

#### **Research Article**

### Advances in Sexual & Reproductive Health Research

# Cervical Cancer Screening Utilization and Associated Factors Among HIV- Positive Women in Bole Sub City, Addis Ababa, Ethiopia, 2022

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#### **Abstract**

Introduction: Cervical most cancers is a most cancers develops on the neck of the womb that's because of the unusual boom of cells which have the cap potential to invade different components of the frame. With about 528,000 new instances taking place every 12 months global. It is the second one main cause of most cancers associated dying and one of the pinnacle 20 reasons of dying in Ethiopia. The disorder is ready 7.9 instances extra not unusual place in HIV inflamed girls than none inflamed ones. Cervical most cancers screening reduces morbidity and mortality with the aid of using extra than 80%. Cervical most cancers screening insurance in Ethiopia may be very low that's 1.6% for all girls with unknown popularity and tremendous girls.

**Objective:** The goal of this have a look at became to evaluate and examine cervical cancer screening utilization and associated factors among HIV- positive women in bole sub city Addis Ababa, Ethiopia

Method: facility primarily based totally move sectional have a look at layout became carried out from June 1-30,2021. A general of 714 girls, 357 from HIV tremendous and 357 from unknown HIV popularity girls come to the clinic became decided on with the aid of using systematic random sampling approach. Data became gathered with the aid of using interviewer administered, entered to Epi information model three.1 and exported to SPSS model 23 for evaluation. Bivariate and multivariate logistic regressions have been used to pick out elements related with final results variable.

**Result:** A total of 156 eligible participants, were recruited in this study. Making an overall response rate of 100% participants were involved. Age was distributed in normal pattern with the mean age  $\pm SD$  of HIV positive was 30.70 $\pm$ 5.77 for women with unknown HIV status individuals respectively.

**Conclusion:** The finding of this study concluded that cervical CA screening service utilization among both groups was very low. Even though the prevalence of utilizing CCA screening service was very low among both groups, the prevalence among unknown HIV status women was higher than that of positive ones and the difference was significant.

**Keywords:** Cervical Most Cancers, Cervical Most Cancers Screening, Usage

### Introduction Background

Cervical most cancers are a most cancers develops on the neck of the womb that's because of the peculiar boom of cells which have the cap potential to invade different a part of the frame [1]. It is sort of always as a result of human papilloma virus (HPV), mainly traces HPV sixteen and HPV 18 [2-4]. Persistent contamination with precise sorts of HPV may also cause precancerous lesions. If untreated, those lesions may also development to cervical most cancers, however this development generally takes many years (15 to twenty years to increase in girls with ordinary immune systems

[5]. The development to precancerous lesion can take simplest five to ten years in girls with weakened immune systems, together with people with untreated HIV contamination [5]. This institution of humans is likewise much more likely to have volatile sexual practices, unprotected intercourse beginning at a younger age related to a couple of companions, tobacco use, which has been recognized as a chance issue for obtaining HPV in HIV inflamed girls [5]. Another chance element for obtaining CC are a couple of pregnancies and long-time use of oral contraceptives [6]. The ailment is ready [7]. nine instances greater not unusual place in HIV inflamed girls than none inflamed ones (three-eight). With about 528,000 new

instances going on every yr global, every yr an expected 275,000 girls die from the ailment with round 86% of the instances going on in growing nations, and it represents thirteen% of all woman cancers. SSA is the nations with the very best prevalence of cervical most cancers with inside the international [1-8]. This completely preventable ailment is the second one biggest most cancers killer of girls in low and middle-profits nations such as Ethiopia with maximum girls' death with inside the high of lifestyles [9]. To address cervical most cancers efficiently, screening applications have a critical function in cervical most cancers prevention considering early detection and remedy [10]. Cervical most cancers screening is the systematic utility of a take a look at to perceive cervical abnormalities in an asymptomatic girls' populace [10]. The screening and analysis are the use of detecting provider technology together with, Pap smear take a look at, VIA, VILI, HPV DNA and liquid primarily based totally cytology LBC[5]. Cervical most cancers screening insurance in growing united states may be very low. As evidences display those socio-demographic elements, reproductive records of girls, understanding and notion approximately the ailment have been associated with usage of cervical most cancers screening provider [9].

#### **Statement of the Problem**

Cervical most cancers prevention is public health precedence in Ethiopia mainly amongst HIV infected girls. In Ethiopia 27 million girl's elderly 15 and above are prone to growing cervical most cancers. After breast most cancers, cervical most cancers are maximum often located in Ethiopian girls, and has the very best mortality price as compared to different cancers. In this United States current estimates imply that each yr 7095 girls are identified with cervical most cancers and 4732 die from the ailment. According to WHO facts 2014 cervical CA is from the pinnacle 20 reasons of loss of life in Ethiopia, and ranks Ethiopia 34th with inside the international [11]. Ethiopia is a rustic with excessive incidence of HIV/AIDS and early initiation of sexual sex (in accordance WHO 2014 facts person incidence of HIV/AIDS in Ethiopia is 1.15% Increment of these excessive chance elements for cervical most cancers collectively with decrease socioeconomic repute will increase incidence of cervical most cancers on these united states. Cervical most cancers screening reduces morbidity and mortality with the aid of using greater than 80% (12, thirteen). Evidence suggests that early detection thru cervical Pap smears has had a great effect at the prevalence and mortality related to cervical most cancers in lots of evolved nations. This fulfilment has been attributed to extra get admission to to healthcare, expanded uptake of cervical most cancers screening, and expanded recognition of screening practices amongst girls in those evolved nations [12, 13]. On the opposite hand, screening sports in lots of growing regions such as Ethiopia have did not lower cervical most cancers prevalence and mortality because of low usage and follow-up of screening (sixteen). Lack of recognition and deep-seated stigma related to the ailment additionally pose great limitations to get admission to assist (nine) Ethiopia followed WHO advice and advocated girls to start cervical most cancers screening 3 years after initiation of sexual sex in line with the guideline. And FMOH of Ethiopia supported the combination

of cervical most cancers prevention offerings within decided on HIV/AIDS facilities Despite this cervical most cancers screening insurance in Ethiopia may be very low amongst preferred girls which 1.6% for city and 0.four% for rural [4, 15]. Its screening insurance as a part of HIV become additionally very low, simplest covers much less than 1 spite the fact that the ones companies are at better chance [16-18, 19]. The challenge "purple ribbon crimson ribbon (global "sea and deal with" method to combat against most cancers") additionally engaged Ethiopia as a fourth united states of cognizance in 2015 collectively with FMOH it scaled up the provider to 19 web sites which presently provide the screening and remedy provider, educated fifty-two fitness personnel with sea and deal with method, teach girls approximately cervical most cancers screening. Even though one of a kind interventions are administered screening provider usage amongst HIV high-quality and HIV poor girls become attain on the minimal stage of planed achievement [14]. As preceding research performed in Ethiopia the main elements related to low incidence of screening are socio-demographic elements like (age, stage of schooling, profits, marital repute, location of house etc.), reproductive records of girls like age at the beginning sexual sex, parity, own circle of relatives records of CC, understanding approximately cervical most cancers and cervical most cancers screening, perceived susceptibility to cervical most cancers, perceived advantages and limitations to screening [32, 38, 47, 49]. Extremely few researches are performed in HIV high-quality girls. And all of the to be had research are did not examine the affiliation among companion assist and CC screening usage. As there has been no preceding research become performed with inside the examiner location so, the goal of this examine is to asses and evaluate cervical most cancers screening provider usage and its determinant elements amongst HIV high-quality and girls with in regarded HIV repute.

#### Significance of the Study

Cervical most cancers are public fitness precedence in Ethiopia as there's excessive incidence of cervical most cancers and associated mortality and morbidity. Emerging studies shows that gynecologic fitness care such as cervical most cancers screening is underutilized with the aid of using HIV-high-quality girls and girls in preferred in Ethiopia. Despite low insurance of screening and excessive incidence of the ailment there are simplest restrained our bodies of researches that elucidate why girl's populace in preferred become now no longer make use of the provider. It is likewise extraordinarily tough to discover researches which depict the elements that have an impact on HIV inflamed girls now no longer to make use of the screening provider, despite the fact that the ones companies are at better chance. So, this examine is aimed to evaluate and compares the superiority and elements which have an impact on cervical most cancers screening provider usage amongst HIV high-quality and girls with unknown HIV repute. assessment of the 2 companies are very important for higher information of the elements that have an effect on girls' cervical most cancers screening exercise as it offers enough statistics concerning each company. This examine will encompass the variable which become omitted with inside the preceding examine that's companion

assist and its dating with cervical most cancers screening provider usage The locating of this examine is assumed to offer beneficial statistics to coverage makers, so that they are able to set applications which might be crucial to boom usage of the CC screening provider with the aid of using all women and ministry of fitness will re-engineer applications to boom uptake of screening. Health companies also are in want of statistics concerning factors related with underutilization CC screening provider so; they'll use this locating for suitable intervention with inside the hospitals and fitness facilities with the aid of using information the gap. It is likewise believed that the locating of this examine will offer baseline statistics for destiny researchers.

#### **General Objective**

To assess cervical cancer screening utilization and associated factors among HIV- positive women in Bole Sub City health facilities Addis Ababa, Ethiopia, 2021.

#### **Specific Objective**

- To determine the cervical cancer screening utilization among HIV-positive women in Bole Sub City health facilities Addis Ababa, Ethiopia, 2021
- To identify the factors associated with utilization of cervical cancer screening among the study groups.

#### Methodology Study Area

Addis Ababa is geographically located at 9°2' North and 38°42 East. As a capital city of the Federal Democratic Republic of Ethiopia, it is located almost at the centres of the country. The northern borderline runs along the Entoto maintains while its southern borderline runs across a plain land extending towards the Akaki River on to the Adama Express road. The eastern limits extend along the road to Debre Berhan and Dessie, while the western boundary runs along Mount Wechecha [6].

This study was conducted at Bole sub city, Addis Ababa, Ethiopia. According to central statistics agency 2016, Bole is one of the ten sub cities that are established under Addis Ababa city administration. Area of Bole sub city is 122.08 sq.km. The total Population living in the sub city is around: 328,900 Male: 154,542 Female: 174,358 Population densities per sq. m: 2,694.1 there are 14 weredas in bole sub city: Located around Megenagna around Adwa square of the sub-city.

The study was conducted at Bole-Sub-city. Specifically, Summit Health center and Bole 17 Health center was considered for the study.

The Study Will is conducted in Summit Health Center and Bole 17 Health center located in Bole sub city the country Side of Addis Ababa. Those health centers delivering ART services and integrated cervical CA intervention program and HIV AIDS Chronic Car Service for their clients Totally 147,976 clients in the woreda. And number of HIV Infraction is currently on ART 291 Patients female

196 and the age group of 15 - 49 age group 160 patients until the end of 2013 E.C in Summit Health center and in Bole 17 Health center Total HIV /on ART pt 1621 Female 1066 Female 15 - 49 = 858. Both health centers have one of responsible for overall health activity and cervical CA Screening Services.

#### **Study Design and Period**

Facility based cross sectional study was used from June1 to June 30, 2021.

#### **Populations**

#### **Source Population**

All HIV positive women were from Bole Sub City who is use ART services in health facility.

#### **Study Population**

All age eligible HIV positive women for cervical cancer who are available in both health centre to gain ART services at the time of the study.

#### **Eligibility**

#### **Inclusion Criteria**

Women above the age of 21 to 45 years old.

#### **Exclusion Criteria**

- 1. Women who are critically ill and unconscious at the time of the study.
- 2. Women who have had their cervix removed.

## Sample Size Determination and Sampling Technique Sample Size Determination

The sample size was calculated with two population proportion formula considering the prevalence in both outcome variable and determinant factors by Epi Info version 7.2.0.1 Fleiss W/CC method using the following assumptions.

r=n1/n2=1:1

Zα/2=1.96(value of standard normal distribution curve corresponding to confidence interval 95%)

 $Z\beta$ =0.84(value of standard normal distribution curve corresponding to 80% power

p1=percent outcome 1

Precision 5% at 95% confidence level

Since the sample size calculated for specific objective one prevalence of cervical CA screening service utilization) accommodates the largest sample size by using the following value

p1= 11.5 % prevalence of cervical CA screening service utilization among HIV positive women in Addis Ababa (36).

 $n = Z\alpha/2p(1-p)/d2 (1.96)2 *0.115(1-0.115)/ (0.05)^2$ 

n = 156

After adding non-response rate of 10% the minimum total sample size considered to undertake this study was172 for HIV positive women.

#### **Sampling Technique**

A multistage sampling technique was used. First, all governmental healthcare facilities found in Bole Sub City Addis Ababa are identified and stratified by type of health care facility into health centres. Then, to enhance representativeness, 30% of health centres from each stratum was selected randomly and included in the sample. The sample size (n=172) 59% and 41%wasallocated to each selected two health centres based on the proportional to the size of participants who was working during data collection period.

#### **Sampling Procedure**

Samples were selected by using systematic random sampling method until the required sample size was fulfilled. K is calculated by dividing total women available at the required outpatient department in the health centres per month to the required sample size.

Regarding with HIV positive women total women who use ART available per month was 1018 so K for this group is 1018/172 which was 6. So samples was selected every 6 intervals for women with unknown HIV status and every 6 intervals for HIV positive women.

#### Variables of the Study Dependent Variable

Cervical cancer screening service utilization.

#### **Independent Variables**

• Socio-demographic factors: -

Age

Level of Education

Marital status

Family income

Place of residence,

Partner support

Reproductive history of women:

Age at first sexual intercourse

Parity

Family history of cervical cancer

History of STDs. history of multiple sexual partners

>Knowledge about cervical cancer and screening service

Champions of health belief model

Perceived susceptibility of cervical cancer

Perceived barriers and Perceived benefits of CC screening

#### **Operational Definitions**

Good knowledgeable of cervical cancer: Those respondents who score equal to and above the mean score for the cervical cancer knowledge assessing questions [38, 44].

Poor knowledgeable of cervical cancer: Those respondents who score below mean score for the cervical cancer knowledge assessing questions [32, 38].

High perceived susceptibility: If respondents received two and

more of the mentioned susceptibility questions [32, 38].

Low perceived susceptibility: If respondents received one and less of the mentioned susceptibility questions [32].

High perceived benefit: If the respondents received equal to and more than the median score of Perceived benefit questions [32, 38].

Low perceived benefit: If the respondents received less than the median score of perceived benefit questions [32, 38].

High Perceived barriers: If respondents received equal to and more than the median score of the mentioned barrier positively [32, 38].

Low perceived barriers: If respondents received more than the median score of the mentioned barrier negatively [32, 38].

Utilized: If respondents have ever had screened within the last three years [38].

#### **Data Collection Tool**

Data was collected by use the self-administered structured questioner. The questionnaire will have five sub parts namely socio-demographic characteristics, reproductive history, knowledge related, health belief model questions and screening practice questions. The questioner was adopted from health belief model questions for cervical cancer screening and modified from previous study questions in Ethiopia [32, 38]. The questioner initially developed in English and later translated into local language by legal personnel who is an expert in English and local language Amharic then retranslated back to English version by another person for appropriateness of tools, language clarity and accuracy.

#### **Data Collection Procedure**

Data was collected by 3 BSc nurses, 3 midwives and two supervisors (BSc nurse or BSc midwife) after training was given before the actual data collection for three days. In addition to that there was continuous follow up and supervision by principal investigator throughout the data collection period.

#### **Data Quality Management**

To ensure quality of data, training was given for data collectors and supervisor for three days prior to study period on objectives of the study, how to collect data, regarding ethical issues, and on data quality. The questionnaire was also pretested in 5% of sample size in non-selected health centre one weak prior to the actual data collection to determine its appropriateness on the local context. The finding of the pre-test was incorporated to modify and clarify the collection tool before actual data collection. During data collection; Super visors had routine checkups for its completeness and scientific soundness. Additionally, the principal investigator checked the filled questionnaire and gave feedback for super visors daily.]

#### **Data Analysis**

The data was first checked for completeness and entered to Epi-data version3.1.1 to be cleared then transported to SPSS version 23 for analysis. Descriptive statistics like Frequency distribution, ratio, means, percentages and standard deviation was calculated. In order to investigate relative importance of the variables in relation to the dependent variable bivariate analysis was used. Those become significant was fitted together to multivariate logistic regression to explore association between dependent and independent variables and to control confounding. Statistical significance was interpreted using Odds ratio with 95% confidence interval and P value <0.05. The result was presented using texts, tables, figures and diagrams.

#### **Ethical Clearance**

Ethical clearance was obtained from Rift Valley University Abichu Campus College of health science department of Public Health IRB (institutional review board) of research committee and official letter was written to Addis Ababa health bureau. Permission letter was written from Addis Ababa health bureau to the summit health centre for their cooperation and participation. Moreover, a written consent was obtained from the study subjects before interviewing. All respondents have the right to withdraw from the study at any time without any consequences. Confidentiality was assured and no personal details was recorded or produced on any documentation related to the study. No one was obliged to participate unless otherwise agreed to take part.

#### **Dissemination of the Finding Findings**

The final report of this study was written scientifically and submitted to Rift Valley University, college of health science, department of Public health. The copy of report of the analysis result was disseminated to all relevant bodies like FMOH, both health centres and Addis Ababa bureau after the thesis is approved by examiners. As per the laws and regulation of the country, the study result was presented and effort was made to disseminate through publication.

#### Result

#### **Socio-Demographic Characteristics of Participants**

A total of 156 eligible participants, were recruited in this study. Making an overall response rate of 100% participants were involved. Table 1 describes the proportion of socio-demographic characteristics of the study population. Age was distributed in normal pattern with the mean age  $\pm$ SD of HIV positive was 30.70 $\pm$ 5.77 for women with unknown HIV status individuals respectively. Majority of women with unknown HIV status were found in the age group of 25-35 and HIV positive women were found in the age group of >35 years. Concerning marital status more than half of both groups were married with 87 (55.8%).

#### **Reproductive History of Participants**

Regarding gaining support from partner or husband, 48(30.8%) of the women had not gain partner or husband support to check their gynaecological health both in HIV positive and unknown HIV status women groups which accounted. History of having STI is also in study groups with the proportion of were high 116(74.4%) status women respectively. One hundred five (67.3%) were use condom during sexual intercourse in study groups.

#### **Information about Cervical Cancer and Cervical Cancer Screening and The Source of Information**

Majority of women were aware about cervical cancer 97(62.2%) respectively. The One hundred nineteen (76.3%) of participants were with information about cervical CA respectively. The major source of information about cervical cancer and cervical cancer screening in study groups were health professionals which accounted 71(45.5%).

### **Knowledge About Cervical Cancer and its Screening Among HIV Positive and Unknown HIV Status Women**

Knowledge about curability of CA in its earliest stage was also part of knowledge assessment question; only small numbers of HIV positive and unknown status women were knowledgeable about its curability with proportion of 106(67.9%) respectively. Majority of participants 76(48.7%) and unknown status did not know about the asymptomatic character of cervical CA and also did not know about the role of early cervical CA screening in prevention from development of advanced stage with proportion of 96(61.5%) respectively. Concerning with availability of service in the study area, only 125(80.1%) were knowledgeable about this.

### **Factors Associated with Cervical Cancer Screening Service Utilization Among Women**

During bivariate logistic regression family's monthly income, marital status, occupation, and educational status was significantly associated with p value of less than 0.05. Those variables show significant association became candidate for multivariate logistic regression out of total independent variables. After multivariate logistic regression analysis were insignificant remained significant or show strong association with cervical cancer screening service utilization with p value of less than 0.05.

#### **Discussion**

The standard occurrence of cervical CA screening provider usage on this look at changed into very low. While we evaluate the superiority in HIV wonderful and unknown HIV reputation ladies' organizations on this look at, out of 357 HIV wonderful and 357 unknown HIV reputation ladies' members best 28 (7.8) and 41 (11. four%) changed into screened respectively, this indicates the superiority of screening amongst unknown HIV reputation ladies' organizations changed into better than that of HIV wonderful ladies' organizations. This is supported via way of means of the bring about evaluation of population-primarily based totally World Health Surveys which depicts that the superiority of screening in a part of HIV wonderful ladies is decrease than the ones unknown HIV reputation ladies' organizations [26]. The occurrence of cervical CA screening amongst unknown HIV reputation ladies on this look at changed into decrease than the research carried out in Rural Tanzania, Kenya, Northern Ethiopia, Mekelle which stated that the superiority of cervical CA screening usage changed into 22.6%, 17.five% and 19.8% respectively [21,35,32]. This is probably because of socio-comparatively cheap and geographical variations the various look at regions and confined offerings supplying clinic withinside the look at vicinity and lack of knowledge of ladies approximately the provision practical provider which give cervical CA screening on this vicinity. And it changed into a good deal decrease than the findings elucidated from the research accomplished in Brazil (73%) and Portland Jamaica which changed into 66% [33, 34]. This is probably due loss of familiarity with the idea of prevention, the geographical and monetary inaccessibility of care and the bad excellent of offerings withinside the modern-day look at compared to the evolved countries. In assessment to the above reviews the superiority of screening amongst unknown HIV reputation ladies on this look at changed into better than the research carried out in Congo, and Nepal; Asia, which discovered that the superiority in a part of HIV terrible ladies, changed into 8.6 and 2. four respectively [30,29]. This is probably because of look at 12 months distinction as development of sea and deal with method aimed toward sustainable applications that permit ladies and women to get admission to the care and the want to thrive via way of means of instructing ladies and scaled up the provider in Ethiopia in preferred and withinside the look at vicinity specifically after 2015. While we've got visible the superiority of screening amongst HIV wonderful ladies on this look at its miles a good deal decreases than the research amongst HIV wonderful ladies accomplished in England, Texas America, Nairobi Kenya and Addis Ababa Ethiopia which reported that eighty-five. 7%, 46%, 46% and 11.five% respectively [33, 34, 45, 36]. This is probably because of low degree of recognition of HIV wonderful ladies approximately HIV is one of the hazard aspects for obtaining cervical CA associated with low induction of fitness training concerning cervical CA via way of means of fitness experts and shortage of formal guidelines and applications which makes the screening obligatory for HIV wonderful ladies withinside the look at vicinity. The key elements associated with usage of cervical most cancers screening provider amongst HIV wonderful ladies on this look at changed into parity, expertise approximately cervical CA and its screening and perceived susceptibility for cervical CA. In this look at HIV wonderful ladies who've >= five kids have almost four instances much more likely to make use of cervical CA screening provider than their counter parts, this end result changed into barely better than the identical look at accomplished in Illa municipality Tanzania which discovered that multiparous ladies changed into three instances much more likely to make use of the provider than their counter parts [42], this is probably because of distinction withinside the expertise of ladies associated with the opportunity of multiparty in growing the risk of obtaining cervical CA. The 2d key determinant aspect for making use of cervical CA screening provider amongst HIV wonderful ladies changed into expertise approximately cervical most cancers and its screening. In this look at HIV wonderful ladies who've desirable expertise has been 4.75 instances much more likely to make use of the provider than the ones who've bad expertise. This is supported via way of means of the look at carried out in England amongst HIV inflamed la-

dies wherein individuals who informed are 6. fifty-two instances much more likely to be screened than their opposite numbers [33]. The distinction is probably because of the ladies on this look at regions have been now no longer engaged in giving precedence for prevention approaches. The end result of affiliation among expertise and cervical CA screening usage on this look at changed into better than the end result from the identical look at carried out in Dangoretti, Nairobi town county, Kenya and Addis Ababa amongst HIV inflamed ladies' people which discovered that ladies with desirable expertise changed into 2 and three.6 instances much more likely to make use of the provider than their opposite numbers respectively [35, 36]. This can be because of non-stop training via way of means of fitness experts changed into being advocated. The 1/3 key aspect related to cervical CA screening usage amongst HIV wonderful ladies changed into perceived susceptibility. This look at discovered that HIV wonderful ladies with excessive perceived susceptibility have been almost four instances much more likely to make use of the provider than individuals who perceived low. This is supported via way of means of the look at carried out in Florida amongst HIV inflamed ladies stated that low notion of susceptibility is associated with underutilization of the screening provider [33]. The document from the modern-day look at approximately the affiliation of perceived susceptibility and cervical CA screening provider usage changed into better than the look at carried out in Northwest Ethiopia, Gondar which reviews they have been 2. eighty-five instances much more likely to make use of the provider than their opposite numbers. This can be because of the distinction withinside the time of look at [49]. While we did evaluation for unknown HIV status ladies there were three determinant elements that have good sized affiliation with cervical most cancers screening provider usage, those are having records of a couple of sexual partners, and knowledge related to CCA and CCA screening and perceived susceptibility for cervical CA.

#### **Conclusions**

The finding of this study concluded that cervical CA screening service utilization among both groups was very low. Even though the prevalence of utilizing CCA screening service was very low among both groups, the prevalence among unknown HIV status women was higher than that of positive ones and the difference was significant. As exploring the main factors significantly associated with cervical CA screening service utilization was the other aim of this study, the results revealed that there are three factors for each group which was significantly associated with utilizing cervical CA screening service. Parity, knowledge about cervical CA and its screening and perceived susceptibility was the main factors which determine utilization of the service among HIV positive women groups. In women with unknown HIV status having history of multiple sexual partners, knowledge and perceived susceptibility for cervical CA was the significantly associated with cervical CA screening service utilization.

#### Recommendations

Based on the findings, cervical cancer screening rates have remained low and needs to be improved through creating awareness.

So, the study has specific implications for responsible bodies at different positions.

#### **First for Policy Makers**

The study suggested that there is a need for design policies and programs aimed at awareness creation and improving knowledge about cervical cancer and its prevention methods which can be applied at primary health centres at the rural area of the country. They should acknowledge and recognize that cervical cancer is a major public health concern and accord its prevention and treatment priority in education.

#### For Health Professionals and Health Facilities

Health providers have to inform women about cervical cancer and how to prevent it by intensifying health education during every clinical contact in the form of regular cervical cancer checks. Health facilities must establish awareness campaigns that provide accurate information so that women can make informed choices.

#### For Researchers

There is a need for doing more and more researches at the national level aimed at cervical cancer screening service utilization and its contributing factors as there is inconsistency among the factors. Since there is wide information gap about acquiring cervical cancer and HIV positive women, it is very helpful to study this important target population with better study design that can dig out determinant factors.

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#### **Conflict of Interest**

The authors have no conflict of interest to declare for this study.

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