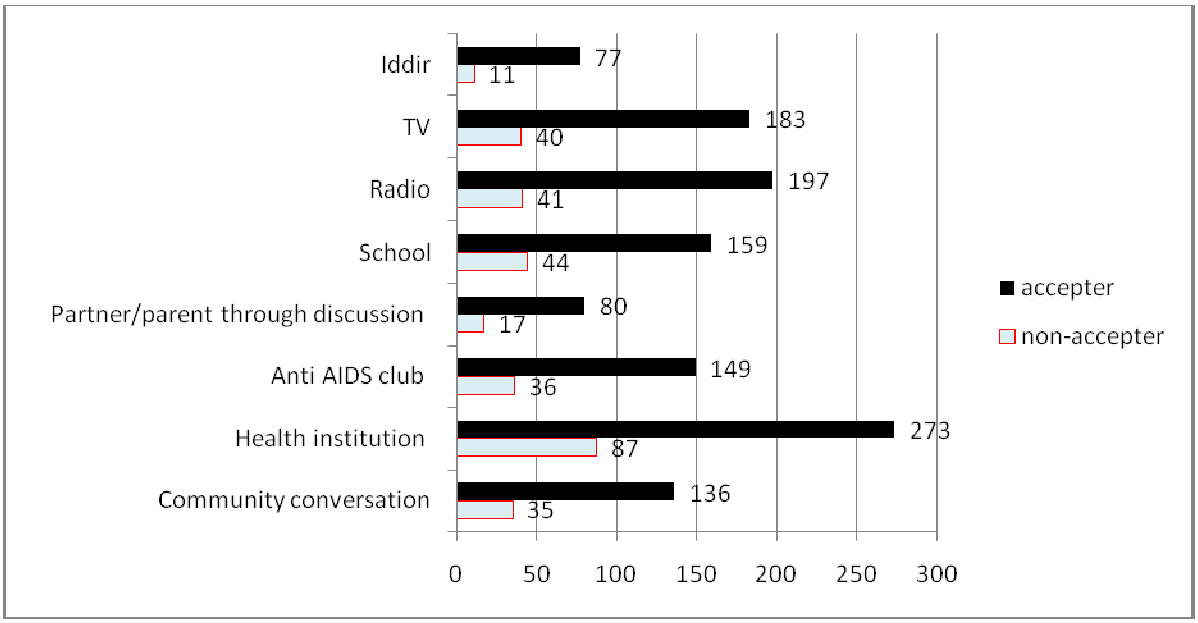

Fig 2: Source of information about PIHCT for study participants Sheka zone, Feb.-Mar. 2010

Four thousand thirty two (89.5%) of the respondents (91.3% acceptors and 83.5% non-acceptors) had heard of PIHCT before the interview from health institutions and mass media. Regarding the source of information about PIHCT, 86.1% of non-acceptors heard from health institutions apart from today's discussion. Forty three point six percent of total heard from school and rest from other sources. Most acceptors had heard similarly from health institutions273 (82.5%) followed by 197(59.5%) radio, 183(55.3%) TV messages and the rest from other resources (Fig2)

5.3 ATTITUDE TO WARD PIHCT

High proportion of acceptors had agreed than their counter part non-acceptors that, PIHCT makes it easier for peoples to get tested (87.6% Vs 83.5%), helps peoples access ART(87.6%Vs81%), results in less discrimination of HIV positive people(73.8%Vs68.8%), leads to less violence against women related to HIV testing(63.1%Vs51.2%). On the other hand, higher proportions of non-acceptors than acceptors perceive that PIHCT may lead to more violence against women (19%Vs12.7%).About 38.8% acceptors and 28.9% of non-acceptors think that provider initiated HIV counseling and testing will cause people to avoid seeking other health services for fear of being tested.(**Table 2**)

Table 2: Attitude towards routine testing of study participants Sheka zone, Feb.-Mar. 2010

Question	Answer	Acceptor N (%)	Non-Acceptor N (%)	Total N (%)
Have you heard of routine HIV testing	Yes	331(91.2)	101(83.5)	432(89.3)
Specific attitude toward PIHCT	• Agree that PIHCT makes it easier for people to get tested	318(87.6)	101(83.5)	419(86.6)
	• Agree PIHCT helps people get access to ART	318(87.6)	98(81)	416(86)
	• Agree that PIHCT results in less discrimination of HIV positive people	268(73.8)	83(68.8)	351(72.5)
	• Agree that PIHCT will cause people to avoid seeking health service for fear of being tested	141(38.8)	35(28.9)	176(36.4)
	• Agree that PIHCT leads to less violence against women	229(63.1)	62(51.2)	291(60.1)
	• Agree that PIHCT leads to more violence against women	46(12.7)	23(19)	69(14.3)

5.4 Barriers of acceptance of HIV counseling and testing

The most frequently mentioned barrier for not being tested for HIV were afraid to know own status 38.2 %(35.3% Vs42.6%), lack of physical access 21.3 %(20.7%Vs22.2%) don't believing they were infected (less risk perception) 16.2 %(17.1%Vs14.8%) and worry other people will be told test result with out consent 12.5 %.(17.1%Vs5.5%) for acceptors and non-acceptors respectively.(Table3)

Table3: Frequently mentioned reason for not being tested previously among study subjects had not tested sheka zone, Feb.-mar, 2010

	Acceptor N (%)	**Non-Acceptor** N (%)	**Total N (%)**
Have you ever been tested HIV? N0	**82**	**54**	136
Reason to not being tested			
• **Afraid to know own status**	29(35.3)	23(42.6)	52(38.2)
• **I don't believe I was infected**	14(17.1)	8(14.8)	22(16.2)
• **No physical access**	17(20.7)	12(22.2)	29(21.3)
• **Worried other people will be told test result with out consent**	14(17.1)	3(5.5)	17(12.5)
• **Will not have social support if tested positive**	11(13.4)	5(9.3)	16(11.8)
• **I don't trust on test result**	7(8.5)	4(7.4)	11(8.1)
• **No access to good quality clinical care**	9(11)	2(3.7)	11(8.1)
• **Fear of discrimination by health professional**	12(14.6)	3(5.5)	15(11)
• **Worried about violence from partner related to testing**	5(6.1)	1(1.9)	6(4.4)
• **Ashamed to be seen at testing site**	11(13.4)	5(9.3)	16(11.8)
• **No treatment if tested positive**	5(6.1)	1(1.9)	6(4.4)
• **Others advised me not to get a test**	1(1.2)	1(1.9)	2(1.5)
• **Partner will not allow me to be tested**	7(8.5)	2(3.7)	9(6.6)

5.5 Facilitators of acceptance of HIV counseling and testing

About 77.4% of acceptors and 55.4% non-acceptors have reported that they had been tested. The reason for being tested among non-acceptor was found to be availability of ART (34.3%), getting result on the same day (31.3%), confidentiality of result(26.9%) and being sick(26.9%)and others. In the acceptors the confidentiality of results (47%), getting results on same day (46.6%) availability of ART (41%), and advice by those tested (36%) were the major reason for being tested for HIV.

Table 4: Frequently mentioned reason for being tested previously among study subjects had tested sheka zone, Feb.-mar, 2010

	Acceptor N (%)	**Non-Acceptor N (%)**	N (%)
Have you ever been tested HIV? Yes	**281(77.4%)**	**67(55.4%)**	**348(71.9)**
Reason for being tested			
• **Know that ART is available**	116(41.3)	23(34.3)	139(39.9)
• **Know that result is confidential**	132(47.0)	18(26.9)	150(43.1)
• **Heard one can be tested and get result same day**	131(46.6)	21(31.3)	152(43.7)
• **Encouraged by who had been tested before**	102(36.3)	12(17.9)	114(32.8)
• **Worried about previous sexual contact**	81(28.8)	11(16.4)	92(26.4)
• **Partner/family or friends advised to be tested**	54(19.2)	7(10.4)	61(17.5)
• **Advised to have a test during antenatal service**	39(13.9)	11(16.4)	50(14.4)
• **I was sick**	34(12.1)	4(6)	38(10.9)
• **Health professionals recommended**	46(16.4)	18(26.9)	64(18.4)
• **It was necessary to donate blood**	23(8.2)	8(11.9)	31(8.9)

5.6 Predictors of PIHCT acceptance

To identify predictors of PIHCT acceptance independent variables from conceptual frame work were analyzed. To measure association logistic regression model was used. Variables with p-value<0.05 or 95%CI excluding one were considered as significantly associated. After evaluating in univariate logistic regression analysis independent variables with P-value <0.3 were entered and analyzed to control possible confounders. In univariate analysis being male, previous history of HIV test, physical availability of ART, belief of ART can improve health of patients and heard of PIHCT were statistically associated with PIHCT acceptance. Males are twice more likely to accept PIHCT than females (95%CI (1.32, 3.04)).Participants who have history of HIV test were 2.8 times more likely to accept than their counter parts (95%CI (1.78, 4.26)).participants with TVT certificate or above education status had 2.28times and with secondary education had 1.99 time higher odds accepting than participants who were illiterate. But this association was not statistically significant. On other hand age of respondent, residence, marital status, and reported health status were not significantly associated at p-value <0.05. Patients with low HIV risk perception are 1.6times likely to be tested than others (95%CI (1.02, 2.45)).Acceptability of PIHCT was not significantly associated with experience of sexual intercourse, having irregular sexual partner, utilization of condom, history of sexually transmitted infection, alcohol consumption and khat chewing. Respondents who didn't know presence of ART in the near by village are 0.55 times less likely to accept HIV test (95%CI(0.32,0.94))but, knowing people living with HIV/AIDS and knowing relative or friend who died of HIV/AIDS were not associated significantly. Subjects who didn't belief that ART can improve health of patients were 0.33 times less likely to accept than others (95%CI (0.19, 0.58)). Attitude like PIHCT; easier to get tested, may avoid patients to seek other health services,

may result in less or more violence, and help access ART remained not associated statistically. (Table 5)

Table 5: variables evaluated for association with acceptance among patients visiting HC in Sheka zone, from February to March 2010

Variable	PICHT status		Crud OR	p-value
	Acceptor	Non-Acceptor		
Sex				
Male	246	62	2(1.32, 3.04)*	0.001*
Female	117	59	1	1
Age				
18-24	175	58	1.01(.67,1.53)	0.95
≥25	188	63	1	1
Residence				
Urban	240	69	1.47(0.97,2.24)	0.07
Rural	123	52	1	1
Educational status				
Illiterate	20	11	1	1
Writing and reading	58	25	1.28(.53,3.05)	0.58
Primary	86	34	1.39(0.60,3.21)	0.43
Secondary	87	24	1.99(0.841,4.72)	0.11
TVT certificate or above	112	27	2.28(0.978,5.32)	0.056
Marital status				
Never married	190	54	1.41(0.59,3.37)	0.44
Currently married	153	59	1.03(0.43,2.48)	0.93
Previously married	20	8	1	1
Frequency of visit				
1 or less/yr	133	46	1	1
1-2/yr	166	55	1.23(0.78,1.94)	0.37
≥3/yr	84	20	1.71(0.94,3.10)	0.07
Health status				
Excellent	127	49	0.84 (0.47, 1.49)	0.54
Very good	57	26	1.56(0.95 ,2.55)	0.34
Fair	146	36	1.27(0.58 ,2.77)	0.61
Poor	33	10	1	1
History of HIV test				
Ever tested	281	67	2.76 (1.78,4.26)*	0.000*
Not ever tested	82	54	1	1
Sexual intercourse				
Yes	281	67	1.31(0.76, 2.24)	0.31
No	82	54	1	1
Partner apart from regular				
Yes	115	34	1	1
No	193	65	0.63	0.12
Use of condom				
Yes	155	39	1.56(0.98,0.2.47)	0.059
No	153	60	1	1
STD in life time				
Yes	30	8	1	1
No	333	113	0.78 (0.35, 1.76)	0.55
Risk perception				
No	156	63	1.	1
Low	181	46	1.58(1.02,2.45)*	0.03*
High	26	12	0.87(0.41, 1.84)	0.72
Alcohol drinking				
Yes	152	46	1.17(0.77,1.79)	0.45
No	211	75	1	1
khat chewing				
Yes	66	27	0.77 (.46, 1.28)	0.31
No	297	94	1	1

Knowledge of people living with HIV/AIDS				
Yes	211	58	1.50 (.99, 2.27)	0.051
No	152	63	1	1
Knowledge of relatives or friends who died of HIV/AIDS				
Yes	152	39	1.51(0.981, 2.34)	0.061
No	211	82	1	1
Is there ART in near by village				
Yes	234	234	1	1
No	62	62	0.55	0.03*
Don't know	67	67	0.49	0.006
Believe that ART can improve health status of HIV positive peoples				
Yes	303	303	1	1
No	37	37	0.33(0.19,0.58)*	0.000*
Do not know	23	23	0.36(0.18,0.72)*	0.004*
Have you heard of PIHCT				
Yes	331	331	2.05(1.12,3.74)*	0.01*
No	32	32	1	1
Do you agree PIHCT will cause people avoid seeking other health services?				
Yes	141	141	1	1
No	193	193	0.71	0.15
I don't comment	29	29	0.37	0.00*
Do you Agree that PIHCT helps people get access to ART				
Yes	318	318	1	1
No	24	24	0.52(0.26, 1.06)	0.07
I don't comment	21	21	0.71(0.31, 1.62)	0.42
Do Agree that PIHCT less violence against women				
Yes	229	229	1	1
No	84	84	0.65(0.40, 1.05)	0.08
I don't comment	50	50	0.56(0.32, 0.98)	0.04*
Do Agree that PIHCT more violence against women				
Yes	46	46	1	1
No	237	237	1.79(1.01, 3.17)	0.04*
I don't comment	80	80	1.25(0.65, 2.38)	0.49

* Statistically significant in bivariate analysis

After adjusting for potential predictors being males (AOR=2.02 95%CI (1.21, 3.36)), history of HIV test (AOR=2.65 95%CI (1.60, 4.41)) associated by higher odds of accepting where as belief that ART can improve health of patients (AOR=0.45 95%CI (0.23, 0.90)) with lower odds of accepting remained statistically significant. On other hand association of acceptance with low risk perception, presence of ART in same town or near by village and being heard of PIHCT disappeared in multivariate logistic regression.

Table 6: Variables evaluated for prediction of PIHCT acceptance among patients visiting HC in Sheka zone, from Feb. to March, 2010

Variable	PICHT status		Crude OR(95%CI)	Adjusted OR(95%CI)
	Acceptor	Non-Acceptor		
Sex				
Male	246	62	2(1.32, 3.04)*	2.02 (1.21, 3.36)**
Female	117	59	1	1
Residence				
Urban	240	69	1.47(0.97,2.24)	1.33(0.78, 2.28)
Rural	123	52	1	1
Educational status				
Illiterate	20	11	1	1
Writing and reading	58	25	1.28(.53,3.05)	0.90 (0.32, 2.51)
Primary	86	34	1.39(0.60,3.21)	0.96 (0.35, 2.65)
Secondary	87	24	1.99(0.841,4.72)	1.22 (0.42, 3.51)
TVT certificate or above	112	27	2.28(0.978,5.32)	1.09 (0.36, 3.28)
Frequency of visit				
1 or less/yr	133	46	1	1
1-2/yr	166	55	1.23(0.78,1.94)	0.74 (0.37, 1.51)
≥3/yr	84	20	1.71(0.94,3.10)	0.69 (0.36, 1.32)
Health status				
Excellent	127	49	0.84 (0.47, 1.49)	0.41 (0.15,1.06)
Very good	57	26	1.56(0.95 ,2.55)	0.37(0.13,1.04)
Fair	146	36	1.27(0.58 ,2.77)	0.75 (0.29, 1.90)
Poor	33	10	1	1
History of HIV test				
Ever tested	281	67	2.76 (1.78,4.26)*	2.65 (1.60, 4.41)**
Not ever tested	82	54	1	1
Risk perception				
No	156	63	1.	1
Low	181	46	1.58(1.02,2.45)*	1.50 (0.92, 2.46)
High	26	12	0.87(0.41, 1.84)	0.64 (0.27, 1.50)
Know people living with HIV/AIDS				
Yes	211	58	1.50 (.99, 2.27)	0.99 (0.59, 1.64)
No	152	63	1	1
Have relatives/friends died of HIV/AIDS				
Yes	152	39	1.51(0.981,2.34)	1.14 (0.67, 1.94)
No	211	82	1	1
Is there ART in near by village				
Yes	234	59	1	1
No	62	28	0.55(0.32,0.94)*	0.79 (0.42, 1.48)
Don't know	67	34	0.49(0.30,0.82)*	0.81 (0.42, 1.55)
Believe that ART can improve health status of HIV positive peoples				
Yes	303	77	1	1
No	37	28	0.33(0.19,0.58)*	0.45 (0.23, 0.90)**
Do not know	23	34	0.36(0.18,0.72)*	0.52 (0.22, 1.20)
Have you heard of PIHCT				
Yes	331	101	**2.05(1.12,3.74)***	0.90 (0.42, 1.92)
No	32	20	1	1
Do you agree PIHCT will cause people avoid seeking other health services?				
Yes	141	35	1	1
No	193	67	0.71(0.45,1.13)	0.58 (0.34, 1.00)
I don't comment	29	19	0.37(0.19,0.75)*	0.37 (0.16, 0.85)
Do you Agree that PIHCT helps people helps get access to ART				
Yes	318	98	1	1
No	24	14	0.52(0.26,1.06)	0.84(0.36, 1.95)
I don't comment	21	9	0.71(0.31,1.62)	1.56 (0.54, 4.55)
Do Agree that PIHCT less violence against women				
Yes	229	62	1	1
No	84	35	0.65(0.40,1.05)	0.93 (0.52, 1.65)
I don't comment	50	24	0.56(0.32,0.98)	0.68(0.32., 1.47)
Do Agree that PIHCT more violence against women				
Yes	46	23	1	1
No	237	66	1.79(1.01,3.17)	1.80(0.91,3.55)
I don't comment	80	32	1.25(0.65,2.38)	1.75 (0.77, 3.93)

* Statistically significant in bivariate analysis ** statistically significant multivariate analysis

6. DISCUSSION

In an effort to increase the number of individuals who know their HIV status, decrease the prevalence of undiagnosed HIV infection, and to promote early diagnosis and treatment for HIV infection PIHCT was recommended as a way forward in generalized HIV epidemic settings by WHO and USAIDS some three years ago[1].

After implementation of opt-out strategy PIHCT has been effective in several resource limited countries with generalized HIV epidemic. Documents revealed that opt-out strategy resulted in increasing acceptability of HCT, increasing testing participation and identification of HIV infected individuals at early diseases stage [4, 7-9].

Up to knowledge of authors this study is among the first studies attempt to identify predictors of PIHCT acceptance after implementation of Opt-out strategy for routine HCT as standard care in Ethiopia.

A total of 477 (98.5%) knew HIV/AIDS (97.5% non-acceptors and 98.9%) this result is comparable with finding from EDHS 2005(90 % of women 15-49 and 97 % of men 15-49) and findings from BSS round two (99.8%panticipants) [6, 31].

Seventy eight (64.8%) non-acceptors and 268 (73.8%) acceptors think that HIV/AIDS is killer disease, 42(34.7%) non-acceptors and 140 (38.8%) knew HIV has life threatening nature. 96(79.3%) versus 304(83.7%), 63(52.1%) versus 214 (59%) and 61(50.4%) versus 239 (65.85%) non-acceptors and acceptors believes that HIV can be transmitted by sexual intercourse, from mother to child and by contaminated sharps respectively. Identification of mother to child transmission as mode of transmission

On other hand 13(10.7%) versus 24(6.6%) and 13 (10.7%) versus 30(8.3%) non-acceptors and acceptors believe that HIV can be transmitted by biting of insects respectively. Three (2.5%) of non-acceptors and 4(1.1%) did not know what HIV/AIDS. Regarding prevalence of misconception this study revealed less proportion compared to BSS second round report that is one in six of participants had at least one misconception about HIV/AIDS [31].

Among 484 respondents 71.9% reported that they had been tested for HIV. This number is seven fold much higher than findings from EDHS 2005 and20%excess prevalence than finding from study done in Botswana [6, 16].The contribution of acceptor in prevalence of previous HIV test was 80.7%.The above repot can explained by opt-out strategy acceptability and timing of a survey after implementation of the same strategy. Finding of EDHS was before implementation opt-out strategy and survey conducted in Botswana was after 11 months of implementation. Also this is consistent with assumption that opt-out

Screening may decrease discrimination associated with HIV infection because testing would be conducted irrespective of perceived risk. It is important to understand the range of factors influencing HIV testing in order to more effectively promote testing. Knowledge of principal barrier has pivotal role to evaluate implementation of the three principles of provider initiated HIV counseling and testing (informed consent, confidentiality and counseling) and also to direct the way forward to improve acceptance of PIHCT. To identify the barriers after questioning about previous history of test respondents were asked about their reason for not being tested. To maximize validity the test result wasn't asked. The most frequently mentioned barrier for not being tested for HIV were afraid to know own status 38.2 %(35.3% Vs42.6%), lack of physical access 21.3 % (20.7%Vs22.2%), don't believing they were infected (less risk perception) 16.2 %(17.1%Vs14.8%) and worry other people will be told test result with out consent 12.5 %.(

17.1%Vs5.5%) for acceptors and non-acceptors respectively. The mentioned reasons were comparable with finding from Botswana population based study. Afraid to know own status 49%, lack of physical access 22%, don't believing they were infected (less risk perception) 43% and worry other people would be told test result with out consent 18% [16]its proportion was higher compared with finding from Ethiopia ,Addis Ababa this could be the setting of the studies and population studied respected to risk perception [33]. Regarding to proportion of participants' with less risk perception as reason not for being tested; it was reported lower for this study in comparison with the above study but still higher than finding from Addis Ababa. This could be due to higher prevalence of previous HIV test. The concerns about benefit of knowing own status, risk perception and breach of confidentiality as barrier to HIV test should be considered as evidence suggests that participants were provided less information during pre-test session.

Also this study bring to light some negative attitude to ward PIHCT; PIHCT may lead to more violence against women (19%Vs12.7%).About 38.8% acceptors and 28.9% of non-acceptors think that provider initiated HIV counseling and testing will cause people to avoid seeking other health services for fear of being tested. This is consistent with findings from Addis Ababa and else where [16; 33].

Beside the identification of barrier to HIV testing; identification of factors influencing to get testing was equally important. The proportion people explained their reason for being tested among non-acceptor was found to be availability of ART (34.3%), getting result on the same day (31.3%), confidentiality of result(26.9%) and being sick(26.9%)and others. In the acceptors the confidentiality of results (47%), getting results on same day (46.6%) availability of ART (41%), and advice by those tested (36%) were the major reason for being tested for HIV. The above description of facilitators of HIV testing for acceptors was comparable with study from

Botswana. Proportion of people reasoned was lower among non-acceptors this couldn't surprise it can be explained by low prevalence of previous HIV test.

Other promising thing observed from this survey was positive attitude to ward PIHCT. High proportion of acceptors had agreed than their counter part non-acceptors that, PIHCT makes it easier for peoples to get tested (87.6% Vs 83.5%), helps peoples access ART (87.6%Vs81%), results in less discrimination of HIV positive people (73.8%Vs68.8%), leads to less violence against women related to HIV testing (63.1%Vs51.2%). This finding has paramount contribution for acceptance of PIHCT. It is inline with study from Addis Ababa and else where [16; 33].

In univariate analysis sex, previous history of HIV test, physical availability of ART and a belief that ART can improve health of patients and having heard of PIHCT were statistically associated with PIHCT acceptance. In multivariate analysis being male, history of HIV test and belief that ART can improve health of patients were remained statistically significant. Males are twice more likely to accept PIHCT than females. This finding is in contradiction with a population based study done in Botswana and else where [16, 32]. This might be due to low social status of women in Ethiopia and internally consistent with negative attitude reported toward PIHCT i.e. PIHCT leads to more violence against women. The association may be also partly explained by the fact that being male is likely to increase exposure to and understanding of health-related information as well as to negotiate health care services and interact with health workers. Participants who have history of HIV test are 2.67 times more likely to accept than their counter parts. This finding is inline with previous studies from Botswana and South Africa [14, 21]. Possible explanation might be due to their former counseling, knowledge of self status or other factors motivating them during the time of testing. Also consistent with documented subsequent reduction of risky behaviors and take steps to protect them selves after test. PIHCT acceptance

was 0.45 times lower among individuals who didn't believe that ART can improve health of patients. This finding is internally consistent with the most reported reason for previous HIV test in the same study; availability of ART. Inline with documented barrier to HIV test as misconception about the effectiveness and side effect of ART.

7. STRENGTHS AND LIMITATIONS

7.1 STRENGTHS

- Use of comparison group
- Use of pre-tested questionnaires
- Practical acceptance was measured by providing the test

7.2 LIMITATIONS

- Cross sectional design
- Temporal relation ship and causality is impossible
- Self reported on exposure might introduce social desirable bias

8. CONCLUSION

- This study pointed out that almost all (98.5%) knew what HIV/AIDS is. More than 60% of respondents knew the three major modes of HIV transmission in Ethiopia and ABC method of prevention. On other hand in this era of HIV AIDS there were people who didn't know HIV/AIDS or who are identifying; biting of insects as mode of transmission and vaccinating children as method of prevention.

- Fear of learning own HIV status, confidentiality and less risk perception were mentioned by majority of respondents as barrier of HIV testing. Also potential barriers were highlighted that; PIHCT may lead to more violence against women related to test and may lead to avoidance of seeking other health care services for fear of HIV test.

- After all a majority of respondents were heard of PIHCT from different sources of information but being male ,having previous history of HIV test and belief that ART can improve health of patients were found to be predictors of PIHCT acceptance.

9. RECOMMENDATION

- In pre-test session to make informed consent patients should be given adequate information on basic facts of AIDS with benefit of HIV test.
- Emphasizing on the three principles of PIHCT (Informed consent, Confidentiality and Counseling) to change related negative attitude to ward PIHCT
- Mainstreaming of HIV including its test in social structure to reach females, educating about ART may play pivotal role in acceptance of PIHCT.

Recommendation for Further research

The authors recommend that further research on the following areas

- Reason why females aren't accepting PIHCT than their counter part males. This is special for this study area.
- What other perspectives may affect PIHCT acceptance apart from patients perspective

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11. ANNEXES

10.1: Conceptual framework

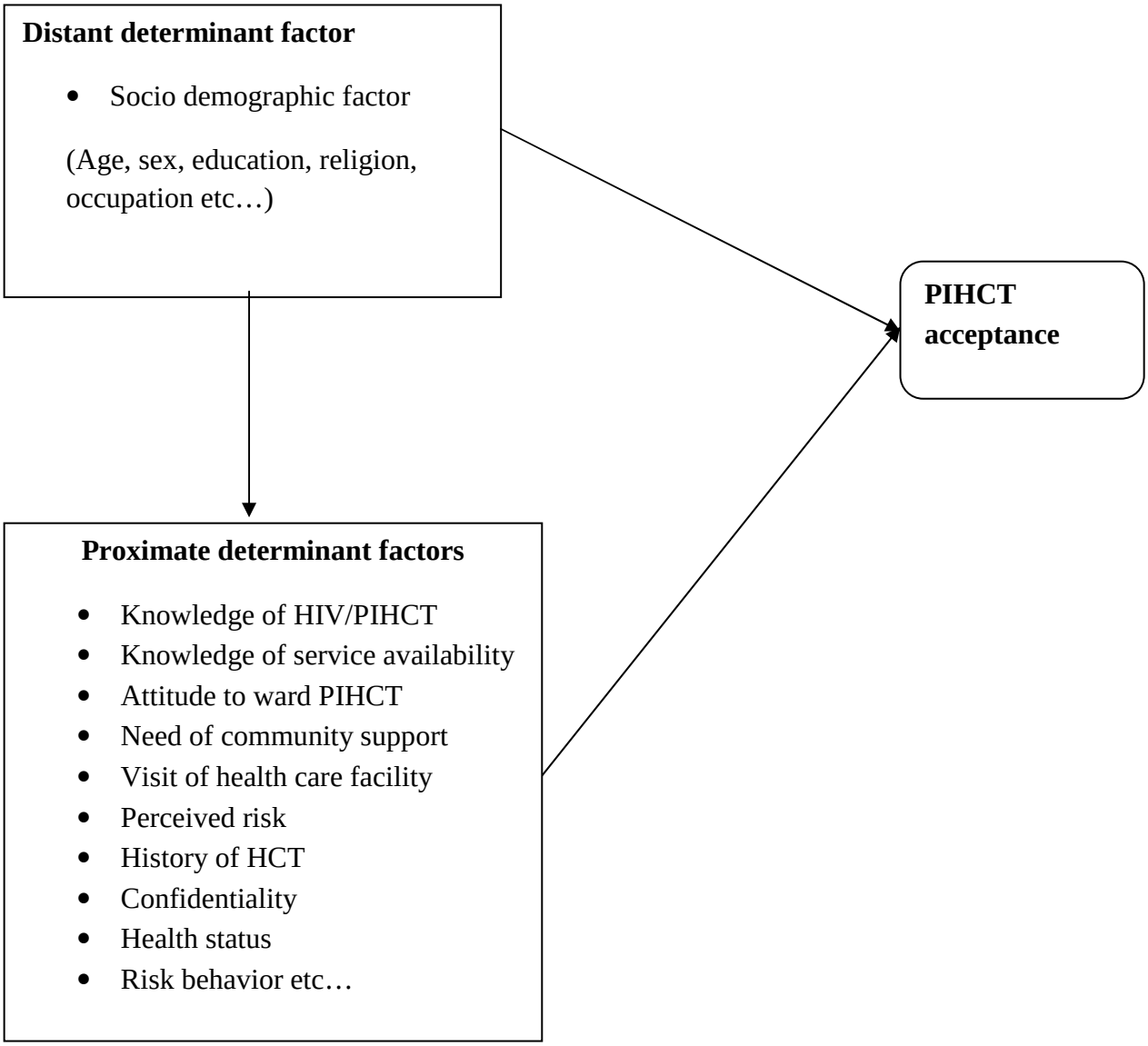
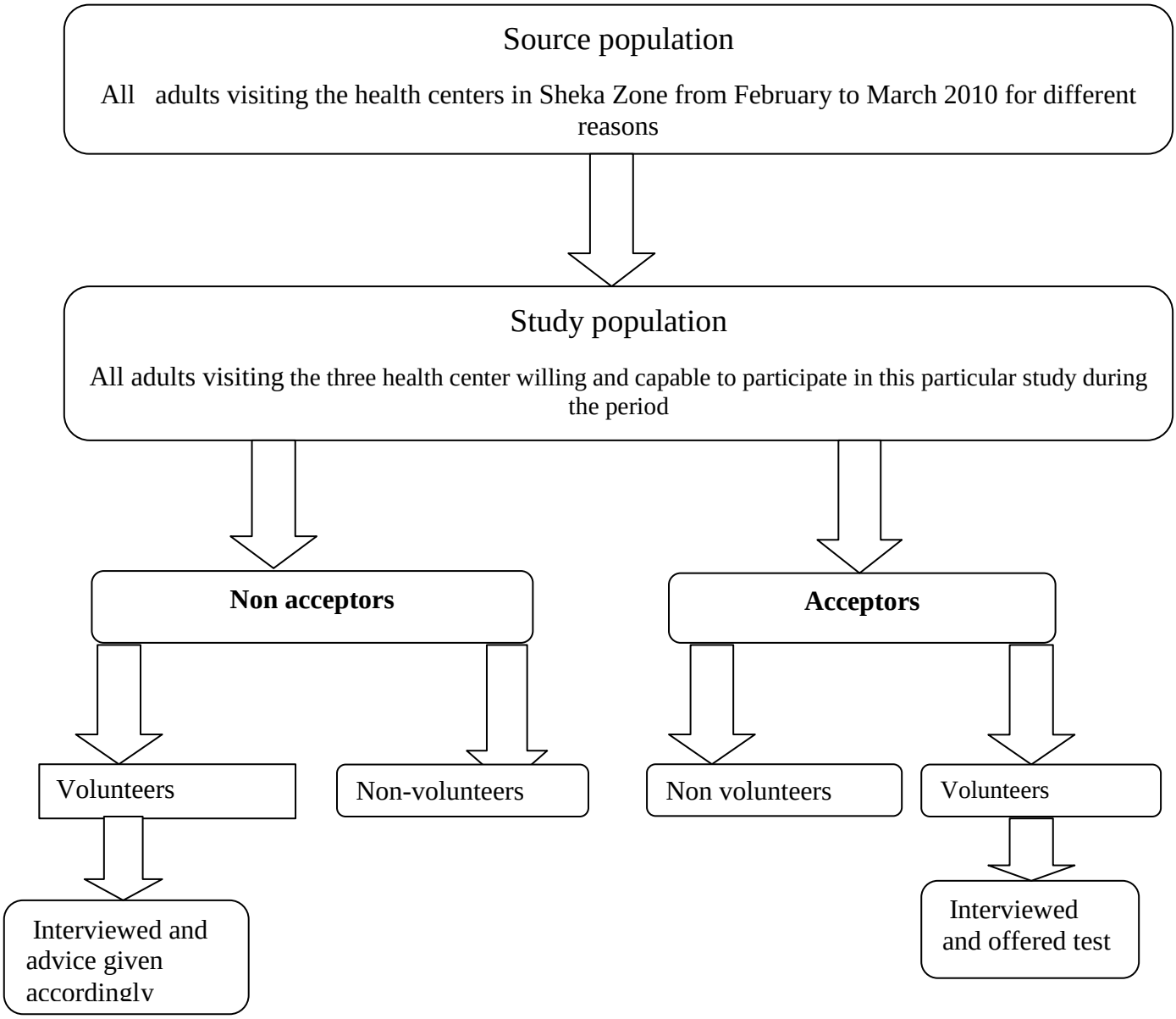


Figure 3 conceptual frameworks for determinants PIHCT acceptance among adult patients visiting health facilities.

11.2: Selection procedure



11.3: Participants Information sheet English version

Description of the study

Introduction*:* **"**My name is ----------. Addis Ababa University faculty of medicine is conducting study on determinants for the acceptance of PIHCT Among individual who are seeking health services. You are randomly selected as one of study subject. Your responses will help to provide information about the determinants for the acceptance of PIHCT and the knowledge gained will be particularly useful for organizations to develop policies that will be favorable to attract more clients to access HCT services. The questions contain sensitive and personal issues. The interview will take about 30 minutes. Your positive and correct answer for each question will have high impact on achievement of the research objective. The researcher will endeavor to protect the confidentiality of your information .If a result of this study published only summarized information of total group will appear .You may share any concerns you have with me; refusal to join will not be of any loss of services provided by any health institution to you. Our discussion will be private. Your answers will only be used for the research; names are not used in analysis. Your only link with the results will be via a random number. Your involvement is voluntary. You can leave the study, even after agreeing to join. You are free to refuse to answer any question that is asked. If you have any questions about this study you may ask the interviewer or contact principal investigator Asaminew Dakito

Tel: 0917830234 or E-mail: asesheka@gmail.com

Are you willing to participate in the study?

1. [ ] Yes 2. [ ] No

Thank you!!

If the study subject agrees to participate in the study pass to next page or to consent form

11.4: Consent form English version

My signature below certifies that the informed consent has been given by participant after ensuring understanding on following issues. The researcher will endeavor to protect the confidentiality of your information. Refusal to join will not be of any loss of services provided by any health institution to you. Your answers will only be used for the research; names are not used in analysis. Your involvement is voluntary. You can leave the study, even after agreeing to join. You are free to refuse to answer any question that will ask.

Signature----------

Date----------

Checked by---------- Signature---------- Date----------

11.5: English version questionnaire

01. Name of facility 1. Masha health center 2. Tepi health center
3. Gecha health center

02. Code number ----------

03. PIHCT Status 1. Acceptor 2. Non-acceptor

04. Referred from_____ unit

Serial No	Questions	Choice of response	Code	Skip
Part one :socio demography				
101	Sex	Male----------1 Female----------2		
102	How old are you?	----------		
103	What is your current Educational status?	Illiterate----------1 Reading and writing---------2 Primary ----------3 Secondary----------4 College diploma----------5 TVT certificate----------6 College degree or above-----7		
104	What is your Religion?	Orthodox Christian----------1 Protestant----------2 Muslim----------3 Catholic----------4 Traditional----------5		

		Other specify----------6		
105	What is your Ethnicity?	Shekacho----------1 Keffacho----------2 Sheko----------3 Mejengere----------4 Amhara----------5 Oromo----------6 Gurage----------7 Others specify-------99		
106	What is your current Occupation?	Farmer----------1 House wife----------2 Merchant----------3 Not working----------4 Student----------5 Gov. Employee---------6 Other specify----------7		
107	Where is your Permanent residence?	Urban----------1 Rural----------2		
108	What is your Marital status	never married----------1 currently married----------2 previously married----------3		
109	Income	----------		
110	What are you feeling now?(health status)	Excellent----------1 Very good----------2 Fair----------3 Poor----------4		
111	Frequency of health care visit per year	less than once a year----------1 1-2 times per year----------2 Greater or equal to3 times per year—3		

Part two: Knowledge of HIV/AIDS/PIHCT				
201	What is AIDS?	It is killing disease----------1 It is transmitted by sexual intercourse----------2 Can transmitted from mother to child----------3 Can be transmitted by contaminated sharps----------4 Can be transmitted by biting insects-5 Can infect any person ----------6 Curable disease----------7 It is Life threatening disease-------8 I don't know----------99		
202	What is method of prevention available?	Abstinence----------1 Being faithful----------2 Consistent use of condom---3 Vaccinating children----------4 Using PMTCT service--------5 Other----------88 I don't know----------99		
203	Do you know any person living with HIV AIDS?	Yes----------1 No----------2		
204	Do you know peoples who are relatives or friends who died of HIV AIDS	Yes----------1 No----------2		
205	Is there ART in nearby village?	Yes----------1 No----------2		

		I Do not know-------3		
206	Do you think that ART given can improve health HIV positive peoples?	Yes----------1 No----------2 Do not know---------3		
207	Have heard of provider initiated HIV counseling& testing?	Yes----------1 No(go to Q301)-------2		
208	Apart from today's discussion where have you heard of PIHCT?	community conversation----------1 from health center during last visit---2 anti-AIDS club----------3 from partner/parent through discussion-4 school----------5 Radio----------6 TV----------7 Iddir ----------8 others----------99		
Part three :Attitude toward routine testing				
301	Agree that PIHCT makes it easier for people to get tested	Yes----------1 No----------2 I don't comment---3		
302	Agree that PIHCT helps people get access to ART	Yes----------1 No----------2 I don't comment-----3		
303	Agree that PIHCT results in less discrimination of HIV positive people	Yes----------1 No----------2 I don't comment-----3		

304	Agree that PIHCT will cause people to avoid seeking health service providers for fear of being tested	Yes----------1 No----------2 I don't comment---3		
305	Agree that PIHCT less violence against women	Yes----------1 No----------2 I don't comment-----3		
306	Agree that PIHCT leads to more violence against women	Yes----------1 No----------2 I don't comment----3		
Part four : practice				
401	Have you ever tested HIV?	Yes(go to Q403)----------1 No----------2		
402	What was reason for not being tested?	Afraid to know status----------1 I do not believe I was infected ------2 fear that testing will stop my sexual practice----------3 no physical accesses--------4 Worried other people will be told test result without consent----------5 I will not have social supports if tested positive----------6 I don't trust test result--------7 No access to good quality clinical care--8 Fear of discrimination by health professional----------9 Worried about violence from partner related to testing----------10 Ashamed to be seen at the testing site-----11		

		No treatment if tested positive-------12 Other advised me not to test-----13 Partner will not allow me to be tested----14 other-------99		
403	What was reason to be tested?	I know that treatment is available-------1 I know that test result is confidential----2 I heard that one can take test and get result same day ----------3 Encouraged by same one who had taken test before ----------4 Worried about previous sexual contact---5 Partner ,family or friends advised to have test----------5 Antenatal service advised to have test----6 I was sick----------7 Health professional recommended test---8 It was necessary to denote blood---9 others----------99		
Part five: Risk behaviours				
501	Have you ever had sexual intercourse?	Yes----------1 No(go toQ515)------2		
502	If yes, have you ever had sexual intercourse apart from your spouse or regular partner?	Yes----------1 No----------2		
503	How many sexual partners do you have so far?	None----------1 One to two----------2 three and above----------3		

504	How many sexual partners did you have in the last 12months?	None----------1 One----------2 Two----------3 Three and above----------4		
505	Have you ever used condom?	Yes----------1 No----------2		
506	How often do you use condoms?	once in my life----------1 Some times----------2 Always----------3		
507	Do you got any form of STD In your life time?	Yes----------1 No----------2 don't know----------3		
508	If yes how many times last year? (last 12 months)	----------		
509	What will be risk of getting HIV with you current sexual behavior?	No----------1 Low----------2 High----------3		
510	Do you have habit of chat chewing?	Yes----------1 No----------2		
511	Do you have the habit of drinking alcohol?	Yes----------1 No ----------2		

11.6: Information sheet Amharic version

በምዕራብ ኢትዮጵያ ሸካ ዞን በሚገኙ ጤና ድርጅቶችን ስተስያዩ ምክንያቶች በሚነሱት ተገቢጋዮች መካከል በባለሙያ አነሳሽነት የሚሰጠዉን የምክርና የደም ምርመራ ተቀባይነት የሚወስኑ ሁኔታዎች ለማጠቅ የተዘጋጀ መጠይቅ

ስሜ ----------ይባላል ::አዲስ አበባ ዩኒቨርሲቲ ሕክምና ፋኩሊት እዚህ ጤና ድርጅት ስተስያዩ ጉዳዮች የሚመጡትን ግለሰቦች በባለሙያዎች አነሳሽነት የሚደረግ የኤች አይ ቪ የምክርና የደም ምርመራ ተቀባይነት የሚወስኑ ሁኔታዎች በተመለከተ ምርምር በማድረግ ላይ ይገኛል::እርሶም የጥናቱ አካል እንድሆኑ ባጋጣሚ ተመርጠዋል::የእርሶ ምላሽ በባለሙያዎች አነሳሽነት የሚደረግ የኤች አይ ቪ የደም ምርመራን ተቀባይነት በተመለከተ ግንዛቤን በመጨመር የሚመለከታቸዉ አገልግሎት ሰጪዎች የተሻለ አቀራረብ በመያዝ በብዙ ሰዎች ዘንድ ተቀባይነት እንዲያገኝ ለማድረግ ይረዳል::መጠይቁ የተለያዩ ምስጢራዊና የግል ህይወትዎን የተመለከቱ ጥያቄዎችን ያካተተ ነው:: ቃለ መጠይቁ እስከ 30 ደቂቃ ሊፈጅ ይችላል:: የጥናቱን ዓላማ ለማሳካት እርስዎ ለጥያቄዎቹ የሚሰጡት ትክክለኛና ቀና መልስ ወሳኝ ነዉ::የመረጃዉ ሚስጢራዊነት በደንብ ይጠበቃል:: የጥናቱ ዉጤት ብታተም እንኳን የጥናቱ ተሳታፊዎች ማጠቃለያ ሀሳብ ብቻ ነዉ የሚጠቀመዉ:: ማንኛዉንም ግልጽ ያልሆነ ነገር ካለ መወያየት እንችላለን::በጥናቱ ያለመሳተፍ በማንኛዉም መልኩ ማንኛዉንም አገልግሎት ከማግኘት አያግድም::ቃለ ምልልሱ ፍጹም ሚስጢራዊ ነው :: ምላሾችን የምንጠቀመዉ ለዚህ ጥናት ብቻ ነዉ::ስምዎትንና ማንነትዎን የሚገልጽ ማንኛዉንም መለያ በማጠቃለያ ሂደት ዉስጥ አይካተትም::ምላሽዎ የሚወከለዉ መረጃ ሰብሳቢ በሚሰጠዉ መለያ ቁጥር ብቻ ነዉ::ለመጠየቅ ከወሰኑ በኋላ፤መጠየቅ ከጀመረ በኋላ ምላሽ ያለመስጠት ያልፈለጉትን ጥያቄ ያለመመለስ ይችላሉ::ነገር ግን የጥናቱን ዓላማ ሙሉ በሙሉ ለማሳካት ሁሉንም ጥያቄ እንድመልሱ በማክበር እጠይቃለሁ :: በጥናቱ ዙርያ ጥያቄ ካለዎት ከእኔ ጋር ወይም ዋናዉን አጥኚ አሳምነዉ ዳኪቶን በስልክ ቁጥር 0917830234 በኢ-ሜል asesheka@gmail.com ማነጋገር ይችላሉ::

በጥናቱ ለመሳተፍ ፈቃደኛ ነዎት? 1.አዎ 2.አይደለሁም

እመሰግናለሁ!!

ማስታወሻ: በጥናቱ ለመሳተፍ ፍቃደኛ ከሆኑ በሚቀጥለው ገፅ ወደለዉ የስምምነት ማረጋገጫ ቅፅ ይለፉ!

11.7: Consent form Amharic version

የስምምነት ማረጋገጫ

ከዚህ በታች ፍርማዬን ያኖርኩት የጥናቱን ዓላማ እንብቤ በሚገባ ስጥናቱ ተሳታፊ ካስፈጸሙ በኃላ ፡ከጥናቱ ተሳታፊ የሚሰጠዉ መረጃ ለዚህ ጥናት አገልግሎት ብቻ የሚዉል መሆኑንና በሚስጢር እንደሚጠበቅ

እንዲሁም ማንነቱ እንደማይገለፅ ተነግሮታል፡፡በተጨማሪም በጥናቱ መሳተፍ ስለመሳተፍ በማንኛዉም ጊዜ ስቋርጦ የመዉጣት ሙሉ መብት እንዳለዉ ስለፈጀቸለሁ፡፡ስለዚህ ፍርማዬ በጥናቱ ስመሳተፍ ፍቃደኝነቴን መግለጼን በፍርማዬ ስረጋግጣለሁ፡፡

ፍርማ----------

ቀን----------

ያረጋገጠዉ ሱፐርቫይዘር ስም----------ፈርማ----------ቀን----------

11.8: Questionnaire Amharic version

ስለጥናቱ መረጃና መጠይቅ

01.ምርመራን 1.የተቀበሉ

2. ያልተቀበሉ

02.የተሳኩበት የስገልግሎት መስጫ ክፍል----------

03.የጤና ድርጅቱ ስም 1.ማሻ 2.ቴፒ 3.ጌጫ

04.የመጠይቁ መለያ ቁጥር----------

ቁጥር	ጥያቄ	አማራጮች	ኮድ	የዝለሉ
ክፍል አንድ የግለሰቡ አጠቃላይ መረጃ				
101	ጾታ	ወንድ----------1 ሴት----------2		
102	ዕድሜዎ ስንት ነዉ?			
103	የት/ት ደረጃዎ ምን ያህል ነዉ?	ምንም ያልተማረ----------1 ማንበብና መጻፍ----------2 አንደኛ ደረጃ ያጠናቀቁ-----3 ሁለተኛ ደረጃ ያጠናቀቁ----4 የኮሌጅ ዲፕሎማ----------5 ሙያዊ ቴክኒክ ሴርቴክፌት---6 ኮሌጅ ዲግሪና በላይ--------7		
104	ሃይማኖትዎ ምንድ ነዉ?	ኦርቶዶክስ ---------1 ፕሮተስታንት---------2 እስላም----------3 ካቶሊክ----------4		

		ባሕላዊ እምነት----5 88.ሌላ ካለ----------6		
105	ብሄርዎት ምንድ ነዉ?	ሸካቾ----------1 ካፋኾ----------2 ሸኮ----------3 መጀንግር---------4 አማራ----------5 ኦርሞ----------6 ጉራጌ----------7 ሌላ----------99		
106	አሁን ስራዎት ምነድነው?	ገበሬ----------1 የቤት እመቤት--------2 ነጋዴ----------3 እየሰራሁ አደደለሁም---4 ተማሪ----------5 የመንግስት ሰራተኛ----6 ሌላ---------- 99		
107	መኖሪያዎ የት ነዉ?	ከተማ----------1 ገጠር----------2		
108	የጋብቻ ሁኔታ	ያላገባ----------1 አሁን በትዳር ላደ ያሉ---2 ከዚህ በፊት አግብተዉ የነበረ----3		
109	ወርሃዊ አማካደ ገቢዎ ምን ያህል ነዉ?			
110	አሁን ስለጤንነትዎ ምን ደስማዎታል?	እጅግ በጣም ደህና ነኝ----1 በጣም ጥሩ----------2 ደህና ነኝ----------3 በጣም ያመኛል----------4		

111	ባለፈዉ ዓመት(12 ወራት) ስህክምና ምን ያህልጊዜ ወደ ጤና ድርጅት ሂደዋል?	መጥቼ አላዉቅም-------1 አንድ እስከ ሁለት ጊዜ----2 ሦስቴ ና ከዚያ በላይ-----3		
ክፍል ሁለት:ግንዛቤን በተመለከተ				
201	ኤድስ ምንድን ነዉ?(ከአንድ በላይ መልስ ይቻላል)	ገዳይ በሽታ ነዉ::-------1 በግብረ-ስጋ ግኑኝነትይተላለፋል::---2 ከእናት ወደ ልጅ ሊተላለፍ ይችላል::----3 በተበከሉ ስለታም መሳሪያዎች ይተላለፋል::-----4 በነፍሳት ንክሻ ይተላለፋል::--5 ማንኛዉንም ሰዉ ሊይዝ ይችላል::---6 ሊድን የማችል በሽታ ነዉ::---7 ፅድሜ ልክ የሚቆይ በሽታ ነዉ::--8 አላዉቅም-----9		
202	በአሁኑ ጊዜ ያሉ የመከላከያ መንገዶች ምን ምን ናቸዉ?(ከአንድ በላይ መልስ ይቻላል)	መታቀብ----------1 አንድ ለአንድ በመወሰን---2 ሁል ጊዜ ኮንዶም በመጠቀም--3 ህዳናዉትን በማስከተብ--4 ከእናት ወደ ልጅ እንዳይተላለፍ የሚሰጠዉን አገልግሎት በመጠቀም-------5 ሌላ----------99		
203	ኤች አይ ቪ በደሙ የሚገኝበትን ሰዉ ያዉቃሉ?	አዎ---------1 አላዉቅም-----2		

204	በኤድስ የሞተ ዘመድ ወይም የቅርብ ሰዉ የሚያዉቁት አለ?	አዎ--------1 አላዉቅም----2		
205	በአካባቢዎ አቅራቢያ ፀረ-ኤች አይ ቪ መድሃኒት አለ?	አዎ----------1 የለም-------2 አላዉቅም-------99		
206	የፀረ-ኤች አይ ቪ መድሃኒት የታማሚዎችን ጤና ያሻሽላል ብለው ያምናሉ?	አዎ-------------1 አላምንም--------2 አላዉቅም--------3		
207	በባለሙያ አነሳሽነት የሚሰጥ የምክርና የደም ምርመራ ሰምተዉ ያዉቃሉ?	አዎ----------1 አላውቅም----2		301
208	ከየት ሰሙ?(ከአንድ በላይ መልስ ይቻላል)	ከማህበረሰብ ዉይይት-----1 ከጤና ድርጅቶች---------2 ፀረ-ኤድስ ክበቦች--------3 ከባለቤት/ከቤተሰብ ዉይይት---4 ከት/ ቤት---------5 ሬድዮ-----6 ከተሌቪዥን------7 ከሰድር--------8 ሌላ---------99		
ክፍል ሦስት፡ አመለካከትን በተመለከተ				
301	በባለሙያ አነሳሽነት የሚደረጉ የኤች አይ ቪ የደም ምርመራና የምክር አገልግሎት ሰዎች በቀላሉ እንዲመረመሩ ይረዳቸዋል፡፡	እስማማለሁ-----------1 አልስማማም-----------2 አስተያየት የለኝም-----3		

302	በባለሙያ አነሳሽነት የሚደረጉ የሴች አደ ቪ የደም ምርመራና የምክር አገልግሎት ሰዎች በቀላሉ ፀረ-ሴች አደ ቪ መድሃኒት እንዲያገኙ ደረጃቸዋል።	እስማማለሁ---------1 አልስማማም-------2 እስተያየት የለኝም-----3		
303	በባለሙያ አነሳሽነት የሚደረግ የሴች አደ ቪ የደም ምርመራና የምክር አገልግሎት ማግለልና መድሎን ይቀንሳል።	እስማማለሁ----------1 አልስማማም----------2 እስተያየት የለኝም-----3		
304	በባለሙያ አነሳሽነት የሚደረጉ የሴች አደ ቪ የደም ምርመራና የምክር አገልግሎት ሰዎች ምርመራን በመፍራት ሴሎች አገልግሎቶችን እንዳይጠቀሙ ያደርጋል።	እስማማለሁ---------1 አልስማማም-------2 እስተያየት የለኝም-----3		
305	በባለሙያ አነሳሽነት የሚደረጉ የሴች አደ ቪ የደም ምርመራና የምክር አገልግሎት ከደም ምርመራ ጋር ተያይዞ ያለዉን የሴቶች ጥቃቶች ይቀንሳል።	እስማማለሁ---------1 አልስማማም--------2 እስተያየት የለኝም-----3		
306	በባለሙያ አነሳሽነት የሚደረጉ የሴች አደ ቪ የደም ምርመራና የምክር አገልግሎት ከደም ምርመራ ጋር ተያይዞ ያለዉን የሴቶች ጥቃቶች ያባባሳል።	እስማማለሁ---------1 አልስማማም--------2 እስተያየት የለኝም-----3		
ክፍል ስድስት፡ ተግባርን በተመለከተ				

401	የሴች ስደ ቪ የደም ምርመራ ስድርገው ያጢቃሱ?	አዎ----------1 ስላውቅም-----2		403
402	ላስመመርመርዎ ምክንያትህ ምንድ ነጢ?(ከስንድ በላደ መልስ ደቻላል)	ጢጤቱን ማወቅ ስስፈራሁ::---1 ቫደረሱ በደሜ ጢስጥ ደገኛል ስስፈራሁ::-- --------2 የምርመራ ስገልግሎት በቅርበት ስላላገኘሁ::-------3 ጢጤቱ እንዳደታወቅብገኝ በመፍራት::----- -4 ቫደረሱ በደሜ ጢስጥ ቢገኝ የህብረተሰቡን ድጋፍ ስላገኝም ብየ ስስ ማስብ-------5 በምርመራ ጢጤት ላደ እምነት ስስስኝ::-- 6 ጥረ ሕክምና ስገኛስሁ ብየ ስስማላስብ::-7 የጤና ባስሙያዎች እንዳያገሱኝ በመፍራት::----------8 ከተዳር ንዱኛየ ጥቃት እንዳደደርስብኝ በመፍራት::----9 በምርመራ ቦታ መታየት መፍራት::----10 የፀረ-ሴች ስደ ቪ መድሃኒት በቅርበት ስስማላገኝ-----11 ሴሎች እንዳልመረመር ስስመከረኝ::---12 የተዳር ንደኛዬ ስላልፈቀደልኝ::--13 ሴላ ----------99		
403	ስመመር ለምን ፈቃደኛ ሆኑ? (ከስንድ በላደ መልስ ደቻላል)	የፀረ-ሴች ስደ ቪ መድሃኒት በቅርበት መኖረን ስስማውቅ::--1 በምርመራ ጢጤት ሚስጢራዊነት ስስማምን-----2		

		ጠጤቱ ወዲያሁኑ እንደሚሰገል ስለማጢቅ::----3 ከዚያ በፌት በተመረመረ ሰዎች ተበሬትቼ-----4 ከዚያ በፌት በነበረኝ አጋላጭ ባህሬ በመጠራጠር-----5 የትዳር ጓደኛዬ/ቤተሰቦቼ መክረዉኝ--6 በቅድመ ወሲድ ክትትል ጊዜ ተመክረ::---- 7 ታምመ ስለነበር::-------8 የጤና ባለሙያ አዞልኝ::----9 ደም መስገስ ስለፌለኩገኝ::---10 ሌላ ----------99		
ክፍል አምስት፡አጋላጭ ባህሬያትን በተመለከተ				
501	ግብረ-ሥጋ ግንኙነት አድርገዉ ያዉቃሉ?	አዎ---------1 አላውቅም(ወደ ተ.ቁ 511ይሂዱ)--2		511
502	ለጥያቄ 501 ምላሽዎ አዎ ከሆነ ከሁለ ጊዜ ጓደኛዎ ዉጪ አድርገዉ ያዉቃሉ?	አዎ----------1 አላውቅም-----2		
503	በህይወት ዘመንዎ ምን ያህል ጓደኛ ነበርዎት?	አንድ----------1 ሁለት----------2 ሦስትና ከዚያ በላይ----3		
504	ባለፉት 12 ወሬት ስንት የወሲብ ጓደኛ ነበርዎት?	አልነበረኝም----------1 አንድ----------2 ሁለት----------3 ሦስትና ከዚያ በላይ-----4		

505	ለ 501 መልስዎ አዎ ከሆነ ኮንዶም ተጠቅመዉ ያዉቃሉ ?	አዎ(ወደ ተ.ቁ 506)-----1 አላውቅም----------2		
506	በምን ጊዜ ይጠቀማሉ?	አልፎ አልፎ--------1 ሁል ጊዜ---------2		
507	በአባለዘር በሽታ ተይዘዉ ያዉቃሉ?	አዎ(ወደ 509)--------1 አልተያዝኩም---------2 አላውቅም----------3		
508	ምን ያህል ጊዜ ተይዘዋል?			
509	ካለምት ባህርይ አንፃር በሌች አይ ቪ የመያዝ ሰድልዎ ምን ያህል ነዉ	የለም--------1 አነስተኛ-----2 ከፍተኛ------3		
510	ጫት ይቅማሉ?	አዎ----------1 አልቅምም(ወደ 514)---2		
511	አልኮል ይጠጣሉ?	አዎ---------1 አልጠጣም(ያበቃል)-----2		

Declaration

I, the undersigned, declare that this thesis is my original work, has not been presented for a degree in this or another university and that all sources of materials used for this thesis have been fully acknowledged.

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