ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH

ASSESMENT OF KNOWLEDGE ABOUT CERVICAL CANCER AND BARRIERS TOWARDS CERVICAL CANCER SCREENING AMONG HIV POSITIVE WOMEN, IN HEALTH CENTERS OF ADDIS ABABA, ETHIOPIA

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A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES ADDIS ABABA UNIVERSITY SCHOOL OF PUBLIC HEALTH, IN PARTIAL FULFILMENT OF THE REQUIRMENTS FOR THE DEGREE OF MASTERS IN PUBLIC HEATH

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A thesis submitted to the School of Graduate Studies of Addis Ababa University in partial fulfillment of the requirements for the Degree Master of Public Health in the School of Public Health, College of the Health Sciences.

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ACRONYMS AND AVREVIATIONS

AIDS-Acquired Immune Deficiency Virus

ANC-Anti Natal Care

ART-Anti Retroviral Therapy

CIN-Cervical Intra Epithelial Neoplasia

H/C- Health Center

HCP-Health Care Provider

HCF-Health Care Facility

HIV -Human Immune Deficiency Virus

HPV- Human Papiloma Virus

HSIL-High Grade Squamous Epithelial Lesion

LSIL-Low Grade Squamous Epithelial Lesion

NGO-Non Governmental Organization

PAP smear- Papanicolaou Smear

STD-Sexually Transmitted Disease

VIA-Visual Inspection with Acetic acid

ABSTRACT

Background: Cervical cancer is the second most common women cancer with 528,000 new cases each year worldwide. Current estimates indicate that every year 7095 women are diagnosed with cervical cancer and 4732 die from the disease in Ethiopia. The magnitude of precancerous cervical cancer lesions as well as invasive cervical cancer is higher in HIV-infected women than others. Participation in screening for cervical cancer is poor among Ethiopian HIV patients. The awareness women have about the disease can play a vital role in the prevention, early diagnosis and treatment of cervical cancer. Information regarding this area is very scares in HIV patient of Ethiopia, so this study aims to assess women's knowledge about cervical cancer and barriers to cervical cancer screening among women living with HIV in health centers of Addis Ababa city.

Methodology: A facility based cross sectional study design using both quantitative and qualitative method was conducted among 594 HIV positive women with age between 21and 65 years. Univariate and binary logistic regression analysis were performed. Chi square test was used and p-value < 0.05 was considered for multiple regressions. Open code analysis was used to code and categorize qualitative data, and then thematic analysis was employed.

Result: Out of 581 women enrolled with mean age 34.9±7.7 years, 41.1% were married, 34.1% had primary school while 57.8% of participants have heard about cervical cancer. Only 21.3% were knowledgeable about cervical cancer and cervical cancer screening, 86.2% were willing to be screened and 10.8%% were already screened for cervical cancer. In multivariate analysis educational status and knowing someone with cervical cancer were associated with knowledge score with $p < 0.05$.

Conclusion and recommendation: Knowledge regarding cervical cancer is poor among HIV positive women and screening rate was low. The most commonly identified barrier was lack of awareness, so it is needed to scale up health education regarding cervical cancer and screening methods for HIV positive women in Addis Ababa.

1. INTRODUCTION

1.1. Background

Cervical cancer is caused by presence of persistent type of HPV infection which interferes with the normal functioning of cells; this will result in distinct change in the epithelial cells of transformation zone of the cervix(1).

Cervical cancer is one of the very few cancers where a precursor stage (pre-cancer) lasts many years before becoming invasive cancer, providing ample opportunity for detection and treatment(2).

Cervical cancer is the second most common cancer among women worldwide, in 2012, 528 000 new cases and 270,000 deaths was estimated worldwide; of these almost 9 out of 10 cases occurred in less developed regions(3).

Women in low-income countries have higher rates of cancer, largely because of a lack of screening service and treatment at early stages of disease due to lack of infrastructure and financial resources for screening service. In sub-Saharan Africa, 22.2% women cancer are cervical cancer and it is also the most common cause of cancer related women death(4, 5).

In Ethiopia there are 27.19 million women aged 15 years and older who are at risk of developing cervical cancer. Every year 7095 women are diagnosed with cervical cancer and 4732 die from the disease(6).

Cervical cancer most often occur at age greater than 40, but can occur at any age(1) .The epidemiologic risk factors for cervical cancer include HPV infection, HIV infection, multiple sexual partners, early onset of sexual activity, a high-risk sexual partner, a history of STDs, smoking, multiparity, and long-term oral contraceptive pill use(7, 8).

Pre cancerous cervical cancer and cervical cancer often do not have symptoms, by the time symptoms appear the cancer cell already have spread. The most common sign women will have are back or pelvic pain, vaginal bleeding, spot or vaginal discharge and contact and after coital bleeding(3).

Health promotion activities on avoiding behavioral risk factors such as sexual health, smoking cessations and healthy diet can contribute to the Primary prevention of cervical cancer(9, 10).

Vaccination against HPV type 16 and 18 is effective in preventing HPV infection hence reduced incidence of cervical cancer. Recommended ages are 9 to 13 aiming to reach them before they become sexually active(1).

According to WHO guidelines every sexually active women and girls aged 30-49 should undergo cervical cancer screening but for women and girls who are HIV positive and sexually active, they should be screened regardless of their age(11).

Cervical cancer screening is the systematic application of a test to identify cervical abnormalities in an asymptomatic population. Screening services may be provided either as organized or opportunistic services or a combination of both(3).

Until a few years ago, the only method of screening for cervical cancer was the Pap smear or cytology. Afterwards newer methods have been developed for cervical cancer screening: molecular HPV screening tests and visual inspection with acetic acid(12).

Screening practice is very poor in many African countries due to lack of screening service as well as poor knowledge of cervical cancer and screening methods. Women come at late stage of cervical cancer which makes treatment outcome difficult(10, 11).

1.2 Statement of the problem

Considerable attention has been focused on cervical cancer prevention in developed countries and how cervical cancer screening contributes to cervical cancer related death. Whereas in developing nation there is less concern, though screening has a vital role in preventing the scourge of cervical cancer due to computing needs for communicable disease(5).

Screening practice is very poor in many developing countries including Ethiopia due to unavailability and inaccessibility of cervical cancer screening services coupled with poor level of knowledge (4, 13, 14).

Screening all women in the target age group every 3 years was estimated to prevent 91% of cases, followed by treatment of detected precancerous lesions can prevent the majority of cervical cancers(15).

HIV infected women are at increased risk of acquiring persistent type of HPV infections, a more rapid progression to pre-cancer and cervical cancer even at younger age than HIV negative

women do. According to the United States Centers for Disease Control and Prevention (CDC) Cervical cancer is a defining illness of acquired immunodeficiency syndrome (AIDS)(16-18).

In Ethiopia a country in east Africa, where HIV is more prevalent, cervical cancer is considered a major public health problem and is also the most commonly occurring cancer among Ethiopian women and also the second leading type of cancer seen at Tikur Anbesa radiotherapy center(19).

Knowledge and Practice regarding cervical cancer screening is very low in Ethiopia(20, 21). However, for the screening methods to be fully utilized; First women need to be aware of the disease and availability of screening methods. Also facilitation of the screening service by the government of the country should also be considered. Sensitization of health care workers about cervical cancer is also very important (5).

Having Knowledge about cervical cancer and screening methods is a pre request for practicing screening. However women in many developing countries lack knowledge about causes, risk factors, prevention mechanisms of cervical cancer and availability of screening methods (13, 22, 23).

Even though most of HIV positive women visit ART clinic, little emphasis is given to the control and prevention programs against cervical cancer, diagnosis and treatment services.

HIV infection is a contributor for higher cervical cancer prevalence and also HIV prevalence is higher among females in Addis Ababa. A study done in Addis Ababa shows that screening uptake by HIV infected women is 11.5% which is low (24).

So far, only few studies in the area of knowledge about cervical cancer and screening methods were conducted among HIV positive women at a time. So, this study aimed to assess the knowledge about cervical cancer and screening methods and barriers towards screening among HIV positive women.

1.3. Rationale of the study

An identified knowledge regarding cervical cancer and barriers towards screening will help policy makers and NGO working on cancer to design evidence based cervical cancer prevention program. Studies in this regard seem limited which create information gap among study subjects and policy makers.

Since HIV positive women are the most vulnerable groups, special attention should be focused on prevention with effective information on preventive practices, screening services and treatment modalities. Thus much need to be studied regarding their level of knowledge about cervical cancer and what barriers they have that prevents them from screening in order to avert cervical cancer related death among HIV positive women.

Thus this study is intended to fill research gabs, therefore the results of this study will contribute in designing appropriate intervention strategies and providing a convenient programmatic approach to address barriers to cervical cancer screening in Ethiopian context. In addition, it will be helpful in providing information as baseline for future studies.

2. LITERATURE REVIEW

2.1. The magnitude of cervical cancer

Despite, cervical cancer incidence and mortality rates have fallen in countries where social and economic status has improved over the last 30 years; the incidence in Africa is on the rise or the same(1). This is largely a result of the implementation of secondary prevention efforts, which include effective screening, early diagnosis and treatment for pre-cancer and early cancer treatment(1). A retrospective study done in Finland among HIV positive women at University of Helsinki from 1989-2000 shows, the prevalence of carcinoma in situ (CIN) is decreasing between 2000 -2005 from 12.5 -3.5 of 100 women(25).

Review done at Kenyatta national hospital on patterns of AIDS defining, HIV associated neoplasm and premalignant lesion diagnosed from 2000-2011 shows that cervical cancer is third presenting cancer among HIV infected people(26).

A strong association was observed among young women between cervical cancer and HIV with high prevalence of high risk HPV DNA (100%) in a case-control study done among Côte d'Ivoire women in order to assess the relationship between HIV infection and cervical cancer(16).

According to cross-sectional institution based survey done in Ethiopia among cervical cancer patients in Tikur Anbesa specialized hospital, of 314 cervical cancer patients,39(12.4%) were HIV positive(27).

Survey done in order to asses female nurses knowledge, preventive practices and associated factors in selected governmental health institution in Ethiopia shows, cervical cancer incidence was 12.7%. 53 % of the respondents also knew someone with cervical cancer and 6% had a history of cervical cancer in their families(28).

2.2 Overview of Cervical Cancer Screening

Cervical cancer is gradually becoming a rare disease in many developed countries; this is not the case in sub Sahara countries and other developing countries(1, 5). Cervical cancer screening coverage is very low outside developed countries, those women who had never screened are at highest risk of developing cervical cancer. Lack of infrastructure and lack of awareness about cervical cancer and screening methods are the major barriers for women not using screening service in low and middle income countries(5).

A review of cancer screening in 57 countries using data from 2002 found that Screening prevalence ranged from greater than 80% in parts of Europe to less than 1% in Bangladesh, Ethiopia, and Myanmar(15).

There is no national cervical cancer screening program in Ethiopia. There is limited use of Papanicolaou (pap) smears, mostly in private clinical settings and some community health centers such as Family Guidance Association (FGA) clinics. But now day's path finder is implementing VIA in some community health centers and hospitals in Addis Ababa(29).

2.3 Knowledge about cervical cancer and screening methods

In a study done in Karachi, Pakistan among interns and nursing stuff, 62% out of 400 participants aware that HPV infection can lead to cervical cancer. 89% correctly reported sexual contact as the mode of transmission for HPV infection. Most of the health professionals stated, unsafe sexual practices, HPV infection, early onset of sexual practice, as a common risk factors for cervical cancer. Only 40% of the respondents were aware that Pap smear as the screening test for cervical cancer(30).

A survey done in Wufeng china shows women who were willing to undergo screenings, women with higher education and income levels and women with positive family histories of cancer were more likely to have higher levels of knowledge about cervical cancer. Most of participants recognized that cervical cancer was curable if detected early (80.8%), and most knew that it could be prevented by having fewer sexual partners (80.7%), maintaining sexual hygiene (90.3%), and eating more fruits and vegetables (78.0%)(31).

A survey done among women living in Kinshasa, the democratic republic of Congo, 524 women were participated in the study with median age of 28 of which 43% women have sufficient knowledge about cervical cancer but only 16.8% had ever heard about cervical smears(14).

The knowledge regarding cervical cancer is low among Gabonese women, of 453 participants only 126(27.9%) know cervical cancer as a preventable disease through screening. Of which 8.8% of participants heard about HPV. Of this 65% of them identified HPV as a risk factor for cervical cancer and 70% know as it is sexually transmitted virus(10).

Knowledge about cervical cancer in northwest of Ethiopia is low; 31% of them are able to identify at least one risk factor for cervical cancer among women aged 15 and above even though 78.5% had heard about cervical cancer(21).

2.4 Willingness to take cervical cancer screening

A cross-sectional Survey done among Kenyan women aged 15-49 shows that majority of women were willing to practice screening. In which out of 388 participants, only 5% of them were unwilling to take cervical cancer screening regardless of payment(8).

A study done in Addis Ababa among HIV positive women shows only 11.5% had ever screened for cervical cancer even though 62.7 % of participants were willing to undergo screening service in the near future(24).

2.5 barriers to cervical cancer screening

In developed countries people seem to be aware of cancer and screening services. In the cross-sectional survey of self-reported Pap-smear history among 1002 HIV-positive women attending infectivology units of a large Italian region, 91% of women had had at least one Pap-smear in their lifetime and 61% reported a Pap-smear in the last year(32).

Practice towards screening for cervical cancer is poor among women in udayapur district of Nepal; 63.3% of women were aware of cervical cancer but only 7.8% women had had at least one Pap smear. This shows knowledge about Pap smear test and attitude towards the test were the variables which significantly influenced Pap smear utilization(33).

A qualitative survey done in Malawi shows improper management at health service, long distance, limited knowledge about cervical cancer and its prevention method were identified factors that contribute to delay in seeking cervical cancer diagnosis and treatment services(4).

Same results to Malawi found in rural district of Tanzania among women aged 18-67: The two most common identified barriers towards screening for cervical cancer were knowledge of cervical cancer and its prevention and distance to cervical cancer screening services. Less than

quarter of participants have high level knowledge. Those participants who resided 2 to 5 km from the cancer screening facility were more likely to have had the screening compared to those who lived further away. Of 354 participants only 22.6% had obtained cervical screening services(13).

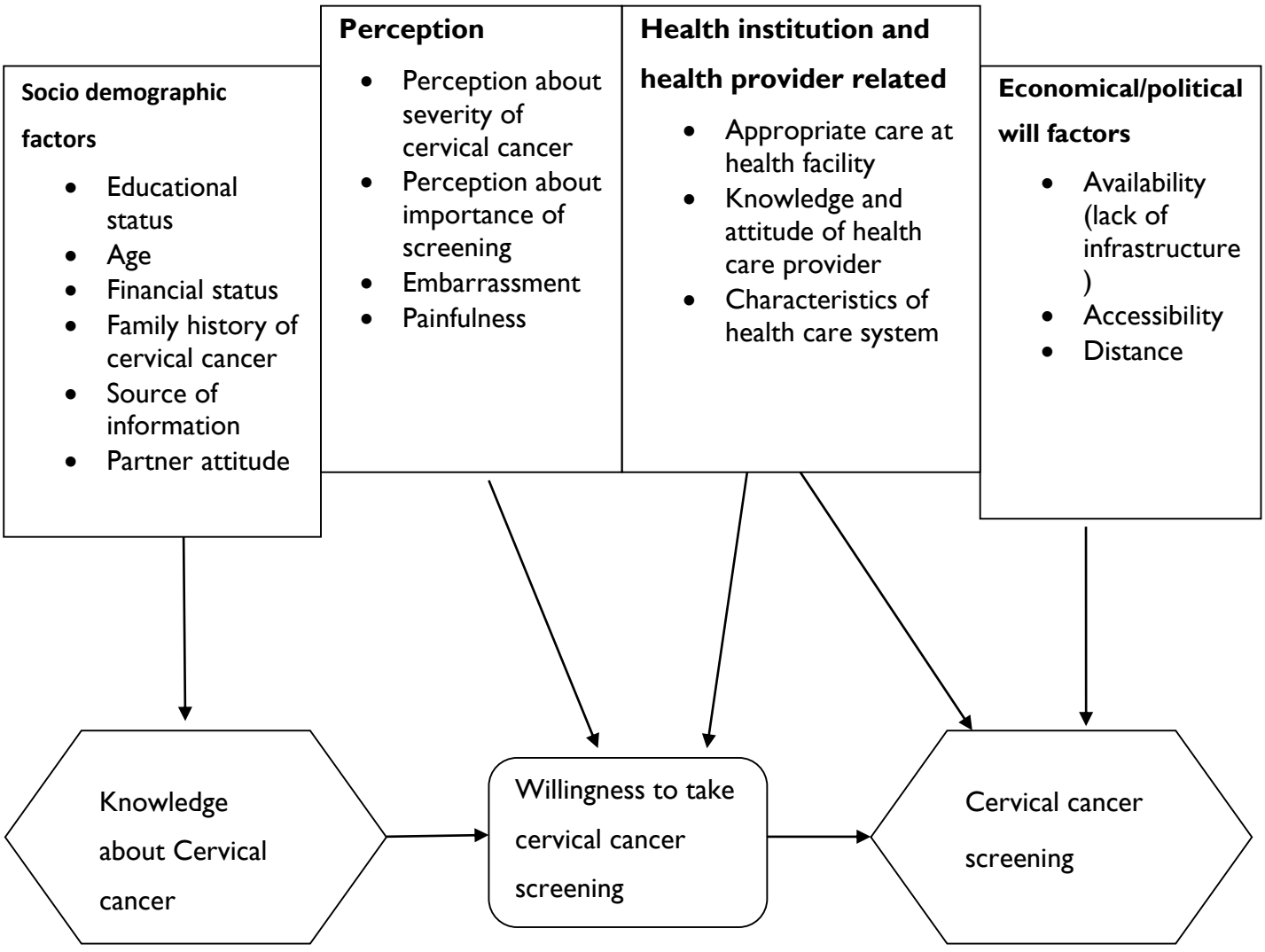
A qualitative study done in mild may Uganda shows even though the clinic has integrated cervical cancer screening program with HIV care; screening uptake is low. Despite all women have good knowledge about cervical cancer screening but some of clients are unwilling to undergo screening service due to fear of positive results and misconception(17).

Fear of outcomes, lack of information, lack of health care worker request, high cost of screening and lack of personnel at screening center are reason for market women of Zaria, Nigeria for not taking screening service even if 66.9% had heard of cervical cancer(34).

A qualitative study done in Ethiopia, A.A and Jimma zone shows that common barriers in seeking modern treatment for cervical cancer were related to availability and accessibility of health care services(35).

2.6 CONCEPTUAL FRAMEWORK

Two types of variables are used to assess factors associated with knowledge of cervical cancer and barriers to cervical cancer screening. The dependent variables are knowledge on cervical cancer, Willingness to undergo cervical cancer screening and barriers to cervical cancer screening. And independent variables are economic or political will, socio demographic, health care provider related factors and other factors. This conceptual framework is developed using information from different literatures



3. OBJECTIVES

3.1General Objective

To determine knowledge of cervical cancer, screening methods and barriers towards screening among HIV positive women, in health centers of Addis Ababa

3.2 Specific Objective

1. To determine knowledge of cervical cancer and screening methods among HIV positive women at health centers of Addis Ababa.
2. To identify associated factors affecting HIV positive women knowledge about cervical cancer and screening methods
3. To asses willingness towards screening for cervical cancer among HIV infected women
4. To asses perceived barriers towards screening for cervical cancer among HIV infected women

4. METHODS

4.1 Study area

The study was conducted in public health centers of Addis Ababa, which is the capital city of Ethiopia, which is the capital, industrial, commercial and cultural centre of the country as well as the seat of the African Union.

Based on 2007 figures from the Central Statistical Agency of Ethiopia, Addis Ababa has an estimated total population of 3.384,569 with annual growth rate of 3.8%. 52.4% of the population is female, a slightly higher rate than the national ratio (51%)(36).

The city has ten sub-cities and 116 wereda. There are 51 hospitals in the city owned by different bodies. There are 84 public health centers and around 700 private clinics out of which 75 are higher clinics.

Addis Ababa city was chosen for this particular study as it is among the few places in Ethiopia where HIV prevalence is high and screening for cervical cancer is practiced. According to EDHS 2011 HIV prevalence in Addis Ababa among women aged 15-49 is 6%. Now days most Addis Ababa health centers will initiate first line ART treatments for uncomplicated patients and follow stable patients that have been transferred-out from hospital(37). Addis Ababa health centers have integrated screening for cervical cancer to ART clinic and one health center from each sub cities are practicing this service except kirkos sub city. Thus this study was conducted in Semen, Akaki, Meshualekiya, kasanchis, Beletshachew, Saris, Bole 17/20, Teklehaymanot, Woreda 9 Kolfe, Woreda 9 Nifas silk, Kebena, Yeka, Dilfree and Kirkos governmental health centers.

4.2 Study period

The study was conducted between February and March 2016.

4.3 Study design

This study was a mixed approach using facility based cross sectional study design and qualitative method.

4.4. Source population

All women living with HIV/AIDS and registered in ART clinics (Pre ART and ART) in health center found in Addis Ababa city administration, Ethiopia.

4.5. Study population

Quantitative: The study populations were all HIV positive women who were registered and visit ART clinics in the selected health centers during the study period who would fulfill the inclusion criteria.

Qualitative: The study population was adherence supporters, health care providers and HIV positive women from ART clinics in selected health centers.

4.6 Sample size determination

Quantitative:

Sample size was determined using both single and double population proportion formula**.** The proportion of knowledge about cervical cancer was taken from prior studies done in North West Ethiopia which was 31%, was taken assuming 10% variation(21).

The proportion of willingness towards screening was taken from the study done among HIV positive women, in Addis Ababa which was 62.7(24).

Table1. Sample size determination for the study of knowledge about cervical cancer and barriers towards screening, Addis Ababa, Ethiopia, 2015

Variables	Proportion from the study	Sample size calculation	Sample size
knowledge	31% Assuming 10% variation 34.1%	**N=** $\frac{(z/2)^2 P(1-p)}{d^2}$, 95% CI, P=34.1%, 10% non response rate, 4% margin of error	594
willingness	62.7%	**N=** $\frac{(z/2)^2 P(1-p)}{d^2}$, 95% CI, P=62.7%, 10% non response rate, 5% margin of error	396
Education	P 50%	(0R=2.0), 80% power to detect the difference, 95% confidence level,10%non response rate	369

The largest sample size **594** was taken to fulfill all specific objectives. (table1)

Qualitative: A total of 14 in-depth interviews were undertaken among purposely selected adherence supporter, health care providers and HIV positive women in the health centers from ART clinic until information was saturated.

4.7 Sampling procedures

Sampling was focused on health centers where clients get primarily health care services. Simple random sampling technique was used to select 14 health centers using lottery method from 84 health centers found in Addis Ababa city administration. Whenever health centers which did not start ART service yet, those with low ART patients flow and health centers

which already have integrated cervical cancer screening service were found in randomly selected health center they were excluded. And eligible health centers were selected again by lottery method. Study participants to be included in each health center was determined in proportion with total number of women clients came for ART and Pre-ART services to ART clinic, using the patient flow three month prior to the data collection and at the time of data collection. Finally a proportional sample of target women was recruited for the study using systematic sampling technique.

As shown below the study participants were distributed to the selected fourteen health center proportionally.

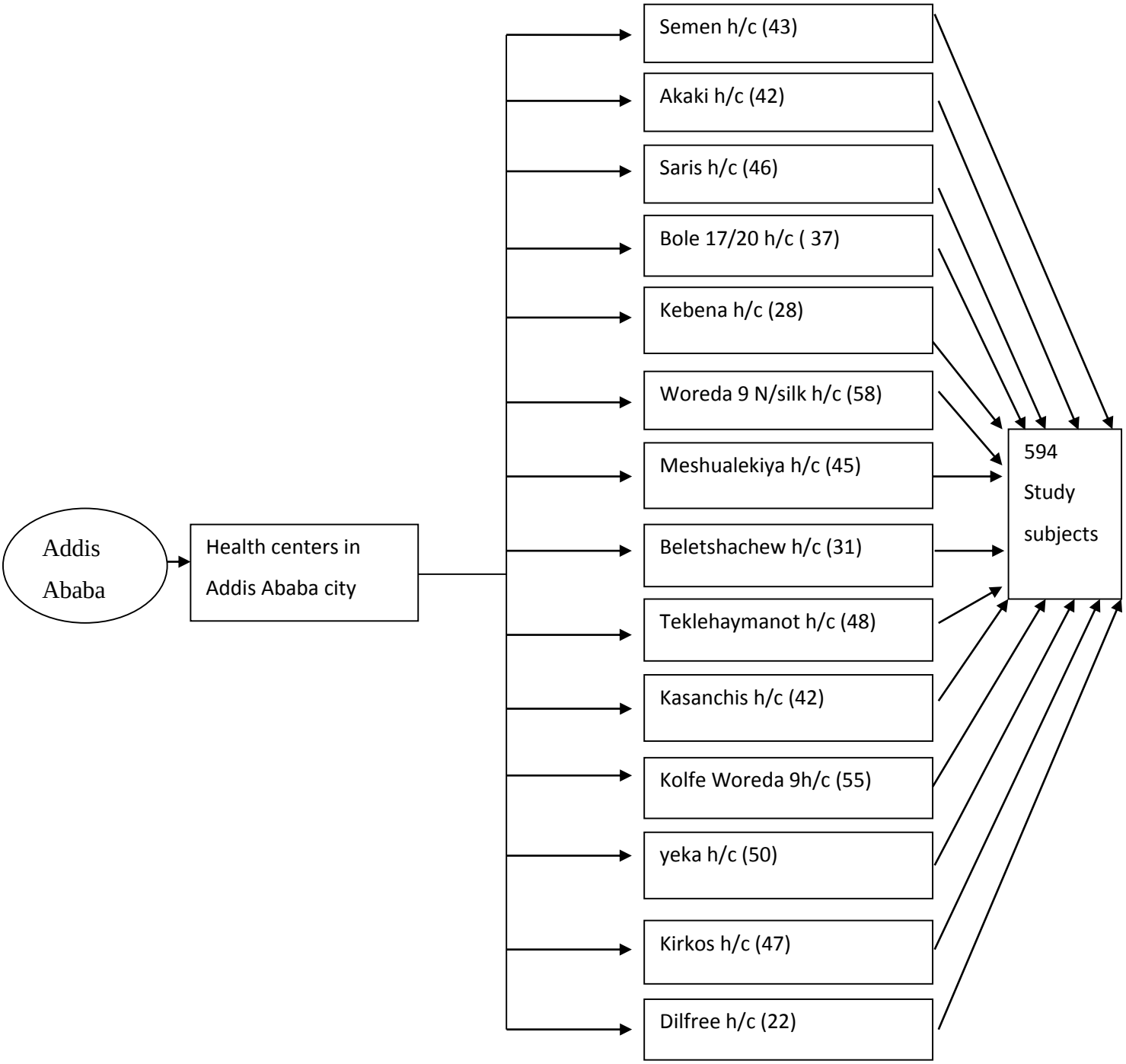


Figure 2 Schematic representation of sampling procedure

For qualitative data, purposive sampling method was used. In-depth interviews were under taken among 14 key informants and HIV positive women until point of saturation.

4.8. Inclusion criteria

- HIV positive women
- Age between 21 and 65 years
- Who are registered and visit the ART clinic during the study period.

4.9 Exclusion criteria

- Women who were critically sick
- Those women who were unwilling to participate

4.10. Variables

Independent variables

- Socio-demographic variables;
- Knowing someone with history of cervical cancer
- Source of information

Dependent variable

- Knowledge on cervical cancer and cervical cancer screening
- Willingness to undergo cervical cancer screening
- Barriers to cervical cancer screening

4.11. Data Collection Procedure

Quantitative data using a structured questionnaire was designed based on available literature and previous studies to collect dependent variables (Knowledge on cervical cancer, willingness to undergo cervical cancer screening and barriers to cervical cancer screening) and independent variables like socio-demographic characteristics and knowledge on risk factors of cervical cancer. The questionnaire was first prepared in English and later was translated in to local language (Amharic). Pre-testing of the questionnaire was carried out among 16 HIV positive women in health centers which latter was not included in the study. Data collectors were

recruited from ART clinic for confidentiality purpose and training was provided about the objective and methodologies and data collection techniques of the study. The trained data collectors were elaborate on purpose of the study to the participants. In order for study subjects to provide genuine response, privacy was ensured during data collection by making the questionnaire anonymous and area of response free of any interference.
For qualitative part of data collection, revised, translated into local language and pretested guide in depth interview containing important points to explore mainly perceived barriers of HIV positive women to cervical cancer screening service was used from previous studies. The investigator was the one who manage the in depth interview and note taking and tape recording was made by trained individuals.

4.12. Data Quality management

Quantitative:

In order to ensure data quality, Pre-testing of the questionnaire was carried out in health centers which latter was not included in the study. Data collectors were selected based on their educational background and experience of data collection. Data collectors were trained on the objective and methodologies and data collection techniques of the study. Daily discussion and check up of data completeness was made with data collectors.

Qualitative:

Qualitative data was collected by principal investigator with the assistance of note taker. A study guide was developed by the principal investigator to conduct the in-depth interview. The interview was taken place in local language Amharic in a quiet place where it was not overheard by others and where the respondent can comfortably respond to the questions. The discussion was tape recorded, transcribed and then translated to English on the same day.

4.13. Data Analysis procedures

Quantitative data

The data collection instruments were coded and data was checked and entered using Epi-info version 3.5.1 software. It was cleaned and edited accordingly and exported to SPSS version 20.0 statistical package for analysis and was checked for missing values before analysis. Then measuring for the dependent variables and having any score greater than or equal to the mean score of knowledge defined as high score and low score of knowledge as less than mean score of the collected data. Willingness was assessed by 6 statements regarding cervical cancer screening which had a dichotomous response that was yes and no. Each yes response was scored as 1 and No as 0. A score of 50% and above was considered as optimal. First the univariate analysis was used to describe frequency distribution, proportion, measures of central tendency and dispersion .Then Binary logistic regression analysis was used to measure the association between the dependent variable and independent variables using the odds ratio and 95% confidence interval (CI). To identify the relative effects of explanatory variables on the outcome variable, multivariable analysis with $P < 0.2$ was considered for inclusion in multiple logistic regressions. Statistical significance for the multiple logistic regressions analysis was set at $\alpha \leq 0.05$.

Qualitative data

For the qualitative study in-depth interview was tape recorded then it was transcribed and translated. Open code software was used to code and categorize then thematic analysis was employed finally emerged themes were included into the final thesis report.

4.14. Operational definitions

PAP smear-is a test of sample of cells taken from women vagina or cervix to look for changes.

VIA- is a method used for detecting early cell changes that are visible when using a speculum to inspect the cervix with the naked eye after applying dilute (3–5%) acetic acid to it.

Human papiloma virus: A sexually transmitted organism that causes cervical cancer.

HPV testing - testing methods which are based on the detection of DNA from high-risk HPV types in vaginal and/or cervical samples.

Knowledgeable- The knowledge of the cervical and cervical cancer screening were assessed using 17 point knowledge score. The respondents were asked a total of 17 multiple questions on knowledge that carried a total of 31 correct responses. Each correct response was given a score of 1 and wrong responses a score of 0. Total points to be scored were 17 and the minimum was 0. Points were causes for cervical cancer, risk factors for cervical cancer, cervical cancer symptoms, risk groups for cervical cancer, prevention mechanisms, types of screening, advantage of screening, screening age, screening frequency and knowledge on treatment mechanisms.

The score for knowledge were categorized in two groups good and poor. Good knowledge categorized for the value greater than or equal to mean value and poor knowledge for the value less than mean value from the provided 17 closed ended knowledge question about cervical cancer and cervical cancer screening.

Willingness-Willingness was assessed by 6 questions which had dichotomous response yes and no. Each yes responses were given a score of 1 and no responses were given a score of 0. The responses were summed up and a total score was obtained for each participant. Respondents who scored 50% and above from 6 willingness questions were considered optimal.

Perceived Barriers- participants perception of the difficulties they would encounter in taking cervical cancer screening.

4.15. Ethical Consideration

To conduct this research project, ethical approval was secured from Research Ethics Committee (REC) of School of Public Health at College of Health Sciences of Addis Ababa University. Permission and letter of support for each health center to be included in the sample was obtained from Addis Ababa health bureau.

4.16. Dissemination of results

After completion of research, the results of the study was presented during thesis defense and the final result will be submitted to Addis Ababa University, School of Public Health. In addition to this the final result document will be presented to Addis Ababa health bureau and other responsible bodies. And also attempt will be made for publication of the research on reputable Journal.

5. RESULTS

5.1 Socio demographic characteristic of the study participants

A total of 594 HIV positive women between 21 and 65 years of age were targeted for the study, of which 581 responded making the response rate 97.8%.The mean age and median household income of the study participants was 35 years(SD 7.7) and 1000(IQR1300) respectively.

About 558(96%) were from Addis Ababa, 239 of study participants were married and the dominant religion was orthodox Christian which was 458(78.8%).Primary education and unemployed made up the largest proportion 198(34.1%) and 160(27.5%) respectively. Concerning parity 323(55.6%) of the study participants has 1-2 child and 61(10.5%) of them know someone with cervical cancer. Five hundred forty one (93.1%) were on ART and also the median duration of HIV diagnosis and ART clinic enrollment was 5 years (IQR 5) and 4 years (IQR 3) respectively. (Table 2)

Table2. Socio demographic characteristics of HIV positive women in Addis Ababa health centers February, 2016

Variables	frequency	Percentage
Residence- Addis Ababa	558	96
Out of Addis Ababa	23	4
Age category-21-30	207	35.6
31-40	259	44.6
>40	115	19.8
Religion- Orthodox	458	78.8
Protestant	72	12.4
Catholic	4	0.7
Muslim	47	8.1
Educational status- Illiterates	150	25.8
Primary school	198	34.1
Secondary school	157	27
Diploma and above	76	13.1
Occupation status- Government employee	89	15.3
NGO employee	154	26.5
Daily laborer	84	14.5
Unemployed	160	27.5
Self employed	83	14.3
Others	11	1.9
Marital status- Single	133	23
Married	239	41
Divorced	101	17.4
Widowed	86	14.8
Separated	22	3.8
Household income-<1000	311	53.5
1000-2000	157	27
>2000	113	18.4
Duration of HIV diagnosis-<4 years	235	40.4
4-8years	219	37.7
>8years	127	21.8
ART treatment-On ART	541	93.1
Not on ART	40	6.9
Knowing someone with cervical cancer-Yes	61	10.5
No	520	89.5

5.2 Knowledge towards cervical cancer and cervical screening methods

Of 581 study participants 57.8% of them had heard about cervical cancer and the most common source of information was mass media (65.9%) followed by health care providers (20.1%).However only 21.3% of the study participants were knowledgeable about cervical cancer and cervical cancer screening. The response to 17 item knowledge question ranges from 0 to 17 with a mean of 5.74 (SD 3.44).

All most all of the in depth interview respondents had heard about cervical cancer but majority of them had no detailed knowledge regarding cervical cancer including health care providers working in ART clinic.

Table3. HIV positive women knowledge about cervical cancer in Addis Ababa health centers February, 2016

Variables	frequency	percentage
Good knowledge	124	21.3
Poor knowledge	457	78.7
Heard about cervical cancer		
Yes	336	57.8
No	245	42.2
Source of information		
Media	216	65.9
Health care providers	66	20.1
Friends	30	9.1
Others	16	4.9

5.2.1 Knowledge on risk factors and symptoms of cervical cancer

Respondents were asked about the causes for cervical cancer and only 53 (9.1%) study participants had identified virus as the causative factor for cervical cancer. The most frequently mentioned risk factor by study participants was multiple sexual partner 164(28.2%) followed by early sexual debut 88(15.1%).

Finding of the in depth interview indicated that most of them do not have adequate knowledge regarding cervical cancer risk factors. Majority of the interviewee mentioned multiple sexual partner, infection and unprotected sex as a risk factor for cervical cancer.

A 36 years old female working as adherence supporter for the last 1 year said that *"Repeated sexual intercourse may cause infection in HIV infected women and HIV positive women who did not seek early treatment might end with cervical cancer. Therefore infection can be the risk to develop cervical cancer."*

Regarding symptoms of cervical cancer 147(43.8%) of study participants mentioned foully vaginal discharge and 95(28.3%) vaginal bleeding as symptoms for cervical cancer.

Table4. HIV positive women Knowledge about risk factors and symptoms of cervical cancer in Addis Ababa health centers February, 2016

Variable	frequency	Percentage
Causes for cervical cancer		
Bacteria	51	15.2
Virus	53	15.8
Fungus	20	6
Genetic predisposition	5	1.5
Sun exposure	22	6.6
Lack of hygiene	25	7.5
Others	22	6.6
Don't know	137	40.9
Risk factors for cervical cancer		
Multiple sexual partner	164	48.8
Early sexual debut	88	26.2
Family history of cervical cancer	37	11
Exposure to cervical cancer causing virus	40	11.9
Repeated abortion	45	13.4
Lack of hygiene	11	3.3
Don't know	80	23.9
Others	17	5.1
Symptoms of cervical cancer		
Vaginal discharge	147	43.8
Pelvic or back pain	50	15
Pain during coitus	49	14.6
Itching sensation	24	7.1
Don't know	129	38.1
Others	8	2.4

5.2.3 Knowledge on risk groups for cervical cancer

Among 581 study participants 214(36%) identified all women as a risk groups for cervical cancer. Concerning higher risk groups for cervical cancer 197(33.9%) of study participants identified HIV positive women and 191(32.9%) study participants mentioned women with multiple sexual partners as higher risk groups for cervical cancer.

All most all in depth interview respondents identified all women as a risk groups for cervical cancer and some of health care workers working in ART clinic identified HIV positive women and commercial sex worker as highly risk groups.

A 32 years old male health officer working as ART focal person in ART clinic explained how having multiple sexual partners could expose for cervical cancers.

"..... having multiple sexual partner can be a cause for cervical cancer.....since many HIV infected women came from poor socio economic status they may have multiple sexual partner so they are at risk"

Table5. HIV positive women Knowledge about risk groups for cervical cancer in Addis Ababa health centers February, 2016

Variable	frequency	percentage
Risk groups for cervical cancer		
All women	214	36.8
All men	11	1.9
Married women	66	11.4
HIV infected women	59	10.2
Sexually active women	54	9.3
Commercial sex workers	9	1.5
Others	8	1.4
Don't know	159	27.4
Women highly at risk for cervical cancer		
HIV positive women	197	33.9
Women with multiple sexual partner	191	32.9
Family history of cervical cancer	39	6.7
All women	71	12.2
Don't know	166	28.6
Others	12	2.1

5.2.4 Knowledge on cervical cancer prevention and treatment methods

Concerning preventability of cervical cancer 294(50.6%) of participants believe in cervical cancer preventability while 131(22.5%) believe as it is unpreventable. Out of 294 participants 170(57.8%) participants believe cervical cancer preventability through avoiding multiple sexual partner and 80(27.2%) through avoiding early sexual debut.

Most of the in depth interview respondents indicated that possibility of preventing cervical cancer through avoiding multiple sexual partner, protecting self hygiene and by using condom.

A 40 years old HIV positive mother said

"It is preventable by taking care of oneself....for example first you have to check before sitting on sands. Unknowingly you may sit on hot sand which can cause cervical cancer and also by protecting self hygiene ..., also you should have meticulous relationship with your partner, he might transmit the disease to you."

Out of 581 study participants 375(64.5%) believe cervical cancer as a treatable disease if detected early while 206(35.5%) of study participants believe cervical cancer as untreatable disease. Seeking early treatment was identified by 339(90.4%) of the study participants as things that make cervical cancer treatable. Radiation was identified as a treatment method by 110(18.9%) study participants, surgery 60(10.3%), chemotherapy 53 (9.1%) while 390(67.1%) do not know the treatment modalities for cervical cancer.

Table6. HIV positive women Knowledge about prevention and treatment mechanisms of cervical cancer in Addis Ababa health centers February, 2016

Variable	Frequency	Percentage
Cervical cancer is preventable		
Yes	294	50.6
No	131	22.5
I don't know	156	26.9
Prevention mechanisms		
By avoiding multiple sexual partner	170	57.8
By avoiding early sexual debut	80	27.2
Quit smoking	42	14.3
Vaccination	27	9.2
Screening	95	32.3
By protecting self hygiene	16	5.5
Don't know	23	7.8
Others	18	6.1
Cervical cancer is treatable disease		
Yes	375	64.5
No	96	16.5
Don't know	110	19
Treatment modalities for cervical cancer		
Herbal medication	17	2.9
Surgery	60	10.3
Radiation	110	18.9
Chemotherapy	53	9.1
Don't know	390	67.1
Others	8	1.4

5.2.5 Knowledge on cervical cancer screening

Awareness regarding cervical cancer screening, 186(32%) of participant have heard about cervical cancer screening, 97(52.7%) heard from media and 75(40.8%) from health care providers. Of which 132(71%) study subjects identified pap smear as screening procedure. Regarding advantage of screening 253(43.5%) study participants believe that screening helps for

prevention of cervical cancer, 218 (37.5%) for early detection while 94(16.2%) for treatment of cervical cancer.

Finding from in depth interview shows that most of the interviewee knows the availability of cervical cancer screening and some of health care providers working in ART clinic identified Pap smear as a screening methods. None of the interviewed health care workers working in ART clinic told their symptom free clients to practice screening.

A health officer who worked for 3 years in ART clinic said

"We have weakness on this side, most of the time we don't tell them about screening unless they seek or we suspect the disease. I believe things should have to be done regarding this area."

Table7. Knowledge of HIV positive women about cervical cancer screening methods in Addis Ababa health centers February, 2016

Variables	frequency	Percentage
Have you ever heard about cervical screening		
Yes	186	32.1
No	395	67.9
From where did you heard		
Media	97	52.7
HCP	75	40.8
Teachers	1	0.5
Relatives	2	1.1
Friends	9	4.9
Types of screening methods		
Pap smear	132	71
VIA	6	3.2
HPV DNA	14	7.5
Don't know	39	21
Others	1	0.2
Screening helps		
For prevention of cervical cancer	253	43.5
For early detection of cervical cancer	218	37.5
For early seek of cervical cancer treatment	145	25
For treatment of cervical cancer	94	16.2
Don't know	84	14.5

5.2.6 Knowledge on recommended screening age and frequency for cervical cancer

A total of 144(24.8%) of the study participants said that the recommended age of women for cervical cancer screening is as soon as she became sexually active, while 111(19.1%) of study participants identified the recommended age of HIV positive women for cervical cancer as soon as she became HIV positive and 191(32.9%) do not know .

The most frequently mentioned time interval for screening was every one year 174(29.9%) but remarkably 219(37.7%) of participants didn't know cervical cancer screening interval.

The most frequently mentioned time interval for cervical cancer screening for HIV positive women was every one year 169(29.1%) and remarkably 212(36.5%)of participants didn't know cervical cancer screening frequency for HIV positive women.

Finding from in depth interview indicated that none of interviewed respondents correctly mentioned cervical cancer screening recommended age and frequency for both general and HIV positive women including health care providers working in ART clinic.

Table8. HIV positive women Knowledge about cervical cancer screening recommended age and frequency in Addis Ababa health centers February, 2016

Variable	frequency	Percentage
The recommended age for cervical cancer		
Menarche	100	17.2
As soon as sexually active	144	24.8
At the age of 30 years	74	12.7
At menopause	12	2.1
Gets sick	29	5
Don't know	194	33.4
Others	28	4.8
The recommended age of screening for HIV positive women		
Menarche	50	8.6
At any age	68	11.7
As soon as she became sexually active	60	10.3
At the age of 30	48	8.3
As soon as she became HIV reactive	111	19.1
Gets sick	24	4.1
Others	29	4.9
Don't know	191	32.9
Screening frequency		
Once in a year	174	29.9
Once every 3 years	39	6.7
Once every 5 years	24	4.1
Every 6 month	55	9.5
Every 3 month	42	7.2
Others	29	4.8
Don't know	219	37.7
Screening frequency for HIV Infected women		
Once in a year	169	29.1
Once in every 2 years	16	2.8
Once in every 3 years	37	6.4
Once in every 5 years	17	2.9
Every 6 month	53	9.1
Every 3 month	46	7.9
Others	28	4.2
Don't know	212	36.5

5.3 Willingness towards cervical cancer screening

Awareness was created about cervical cancer and screening method before proceeding willingness question by data collectors.

As shown in table 94.1% (547) study participants believe that early detection of cervical cancer is helpful while 5.5% (32) do not know. Four hundred eighty one (82.8%) of the study participants claimed that no one recommended them to take cervical cancer screening.

A total of 495(85.2%) of the study participants were willing to undergo pelvic examination. And 498(85.7%) were willing to undergo cervical cancer screening if the screening service is integrated to ART clinic and free.

Regarding place of screening 485(83.5%) of the study participants wish to undergo cervical cancer screening at nearby health center but only 324(55.8%) of the study participants were willing to undergo screening if the screening service is paid. Those study participants who score above mean value in this study for willingness were 500(86.1%).

Finding from in depth interview indicated that most of the women will undergo screening if the screening service is at nearby health center and even screening uptake will increase if the screening service is integrated to ART clinic. Creating awareness on cervical cancer screening will increase their willingness towards screening.

A 39 years old adherence supporter who worked in ART clinic for 8 years said that

"..... Previously no one was willing to be tested for HIV unless he/she needs medical checkup for emigration purpose or get severely ill. I think if we educate them and became aware they will to be screened."

Table9. Willingness of HIV positive women towards screening in Addis Ababa health centers February, 2016

Variable	Frequency	Percentage
Willing to be screened	500	86.2
Un will to be screened	81	13.8
Is it helpful to detect cervical cancer early		
Yes	547	94.1
No	2	0.3
Don't know	32	5.5
Is there anyone who recommended you to undergo screening		
Yes	99	17
No	481	82.8
Are you willing to undergo pelvic examination		
Yes	495	85.2
No	86	14.8
Are you willing to undergo cervical cancer screening		
Yes	491	84.5
No	90	15.5
Are you willing to undergo screening if it is integrated to ART clinic		
Yes	498	85.7
No	82	14.1
Are you willing to undergo screening at nearby health center		
Yes	485	83.5
No	96	16.5
Are you willing to undergo screening with payment		
Yes	324	55.8
No	256	44.1

5.4 Practice towards cervical cancer screening

About 63(10.8%) of study participants had screened for cervical cancer at least once in their life time. Among 63 participants those who had screened 49(77.8) had screened one time, 12 (19%) had screened two times and 2(3.2%) screened three times in their lifetimes.

Of which 47(74.6%), 7(11.1%), 9(14.3%) participants had screened within the last three, five and before five years respectively. Among 63(10.8%) of the study participants 58(93.5%) were willing to be screened again .Out of 4 participants who were unwilling to be screened again 3 of them said that screening procedure is painful.

Finding from in depth interview indicated that none of female health care providers screened for cervical cancer but almost all adherence supporters had screened for cervical cancer. Even though most of them claimed that the screening procedure is painful but they are willing to be screened again.

Table10. Practice of cervical cancer screening among HIV positive women in Addis Ababa health centers February, 2016

Variables	frequency	Percentage
Have you ever screened		
Yes	63	10.8
No	518	89.2
How many times		
one times	49	77.8
two times	12	19
three times	2	3.2
When was the last time you screened		
Within the last 3 years	47	74.6
Within the last 5 years	7	11.1
Before 5 years	9	14.3
Would you like to be screened again		
Yes	58	93.5
No	4	6.5

5.5 Perceived barriers towards cervical cancer screening

The most frequently mentioned barriers towards screening by study participants was feeling healthy 212(36.5%) followed by never think of screening139 (23.9%).

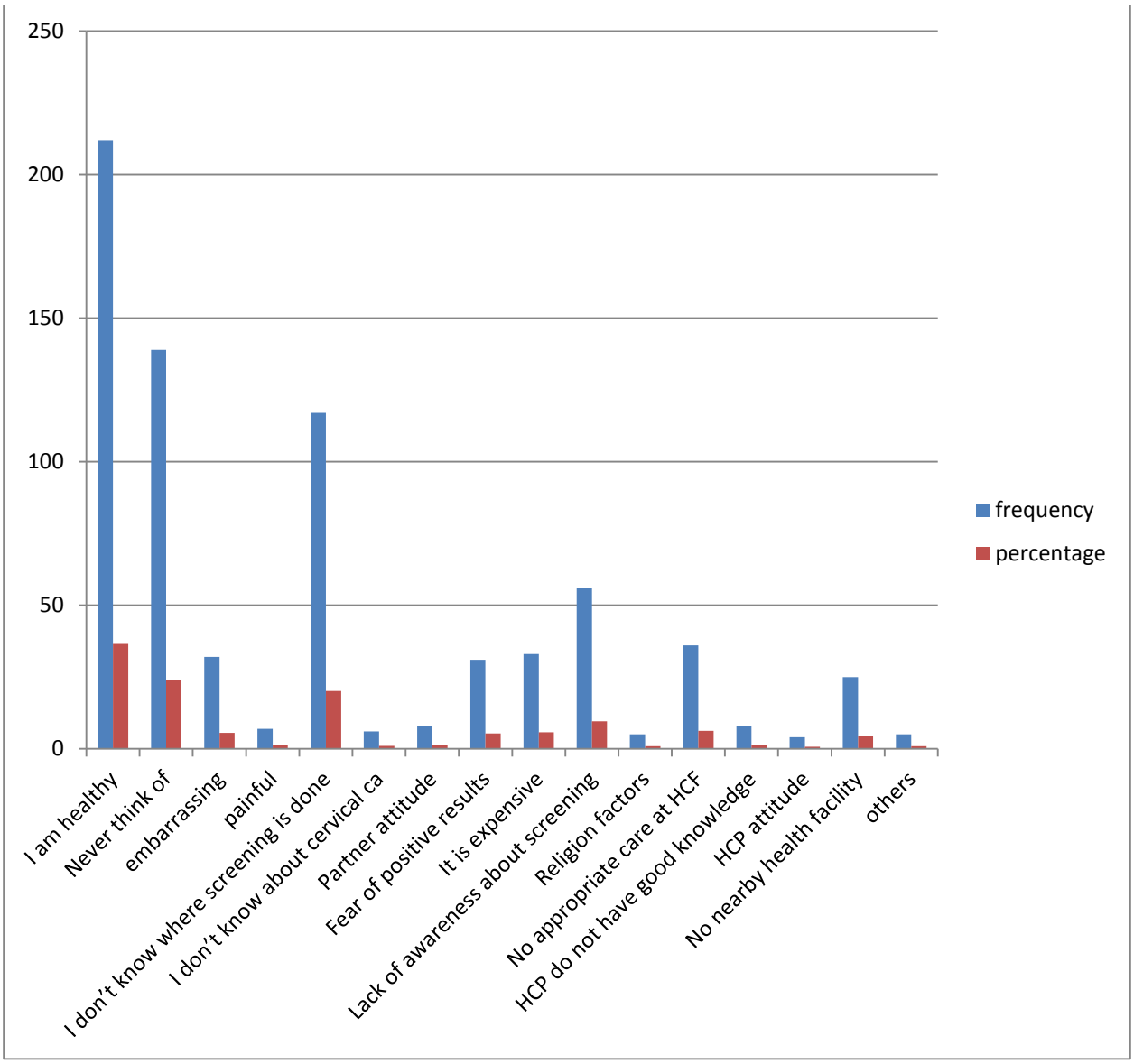


Figure3 HIV positive women perceived barrier towards screening February, 2016

From in-depth result three themes (individual factors, health care and health facility related factors and economical or political related factors) emerge from narration of the participants regarding the perceived barriers towards cervical cancer screening

Individual factors

Four sub themes were emerged from individual factors: lack of knowledge about cervical cancer and cervical cancer screening, perceived fear of positive results, perceived pain during screening procedure and financial factors

Lack of knowledge about cervical cancer and cervical cancer screening

The participant narration indicated that majority of them had heard about cervical cancer but most of them had limited level of knowledge about cervical cancer and screening methods including health care providers.

BSc. nurse working in ART clinic for 3 years said that

"Media alone is not enough to create awareness.....women awareness about cervical cancer is very poor and also their level of awareness about severity of the disease is lacking when we compare with other disease."

Majority of the respondents said women do not give attention for early detection of the disease due to competing needs and most women seek health facility late and diagnosed at advanced stage.

A 36 years old adherence supporter with service year of 8 said that

"Due to lack of awareness most of the time the disease is diagnosed at advanced stage, when vaginal bleeding starts or when we get ill after wards you don't have that much time to live. My mother died because of cervical cancer and many people seek health facility when it is stage 4"

Women perception about positive results

Though the participants did not have specifically detailed knowledge about cervical cancer, majority of them know the name cancer and most of them believe as it is untreatable. Most of them worry about their fate, if the results turned positive and coupled with their HIV status. Difficulty of accepting positive result was the most commonly seen barrier toward screenings.

A 29 years old HIV positive mother said that

"..... When I ask people about the treatment of cervical cancer, they told me about chemo and radiotherapy and also their side effects .....what I am going to do? Am I going to take additional drugs with the current drug I use, if the results turned positive?"

Another HIV positive mother said that

"I believe cervical cancer is a very severe disease and also seeking early treatment is good but since I know many peoples who died from cervical cancer, I fright to speak even to think about it. I believe how much uncomfortable it would be, if cancer is added to the small "ses" part of cervix"

Women perception about Pain during procedure

Knowing availability of cervical cancer screening some women will not visit health facility because they believe that the screening procedure is painful.

A 35 years old female adherence supporter said that.

"I was waiting for screening and I saw women with tears and pain after sample was taken, then i left the screening place immediately. I don't think women who had screened once return back for another check up."

Financial

Some of the in depth interview respondents mentioned screening service cost as a barrier for women. Most of HIV positive women are from low socioeconomic status even knowing they are at risk they will not participate in screening service because of financial problem.

A 39 years old adherence supporter working in ART said that

".....the screening service is expensive so women will not seek treatment until she develops symptoms..... a women with low socioeconomic status cannot afford the screening service"

Health care and health facility related factors

None of health care providers working in ART clinic had training on cervical cancer and cervical cancer screening before. Most of HIV positive women had no complains on knowledge status and attitude of health care providers but none of health care providers had told them about screening before. Women should have referral from health center for screening, so most of HIV positive women prefer if the screening service is available at the health center level.

A health officer working in ART clinic said that

"We do tell them to use condom since unprotected sex will risk them different problems.....we will also tell them about vaginal discharge but never told them to undergo screening."

A 36 years old adherence supporter who had screened said

".....in my experience, women were screened in accordance to their waiting time. And health workers who provide screening had enough knowledge and also I did not saw any problem regarding their attitude."

Accessibility and availability

Results from in depth interview shows that screening service is given in some government hospitals and nongovernmental organization such as FGA. Relatively for women who live in Addis Ababa cervical cancer screening seems available as well as accessible but majority of HIV positive women would prefer if the screening service is available at health centers where they follow.

5.5 Association between socio demographic characteristics and knowledge score

Residence, educational status of the participant, occupation status of the participant, educational and occupational status of partner(husband), total household income, duration of HIV diagnosis, being on ART, marital status and knowing someone with cervical cancer were associated with the level of knowledge about cervical cancer and cervical cancer screening in binary logistic regression while only knowing someone with cervical cancer and educational status of the participant were significantly associated with the level of knowledge on multiple logistic regression with p value less than 0.05.

Table9. Association of socio demographic characteristics and knowledge score February, 2016

Variables	Knowledge		COR,CI	AOR,CI
	good	poor		
Residence				
Addis Ababa	9(39.1%)	14(60.9%)	1	1
Out of Addis Ababa	115(20.6%)	443(79.4%	0.247(1.04-5.865)	5.74(0.996-33.06)
Educational status				
illiterates	11(7.3%)	139(92.7%)	1	1
Primary school	36(18.2%)	162(81.8%)	2.808(1.377-5.72)	4.5(0.94-21.4)
Secondary school	34(31.7%)	123(78.3%)	3.493(1.697-7.189)	**5.86(1-33.7)****
Diploma and above	43(56.6%)	33(43.4%)	16.466(7.67-35.32)	**16.59(1-162)****
Occupation status				
Government employee	37(41.6%)	52(58.4%)	1	1
NGO employee	26(16.9%)	128(83.1%)	0.285(0.157-0.518)	0.247(0.055-1.105)
Daily laborer	14(16.7%)	70(83.3%)	0.281(0.138-0.573)	0.935(0.149-5.85)
Unemployed	25(15.6%)	135(84.4%)	0.260(0.143-0.474)	0.335(0.073-1.545)
Self employed	25(15.6%)	135(84.4%)	0.417(0.215-0.810)	0.233(0.047-1.14)
Others	19(22.9%)	64(77.1%)	0.527(0.131-2.121)	-
Husband educational status				
Illiterates	6(15%)	34(85%)	1	1
Primary education	10(14.3%)	60(85.7%)	0.147(0.044-0.492)	0.364(0.0 73-1.831)
Secondary education	10(12.2%)	72(87.8%)	0.139(0.047-0.406)	0.241(0.041-1.438)
Diploma	8(32%)	17(68%)	0.116(0.40-0.337)	0.398(0.044-3.576)
Degree and above	12(54.5%	10(45.5%)	0.392(0.120-1.286)	0.296(0.02-4.423)

Household income				
<1000	52(16.7%)	259(83.3%)	1	1
1000-2000	34(21.7%)	123(78.3%)	1.377(0.85-2.231)	0.246(0.064-0.668)
3000-4000	8(17.8%)	37(82.2%)	1.077(0.474-2.446)	0.155(0.026-0.927)
3000-4000	18(50%)	18(50%)	4.981(2.429-10.21)	1.38(0.323-5.91)
>4000	12(37.5%)	20(62.5%)	2.988(1.377-6.488)	0.694(0.117-4.125)
Duration of HIV diagnosis				
<4years	57(24.3%)	178(75.7%)	1	1
4-8years	33(15.1%)	186(84.6%)	0.554(0.344-0.89)	0.391(0.124-1.2 3)
8-12years	25(23.4%	82(76.6%)	0.95(0.556-1.63)	1. 56(0.46-5.34)
>12years	9(45%)	11(55%)	2.55(1-6.476)	3.5(0.479-25.8)
On ART	107(19.8%)	434(80.2%)	1	1
Not on ART	17(42.5%)	23(57.5%)	2.998(1.54-5.81)	2.2(0.421-11. 5)
Know someone with cervical cancer				
Yes	28(45.9%)	33(54.1%)	3.747(2.162-6.496)	**7.22(1.8-28.9)****
No	96(18.5%)	424(81.5%)	1	**1**

6 DISCUSSIONS

This study was conducted to assess the level of knowledge about cervical cancer and screening method and barriers towards screening among HIV positive women in Addis Ababa health centers. The selection of HIV positive women owns to the emergent significant association of cervical cancer with HIV /AIDS as shown in different studies (16, 26, 27).

6.1 The socio demographic characteristics of the study participants

Most of the study participants were with the age range of 21-30 and 31-40years. The explanation for this could be, the risk to be infected by HIV during this age is high and this is consistent with EDHS 2011(38).

Majority of the study participants are married 239(41.1%) this could be due to that early marriage has occurred in this study participants as most of the participants only had primary education. According to mini EDHS 61% of women are currently married(39).

Most of the study participants had primary education 198(34.1) this could be explained by, as majority of the study participants were from low socioeconomic status with monthly household income of less than 1000 Ethiopian birr and also gender disparity might be the reason.

6.2 Knowledge on cervical cancer and cervical cancer screening methods

More than half (57.8%) of this study participants had heard about cervical cancer. This finding contrasts with the research done in southern Ghana where only 31.6% of the respondents ever heard about cervical cancer(40). However a study done in LAO PDR, Zaire Nigerian women and a study done among HIV positive women in Nigeria has a comparable finding with this study (34, 41, 42).

Relatively higher levels of awareness were found among china FSW 70.2%, Kinshasa republic of Congo 81.9% and Botswana women77% (14, 22, 43).

The difference of the result might be due to difference of study participants that is all women vs. HIV positive women. And also might be due to difference in study area; health facility vs. community. A relatively higher level of awareness in china, Congo and Botswana is may be due to difference in socio demographic status.

In this study majority of respondents 216(64.3%) heard about cervical cancer from media and few from health care personnel, friends and neighbor. This is similar with the study done in north west Ethiopia (21). In contrary the study done among Kinshasa women democratic republic of Congo where 73.4% of them heard about cervical cancer through conversation with other people and less frequently through media(14) .This is possibly indicative of that the health

care providers give less priority for cervical cancer, though HIV positive women are at risk. In contrast media has played a great role in Ethiopia.

Despite HIV positive women are at higher risk for cervical cancer and have a regular follow up at health facility, majority of study participants (78.7%) lack knowledge about cervical cancer and cervical cancer screening methods. Same finding with in depth interview, all most all did not have detailed knowledge regarding cervical cancer including health care providers. This finding was similar with LAO PDR and south Africa which was done among HIV positive women(41, 44).

6.2.1 Knowledge on risk factors for cervical cancer

In this study majority of the respondents do not know mode of transmission of the disease only 53(9.1%) of the study participants identified the linkage between the virus and cervical cancer. Similar finding was found in South Africa, ogun state Nigeria and Wufeng china (31, 44, 45). This result is with the higher risk group for cervical cancer, not knowing causes will hinder prevention of behavioral risk factors. Different literatures show that HPV is the necessary cause for cervical cancer and also HPV is mainly transmitted by sex(3, 7).

During this study multiple sexual partners 164(48.8%) and early sexual debut are the most frequently identified risk factors. This is in contrast with studies done among Kenyan women and civil servants in north central Nigeria in which only 30% and 27.6% women identified multiple sexual partner as a risk factor respectively (23, 46). Much lower result was seen among Kinshasa women 15%(14). This discrepancy can be explained due to the difference in study population in which HIV positive women are more knowledgeable regarding multiple sexual partner than others group of population and also might be due to difference in socio economic status.

This study also revealed that Studied HIV positive women lack knowledge on other risk factors for cervical cancer other than having multiple sexual partner and early sexual debut: only few women described having HIV as a risk factor for cervical cancer. This is discouraging for HIV positive women to practice screening.

Three fourth of study participants did not mentioned HIV positive women as higher risk groups for cervical cancer. Not putting oneself at risk will hinder screening practice.

Results of this finding show that more than one third of the study participants did not know at least one cervical cancer symptoms and almost half of the study participants mentioned foully vaginal discharge as a symptom for cervical cancer.
In contrast only one third of studied participants in perambalur mentioned vaginal discharge as a symptom of cervical cancer rather 87.3% mentioned lower abdominal pain(47). similar finding in Kerala India and in London among black women(48, 49).

6.2.2 Knowledge about cervical cancer screening

One third of study participants had ever heard about cervical cancer screening. Similar finding among Gabonese women and Nigerian HIV positive women (10, 42).
This finding is in contrast with perambalur and south africa hospital studies(44, 47).
This can be explained due to the fact that this study was conducted in governmental health centers where screening service is unavailable. Participants from hospitals might have contact with screened women as well as exposure to screening service that could increase their level of awareness about cervical cancer screening service.

Majority of the study participants had no knowledge on screening age for cervical cancer. According to WHO guideline HIV positive women who have initiated sexual activity should practice screening at any time regardless of their age since they are the most vulnerable groups(3). It is recommended if the screening service is integrated to ART clinic as routine care(50).
Results of this study showed 144(24.8%) of the study participants identified as soon as sexually active as the first screening age,17.2% said at menarche and 12.7% said at the age of 30.
When asked the screening age for HIV positive women 19.1% said as soon as she became HIV positive, at any age(11.7%) and as soon as she became sexually active(10.3%)

In contrast to this finding studies done among HIV positive women in Johannesburg shows more than half 54.5% of the study participants indicated that the screening age is at 30 years of age(44).
A study done in Kerala India showed about 89.7% did not know when it should be done, 23 (2.8%) said it should be done only when there is any problem and 60 (7.4%) said it should be done after age of 30 year(48).
Again according to WHO guidelines women should undergo screening every 5 years but for HIV positive women she should have screening at least once every 3 years(3). Most African women do not know when and in what interval screening should be done.

Finding of this study showed only 24(4.1%) identified the correct answer every 5 years for all women and the correct answer of screening frequency for HIV positive women were identified by only 37(6.4%) every 3 years. .
A study in Kerala India shows 23 (28%) women said every 2 to 3 years(48) while
study done among HIV positive women in south africa showed 68(34.3%) them don't know screening frequency(44). Another African studies among Gabonese women every 2-3 years were identified by 18(21.9%)(10).
None of in depth interviewee respondents mentioned correctly the screening age and frequency of cervical cancer for both general and HIV positive women. This discrepancy in knowledge about cervical cancer screening recommended age and frequency could be due to lack of perceived susceptibility because of lack of awareness and lack of giving attention because of competing needs.

6.2.3 Knowledge about cervical cancer prevention

Half of 294(50.6%) of the study participants said cervical cancer as a preventable disease, this is high in comparing with different findings. Much lower result was found in Johannesburg, Burkina Faso and LAO PDR (8, 41, 51).
This could be explained by difference in specific countries policy awareness creation strategy, difference in involving media for awareness creation and media exposure, cultural difference and difference in study settings.

Knowing preventability will motivate women to avoid risky behaviors as well to participate in screening service. In Addis Ababa Ethiopia, path finder is implementing cervical cancer prevention program for HIV positive women, these seems encouraging for HIV positive women to practice screening in Ethiopia(29).

In developing nation, majority of women lack knowledge on how to prevent cervical cancer. This study indicated that avoiding multiple sexual partners was mentioned by more than half of the study participants. Much lower result was seen in ogue Nigeria (45),
in contrast much higher result in china(52).

In most developing countries majority of women have poor awareness regarding the disease and also prevention mechanisms(10, 21). Concerns for poor countries are on how to prevent communicable disease rather non communicable disease because of mainly lack of resources(5). There is a need to scale up health education on how to prevent cervical cancer in order to decrease the scourge of cervical cancer in Ethiopia. Avoiding multiple sexual partners was commonly mentioned prevention mechanisms by study participants mainly, since the study participants are HIV positive women they have better awareness on the risk of having multiple sexual partner than other group of population.

6.2.4 **Knowledge of HIV positive women about cervical cancer treatment**

The result of this study shows 64.5% of the study participants believe that cervical cancer as a treatable disease if detected early. Among 375 participants who believe in cervical cancer treatability 90.4% of them believe seeking early treatment plays a major role.

Much lower result was found in north central Nigeria and ogue Nigeria(45, 46). In contrary much higher result was found among china women (80.8%)(43).

The difference between knowledge on treatability of cervical cancer can be due to difference in socio demographic status between study subjects. It can also be due to difference in countries policy with regard to awareness creation and availability of the service. Also it can be explained by the fact that difference in study area and subjects i.e. HIV positive women vs. all women and health facility vs. community.

Currently in Ethiopia many governmental and nongovernmental organizations are creating population based screening programs or campaigns to popularize cervical cancer screening mainly using VIA. In addition Cryotherapy will be used as treatment modality for lower stage of

lesion immediately after screening. Also referral linkage has been facilitated for those with advanced stage(29).

Among this study participants radiation was the most commonly mentioned treatment option while three fourth of the study participants do not know any treatment option.

This is totally different from study done in perambalur hospital in which a bulk of the patients responded with surgical therapy(47).

This is mainly explained by; difference in study area i.e. hospital vs. health centers. Health centers lack services such as surgery; chemotherapy and radiotherapy so participants in this study might do not have exposure to information regarding treatment option for cervical cancer. And also majority of women in Ethiopia specifically do not know the treatment option for cervical cancer but they are more or less aware of the general treatment for cancer as chemotherapy or radiotherapy.

6.3 Willingness of HIV positive women towards screening

The result of the study shows more than three fourth of the study participants were willing to practice cervical cancer screening if the screening service is free while 498(85.7%) of the study participants are willing to undergo cervical cancer screening if the screening service is integrated to ART clinic and free.

Privacy is an important issue for HIV positive women which may account for not practicing screening because of unavailability of screening at the ART clinic. This study also revealed that participants prefer to take screening service in the same health institution where they follow.

Another issue for HIV positive women is financial problem. Willingness towards screening is much lower if it is paid, which is 324(55.8%). This is mainly most of study participants are from low socioeconomic status.

Three fourth of the study participants were scored above mean value for willingness. This finding is higher from study done among HIV positive women in Addis Ababa in which 62.7% were willing to be screened.

This difference may be explained by; in this study awareness was created about cervical cancer and screening prior to willingness question and also discrepancy in results might be due to difference in willingness measurements. Another study done among HIV positive Nigerian

women shows 79.8 were willing (42) and higher result was observed among Botswana and Burkina Faso women (22, 51).

6.4 Perceived barrier towards screening

This study has shown that one third of the respondents mentioned perception of feeling healthy as a barrier for not practicing cervical cancer screening. Most women in developing countries will not seek treatment unless they get sick due to lack of awareness and lack of finance (5). Cervical cancer is the second most common women cancer and the leading type of cancer causing women death in Ethiopia(6). Most women in Sub Saharan Africa came at advanced stage of the disease since they thought they are healthy(5).

About 139(23.9%) of HIV positive women didn't undergone screening because they never think of screening since they are symptoms free. majority of women in Ethiopia lacks knowledge on how to prevent cervical cancer, they seek treatment when symptoms appear(35).

The major barrier towards screening identified among in depth interview were lack of awareness about cervical cancer and cervical cancer screening and some of the respondents mentioned fear of the test results .It is seen as, generally having cervical cancer screening is not their priority because of demanding many other problems.

Financial problem is also another barrier, as the services are expensive related to their financial status as many of them are from poor socio economic status.

Some HIV positive women also think that it is warrant to additional drug and death if the results turned positive so it is better for them not to think about screening and cervical cancer.

Unavailability of screening service at all health center level was another barrier mentioned by HIV positive women.

Perceived pain during procedure is also their reason for not practicing cervical cancer screening. HIV positive women in this study did not received any recommendation by health care workers during health facility visit even though they are more exposed to health care providers than other groups of women, though this was a very good opportunity for them to practice cervical cancer screening. This study showed that the reason behind health care

worker negligence about cervical cancer screening was lacks of adequate knowledge on the recommended cervical cancer screening age and frequency due to mainly lack of trainings.

A study conducted in LAO PDR has somehow similar finding with the current studies where majority of the respondents reasoned no symptoms 203(33%) followed by never heard of screening 160(26%) for not taking the screening service(41) .

Comparable finding was found among Thailand FSW their 3 main reasons for not undertaking screening service was an absence of abnormal symptoms (66.7%); not knowing where to be screened (16.4%); and the fear that cervical cancer might be found (8.2%)(53).

Another research done in Africa among Kenyan women showed that, fear (16%), lack of funds (10%), and lack of knowledge about cervical cancer (14%) as barriers to screening(23).

However studies done in southern Ghana shows that lack of screening sites, screening sites being too far away, limited information on cervical cancer, and absence of health education programs were their reason for not undergoing screening service(40).

6.5 Association of socio demographic characteristics and knowledge score

Finding of this study indicated that on multiple logistic regression , the odd of knowledge is low among HIV positive women with lower level of education than women with higher level of education which is similar with LAO PDR study(41). This could be attributed to difference in severity perception by educational status as well as women with higher level of education will get information through accessing different mechanisms than illiterates. Also educated women had a higher recognition of cervical cancer severity than illiterates. This study also revealed that knowing someone with history of cervical cancer was significantly associated with the level of knowledge on multiple regressions. Similar finding with the study done in Wufeng china in which who were willing to undergo screenings, women with higher education and income levels and women with positive family histories of cancer were more likely to have higher levels of knowledge about cervical cancer(31).

6.6 Strength of the study

This study has triangulated both quantitative and qualitative study methods.

6.7 Limitation of the study

The study was conducted in ART clinic where a good number of HIV positive women are accessed for information however it did not cover information from HIV positive women who go to Hospitals, NGO and private health care institution for follow up.

6.8 Conclusion and recommendation

This study has shown that 57.8% had heard about cervical cancer, however knowledge regarding cervical cancer and cervical cancer screening is lacking in which only 21.3% of this study subjects were knowledgeable.

There was also much lower awareness regarding HIV infection as a risk factors for cervical cancer this will prevent HIV infected women to practice healthy life. Lack of awareness leads to lack of understanding of the need for screening. So it is not surprising, if HIV positive women failed to be screened.

Similarly there is low awareness regarding prevention mechanisms of cervical cancer. Women were unable to think that screening will prevent cervical cancer. In terms of symptoms majority of women identified foully vaginal discharge as a symptoms for cervical cancer and one third of HIV positive women did not know at least one cervical cancer symptoms. Many women in developing countries present at advanced stage of the disease mainly due to lack of knowledge about cervical cancer symptoms. So this is very worrying and many women may be failed to visit health facility because of failure of realizing it could be sign for cervical cancer.

This shows awareness message lacks detailed information regarding causes, risk factors, prevention mechanisms, recommended age for screening and screening frequency and treatment option for cervical cancer. More works is therefore needed to be done to create awareness regarding cervical cancer and cervical cancer screening containing basic facts about the disease through different methods like using posters, pamphlets in understandable ways as it have been done for HIV previously.

None of the health care providers took training on cervical cancer, it is better if staff training and periodic in service training would be given. And also it is better if the ministry of health has provided case definition for cervical cancer in all health centers in ART clinic.

Also these results suggested poor dissemination of information about cervical cancer by health care providers and lack of recommendation for screening as the main barrier towards screening. Mostly women relay on health care provider recommendation in order to undergo screening. Since cervical cancer is one of AIDS defining illness this advantage can be utilized to develop effective strategies for HIV positive women to increase women awareness about the disease.

This study also revealed that 86.1% of HIV positive women were willing to undergo screening after awareness creation by data collectors about the disease. This shows having awareness has much impact for willing to practice screening.

HIV positive women stated that lack of awareness as one of main reason for not practicing cervical cancer screening so awareness should be created for HIV positive women since they are the most vulnerable groups by both governmental and nongovernmental organization. It is better if cervical cancer and cervical cancer screening should form part of the basic health education package offered to HIV positive women and also creating awareness through health extension workers.

Health facility related barrier should also be addressed. Currently cervical cancer screening is performed in some government hospitals, health centers and private health facility. This assumption are reinforced by the fact that screening is not done in all health centers .So women whose follow up is in health centers with no screening service, she should have referral or she should be financially good in order to have screening.

Educational status of the participant and knowing someone with cervical cancer were significantly associated with good level of knowledge on multiple logistic regressions.

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8. Questionnaire

Annex. I

Information sheet

Principal investigator: Saba shiferaw

Title: Assessment on knowledge about cervical cancer and barriers to cervical cancer screening among HIV positive women age between 21 and 65 years in selected health centers of Addis Ababa, Ethiopia, 2016.

Hello! My name is……. I am here on behalf of Saba Shiferaw student of the school of public health in the Addis Ababa University. She is conducting a research for the partial fulfillment of second degree on topic mentioned above in selected health centers of Addis Ababa city; because it is important to asses' knowledge of cervical cancer and screening method and barriers to screening methods.

Before you decide whether to participate or not in this study, I would like to explain to you the Purpose of the study, any risks, or benefits and what is expected from you.

Purpose of the study: the study will assess the knowledge about cervical cancer and barriers to cervical cancer screening among HIV infected women. This is important as the information obtained will help Addis Ababa health bureau, ministry of health and different nongovernmental organization working on cervical cancer to take measure in order to avert the scourge of cervical cancer.

Procedure: The study involves a face-to-face interview with the data collector that will ask you a set of questions using a structured questionnaire. After signing the consent form, the Data collector will proceed to ask you the relevant questions and your responses will be recorded on the questionnaire. The interview will take about 20-25 minutes.

Benefit of the study: There is no direct benefit to study participants but the information which will be obtained will provide information regarding source population knowledge on cervical cancer and barriers to cervical cancer and associated factors. No money will be given in exchange for information obtained, but necessary education with regard to the risk factors, sign and symptoms and screening modalities will be provided to those who need the services. Any question related to cervical cancer and cervical cancer screening will be entertained. The result of the study will be disseminated to concerned bodies including Addis Ababa health bureau.

Risk of the study: There is no risk in participating in this study though part of your time will be utilized to answer the question. Some question may seem to be sensitive and personal. Care will be taken not to embarrass you. .

Rights of Participants: Your participation is entirely voluntary. You are under no obligation; you may choose to participate or not to. If you decline not to participate no privilege will be taken away from you. You can ask any question which is not clear for you.

Confidentiality: Any information you will give will be kept confidential and names will not be written or specified and all the questionnaires will be coded for anonymity. Only the principal investigator will know the details and she will discard it after completing analysis.

Are you willing to participate in this study?

1- No (say thank you) 2- Yes

II-Informed Consent

The Purpose of this study has been read to me in the language I comprehend and understand. The purpose, the benefits, risks and discomforts and confidentially of the study has been explained to me. I further understand that: If I agree to take part in this study, I can withdraw at any time without having to give an explanation and that taking part in this study is purely voluntary.

I agree to take part in this study.

Sign: _____Date:_____ Participant's signature or thumb print

Sign:_____ Date:_____ (data collector)

Sign:_____ Date:_____ (Researcher)

Contact details of principal investigator and the person to whom to contact at any time for further explanation:

Name of principal investigator: Saba shiferaw

Cell phone No - 0912050666

E-mail: yeshiferawsaba@gmail.com

Name of health facility……..

Name of interviewer_____ signature_____

Date of interview (Ethiopian calendar) _____/_____/_____

Result of interview:

1- Completed…… 2- Refused …….

3- Partially completed …….

Checked by principal investigator;

Name …….. Signature …… Date ……...

English version questionnaire

1.1 Socio-demographic characteristics of the women participating in the study

Q. No.	Questionnaire	Responses	Skip
101	Where do you live?	Addis Ababa.....1	

		Out of Addis Ababa.....2	
102	How old are you?	**……..**years old	
103	What is your Religion?	Orthodox……..….....1 Protestant…….….....2 Catholic…….…….....3 Muslim…….....…….....4 Others……..…..….....98	
104	What is your current educational level?	Illiterate…..…….….....1 Read and write only...…….....2 Primary school.…….....3 Secondary school……...….....4 diploma…….....5 degree…...…….....6 above degree…….....7	
105	What is your current occupational status?	Student.....…….....1 Merchant…….....2 Government Employee….....3 Nongovernmental organization Employee …….….....4 day laborer…….....5 unemployed.....6 Others……...…….…….....98 Specify _____	
106	What is your current marital status?	Single……..…….....1 Married ….……..….....2 Divorced…...…….....….....3 Widowed…….....4 Separated…….....5	**If not married or living together skip to**

		Living together…….....6	**109**
107	What is your husband educational status currently?	Illiterate…..…….….....1 Read and write only...….….....2 Primary school.…….....3 Secondary school……...….....4 diploma…….….....5 degree…...…….....6 above degree.....7	
108	What is your husband occupation currently?	Student.....…….....1 Merchant…….....2 Government Employee….....3 Nongovernmental organization Employee …….....4 day laborer …….....5 unemployed.....6 Others……...…….…….....98 Specify _____	
109	What is your household income monthly? (**total household income**)	_____	
110	When was your HIV diagnosis?(**year or duration**)		
111	Duration of follow up in PRE or ART care		
112	Currently are you on HAART(ART treatment)	Yes…….....1 No…….....2	
113	No of live births	_____	
114	Was there any one in your family or close friends or	Yes…….....1 No…….....2 Don't know…….....99	

	neighbors with history of cervical cancer?		

Knowledge of the women on cervical cancer and cervical cancer screening

Qn No.	Questionnaire	Response	Skip
201	Have you ever heard of cervical cancer?	Yes…….…….....1 No……..…..2	**If no skip to206**
202	Where did you hear about cervical cancer for the first time?	Media…….....1 Health personnel……...2 Teachers…….....3 Relatives……...4 Friends…….....5 Religion……..6 Other specify…….....98	
203	What is the cause of cervical cancer?	Bacteria…….....1 Virus…….....2 Fungus……...3 Through genes from family...4 Urinating on the sun.....5 Do not know……...99 Other specify…….....98	

204	What are the predisposing factors to cervical cancer? (**multiple answers are possible**)	Having multiple sexual partners.....1 Early onset sexual intercourse.....2 Family history of cervical cancer.....3 Infection by virus causing cervical cancer.....4 Cigarette smoking…….....5 Low immunity due to HIV/AIDS.....6 Repeated abortion.....7 Do not know……....99 Other …….....…..98	
205	What are the signs and symptoms of cervical cancer? (**multiple answer is possible)** **(Probe)**	Vaginal bleeding……....1 Foully vaginal discharge…...2 Pelvic or back pain……....3 Post coital bleeding…….....4 I don't know…….....99 Other specify…….....98	
206	Who is at risk of developing cervical cancer?(**multiple answer is possible)** **(Probe)**	All women…….....1 Married women.....2 HIV positive women.....3 Women who are sexually active…….....4 I don't know…….....99 Others specify…….....98	
207	Who is more likely at risk of developing cervical cancer?(**multiple answer is possible**)	HIV positive women.....1 Women with multiple sexual partners.....2	

	(Probe)	Women with family history of cervical cancer…….....3 All women…….....4 I don't know…….....99 Others specify…….....98	
208	Is cervical cancer preventable disease?	Yes……...1 No…….....2 Don't know.....99	**If no to question no 208 skip to210**
209	If yes to question No **208**, how? (**multiple answers are possible) (Probe)**	Avoid multiple sexual partners…….....1 Avoid early onset sexual intercourse….....2 Quit smoking.....3 Through vaccination……....4 seek screening services.....5 Do not know…....….....99 Other (please explain….....98	
210	Do you know any screening procedures to detect cervical cancer?	Yes…….....1 No……...…….....2	If no skip to question no 213
211	If yes to question no 210, which cervical cancer screening methods do you know? (multiple answers are possible)	Pap smear.....…….....1 VIA…….....2 HPV testing…….....3 others specify…….....98	
212	From where did you heard about cervical cancer screening methods for the first time?	Hospital……..…….1 Health care providers…..…2 Television…..……3 Radio…….……..4 Friend…….……5 Relative…….……....6	

		Other specify…….98	
213	What is the aim of cervical cancer screening?	To prevent cervical cancer…….....1 It helps for early detection of cervical cancer.....2 It helps for early seek of treatment…….....3 It helps to treat cervical cancer…….....4 Do not know…..….....99 Other (please explain.....98	
214	When a woman should have screening?	When menstruation starts.. .1 As soon as sexually active.....2 At the age of 30…….....3 When start having children....4 After menopause……..….....5 Do not know……....……99 Other……...…….98	
215	When HIV positive woman should have screening?	When menstruation starts...1 As soon as sexually active….2 At the age of 30……...…..3 When start having children...4 After menopause…….....5 Do not know……99 Other……...…….98	
216	How frequent, screening should be done for cervical cancer?	Once every year.....1 Once every three years.....2 Once every 5 years.....3 Do not know……...……99	

		Others specify…….....98	
217	How frequent, cervical cancer screening should be done for HIV positive women?	Once every year.....1 Once every two year.....2 Once every three years.....3 Once every 5 years…….....4 Do not know……..……99 Others specify….....98	
218	Is cervical cancer curable (treatable) if detected early?	Yes……..……1 No……...……2 Don't know……..……..99	If no skip to question no 220
219	What things make cervical cancer curable once diagnosed?	Seeking treatment at early stage…….....1 Seeking treatment at late stage…….....2 Seeking treatment at early or late stage Don't have difference.....3 Don't know....…….....99 Others……....98	
220	What treatment modalities do you know for cervical cancer(multiple answers are possible) **(Probe)**	Herbal remedies….....1 Surgery…….....2 Radiotherapy…….....3 Chemotherapy(oral medication)…….....4 Cryotherapy ……..….....5 LEEP…….....6 Do not know…...….....99 Other……..98	

Willingness to cervical cancer screening

Qn No.	Questionnaire	Response	Skip
301	Do you think it is helpful to detect Cervical Cancer early?	Yes …….....1 No…….....2	
302	Has anyone ever recommended that you should have screening for cervical cancer?	Yes …….....1 No…….....2	
303	Would you like to undergo gynecological examination?	Yes …….....1 No…….....2	
304	Are you willing to attend a cervical cancer screening?	Yes ……....1 No…….....2	
305	If screening is free and integrated to ART clinic, will you screen?	Yes …….....1 No…….....2	
306	If screening is available at nearby health institution, will you screen?	Yes …….....1 No…….....2	
307	Are you willing to pay for a screening service?	Yes ……...1 No…….....2	

Practice and barriers to cervical cancer screening methods

Qn No.	Questionnaire	Response	Skip
401	Have you ever screened for cervical cancer?	Yes…….….....1 No …….....2	**If no skip to 406**
402	If yes how many times since you became sexually active?		

403	When was the last time you screened for cervical cancer?	within the past three years…....1 within the past five years…….....2 More than five years…….....3 Other…….....98	
404	Will you screen again?	Yes…….…....1 No …….....2	
405	If no to question no 404 why?	It is painful…….....1 It is embarrassing…….....2 Fear of positive results…….....3 It is expensive…….....4 There is no appropriate care at health facility.....5 Health care providers are not knowledgeable.....6 Attitude of the health care providers are not good.....7 No screening service in the nearby health institution.....8 Long waiting time at health institution.....9 Other specify…….....98	
406	If no, why? (**multiple answers are possible)** **(Probe)**	It is painful…….....1 It is embarrassing…….....2 Don't know where it is done.…....3 I am healthy…….....4 My husband would not agree...….....5 Fear of positive results…….....6 It is expensive…….....7 lack of awareness……...….....8	

		There is no appropriate care at health facility.....9 Health care providers are not knowledgeable.....10 Attitude of the health care providers are not good.....11 No screening service in the nearby health institution.....12 Long waiting time at health institution.....13 Religion/cultural…….....14 Other specify…….....98	

1. Key informant in-depth interview guide for adherence supporter

Greeting!

Hello dear participant!

With the aim of assessing knowledge about cervical cancer and cervical cancer screening methods and barriers to cervical cancer screening of HIV positive women towards cervical cancer, having an in-depth interview with you has become an important idea. I hope that the interview I would be having with you is very much helpful to further improve the awareness, quality, availability and accessibility of cervical cancer screening methods and to explore the possible barriers for undergoing any cervical cancer screening methods among HIV positive women aged 21-65 years.

In doing this interview, I will raise some question regarding knowledge about cervical cancer and cervical cancer screening methods and barriers towards screening among women in Addis Ababa in general and specifically in your health center among HIV positive women who came for Pre and ART services.

Heading to the interview I would like to appreciate you for your voluntary participation in this interview/discussion.

Discussion points

1. In your opinion, what is cervical cancer and what things do you think affect a woman chance of developing cervical cancer? From where did you learn about it?
   (Probe: perception about severity of the disease, its preventability, risk factors,)
2. In your opinion, is there any screening method to prevent cervical cancer? How important do you think is cervical cancer screening for diagnosing cervical cancer? (Knowledge about the existence of the services, importance of service, alternative services etc.)
3. In your opinion, what do you think are barriers for women not practicing cervical cancer screening?(Knowledge about the existence of the services, attitude towards the services, importance of service, alternative services etc)
4. In your opinion what personal factors do you think affect a women for not practicing cervical cancer screening?(is it embarrassing, painful.....
5. In your opinion what social barriers women have towards cervical cancer screening? (social taboos, partner attitude, religious factor

6. In your opinion, do you think cervical cancer screening is easily available/accessible for HIV infected women
7. In your opinion, what do you think are the barriers for those women not practicing cervical cancer screening knowing it is available at some health institution?
8. In your opinion, is there appropriate care at health care facility regarding cervical cancer screening(knowledge of HCP, attitude of HCP,
9. In your opinion, do you think HIV positive women will undergo screening service if the screening service is integrated to ART clinic?
10. What efforts do you think your health center/clinic is making towards cervical cancer screening?

Finally, I would like to express my heartfelt thanks for your voluntary participation in this in-depth interview.

You have contributed your best!

Annex II

የአማርኛ ቋንቋ መጠይቅ

ጥናት አድራጊ፡-ሳባ ሽፈራዉ

ርዕስ፡- እድሜያቸው ከ21-65 ዓመት የሆኑ በደማቸዉ ውስጥ ኤች አይ ቪ ኤድስ ቫይረስ ያለባቸዉ አዋቂ ሴቶችን የማህጸን ጫፍ ካንሰር እና የማህጸን ጫፍ ካንሰር ቅድመ ምርመራ ጋር በተያያዘ ያላቸውን እውቀት እና ለማህጸን ጫፍ ካንሰር ቅድመ ምርመራ አጋች ሁኔታዎች በአዲስ አበባ የተመረጡ ጤና ጣቢያዎች ውስጥ ማጥናት፡፡

ጤና ይስጥልኝ! ስሜ …….. እኔ ዛሬ እዚህ የተገኘሁት የአዲስ አበባ ዩኒቨርስቲ የህብረተሰብ ጤና ተማሪ የሆነችውን ሳባ ሽፈራዉን በመወከል ሲሆን ጥናቱም በተመረጡ የአዲስ አበባ ጤና ጣቢያዎች ከላይ በተጠቀሰዉ ርዕስ ላይ ጥናት እያደረገች ሲሆን ይህም የማስተርስ ዲግሪዋን ለማግኘት የሚጠቅማት ነው፡፡ከዚህ በታች ጥናቱ ላይ ለመሳተፍ ከመወሰኖህ በፊት የጥናቱን አላማ ፣ጥናቱ ላይ በመሳተፎ የሚያገኙት ጥቅም እና ጉዳት እንዲሁም ደግሞ ከእርሶ የሚጠበቀውን እገልጽሎታለሁ፡፡

አላማ፡- የማህጸን ጫፍ ካንሰር እና የማህጸን ጫፍ ካንሰር ቅድመ ምርመራ ጋር በተያያዘ ኤች አይ ቪ ኤድስ በደማቸዉ ውስጥ ያለባቸዉ አዋቂ ሴቶች ያላቸውን እውቀት እና የማህጸን ጫፍ ካንሰር ቅድመ ምርመራ ለማድረግ አጋች ሁኔታዎች በአዲስ አበባ የተመረጡ ጤና ጣቢያዎች ውስጥ በ 2016 ዓ.ም እ.ኤ.አ. ማጥናት ነዉ።

ቅደም ተከተል፡-የስምምነት ወረቀቱን ከፈረሙ በኃላ መረጃ ሰብሳቢዉ አግባብ ያላቸዉን ጥያቄ፤ የተዋቀረ መጠይቅ በመጠቀም ፊት ለፊት ይጠይቆታል ምላሽዎንም በቃለ መጠይቁ ላይ ያሰፍራል፡፡ቃለ መጠይቁ 20-25 ደቂቃ ይወስዳል፡፡

ለተጠያቂው የሚሰጠው ጥቅም፡-ለተጠያቂው ቀጥተኛ ጥቅም ላይኖረው ይችላል፡፡ነገር ግን ጥናቱ ከተካሄደ በኋላ የጥናቱ ውጤት የተሳታፊዎቹን ከማህጸን ጫፍ ካንሰር ጋር በተያያዘ ያለቸውን እውቀት እንዲሁም የማህፀን ጫፍ ካንሰር ምርመራ ለማድረግ አጋች ሁኔታዎች ለማወቅ ይረዳል፡፡ይህም ህግ አዉጪዎች እና የተለያዩ በማህፀን ጫፍ ካንሰር ላይ የሚሰሩ ግብረ ሰናይ ድርጅቶች የማህጸን ጫፍ ካንሰር ወረርሽኝን ለመከላከል እርምጃ እንዲወስዱ ይረዳል፡፡ለሰጡት መረጃ ምንም አይነት የገንዘብ ክፍያ አይከፈሎትም ነገር ግን ማንኛዉም የጥናቱ ተሳታፊ ከማህጸን ጫፍ ካንሰር ጋር ተያይዞ ላለዉ ጥያቄ ትምህርት ይሰጣል፡፡የጥናቱ ዉጤት ለሚመለከተዉ ክፍል የአዲስ አበባ ጤና ቢሮ ጨምሮ ይሰራጫል፡፡

ጥናቱ ሊያስከትል የሚችለዉ ጉዳት፡-በጥናቱ ላይ መሳተፍ ምንም አይነት ጉዳት አያስከትልም፡፡ ነገር ግን ጥያቄዎችን ሲመልሱ ሰዓቶትን ልንወስድ እንችላለን፡፡

የተጠያቂው መብቶች

የእርሶ ተሳትፎ ፈፅሞ በፍላጎት ላይ የተመሰረተ ነዉ፡፡አንድ ተሳታፊ ጥናቱ ላይ መሳተፍም ያለመሳተፍም ይችላል፡፡ጥናቱ ላይ መሳተፍ ባይፈልጉ ምንም አይነት ጥቅም አይከለከሉም፡፡ማንኛዉም ያልተረዱት ጥያቄ ካለ መረጃ ሰብሳቢዉን መጠየቅ ይችላሉ፡፡

ምስጢራዊነት፡-ሁለም መረጃ ምስጢራዊነቱ የተጠበቀ ሲሆን የእርሶን ስም ባለ መፃፍ ምስጢራዊነቱን ለመመጠበቅ የምስጢር ቁጥር የምንጠቀም ይሆናል፡፡

በዚህ ጥናት ላይ ለመሳተፍ ፍቃደኛ ነዎት

1.አይደለሁም (አመሰግናለሁ በል) 2.አዎ

ስምምነት

ከላይ የጥናቱ አላማ፣ ጥቅሙ፣ ጉዳቱ፣ እንዲሁም ሚስጥራዊነቱ በሚገባኝ እና በምረዳዉ ቋንቋ ተገልጾልኛል::በተጨማሪም በጥናቱ ላይ ለመሳተፍ ብስማማም እንኳን ምንም አይነት ማብራሪያ መስጠት ሳያስፈልገኝ በፈለኩት ጊዜ አቋርጬ መሄድ እችላለሁ:: በዚህ ጥናት ላይ ተሳትፎዬ ፈፅሞ በፍላጎት ላይ የተመሰረተ ነዉ::

በዚህ ጥናት ላይ ለመሳተፍ ተስማምቻለሁ::

ፊርማ_____ቀን_____(መረጃ ሰብሳቢ)

ፊርማ_____ቀን_____ (ጥናት አድራጊ)

ለሚኖርዎት ጥያቄ የሚጠቀሙት አድራሻ እና የጥናትአድራጊዋ መረጃ

የጥናት አድራጊዋ ስም፡ሳባ ሽፈራዉ

ስልክ ቁጥር 0912050666

ኢ-ሜይሌ፡ yeshiferawsaba@gmaail.com

የጠያቂው ስም እና ፊርማ._____

የተጠየቀበት ቀን (በኢትዮጵያአቆጣጠር) -------/----------/----------

የጥናቱውጤት 1. ተጠናቋል 2. መጠየቅ አልፈለጉም 3. በከፊል የተጠናቀቀ

በጥናት አድራጊዋ ተረጋግጧል ስም ----------ፊርማ---------- ቀን_____

የጥናቱ ተሳታፊዎች የጥናት መለያና ስነህዝባዊ መረጃ

ተ.ቁ	መጠይቅ	መልስ	ዝለል
101	አድራሻዎ የት ነዉ?	አዲስአበባ…… ..... 1 ከአዲስ አበባ ውጪ.....2	
102	እድሜዎ ስንት ነው?	_____ዓመት	
103	የሚከተሉት ሃይማኖት ምንድን ነው?	ኦርቶዶክስ……..1 ፕሮቴስታንት……...2 ካቶሊክ...…….…..……..3 ሙስሊም…….....4 ሌላ ከሆነ ይጥቀሱ….....98	
104 .	የትምህርት ደረጃዎን ይንገሩኝ;	ማንበብና መጻፍ የማይችል……..1 ማንበብና መጻፍ ብቻ…….....2 መጀመሪያ ደረጃ ትምህርት……..3 ሁለተኛ ደረጃ ትምህርት…….4 ዲፕሎማ……5 ዲግሪ…...……..6 ከዲግሪ በላይ……..…….7	
105	የእርስዎ የስራ ሁኔታ ምንድ ነዉ?	ተማሪ……..…….....1 ነጋዴ…….……....2 የመንግስት ሰራተኛ….....3 መንግስታዊ ያልሆነ ድርጅት ዉስጥ ተቀጣሪ……4 የቀን ስራ……5 ስራ የሌለዉ…….....6 ሌላ ከሆነ ይጠቀስ….....98	
106	የጋብቻ ሁኔታ?	ያላገባች……..1 ያገባች…….....2	ያላገባች ከሆነ ወደ ጥያቄ

		የፈታች……..3 ባሏ የሞተባት…..……..4 የተለያየች…….....5 የጋብቻ ዉል የሌላት ግን አብራ የምትኖር……...…..6	ቁጥር 109 ዝለል
107	የትዳር አጋርዎ የስራ ሁኔታ ምንድ ነዉ?	ተማሪ…...……1 ነጋዴ……..……..2 የመንግስት ሰራተኛ…….3 መንግስታዊ ያልሆነ ድርጅት ውስጥ ተቀጣሪ……..4 የቀን ስራ…….....5 ስራ የሌለዉ…….....6 ሌላ ከሆነ ይጠቀስ...….....98	
108	የትዳር አጋርዎ የትምህርት ሁኔታ እንዴት ነዉ?	ማንበብና መጻፍ የማይችል……..1 ማንበብና መጻፍ ብቻ…….....2 መጀመሪያ ደረጃ ትምህርት….....3 ሁለተኛ ደረጃ ትምህርት.....4 ዲፕሎማ……....5 ዲግሪ…...…….6 ከዲግሪ በላይ……...7	
109	በወር ዉስጥ የቤተሰብ ገቢዎ ምን ያህል ይሆናል ? (አጠቃላይ ገቢ)	_____(የኢ/ትብር)	
110	መቼ ነዉ ኤች አይቪ ኤድስ ቫይረስ በደምዎ ውስጥ እንዳለ ያወቁት?(ዓመት ምህረት ወይም አጠቃላይ ዓመት)	ከ _____(ወር)በፊት ከ _____ (ዓመት)በፊት (ዓመት ምህረት)	
111	በ ኤ አር ቲ ክፍል ውስጥ መከታተል ከጀመሩ ምን ያህል ግዜ ይሆኖታል?	ከ _____(ወር) በፊት ከ _____ (ዓመት) በፊት	

		_____(ዓመት ምህረት)	
112	የፀረ ኤ ች አይቪ ኤድስ መዳኒት ይጠቀማሉ ?	አዎ……..……1 አልጠቀምም…….....2	
113	ስንት ልጅ ወልደዋል ?		
114	በቤተሰብዎ ፣ በጓደኛዎ ወይም በጎረቤቶ ዉስጥ የማህፀን ጫፍ ካንሰር የነበረበት ሰዉ ያዉቃሉ ?	አዎ……....…..1 የለም……....…2	

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ተ.ቁ	መጠይቅ	መልስ	ዝለል
201	ከዚህ በፊት ስለ ማህፀን ጫፍ ካንሰር በሽታ ሰምተው ያውቃሉ?	አዎ……1 አላዉቅም…….…....2	**አላዉቅም ካሉ ወደ ጥያቄ ቁጥር 206**
202	ለመጀመሪያ ግዜ ስለ ማህፀን ጫፍ ካንሰር በሽታ ከየት ሰሙ?	ከመገናኛ ብዙሐን……1 ከጤና ባለሙያ……2 ከአስተማሪ(መምህር)……3 ከዘመድ……4 ከጓደኞቼ……5 ከሐይማኖት ተቋም……...6 ሌላ ካለ ይጥቀሱ……..98	
203	ለማህፀን ጫፍ ካንሰር መከሰት ምክንያቱ ምንድ ነዉ?	ባክቴሪያ……1 ቫይረስ……....2 ፈንገስ…….....3 በዘር ይተላለፋል……....4 ሌላ ካለ ይጥቀሱ……...98	
204	እርሰዎ የሚያውቋቸው ለማህጸን ጫፍ ካንሰር ሊያጋልጡ የሚችሉ	ከተለያዩ ወንዶች ጋር ፆታዊ ግኙኝነት መፈፀም……1 እድሜ ሳይደርስ ፆታዊ ግኙኝነት መፈፀም……...2	

	ሁኔታዎችን ይጥቀሱልን(**ብዙ አማራጮች አሉ፣ ከአንድ መልስ በላይ መመለስ ይቻላል**)	በቤተሰብ የበሽታ ታሪክ ካለ……...3 በሽታውን ሊያመጣ በሚችል ቫይረስ መያዝ(መጠቃት)…….....4 ሲጋራ ማጨስ……5 የበሽታ መከላከል አቅም መዳከም በኤች አይ ቪ ኤድስ ምክንያት ……..6 አላዉቅም…….....99 ሌሎች ካሉ ይጠቀሱ……...…….....98	
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207	በይበልጥ ለማህጸን ጫፍ ካንሰር ተጋላጭ የሆኑት ከነዚህ የማህረሰብ ክፍሎች የትኞቹ ናቸዉ(**ብዙ አማራጮች አሉ፣ ከአንድ መልስ በላይ መመለስ ይቻላል**)	በደማቸዉ ውስጥ ኤች አይ ቪ ቫይረስ ያለባቸዉ ሴቶች…..I ከተለያዩ ወንዶች ጋር ፆታዊ ግኑኝነት የሚፈፅሙ ሴቶች…..2 በቤተሰብ የበሽታ ታሪክ ያለባቸዉ ሴቶች….....3 ሁሉም ሴቶች…….....……4 አላዉቅም…….....……99 ሌላ ካለ ይጥቀሱ…….98	

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208	አዎ ከሆነ ለጥያቄ ቁጥር 209 እንዴት ነዉ ሊከላከሉት የሚችሉት? **(ብዙ አማራጮች አሉ፣ ከአንድ መልስ በላይ መመለስ ይቻላል)**	ከተለያዩ ወንዶች ጋር ዖታዊ ግኑኝነት አለመፈፀም…….....1 እድሜ ሳይደርስ ዖታዊ ግኑኝነት አለመፈፀም…….....2 ሲጋራ አለማጨስ……..…..3 ለበሽታዉ አምጪ ቫይረስ ክትባት መከተብ……....4 የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ ማድረግ…….....5 አላዉቅም…….....99 ሌላ ካለ ይጥቀሱ…….…….....98	
209	ከዚህ በፊት ስለ ማህፀን ጫፍ ካንሰር ቅድመ ምርመራ ዘዴዎች ሰምተው ያውቃሉ? **(በደንብ ይጠየቅ)**	አዎ……1 አላዉቅም…….……2	**አላዉቅም ካሉ ወደ ጥያቄ ቁጥር 212**
210	አዎን ካሉ የትኞችን የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ ዘዴዎች ያውቃሉ? **(ብዙ አማራጮች አሉ፣ ከአንድ መልስ በላይ መመለስ ይቻላል)**	ፓፕ እስሚር(ከማህጸን ጫፍ ተቆንጥሮ የሚሰራ ምርመራ) ……1 ቪ አይ ኤ……2 የሁማን ፓፒሎማ ቫይረስ ምርመራ…….....3 ሌላ ካለ ይጠቀሱ……..98	
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212	የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ ለምን ይረዳል(ይጠቅማል) ብለዉ ያስባሉ?**(ብዙ አማራጮች**	የማህፀን ጫፍ ካንሰርን ለመከላከል…….....1 የማህፀን ጫፍ ካንሰር ቀድሞ መኖሩን ለማወቅ…….....2 የማህፀን ጫፍ ካንሰር ካለ ቶሎ ህክምናዉን ለማግኘት....3 የማህፀን ጫፍ ካንሰርን ለማከም…….....4	

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214	በደሚ ውስጥ ኤች አይ ቪ ኤድስ ቫይረስ ያለባት ሴት የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ ማድረግ ያለባት መቼ ነዉ ብለዉ ያስባሉ?	የወር አበባ ማየት ስትጀምር…….....1 በማንኛዉም የእድሜ ክልል ዉስጥ……....2 የግብረ ስጋ ግኙኝነት ልክ እንደ ጀመረች …….3 30 ዓመት ሲሆናት……...4 ልጅ ከወለደች በኃላ……..5 የወር አበባ ማየት ስታቆም ወይም ከአረጠች በኃላ……..6 አላዉቅም…….....99 ሌላ ካለ ይጠቀስ…….…….98	
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216	በደሚ ውስጥ ኤች አይ ቪ ኤድስ ቫይረስ ያለባት ሴት የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ በየስንት ጊዜዉ ማድረግ አለበት ብለው ያስባሉ?	በዓመት አንድ ግዜ…….....1 በሁለት ዓመት አንድ ግዜ.....2 በሶስት ዓመት አንድ ግዜ…….....3 በአምስት ዓመት አንድ ግዜ…….....4 አላዉቅም……..…….....99 ሌላ ካለ ይጠቀስ…….....…….98	

217	የማህጸን ጫፍ ካንሰርን ቶሎ ከታወቀ ሊድን ወይም ሊታከም ይችላል ብለዉ ያስባሉ?	አዎ……..1 አይችልም…….2 አላዉቅም…….99	
218	አንድ ሰዉ በማህጸን ጫፍ ካንሰር ከተያዘ በኃላ እንዲድን አስተዋፅኦ የሚያደርገዉ ምንድ ነዉ ብለዉ ያስባሉ?	በሽታዉ የጀመረ አከባቢ ቶሎ ብሎ ህክምና ማግኘት……1 በሽታዉ ከጀመረ ዘግይቶ ህክምና ማግኘት……..2 ቶሎም ሆነ ዘግይቶ ህክምና ማግኘት ጥቅም የለዉም…….3 አላዉቅም…….99 ሌላ ካለ ይጠቀስ…….98	
219	እርሰዎ የሚያውቋቸው የማህፀን ጫፍ ካንሰር ህክምና ካለ ይጥቀሱ(**ብዙ አማራጮች አሉት፣ ከአንድ መልስ በላይ መመለስ ይቻላል**)	የባህል ህክምና……1 ቀዶ ጥገና…….2 የጨረር ህክምና……3 ኬሞቴራፒ(በአፍ የሚወሰድ ኪኒን)……4 ክራዮቴራፒ…….5 አላዉቅም…….99 ሌላ ካለ ይጥቀሱ…….98	

እድሜያቸው 21-65 ዓመት የሆኑ ኤች አይ ቪ ኤድስ ቫይረስ በደማቸዉ ዉስት ያለባቸዉ አዋቂ ሴቶች ስለ የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ ለማድረግ ያላቸዉን ፍላጎት ለማጥናት የተዘጋጀ መጠይቅ

ተ.ቁ	ጥያቄ	መልስ	ዝለል
301	የማህፀን ጫፍ ካንሰር በግዜ ወይም ቶሎ መኖሩን ማወቅ ጠቃሚ ነዉ ብለዉ ያስባሉ?	አዎ…….1 አይደለም…….2 አላዉቅም…….99	
302	ከዚህ በፊት የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ ማድረግ እንዳለብዎ የነገሮት ሰዉ አለ?	አዎ…….1 የለም…….2	
303	የማህፀን አከባቢ ምርመራ ለማድረግ ፍቃደኛ ነዎት?	አዎ…….1 አይደለሁም…….2	
304	የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ ለማድረግ ፍቃደኛ ነዎት?	አዎ…….1 አይደለሁም…….2	

305	ቅድመ ካንሰር ምርመራዉ ነፃ ቢሆንና ከኤ አር ቲ ክሊንኩ ጋር ቢጣመር የቅድመ ካንሰር ምርመራዉን ያደርጋሉ?	አዎ…….....1 አላደርግም…….....2	
306	የማህፀን ጫፍ ካንሰር ቅድመ ምርመራዉ በአከባቢዎ ጤና ተቋም ቢኖር ምረመራዉን ያደርጋሉ?	አዎ…….....1 አላደርግም…….....2	
307	የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ ለማድረግ በከፍያ ከሆነ ክፍያ ለመክፈል ፍቃደኛ ነዎት?	አዎ…….....1 አይደለሁም…….....2	

እድሜያቸው 21-65 ዓመት የሆኑ በደማቸዉ ዉስት ኤች አይ ቪ ቫይረስ ያለባቸዉ ሴቶች የማህፀን ጫፍ ካንሰርን ቅድመ ምርመራ ተግባርን እና አጋች ሁኔታን በተመለከተ የተዘጋጀ መጠይቅ

ተ.ቁ	ጥያቄ	መልስ	ዝለል
401	የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ አድርገዉ ያዉቃሉ ?	አዎ…….1 አላዉቅም…….2	**አላዉቅም ካሉ ወደ ጥያቄ ቁጥር 404**
402	ዖታዊ ግንኙነት ከጀመሩ ስንት ግዜ የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ አድርገዉ ያዉቃሉ ?		
403	ለመጨረሻ ግዜ የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ ያደረጉት መቼ ነበር ?	ባለፉት ሶስት ዓመታት…….1 ባለፉት አምስት ዓመታት……..2 አምስት ዓመት በላይ……3	
404	አሁንስ የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ ለማድረግ ፍቃደኛ ነዎት ?	አዎ…….....1 አይደለሁም…….....2	

405	የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ ለማድረግ ፍቃደኛ ካልሆኑ ለምንድ ነዉ ፍቃደኛ ያልሆኑት?	ምርመራዉ በጣም ያማል……..1 ቅድመ ካንሰር ምርመራዉን ማድረግ ያሳፍረኛል…….....2 ቢኖርብኝ ብዬ እፈራለሁ…….....3 ምርመራዉ ለኔ ዉድ ነዉ…….....4 ተገቢዉን አገልግሎት በጤና ተቋም ስለማላገኝ.....5 የጤና ባለሙያዉ በቂ ዕዉቀት የለዉም.....6 የጤና ባለሙያዉ ጥሩ አመለካከት የለዉም.....7 በአቅራቢያዬ ቅድመ ካንሰር ምርመራዉ የለም.....8 በጣም ወረፋ ይበዛል.....9 ሌሎች ካሉ ይጠቀሱ……98	
406	መልሱ አላዉቅም ከሆነ ለምን አላደረጉም?	ምርመራዉ በጣም ያማል……..1 ምርመራዉ የት እንደሚደረግ(እንደሚሰጥ) አላዉቅም…...2 ቅድመ ካንሰር ምርመራዉን ማድረግ ያሳፍረኛል……3 ጤነኛ ስለ ሆንኩ ምርመራዉ አያስፈልገኝም…….....4 ባለቤቴ አይፈቅድልኝም…….....5 ቢኖርብኝ ብዬ እፈራለሁ…….....6 ምርመራዉ ለኔ ዉድ ስለሆነ…….....7 ቅድመ ካንሰር ምርመራ እንዳለ አላዉቅም……...8 ሐይማኖቴ አይፈቅድልኝም…….....9 ተገቢዉን አገልግሎት በጤና ተቋም ስለማላገኝ.....10 የጤና ባለሙያዉ በቂ ዕዉቀት የለዉም.....11 የጤና ባለሙያዉ ጥሩ አመለካከት የለዉም.....12 በአቅራቢያዬ ቅድመ ካንሰር ምርመራዉን የለም.....13 በጣም ወረፋ ይበዛል.....14 ሌሎች ካሉ ይጠቀሱ……...….....98	

ለአድሄረንስ ሰፖርተር የተዘጋጀ ጥልቀት ያለዉ መጠይቅ

ሰላም ጤና ይስጥልኝ ዉድ ተሳታፊዎች !

የጥናቱ ዓላማ በደማቸዉ ውስጥ ኤች አይ ቪ ቫይረስ ያለባቸው አዋቂ ሴቶች (እድሜያቸው 21-65 ዓመት የሆኑ ሴቶች) ከማህጸን ጫፍ ካንሰር ጋር በተያያዘ ያለቸውን እውቀት እንዲሁም የማህፀን ጫፍ ካንሰር ምርመራ ለማድረግ ኢጋች ሁኔታዎች በአዲስ አበባ የተመረጡ ጤና ጣቢያዎች ውስጥ ማጥናት ሲሆን ይህም መጠይቅ አስፈላጊ ሆኖ ስለተገኘ ነው፡፡እንደሚታሰበዉ ከእናነተ ጋር የማደርገው ጥልቀት ያለዉ መጠይቅ እድሜያቸው 21-65 ዓመት የሆኑ አዋቂ ሴቶች በማህፀን ጫፍ ካንሰር ቅድመ ምርመራ ላይ ያላቸዉን እውቀት፣የአገልግሎቱን ጥራትና ተደራሽነትን ለማሻሻል ጠቃሚ ይሆናል፡፡

በዚህ ቃለ መጠይቅ የማነሳቸው ጥያቄዎች የሚያተኩሩት ስለ ማህፀን ጫፍ ካንሰር እና የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ መንገዶች ጋር በተያያዘ በከተማችን ባሉ አዋቂ ሴቶች እንዲሁም በእናንተ የጤና ተቋም ውስጥ በደማቸዉ ኤች አይ ቪ ቫይረስ ያለባቸው ታካሚ አዋቂ ሴቶች ምን እንደሚመስል እና ለምን የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ እንደማያረጉ እንወያያለን፡፡

የመወያያ ነጥቦች ፡ _

1. በእርስዎ አመለካከት የማህፀን ጫፍ ካንሰር ምን ይመስልዎታል? ይህንን መረጃ ከየት ነዉ ያገኙት ? (ስለ በሽታው ክብደት፣መከላከል መቻሉንና ለበሽታዉ አስጊ ሁኔታዎች)
2. በእርስዎ አመለካከት ለማህፀን ጫፍ ካንሰር መከሰት ምክንያቱ ምንድ ነዉ ብለዉ ያስባሉ?
3. በእርስዎ አመለካከት የማህፀን ጫፍ ካንሰርን ለመከላከል ቅድመ ምርመራ አለ ብለዉ ያስባሉ? ካለስ በሽታውን ለማወቅ ምን ያህል ይረዳል ብለው ያስባሉ (ስለ አገልግሎት መኖር ያላቸውን እውቀት፣አመለካከትና የአገልግሎት አማራጮች)
4. በእርስዎ አመለካከት አዋቂ ሴቶች የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ በብዛት የማያካሄዱበት ምክንያት ምን ይመስልዎታል (ስለ አገልግሎት መኖር ያላቸው እውቀት፣አመለካከትና የአገልግሎት አማራጮች)
5. በአንዳንድ የጤና ተቋማት የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ አገልግሎት እንደሚሰጥ ቢያዉቁም አንዳንድ አዋቂ ሴቶች የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ የማያካሄዱበት ምክንያት በእርስዎ አመለካከት ምን ይመስሎታል?
6. በእርስዎ አመለካከት አዋቂ ሴቶች የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ እንዳያደርጉ የሚያደርጓቸዉ ግላዊ ምክንያቶች ምን ይመስሎታል
7. በእርስዎ አመለካከት አዋቂ ሴቶች የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ እንዳያደርጉ የሚያደርጓቸዉ ማህበረሰባዊ ምክንያቶች ምን ይመስሎታል
8. በእርስዎ አመለካከት፣ የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ ከኤ አር ቲ ክሊኒክ ጋር ቢጣመር በደማቸዉ ኤች አይ ቪ ቫይረስ ያለባቸው አዋቂ ሴቶች የማህፀን ጫፍ ካንሰር ቅድመ ምርመራ ያደርጋሉ ብለዉ ያስባሉ?

9. እርስዎ በሚሰሩበት የጤና ተቋም ውስጥ ስለ ማህፀን ጫፍ ካንሰር ቅድመ ምርመራ ምን ስራ ተሰርቷል ብለው ያስባሉ?

በመጨረሻም ለዚህ ቃለ መጠይቅ ስለ ተሳተፉ ከልብ አመሰግናለው።