



**ADDIS ABABA UNIVERSITY**

**COLLEGE OF HEALTHSCIENCE**

**SCHOOL OF PUBLIC HEALTH**

**ASSESSMENT OF KNOWLEDGE AND ATTITUDE OF CERVICAL  
CANCER AND SCREENING AMONG PRIMARY HEALTH CARE  
WORKERS OF WEST WOLLEGA ZONE, ETHIOPIA, 2016.**

**BY: EBA BEKELA (BSC)**

**ADVISORS:**

**ADAMU ADDISSIE (MD, MPH)**

**MULUKEN GIZAW (BSC, MPH)**

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**BY :EBABEKELA (BSC)**

**Advisor;**

Adamu Addissie (MD, MPH)

\_\_\_\_\_

Mr Muluken Gizaw (Bsc ,MPH)

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**Examiners**

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## List of abbreviations and Acronyms

|             |                                    |
|-------------|------------------------------------|
| <b>ASR</b>  | Age standardized Rate              |
| <b>HPV</b>  | Human Papilloma Virus              |
| <b>HIV</b>  | Human immiuno virus                |
| <b>LMIC</b> | Low and Middle Income Country      |
| <b>STD</b>  | Sexual Transmitted Disease         |
| <b>VIA</b>  | visual inspection with acetic acid |
| <b>WHO</b>  | World Health Organization          |

## **Summary**

**Back ground:** Cancer of the uterine cervix is the most common cancers among women worldwide. The global burden of cervical cancer is disproportionately high among the developing countries. Sub-Sahara Africa is the region with the highest incidence of cervical cancer. In Ethiopia many women seek treatment only at a very late stage when their cancer has significantly advanced and facing a higher probability of mortality, though it is a preventable and curable disease if identified at an early stage. Knowledge of cervical cancer helps to have a clear understanding of the need for early detection.

**Objectives:** The aim of this study is to assess knowledge and attitude of cervical cancer and screening among primary health care workers of west Wollega, Ethiopia, 2016.

**Methods:** An institutional based cross-sectional study was conducted from February -June 2016 among 417 west wollega primary health service providers. Stratified sampling technique was utilized to stratify study source into Hospitals and health center. Bivarait and multivariate analysis were used.

**Results:** Over all knowledge of cervical cancer was 36% and knowledge of cervical cancer screening were 15% and 44.6% of participants had positive attitude towards cervical cancer. Profession of the respondents was found to be statistically significant towards knowledge of cervical cancer. Majority of the respondent were not heard about cervical cancer screening. Level of knowledge of cervical carcinoma was associated with attitude on screening, those with good knowledge were more positive

**Conclusion and recommendation:** The study revealed that low level of knowledge on cervical cancer and screening. And also participants had negative attitude. There is a need to design and implement awareness creation program on cervical cancer and screening



# **1. Introduction**

## **1.1 Background**

Cervical cancer is one of the women's reproductive systems cancer that originate in the female reproductive systems and forms in the tissues of the cervix. It is usually a slow-growing cancer that may not have symptoms but can be found with regular Pap tests (1)

Cervical cancer is the second most common cancers in the world and responsible for almost 275,000 deaths annually. Approximately 80 % of cervical cancer occurs in developing countries. Eighty-three percent of new cases and 85% of related deaths occur in resource-poor countries; affecting poor, vulnerable, and disenfranchised women at the prime of life (2-4, 5).

Even if there was promotion of cervical cancer-screening program in China, lack of knowledge of cervical cancer remains a significant factor that affects the participation of women in screening programs. However, death due to cervical cancer has been decreased by 90% after the introduction of the Pap smear in the United States (6).

In sub-Saharan Africa, 34.8 new cases of cervical cancer are diagnosed per 100, 000 women annually and it happens in about 60 % women living with HIV infection (7, 8).

Muhimbili National Hospital in Tanzania found that, around 90% women reported to the hospital at a late stage of the disease that can affect the outcome of the disease. This late presentation was significantly associated with not knowing basic symptoms of cancer of the cervix (9).

In Ethiopia the age-adjusted incidence rate of cervical cancer was 35.9 per 100,000 women with estimated 7,619 and 60-81 of new cases and deaths respectively every year out of the nearly 22 million women over the age of 15. And 20.9 million women were at risk of developing cervical cancer in 2010 (10).

According to cross sectional study conducted in North West Ethiopia there was poor knowledge of women on risk factors, signs and symptoms. Only around 31.4% of women were knowledgeable about the cervical cancer (11).

The stage at which the patient presents is one major determinant for the prognosis of cervical cancer [12]. Cervical cancer is often at an advanced stage in developing countries including Ethiopia by the time they seek screening services. Cervical cancer ranks as the most frequent cancer diagnosis among women in Ethiopia, as well as the most common cancer among women between 15 and 44 years of age [13].

Primary health care facilities constitute the group of health workers those have first contact with the community and who can provide accurate information to the public regarding cervical cancer. They can play a critical role in health promotion and disease prevention, and they are in an ideal position to provide health education to women in Ethiopia. And also they have a major influence on the behavior of the women. And they need to be knowledgeable and have positive attitude about cervical cancer and its screening methods for early detection of the disease and to combat this emergent public health problem.

## **1.2 Statement of the problem**

Cervical cancer is a malignant neoplasm arising from cells originating in cervix uteri and one of the leading causes of death among female population. In early stages it may be completely asymptomatic. But it may present as persistent pelvic pain, unexplained weight loss, bleeding between periods, unusual vaginal discharge, bleeding, and pain after sexual intercourse in advanced stages [14].

Fortunately, this cancer is preventable by screening for premalignant lesions (15) and treatable if diagnosed early, but the challenge is that most rural women in the developing countries seek medical care after they have developed signs and symptoms. Over 80% of women with cervical cancer in developing countries are diagnosed at advanced stages [16].

Prevention, early diagnosis and treatment have been shown to decrease mortality due to cervical cancer. Effective screening can reduce the risk of developing invasive cervical cancer by 90% (17). But Low level of awareness and knowledge of risk factors and early signs and symptoms of disease and prevention services are some of the barriers to cervical cancer screening uptake and early health facility care seeking for women in low resource areas [18, 19].

As the study done in Malaysia, women did not relate the symptoms like unusual heavy and continuous bleeding to the disease as a result they delayed in seeking health facility care. (20) And also lack of recognition of symptoms was the commonest cause of evaluation delay as a review of 32 qualitative studies concluded (21). As a result of these, early help-seeking and uptake of cervical screening programs may be assisted by raising knowledge about risk factors, prevention and symptoms of cervical cancer of women in the LMICs (22, 23).

### **1.3 Rational of the study**

While cervical cancer is a preventable and curable disease, many women in developing countries seek treatment very late when it is at inoperable stage. Knowledge of symptoms of disease and availability of prevention services are basis for success of cervical cancer screening uptake and early health facility care seeking.

Knowledge of cervical cancer symptoms and its prevention can encourage early help seeking for symptoms suggestive of cervical cancer and uptake of cervical screening.

Primary health care workers can influence rural communities to improve knowledge and attitude of cervical cancer and screening by giving appropriate health education intervention.

Therefore, understanding the level of knowledge with regard to cervical cancer among primary health care workers will help to address strategic plan need for cervical cancer prevention program in Ethiopia. Evidence on knowledge of Ethiopian primary health care workers regarding cervical cancer is limited. Therefore, this study is aimed to assess knowledge and attitude of cervical cancer screening among primary health care workers at west wollega zone.

## **2. Literature review**

### **2.1 Cervical cancer burden**

Cervical cancer is the second most common cancer and one of the major non-communicable public health problems among female population in the world and the leading cause of cancer deaths in developing countries (24). Worldwide 528 000 new cases of cervical cancer were diagnosed and 266 000 women died in 2012 (18). According to WHO estimation by 2030, cervical cancer is expected to kill 500 000 women per year and over 95% of these deaths are expected to be in low- and middle-income countries (25).

More than 85% of the global burden occurs in developing countries, where it accounts for 13% of all female cancers. High-risk regions are Eastern and Western Africa with Age standardized Rate (ASR) greater than 30 per 100,000, Southern Africa (26.8 per 100,000), South-Central Asia (24.6 per 100,000), South America and Middle Africa (ASRs 23.9 and 23.0 per 100,000 respectively). Rates are lowest in Western Asia, Northern America and Australia/New Zealand (ASRs less than 6 per 100,000) (26).

In the developed countries, the incidence of cervical cancer and associated mortality rates has declined by 1.4% and 2.9% per year respectively since 1998 (27). As World Health Organization (WHO) specify, while a woman in the United States has a 70% chance of surviving cervical cancer, that chance is condensed to 58% in Thailand, to 42% in India, and to only 21% in sub-Saharan Africa (23).

In Africa Cervical cancer is a particularly concerning problem among women, around 80,400 cases and 50,300 deaths of cervical cancer occurs each year. Rates vary substantially across regions, with the incidence and death rates in East Africa and West Africa 5 times as high as the rates in North Africa (21).

Cervical cancer is the most prominent and accounts for 22.2% of all cancers in sub-Saharan Africa. Women lose more years to cervical cancer than to any other type of cancer in this region.

Unfortunately, it affects them at a time of life when they are critical to the social and economic stability of their families (28).

In sub-Saharan Africa, among women those develop cervical cancer around 60–75% are from rural areas (28) and also when around 23 women per 100,000 die due to cervical cancer in Sub-Saharan Africa, only 3 per 100,000 die in North America (27).

In Ethiopia cervical cancer is the second most frequent cancer among women and every year 7095 women are diagnosed with cervical cancer and 4732 die from the disease. Ethiopia has a population of 20.90 million women ages 15 years and older who are at risk of developing cervical cancer [29, 30].

## **2.2 Risk factors of cervical cancer**

Cervical cancer is increased by several risk factors. Women rarely develop cervical cancer without any of these risk factors. Some of these risk factors are:

### **2.2.1 Human Pappilloma Virus (HPV)**

HPV is the most important sexually transmitted risk factor for cervical cancer. Some of these viruses cause a type of growth called a papilloma, which are more commonly known as warts because of this it is called as papilloma viruses. The prevalence of HPV infection is higher in young women under 30 and less in older women over 30 Years. HPV type 16 and type 18 cause approximately 70% of incidences of cervical cancer worldwide. HPV can be spread during sex including vaginal intercourse, anal intercourse, and oral sex (31, 32).

### **2.2.2 Other risk factors**

Young age at the first full-term pregnancy, Multiple full-term pregnancies, oral contraceptives (birth control pills), diet, age, Chlamydia infection, Immunosuppression, smoking, HPV infection, poverty, family history of cervical cancer. In thinking about risk factors, it helps to focus on those can be change or avoid (like smoking or HPV infection), rather than those cannot (such as age and family history). However, it is still important to know about risk factors that

cannot be changed, because it's even more important for women who have these factors to get regular Pap smear tests to detect cervical cancer early (31, 32).

### **2.3 Cervical cancer prevention**

Primary prevention is supportive of efforts to increase public knowledge and the ability of individuals to make healthy lifestyle choices as well as creating environments that assist individuals in making healthy choices. These may include Postpone sexual activity to older age, decrease parity, use barrier methods during intercourse, effectively manage sexually transmitted diseases and Stop smoking or preferably never start smoking (17).

Secondary prevention aims at detection and treatment of precursors through screening.

The criteria for age and frequency of cervical cancer screening are:

1. Women younger than 30 years of age should not undergo screening except for women known to be HIV-infected or living in a high HIV prevalence area.
2. At a minimum, a national program should prioritize women who are between 30–49 years old for screening.
3. The screening interval (frequency) should not be less than 5 years (and not less than 10 years, if using an HPV test) (17).

### **2.4 Cervical cancer Symptoms**

Clinical symptoms of cervical cancer include Inter menstrual bleeding, post coital bleeding and foul smelling discharge. What makes cervical cancer so deadly is that clinical symptoms are usually not seen until the late stages of the disease. Precancerous lesions usually last for about 10 years before cancer symptoms develop(33).

## **2.5 Knowledge of cervical cancer and its prevention**

According to study done in Niger Delta University, awareness of cervical cancer screening was higher amongst students than staff and a greater proportion of the staff respondents had little or no knowledge of cervical cancer screening(34).

As cross sectional study done in rural region of Turkey among nurses, the most frequently reported cervical cancer symptom were pain during sexual intercourse and vaginal bloody discharge. Regarding cervical cancer screening most of them believed as it should be done yearly and did not know as repeated Pap smear tests is necessary(35).

Another study conducted among female nurses in Tigray found that, 35.6% of them stated that only HPV was an important predisposing factor for cervical cancer and one third of the respondents knew that age and multiple sexual partners as a predisposing factor. Only 43.1% of the participants knew that the preventive measure for cervical cancer is avoidance of predisposing factors (36).

As the study conducted among Cameroonian healthcare workers, most respondents did not consider HPV a transient infection and knowledge about cervical cancer etiology and screening was lowest. The more recent graduates were more likely to be aware of the immune system's ability to clear away infection than the older (37).

According to study done in Addis Ababa hospitals, only less than half (36.9%) of respondents were aware that cervical cancer is the leading cause of cancer death in developing countries and 20.8% of them reported they don't know. 83.8% stated that there were risk factors for cervical cancer and 13.1% indicated there were no risk factors and no symptoms for cervical cancer. bleeding after intercourse, pain during sexual intercourse, offensive vaginal discharge and abnormal bleeding between periods were cervical cancer symptoms mentioned by the respondents (38).

It is important not to lose sight of the fact that low awareness about cervical cancer risk factors, symptoms and Pap smears potentially precludes uptake of prevention and early health-seeking. (28).

## **2.6 Attitude of cervical cancer and screening**

As the study conducted in Tigray, 63.1% have positive attitudes towards cervical cancer screening. More than half of the respondents agreed that screening is important in prevention of cervical carcinoma. However, regarding to Susceptibility perception some of the participants believed as screening was unnecessary for them which may affect screening uptake(36).

In India women had misconception, perceived as it is painful, about screening procedure which was found to be the barriers (37). And also as the study done in Thailand regarding attitudes toward the risk of cervical cancer, 6% thought that they had no risk, 48.1% a low risk, 24.8% a moderate risk and 4.5% a high risk (39).

## **2.7 Factors associated with cervical cancer screening**

Different factors were associated with cervical cancer screening knowledge and attitude in different studies. Among socio demographic factors age was significantly associated with knowledge of cervical cancer screening. Marital status and education were not associated. And also, finding of the study done in Thailand revealed that nurses who were age greater than thirty were less knowledgeable than who were less than age 30 (44).

Study in Addis Ababa shows that significant association between cervical cancer screening knowledge and profession background. Age, work experience, marital status and knowledge of cervical cancer were not associated with cervical cancer screening knowledge (40)

## 2.8 frame work

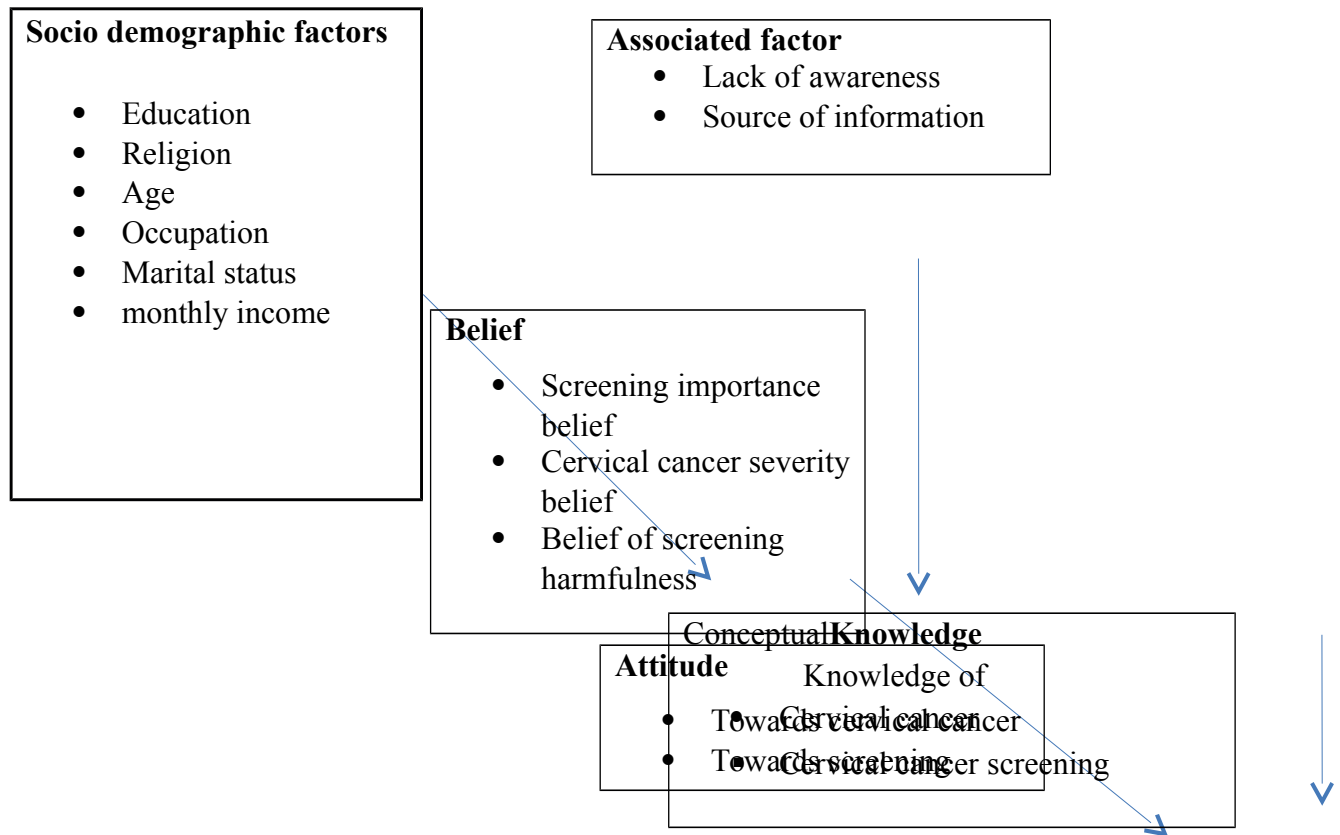


Fig 1: schematic representation of conceptual frame work

## 3. OBJECTIVES

### 3.1 General objectives

To determine knowledge and attitude of cervical cancer and screening among primary health care workers at west wollega zone, Ethiopia, 2016.

### **3.2 Specific objectives**

1. To determine the level of knowledge on cervical cancer among primary health care workers of west wollega zone, Ethiopia.
2. To assess attitude of primary health care workers towards cervical cancer screening in west wollega zone, Ethiopia.
3. To explore the acceptance and readiness of primary health care workers to provide cervical cancer screening service in west wolega zone, Ethiopia
4. To identify demographic factors associated with knowledge and attitude towards cervical cancer and screening among primary health care workers in west wolega zone, Ethiopia.

## **4. METHODS**

### **4.1 Study area and period**

The study was conducted in west wolega zone that is located west of Addis Ababa, Oromia regional state, Ethiopia. The zone is administratively divided into, 19 rural woredas and 1 zonal town. West Wellega is bordered on the west by [Kelam Welega Zone](#), on the north by the [Benishangul-Gumuz Region](#), on the east for a short space by [East Welega](#), and on the southeast by [Illubabor](#). There is one zonal hospital, two district hospital and 63 health centers. There are 1297 health care workers who are actively working in the hospitals and health centers of the study area. The study was conducted from March to April 2016.

### **4.2 Study design**

Facility based cross sectional study design with both quantitative and qualitative method was employed.

### 4.3 Source population

All health care workers of health centers and hospitals who were on duty during study period were considered as source population for the study.

### 4.4 Study population

Health care workers in selected health facility included in the study.

### 4.5 Inclusion exclusion criteria

#### 4.5.1 Inclusion criteria

Healthcare providers (Physicians, Nurses, health officer and midwives) those who are providing service at the public health facility and who were willing to participate in the study were included.

#### 4.5.2 Exclusion criteria

Laboratory technicians, pharmacy technicians, sanitarians

### 4.6 Sample size

The sample size was estimated for knowledge by using single population proportion formula and assuming the proportion of health service providers with good knowledge is 46.6% which was reported from study conducted in Addis Ababa hospitals and health centers among health service providers (40), the level of significance ( $\alpha$ ) equals to 0.05 and marginal error of 5%. Using single population proportion formula.

For the second objective assuming the proportion of health service providers with good Attitude is 46.8% which was reported from study conducted among health service providers in marie stops centers (41), the level of significance ( $\alpha$ ) equals to 0.05 and marginal error of 5%. Using single population proportion formula:

| variables | proportion                                    | Sample size determination                    | Sample size |
|-----------|---|--|-------------|
| knowledge | P =46.6%<br>Assuming 5% variation<br>P= 44.2% | $n = \frac{(z_{\alpha/2})^2 \times pq}{d^2}$ | 416         |

|            |   |  |     |
|------------|---|--|-----|
|            |   | 95% CI, P=44.2 %,<br>10% non response<br>rate,5%margin of error  |     |
| Attitude   | P =46.8%<br>Assuming 5%<br>variation<br>P= 44.46% | $n = \frac{(z_{\alpha/2})^2 \times pq}{d^2}$<br>95% CI, P=44.46 %,<br>10% non response<br>rate,5%margin of error | 417 |
| profession | P= 36%  | 80% power to detect<br>the difference, 95%<br>confidence level,<br>OR=2.0, 10%non<br>response rate               | 355 |

Since the sample size for the second objective is the maximum, **417** was taken as a final sample size for this study.

#### 4.7 Sampling procedures

Stratified sampling technique was used to select hospitals and health centers for the study. Out of three hospitals two was selected purposely. From the list of 63 health centers 30 health centers were selected by simple random sampling technique. And all eligible health service providers working in the selected health centers and hospitals during the study period were included in the study.

#### 4.8 Data collection procedures

##### Quantitative part

The data was collected for fourteen days from selected participants. It was collected through interview of the primary health care workers (Physicians, Nurse, health officers, and midwives).Afaan Oromo and Amharic Version questionnaire was used for interview. Seven data

collectors who have BA degree by accounting were involved in the study. Two Bsc Nurses supervised the data collection. For both data collectors and supervisors two days training was given on data collection technique. Each data was checked for completeness and consistency by supervisors and PI.

### **Qualitative part**

In-depth interview was conducted among health care workers (four from health center and two from hospital). The sample sizes was determined on the basis of theoretical saturation—the point in data collection when new data no longer bring additional insights to the research questions. The principal investigator conducted the interview by using developed interview guide. Informed Consent was taken from each participant for an in-depth interview.

## **4.9 Operational definition**

**Knowledge assessment:** The knowledge of the cervical cancer and screening was assessed using 12 points knowledge score. Points are about risk factor, HPV transmission way, symptoms of carcinoma of the cervix, preventive measures, treatment option, screening method, eligibility for screening and frequency of screening. Each correct response was given a score of 1 and wrong responses a score of 0. Total points to be scored were 12 and the minimum was 0.

### **Attitude Score**

Attitude was assessed by using Likert's scale. The questions on Likert's scale had positive and negative responses that ranged from strongly agree, agree, neither agree nor disagree, disagree and strongly disagree.

The scoring system was use with respect to participant's responses is as follows: strongly agree 5, agree 4, neither agree nor disagree 3, disagree 2, and strongly disagree 1. The responses were summed up and a total score obtained for each respondent. The mean was calculated and those who scored above the mean value had positive attitude and the ones who scored less than the mean value had negative attitude towards cancer and screening for premalignant cervical lesions.

**Knowledgeable:** refers to for those who scored mean and above the mean considered as knowledgeable

**Not knowledgeable:** refers to for those scored below the mean considered as not knowledgeable.

**Positive Attitude:** Those respondents who score above mean score of attitude assessing question.

**Negative attitude:** Those respondents who score below mean score of attitude assessing question.

## **4.10 Study variables**

### **4.10.1 Dependent variable (outcome variable)**

Knowledge towards cervical cancer

Attitude towards cervical cancer

### **4.10.2 Independent variables**

Age, sex, educational level, profession, training, service year, marital status, Religion, Source of information

## **4.11 Data analysis procedures**

**Quantitative:** The data entry and cleaning have been undertaken using Epic-data version 3.5.1 and analysis was undertaken using SPSS version 20. Each variable was checked for missed values and normality test was performed. The strength of an association between dependent and independent variables and its significance computed using odds ratio with 95% confidence interval. Bivariate and multivariate Regression Analysis was conducted to evaluate relation of independent with dependent variable. Results were presented in tables, graphs and texts.

**Qualitative:** For the qualitative study each of the key informant interviews was tape recorded and transcribed and translated. Then open code software was used to code and categorize qualitative data, and then thematic analysis was employed to come up with theme. Finally the emerged theme was included into the final thesis write up of the thesis report.

## **4.12 Data quality management**

Before actual data collection is started pretest was made on 5% of the study participants on other study area and minor changes were made on the questionnaire. To ensure data quality, the data collectors were provided two days training on the objective of the study, contents of the

questionnaires and how to maintain confidentiality and privacy of the study subjects.. The data collection processes have been closely monitored and collected data checked for any incomplete content by supervisors and then checked by PI. Qualitative data was collected by principal investigator A study guide was developed by the principal investigator to conduct the key informant interview. The interview took place in Afaan Oromo in a quiet place where it was not overheard by others and where the respondent could comfortably respond to the questions. Each of the interviews was tape recorded, transcribed and then translated to English on the same day of interview.

#### **4.13 Ethical consideration**

Ethical clearance was obtained from ethical clearance committee of school of public health and IRB of college of health sciences of Addis Ababa University. After receiving ethical clearance, permission to conduct the research was obtained from Oromia health bureau, west college zone and from each selected health centers and hospitals. Information sheet was prepared and read to all eligible participants of the study to obtain verbal informed consent, all participants were informed the purpose of the study and their participation were voluntary.

#### **4.14 Dissemination of the result**

The result of this study was presented to Addis Ababa University College of health science, school of public health as partial fulfillment of master's degree in public health. Furthermore the result will be shared with west wollega zone health department and Oromia health bureau and also the manuscript of the research will be prepared and submitted to appropriate journals for possible publication.

## 5. Results of the study

### 5.1 Background Characteristics of Health Service Providers of west wollega zone

The study involved a total of 404 participants with response rate of 97%. The majority of respondents were males 232(57.4%) and the mean age of respondents was 27.69 years with 20 and 52 years minimum and maximum ages respectively. Three hundred ninety (79%) of the respondents were protestant Christian followers and 62(15.3%) were orthodox religion followers. regards to the respondents marital status, 217 (53.7%) were married and 71 (42.3%) were single. Two hundred fifty five (63.1%) of the study participants were nurses, 89(22%) were midwives, 48 (11.9%) were health officer and 12 (3%) were physicians by profession.

Table 1. Background Characteristics of Health Service Providers, west wollega, Ethiopia, 2016

| variables             | Frequency(n=404) | Percent(%) |
|-----------------------|------------------|------------|
| <b>Sex</b>            |                  |            |
| Male                  | 232              | 57.4       |
| female                | 172              | 42.6       |
| <b>Age</b>            |                  |            |
| 20-29                 | 305              | 75.5       |
| 30-39                 | 88               | 21.8       |
| 40-49                 | 7                | 1.7        |
| 50-59                 | 4                | 1.0        |
| <b>Marital status</b> |                  |            |
| Single                | 71               | 42.3       |
| Married               | 217              | 53.7       |
| Separated             | 14               | 3.5        |
| cohabiting            | 2                | 0.5        |
| <b>Religion</b>       |                  |            |
| Orthodox              | 62               | 15.3       |
| Protestant            | 319              | 79.0       |
| Muslim                | 4                | 1.0        |
| other                 | 19               | 4.7        |
| <b>Ethnicity</b>      |                  |            |
| Amhara                | 7                | 1.7        |

|  |     |      |
|--|-----|------|
| Gurage   | 2   | 0.5  |
| Oromo  | 391 | 96.8 |
| Tigre  | 4   | 1.0  |
| <b>Profession</b>                              |     |      |
| General practitioner                           | 12  | 3.0  |
| Health officer                                 | 48  | 11.9 |
| Nurse  | 255 | 63.1 |
| Midwife  | 89  | 22.0 |
| <b>In service year</b>                         |     |      |
| <4   | 203 | 50.2 |
| 4-9  | 162 | 40.1 |
| 10-14  | 25  | 6.2  |
| 15-19  | 4   | 1.0  |
| >20  | 8   | 2.0  |
| <b>Attended training about cervical cancer</b> |     |      |
| Yes  | 1   | 0.2  |
| No   | 403 | 99.8 |

## 5.2 Knowledge towards Cervical Cancer

All of 404 study participants heard about cervical cancer from different source of information. When they were asked about the source of information, college was the predominant source 356(88.1%) followed by media 76 (18.8%) and self-study 70 (17.3%).

Figure 2 below shows source of information of respondents regarding cervical cancer.

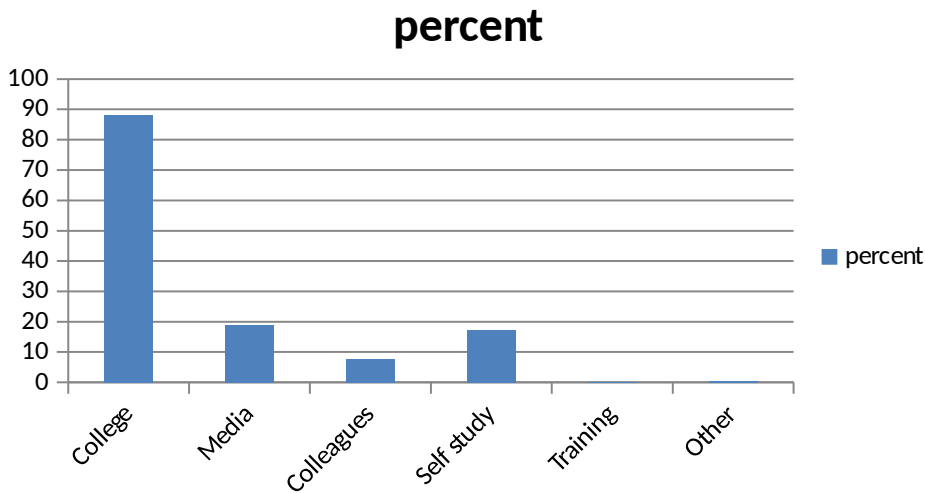


Figure 2: source of information about cervical cancer among primary health care provider, West wollega, Ethiopia, 2016.

### 5.2.1 Knowledge about risk factors and main symptoms of cervical cancer

According to this study, more than half of health care providers 52.7% know HPV as a risk factor for cervical cancer and the most frequently mentioned risk factors for cervical cancer were many sexual partners 178(44.1%), early onset of sexual intercourse 162(40.1%), being smoker 123 (30%), having HIV 98(24.3%) and long term use of oral contraceptive pill 90(22.3%) whereas 52 (12.9%) did not know about risk factor. In case of cervical cancer symptoms, 259(64.1%) of health care workers reported that post coital bleeding is a symptom of cervical cancer, while 28 (6.9%) of them did not know any symptom. And 37 (9.2%) of respondents mentioned that cervical cancer can be transmitted from person to person. 208 (51.8%) of health service providers did not know that HPV is the most risk factor for cervical cancer. From those who mentioned HPV as a risk factor, 205 (88.7%) of them knew at least one way of HPV infection transmission.

Table 2. Knowledge of health service providers about risk factors and main symptoms of cervical cancer, west wollega, Ethiopia, 2016

| <b>variables</b>                                | <b>Frequency(n=404)</b> | <b>Percent(%)</b> |
|---|-------------------------|-------------------|
| <b>Cervical cancer is transmittable disease</b> |                         |                   |
| Yes   |                         |                   |
| No  | 37                      | 9.2               |
|   | 367                     | 90.8              |
| <b>Risk factor</b>                              |                         |                   |
| Many sexual partners                            | 178                     | 44.1              |
| Early onset of sexual intercourse               | 162                     | 40.1              |
| HPV infection                                   | 231                     | 52.7              |
| HIV   | 98                      | 24.3              |
| Smoking   | 123                     | 30.4              |
| Long term use of oral intercourse               | 90                      | 22.3              |
| Multi parity                                    | 70                      | 17.3              |
| Other   | 19                      | 4.7               |
| Don't know                                      | 52                      | 12.9              |
| <b>Heard of human pappiloma virus</b>           |                         |                   |
| Yes   |                         |                   |
| No  | 231                     | 57.2              |
|   | 173                     | 42.8              |
| <b>Most risk factor</b>                         |                         |                   |
| HPV   | 196                     | 48.5              |
| HSV   | 18                      | 4.5               |
| HIV   | 18                      | 4.5               |
| Don't know                                      | 172                     | 42.6              |
| <b>Way of HPV transmission</b>                  |                         |                   |
| Oro-fecal                                       | 34                      | 8.4               |
| sexual intercourse                              | 183                     | 45.3              |
| skin to skin contact                            | 56                      | 13.9              |
| blood contact                                   | 72                      | 17.8              |
| Don't know                                      | 26                      | 6.4               |
| <b>Symptom of cervical cancer</b>               |                         |                   |
| Inter menstrual bleeding                        | 232                     | 57.4              |
| Offensive vaginal discharge                     | 208                     | 51.5              |
| Post coital bleeding                            | 259                     | 64.1              |
| Other   | 27                      | 6.7               |
| Don't know                                      | 28                      | 6.9               |

### 5.2.2 Knowledge about prevention and treatment option of cervical cancer

When health care workers were asked about cervical cancer prevention, majority of 277(68.6%) of them mentioned at least one prevention method and 127 (31.4%) did not know ways for prevention. One hundred ninety four (48%) knew that cervical cancer is prevented by avoiding many sexual partners, 168 (41.6%) reported that avoid early sexual intercourse and 157 (38.9%) using condom prevent cervical cancer. Regarding the treatment, 383 (94.8%) knew that cervical cancer is treatable. Of those who responded that cervical cancer is treatable, surgery, radiotherapy and chemotherapy were reported as means of treatment by 80.2%, 68.6% and 45.3% respectively.

Table 3. Knowledge of health service providers about prevention and treatment option of cervical cancer, west wollega, Ethiopia, 2016

| <b>variables</b>                           | <b>Frequency(n=404)</b> | <b>Percent(%)</b> |
|--|-------------------------|-------------------|
| <b>A women can prevent cervical cancer</b> |                         |                   |
| Yes  | 277                     | 68.6              |
| No   | 127                     | 31.4              |
| <b>Prevention method</b>                   |                         |                   |
| Avoid many sexual partners                 | 194                     | 48                |
| Avoid early onset of sexual intercourse    | 168<br>99               | 41.6<br>24.5      |
| Avoid HIV infection                        | 157                     | 38.9              |

|   |     |      |
|---|-----|------|
| Using condom                                | 97  | 24.0 |
| Vaccination                                 | 13  | 3.2  |
| Other                                       |     |      |
| <b>Cervical cancer is treatable disease</b> |     |      |
| Yes   | 383 | 94.8 |
| No  | 21  | 5.2  |
| <b>Treatment option</b>                     |     |      |
| Herbal remedies                             | 4   | 1    |
| surgery                                     | 324 | 80.2 |
| radiotherapy                                | 277 | 68.6 |
| chemotherapy                                | 183 | 45.3 |
| cryotherapy                                 | 48  | 11.9 |
| LEEP  | 101 | 25   |
| Other                                       | 21  | 5.2  |

### 5.2.3 over all knowledge of cervical cancer among health service providers

Knowledge towards cervical cancer was categorized as knowledgeable and not knowledgeable using the mean score of the respondents on the knowledge part questions. Thirty six point nine percent (36.9%) were knowledgeable and 63.1% scored below mean.

### 5.2.4 Association of cervical cancer knowledge and socio demographic variables

Bivariate and multivariate analysis was performed between knowledge of cervical cancer (dependant variable) and socio demographic status of health service providers (independent variable). In a binary logistic regression analysis it was found that male health service providers were 1.5 times more likely to know about cervical cancer compared to female health service providers {COR=1.58; 95% CI (1.046-2.402)}. Health service providers who were physicians were twelve times more likely to know about cervical cancer than those health service providers who were midwives, {COR=12.1; 95% CI (2.482-59.14)}. On multiple logistic regression analysis only profession remains significantly associated with cervical cancer knowledge. As compared to midwives being physician and health officer by profession was 9.2 times

{AOR=9.27; 95% CI (1.707-50.35) } and 3.71 times{AOR=3.71; 95% CI (1.46-9.46) } more likely to knowledgeable about cervical cancer, respectively. Age, marital status, training and service year of the respondents were not associated with the level of knowledge about cervical cancer.

Table 4 Association between socio demographic factors and knowledge of cervical cancer of health service providers in west wollega zone, may 2016

| Variables                 | Knowledge of cervical cancer |                   | COR,95%CI           | AOR, 95%CI         |
|---------------------------|------------------------------|-------------------|---------------------|--------------------|
|                           | Knowledgeable                | Not knowledgeable |                     |                    |
| <b>Sex</b>                |                              |                   |                     |                    |
| Male                      | 96(64.4%)                    | 136(53.3%)        | 1.58(1.04-2.402)    | 1.043(0.647-1.682) |
| Female                    | 53(35.6%)                    | 119(46.7%)        | 1                   | 1                  |
| <b>Marital status</b>     |                              |                   |                     |                    |
| Single                    | 74(49.7%)                    | 97(38%)           | 0.763(0.047-12.399) | 0.52(0.031-8.728)  |
| Married                   | 71(47.7%)                    | 146(57.3%)        | 0.486(0.03-7.88)    | 0.441(0.026-7.539) |
| Divorced                  | 3(2%)                        | 11(4.3%)          | 0.273(0.013-5.768)  | 0.138(0.005-3.492) |
| Cohabiting                | 1(0.7%)                      | 1(0.4%)           | 1                   | 1                  |
| <b>Educational status</b> |                              |                   |                     |                    |
| Diploma                   | 87(58.4%)                    | 200(78.4%)        | 0.386(0.248-0.6)    | 0.767(0.415-1.417) |
| degree                    | 62(41.6%)                    | 55(21.6%)         | 1                   | 1                  |
| <b>Profession</b>         |                              |                   |                     |                    |
| Physician                 | 10(6.7%)                     | 2(0.8%)           | 12.1(2.48-59.14)    | 9.27(1.707-50.353) |
| Health officer            | 31(20.8%)                    | 17(6.7%)          | 4.419(2.093-9.33)   | 3.717(1.461-9.46)  |
| Nurse                     | 82(55.0%)                    | 173(67.8%)        | 1.149(0.678-1.945)  | 1.115(0.627-1.985) |
| Midwife                   | 26(17.4%)                    | 63(24.7%)         | 1                   | 1                  |

### 5.3 knowledge of cervical cancer screening

From the total health service providers participated in the study 248 (61.4%) had heard of cervical cancer screening method and 156 (38.6%) never heard of cervical cancer screening method. Among those who knew cervical cancer method 173 (42.8%) mentioned pap smear, 165 (40.8%) HPV test and 40 (9.9%)VIA,as type of cervical cancer screening options. Concerning time to start screening, 134 (33.2%) knew that age greater than 30 years and 66(16.3%) women younger than 30 years plus HIV infected.

Table 5. Knowledge of health service providers about type of cervical cancer screening, frequency of cervical cancer screening and age of undergoing screening west wollega, Ethiopia, 2016

| <b>Variables</b>                              | <b>Frequency(n=404)</b> | <b>Percent(%)</b> |
|---|-------------------------|-------------------|
| <b>Heard cervical cancer screening method</b> |                         |                   |
| Yes   | 248                     | 61.4              |
| No  | 156                     | 38.6              |
| <b>screening method</b>                       |                         |                   |
| Pap smear                                     | 173                     | 42.8              |
| Liquid based cytology                         | 32                      | 7.9               |
| VIA   | 40                      | 9.9               |
| HPV test                                      | 165                     | 40.8              |
| Other   | 1                       | 0.2               |
| <b>Recommended age for screening</b>          |                         |                   |
| Age less than 30 years                        | 17                      | 4.2               |
| Age greater than 30 years                     | 134                     | 33.2              |
| At any age                                    | 77                      | 19.1              |
| Age less than 30 years with HIV               | 66                      | 16.3              |
| Other   | 7                       | 1.7               |
| Don't know                                    | 20                      | 5                 |
| <b>Frequency of screening by Pap smear</b>    |                         |                   |
| Every three month                             | 4                       | 1                 |
| Every six month                               | 6                       | 1.5               |
| Every one year                                | 21                      | 5.2               |
| Every three year                              | 14                      | 3.5               |

|  |     |      |
|--|-----|------|
| Every five year  | 15  | 3.7  |
| Other  | 1   | 0.2  |
| Don't know   | 187 | 46.3 |
| <b>Frequency of screening by<br/>Liquid based cytology</b> |     |      |
| Every three month  | 2   | 0.5  |
| Every six month  | 1   | 0.2  |
| Every one year   | 2   | 0.5  |
| Every three year   | 1   | 0.2  |
| Every five year  | 3   | 0.7  |
| Other  | 1   | 0.2  |
| Don't know   | 238 | 58.9 |
| <b>Frequency of screening by<br/>VIA</b>                   |     |      |
| Every three month  | 1   | 0.2  |
| Every six month  | 1   | 0.2  |
| Every one year   | 2   | 0.5  |
| Every three year   | 2   | 0.5  |
| Every five year  | 2   | 0.5  |
| Other  | 240 | 59.4 |
| Don't know   |     |      |
| <b>Frequency of screening by<br/>HPV test</b>              |     |      |
| Every three month  | 3   | 0.7  |
| Every six month  | 5   | 1.2  |
| Every one year   | 22  | 5.4  |
| Every three year   | 5   | 1.2  |
| Every five year  | 11  | 2.7  |
| Other  | 2   | 0.5  |
| Don't know   | 200 | 49.5 |

### 5.3.1 over all knowledge of cervical cancer screening among health service providers

To determine the overall cervical cancer screening knowledge of the health service providers the mean score of screening questions was used. From those who heard cervical cancer screening only 15.9% were knowledgeable and 84.1% were not knowledgeable.

### 5.3.2 Knowledge of cervical cancer screening across different variables

knowledge of cervical cancer screening in relation to Socio demographic status of the participants shows that, out of 24 (5.9%) participants who were knowledgeable of cervical cancer screening, 19(79%) were between 25-29 year age group, 2(8.3%) were between 20-24 year age group, 2(8.3%) and 1(4.2%) were between 35-40 and 30-34 year age group respectively . from the total 24 respondents who were knowledgeable of cervical cancer screening , 19 (79%) were knowledgeable about cervical cancer.

### **5.3.3 Association of cervical cancer screening knowledge and socio demographic variables**

Profession has been found to be strongly and significantly associated with cervical cancer screening knowledge. In bivariate analysis sex, education and profession have been associated with cervical cancer screening knowledge. Male respondents were 5.6 times **{COR=5.6: 95% CI (1.6, 19.1)}** times more likely to be knowledgeable about cervical cancer screening than female respondents. After controlling other confounding variables being health officer by profession was 9.3 times **{AOR=9.3: 95% CI (1.707, 50.353)}** more knowledgeable as compared to being midwives.

### **5.4 Attitudes of respondents towards cervical cancer and screening**

To classify respondents as positive and negative attitude the mean score was obtained. Based on this mean score of attitude, 180 (44.6%) had positive attitude and 224(55.4%) had negative attitude towards cervical cancer. From all the respondents 216(53.5%) were strongly agreed that cervical cancer is a public health problem in Ethiopia and 115 (28.5%) of them strongly agreed that cervical can be prevented. Regarding cervical screening, out of 172 women health service providers 72 (41.9%) were strongly agreed and 75 (43.6%) were agreed to undergo cervical cancer screening.

Table 6. Attitude towards cervical cancer and screening among health care providers , west wollega, 2016

| <b>variables</b>   | <b>Frequency(n=404)</b> | <b>Percent (%)</b> |
|--|-------------------------|--------------------|
| <b>Cervical cancer is public health problem in Ethiopia</b>                                  |                         |                    |
| Strongly agree   | 216                     | 53.5               |
| Agree  | 125                     | 30.9               |
| Neither agree nor disagree   | 28                      | 6.9                |
| Disagree   | 21                      | 3.5                |
| Strongly disagree  | 14                      | 5.2                |
| <b>Cervical cancer is preventable disease</b>  |                         |                    |
| Strongly agree   | 115                     | 28.5               |
| Agree  | 160                     | 39.6               |
| Neither agree nor disagree   | 51                      | 12.6               |
| Disagree   | 72                      | 17.8               |
| Strongly disagree  | 6                       | 1.5                |
| <b>Cervical cancer can be cured if detected and treated early</b>                            |                         |                    |
| Strongly agree   | 160                     | 39.6               |
| Agree  | 159                     | 39.4               |
| Neither agree nor disagree   | 43                      | 10.6               |
| Disagree   | 27                      | 6.7                |
| Strongly disagree  | 15                      | 3.7                |
| <b>Cervical cancer Screening is necessary for prevention of cervical cancer.</b>             |                         |                    |
| Strongly agree   | 164                     | 40.6               |
| Agree  | 127                     | 31.6               |
| Neither agree nor disagree   | 39                      | 9.7                |
| Disagree   | 66                      | 16.3               |
| Strongly disagree  | 8                       | 2                  |
| <b>Early cervical cancer screening procedures are effective in detecting cervical cancer</b> |                         |                    |
| Strongly agree   | 79                      | 9.6                |
| Agree  | 149                     | 36.9               |
| Neither agree nor disagree   | 64                      | 40.6               |
| Disagree   | 8                       | 2                  |
| Strongly disagree  | 4                       | 1                  |
| <b>Early detection can improve chances of survival</b>                                       |                         |                    |
| Strongly agree   | 156                     | 38.6               |

|  |     |      |
|--|-----|------|
| Agree  | 144 | 35.6 |
| Neither agree nor disagree   | 72  | 17.8 |
| Disagree   | 22  | 5.4  |
| Strongly disagree  | 10  | 2.5  |
| <b>Screening is non invasive procedure</b>                           |     |      |
| Strongly agree   | 88  | 21.8 |
| Agree  | 116 | 28.7 |
| Neither agree nor disagree   | 158 | 39.1 |
| Disagree   | 29  | 7.2  |
| Strongly disagree  | 13  | 3.2  |
| <b>All women &gt;30 should be screened</b>                           |     |      |
| Strongly agree   | 113 | 28   |
| Agree  | 153 | 37.9 |
| Neither agree nor disagree   | 102 | 25.2 |
| Disagree   | 27  | 6.7  |
| Strongly disagree  | 9   | 28.0 |
| <b>If screening is free and causes no harm, will you be screened</b> |     |      |
| Strongly agree   | 72  | 41.9 |
| Agree  | 75  | 43.6 |
| Neither agree nor disagree   | 6   | 3.5  |
| Disagree   | 11  | 6.4  |
| Strongly disagree  | 8   | 4.6  |

#### 5.4.1 Socio demographic factors associated with cervical cancer and screening attitude

According to the bivariate analysis, sex {**COR=2, 95%CI (1.33-3.00)**}, profession and those who had good knowledge {**COR=3.3%, 95%CI (2.2-5.1)**} of cervical cancer were significantly associated with attitude of cervical cancer.

In multivariate analysis sex of the respondents were found to be significantly associated with attitude towards cervical cancer. Male health care providers were 1.5 times {**AOR=1.5% 95%CI (1.00-2.4)**} more likely to have positive attitude towards cervical cancer as compared to female health care providers.

There was no significant association between cervical cancer screening attitude and sociodemographic variables.

Table 7 Association between socio demographic factors and attitude of cervical cancer of health service providers in west wollega zone, 2016

| Variable                  | Attitude towards cervical cancer |                   | COR, 95%CI      | AOR, 95%CI       |
|---------------------------|----------------------------------|-------------------|-----------------|------------------|
|                           | Positive attitude                | Negative attitude |                 |                  |
| <b>Sex</b>                |                                  |                   |                 |                  |
| Male                      | 120(66.7%)                       | 112 (50.0%)       | 5.6(1.66, 19.1) | -                |
| Female                    | 60 (33.3%)                       | 112 (50.0%)       | 1               | 1                |
| <b>Educational status</b> |                                  |                   |                 |                  |
| Diploma                   | 112 (62.2%)                      | 175 (78.1%)       | 1               | 1                |
| Degree                    | 49 (37.8%)                       | 68 (21.9%)        | 8.5(3.2, 22.06) | -                |
| <b>Profession</b>         |                                  |                   |                 |                  |
| Physician                 | 12 (6.7%)                        | 0 (0%)            | 43(7.1, 263.5)  | 30.9(3.1, 303.5) |
| Health officer            | 32 (17.8%)                       | 16 (7.1%)         | 12(2.7, 61.2)   | 9.3(1.1, 73.6)   |
| Nurse                     | 104 (57.8%)                      | 151 (67.4%)       | 0.87(0.16,4.56) |                  |
| midwife                   | 32 (17.8%)                       | 57 (25.4%)        | 1               | 1                |

## Qualitative result

The interviewees were six health service providers in the four health centers and one hospitals of west wollega zone.

Table 8 Socio-demographic characteristic of respondents for key informant interview in West wollega, Ethiopia, 2016

| Respondent | Facility              | Age | Sex | Profession | Years of service |
|------------|-----------------------|-----|-----|------------|------------------|
| R1         | Aira health center    | 26  | F   | Midwife    | 3                |
| R2         | Callia health center  | 28  | F   | Midwife    | 8                |
| R3         | Gimbi hospital        | 24  | F   | Nurse      | 2                |
| R4         | Dongoro health center | 34  | M   | Nurse      | 10               |
| R5         | Gimbi hospital        | 23  | F   | Nurse      | 3                |
| R6         | Inango health center  | 31  | F   | Midwife    | 8                |

## Analysis of qualitative data

The table below shows the codes, categories and theme developed during the qualitative data analysis

Table 8 Theme, Categories and codes identified from the qualitative data, 2016

|            |  |   |
|------------|--|---|
| Theme      | Understanding knowledge, acceptance and redness of health care workers regarding cervical cancer screening   |   |
| Categories | Knowledge and acceptance   | Readiness   |
| Codes      | <ul style="list-style-type: none"> <li>• Early screening</li> <li>• Screening method</li> <li>• Low knowledge</li> <li>• No training</li> <li>• Treatable and preventable</li> </ul> | <ul style="list-style-type: none"> <li>• Willingness</li> <li>• Way of invitation</li> <li>• Time</li> <li>• Place</li> <li>• Time</li> <li>• conferance</li> </ul> |

**Health service providers' acceptance and redness towards cervical cancer screening and their knowledge**

**1 knowledge and acceptance of cervical cancer screening**

On assessment of knowledge of health service providers about cervical cancer screening and its importance, majority of health service providers were able to give appreciable ideas regarding

the importance of screening; however some of them couldn't mention screening type and frequency of screening For example, a 28 year old female midwife mentioned that

*“...Most of the rural women died because of this silent killer disease.....Cervical cancer screening is very important for women health because it protects them from developing disease and also can increase the survival chance.....diseases diagnosed at early stages are treatable and preventable and the screening method is pap smear which should be done every year”*. while a 26 years old respondent explained PV as screening method.

Another male nurse age 34 years explained that

*“.....our communities are suffering from cervical cancer..... so for me, if the screening is available in health facility, death due to cervical cancer can be reduced”*. While a 26 old female midwife said *“A women cannot prevent cervical cancer ...if they caused by this disease they cannot be cured, so screening cannot help the prevention or improvement of cancer.”*

And also a 24 years old female Nurse said that, *“Since the cancer is not curable disease, during screening if the women is diagnosed with cervical cancer she will be scared psychologically and it is better knowing at the time of symptom developed, because till they diagnosed with cancer by its own time they can live without any anxiety that can be occurred due to cancer which diagnosed before developing any symptom”*. And other 26 years old female midwife mentioned fear of vaginal examination, she said ; *talking about genital organ is not our custom and it is the well-respected. (duudhaa keenya keessaatti safuun waan baayyee kabajamaadha), so no need of exposing privacy organ to others without having any problem or disease.”*

## **2 Radiness of health service providers towards cervical cancer screening service**

Regarding health professionals' willingness and way of invitation, a 31 years old midwife said that *“The health care workers in our facility are willing to counsel and teach about cervical cancer screening and also they have time to provide the screening service, but they don't have training regarding to benefit of screening and Majority of them have no awareness on cervical cancer screening, as a result they cannot provide information about screening to women and it*

*would be better if they got training”. A 29-year-old nurse also added the same idea regarding knowledge gap on cervical cancer screening, she said; “.....even some of health professionals don not know as screening is available for cervical cancer and as it can be detected early”.*

Respondents have mentioned the way of reaching information about cervical cancer and screening to women

*A 27 year old male midwife said that, “The health service providers especially those working in maternal and child health unit have meeting with women in the community which called women’s conference (koonfiraansii dubartootaa) every two months. On this conference they provide information about the disease and discuss with them concerning their health. So, if they have knowledge on screening they can give education on cervical cancer screening to women by using this conference. And also attention is not given well by the government, they focus increasing of health service providers knowledge by training only those service is available at their facility”.*

## 6. Discussion

This facility based cross sectional study has attempted to identify the knowledge and attitude towards cervical cancer and screening among health service providers in west wollega zone.

The study found that health service providers were not aware of cervical carcinoma and also screening for premalignant cervical lesions. The level of knowledge was found to be low in this study, only one third of respondents were knowledgeable about carcinoma of the cervix. Health service providers who were knowledgeable towards cervical cancer were only 36%. Knowledge of cervical cancer documented in this study finding was consistent with the finding in Addis Ababa and Pakistan (40, 42).

At least one risk factor to acquire cervical cancer was known by more than half of the respondents. The most common risk factor mentioned was human papilloma virus (52.7%) and smoking (30.4%). This finding is same with the finding in a study done in Thailand where more than half of the respondents knew that almost all of cervical patients have human papilloma virus (39). And also the study done in Albania revealed that, majority (73.13%) of health care workers in primary health services knew Human papilloma virus as the risk factor of cervical cancer and smoking was reported in very low levels (26.87%) (44). Knowing risk factor is one of the important elements in prevention of cervical cancer.

The respondents who were correctly able to identify HPV infection as cause of cervical cancer were further assessed about their knowledge about HPV itself. From all the respondents who identified HPV as a cause of cervical cancer, only 45% mentioned sexual intercourse as a mode of transmission. This finding was different from the results observed in Addis Ababa where 88.7% (40) of respondents identified as a mode of transmission. This difference can be explained due to the fact that this study was conducted in remote area of the country and the Addis Ababa is the capital city of the country where study participants can have better information about the disease. The other explanation could be health service providers who participated in Addis Ababa study were those providing cervical cancer screening service that increased their cervical cancer disease knowledge.

A large proportion of the respondents in this study were able to mention post coital bleeding and inter menstrual bleeding as clinical manifestation of cervical cancer, these also indicated in studies in Addis Ababa that was conducted among female nurses working in the government hospitals (38). While in Tanzania, Post-coital bleeding and inter menstrual bleeding were identified by less than half of the respondents (43).

Concerning prevention of cervical cancer, under half the study respondents correctly identified that cervical cancer is prevented by avoiding multiple sexual partners, avoiding early sexual intercourse and avoiding HIV infection while in study done in Thailand and Addis Ababa reported that more than half of the respondents identified those prevention method (39,38). This disparity may be due to information access and place of study.

Majority of this study participant correctly identified cervical cancer treatment option which is the same finding with the study done in Pakistan where treatment option is recognized by more than half of the respondents.(42)

Knowledge of health service providers towards cervical cancer screening was poor, only 5.6 % were knowledgeable about screening. Pap smear (42.8%) was the most frequently mentioned of cervical cancer screening method and other methods such as VIA or HPV testing were not recognized as such. This finding was lower when it compared to Addis Ababa study which was done at hospital level was 75.1% (40). This gap can be explained due to the setting difference among the studies. All health care workers must have knowledge of cervical cancer and screening and also the importance of screening as a preventive measure.

In this study majority of health care providers did not know frequency of screening test which was similar with study done in Turkey (35). These results indicated that information of cervical cancer screening was inadequate among health service providers.

The findings from this study showed that most of the respondents did not know frequency of cervical cancer screening. This finding was also the same with the qualitative finding, that most of primary health care workers had no knowledge of cervical cancer screening type and its

frequency. Studies in Turkey confirm this finding, where majority of nurses did not know screening frequency (35).

Some of the participants mentioned fear of positive result for not screening in the study conducted among nurses in Mekelle (36). This is supported by the idea of 24 years nurse who said *“Since the cancer is not curable disease, during screening if the women is diagnosed with cervical cancer she will be scared psychologically”*.

Accordingly the study has revealed that more than half of the study participants were strongly agreed that cervical cancer is public health problem of Ethiopia and screening helps in prevention of cervical cancer, however, the overall attitude of respondents towards cervical cancer and screening was negative. In the qualitative finding of the same study the finding was consistent as explained by 24 years old female Nurse *“Since the cancer is not curable disease, during screening if the women is diagnosed with cervical cancer she will be scared psychologically and it is better knowing at the time of symptom developed* and also a 26 years old midwife mentioned fear of vaginal examination during screening. This finding was the same with the result of study done in Mekelle among female nurses at public health institutions (36) and the study done in Uganda (45).

## **7. CONCLUSION**

This study revealed the limited knowledge about cervical cancer and screening among health service providers in the study population. Majority of the respondents knew cervical cancer risk

factors, symptoms and treatment option, but the overall knowledge was low. The knowledge of health service providers on screening method, time to start screening and frequency of screening was poor. In the qualitative part, some of the health care workers believe that as screening cause anxiety and also lack of knowledge towards cervical cancer was identified. And also the primary health care workers are not ready to provide screening service because of the knowledge gap identified and some of them did not accept screening for cervical cancer. Profession was found to be significant factors for the knowledge of cervical cancer and screening methods. Knowledge of cervical cancer was associated with positive attitude towards cervical cancer. The primary health care workers in west wollrga zone who are responsible for opportunistic screening of women they care for are not knowledgeable of cervical cancer and screening.

## **8. RECOMMENDATION**

- To increase health care providers' knowledge, FMOH and OHB should provide training even where cervical cancer screening program is not started since they can play vital role in the prevention through education.
- First target should be health care workers because of their essential role in any planned future screening programmes.
- Further study including private health facility and health extension worker is recommended

## **9. LIMITATIONS AND STRENGTH OF THE STUDY**

### **9.1 Strength**

- This study explored knowledge and attitude of health care providers towards cervical cancer by covering rural and urban setting at zonal level.
- This study was supplemented by qualitative study
- Data collectors were not health professionals there bias was reduced
- The study conducted in primary health care facilities.
- the study was conducted in the 30 health center and 02 hospital which is well representative for source of the population

## 9.2 Limitations

- Lack of literatures for qualitative part hinders further discussion and comparison
- the study did not include health extension workers and private facilities

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**Annex I: English version Information sheet and structured questionnaire  
Subject Information sheet**

Hello. My name is \_\_\_\_\_ and I am data collector of the study conducted by Eba Bekela, master's student at Addis Ababa university school of public health, conducting this research for partial fulfillment of master's degree in public health. We would very much appreciate your participation in this survey. The information you provide will help us to contribute to prevention of cervical cancer. The interview takes between 15-20 minutes to complete. As part of the study we would first like to ask your background and about cervical cancer. Whatever information you provide will be kept strictly confidential, and will not be shared with anyone other than members of our research team. Participation in this survey is voluntary, and if you should come to any question you don't want to answer, just let me know and I will go on to the next question; or you can stop the interview at any time. Findings from this research are believed to serve practitioners to design evidence based programs. Moreover studies in similar topics which may be conducted in a different scale and depth can make use this study as a spring board. However, we hope you will participate in the survey since your views are important.

At this time, do you want to ask me anything about the survey?

May I begin the interview now?

Signature of interviewer: ----- Date: -----/-----/-----

1. RESPONDENT AGREES TO BE INTERVIEWEDà interview
2. RESPONDENT DOES NOT AGREE TO BE INTERVIEWEDà end

For more information and questions here is the contact address of investigator.

**Eba Bekela**

**Tel:** +251934972998

**E-mail:** [ebekela@yahoo.com](mailto:ebekela@yahoo.com)

### **Consent form**

I \_\_\_\_\_ am informed on study to be conducted by Masters Student in AAU, college of health sciences school of public health on Knowledge and Attitude on cervical cancer and screening among primary health care workers of west wollega, Oromia region, Ethiopia. participation in this study is voluntary, no obligation to answer any questioner there is no harm by not answering the questions and no special benefit by answering the question and also the interview will take 20- 25 minutes .I heard all the information mentioned above and willing to participate in the interview.

1. Name of interviewer \_\_\_\_\_ Signature \_\_\_\_\_

(Signature of interviewer certifying that respondent has given informed consent verbally)

Questionnaire code: \_\_\_\_\_ Date \_\_\_\_\_

Name of data collector \_\_\_\_\_ Signature \_\_\_\_\_

Name of woreda \_\_\_\_\_ Name of health center/hospitals \_\_\_\_\_

**Part I: Background characteristics of health service providers**

**Instruction: Circle the responses for questions with alternatives**

| <b>s.no</b> | <b>Questions</b>             | <b>Alternatives/choices of response</b>   | <b>Skip</b> |
|-------------|------------------------------|---|-------------|
| 101         | Sex of the respondent?       | 1. Female<br>2. Male  | Do not ask  |
| 102         | How old are you?             | age in completed years _____  |             |
| 103         | What is your marital status? | 1. Single<br>2. Married / in union<br>3. Divorced<br>4. Widowed<br>5. Separated |             |

|     |   |   |                                 |
|-----|---|---|---------------------------------|
|     |   | 6. Cohabiting(Living together as married couple)  |                                 |
| 104 | What is your Religion?                                      | <ol style="list-style-type: none"> <li>1. Orthodox</li> <li>2. Protestant</li> <li>3. Catholic</li> <li>4. Muslim</li> <li>5. Other(Specify) _____</li> </ol> |                                 |
| 105 | What is your Ethnicity?                                     | <ol style="list-style-type: none"> <li>1. Amhara</li> <li>2. Gurage</li> <li>3. Oromo</li> <li>4. Tigre</li> <li>5. Others</li> </ol>                         |                                 |
| 106 | What is your highest level of education?                    | <ol style="list-style-type: none"> <li>1. Diploma</li> <li>2. Degree</li> <li>3. Masters</li> <li>4. Speciality certificate</li> </ol>                        |                                 |
| 107 | What is your profession?                                    | <ol style="list-style-type: none"> <li>1. General practitioner</li> <li>2. Health officer</li> <li>3. Nurse</li> <li>4. Midwife</li> </ol>                    |                                 |
| 108 | What is your total year of service since first graduation?  | -----years  |                                 |
| 109 | Have you ever attended training related to cervical cancer? | <ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>   | If no go to knowledge questions |
| 110 | When and where you attended                                 | When -----  |                                 |

|  |                                   |            |  |
|--|-----------------------------------|------------|--|
|  | cervical cancer related training? | Where----- |  |
|--|-----------------------------------|------------|--|

**Part II: questions on knowledge of cervical cancer**

| <b>.no</b> | <b>Questions</b>   | <b>Alternatives/choices of response</b>  | <b>Skip</b>                                 |
|------------|--|--|---|
| <b>201</b> | Have you ever heard of cervical cancer?  | <ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>  | If no you are done with questions thank you |
| <b>202</b> | Where did you hear about cervical cancer for the first time?                           | <ol style="list-style-type: none"> <li>1. College/university</li> <li>2. Media</li> <li>3. Colleagues</li> <li>4. Self-study</li> <li>5. training</li> <li>6. other (specify)_____</li> </ol>  |   |
| <b>203</b> | Is cervical cancer is transmittable disease?   | <ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> <li>3. Don't know</li> </ol>   |   |
| <b>204</b> | What are the risk factors for cervical cancer?<br><i>(Multiple answer is possible)</i> | <ol style="list-style-type: none"> <li>1. many sexual partners</li> <li>2. early onset sexual intercourse</li> <li>3. infection by HPV virus</li> <li>4. HIV infection</li> <li>5. Smoking</li> <li>6. Long term use of the contraceptive pill</li> <li>7. Multiparity</li> <li>8. Other specify_____</li> <li>9. Do not know</li> </ol> |   |
| <b>205</b> | Which one of the following can be the most risk factor for cervical                    | <ol style="list-style-type: none"> <li>1. HPV</li> <li>2. HSV</li> </ol>   | If answer is HPV go to question number 207  |

|            |  |   |  |
|------------|--|---|--|
|            | cancer?  | <ol style="list-style-type: none"> <li>3. HIV</li> <li>4. I Don't Know</li> </ol>   |  |
| <b>206</b> | Have you ever heard about human papilloma virus?   | <ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>   | If answer is <b>No</b> go to question number <b>208</b>              |
| <b>207</b> | The human papilloma virus infection is transmitted by what?<br><i>(Multiple answer possible)</i> | <ol style="list-style-type: none"> <li>1. Oro-fecal</li> <li>2. Sexual intercourse</li> <li>3. Skin to skin contact</li> <li>4. Blood contact</li> <li>5. I Don't Know</li> </ol>   |  |
| <b>208</b> | What are the symptoms of cervical cancer?<br><i>(Multiple answer possible)</i>                   | <ol style="list-style-type: none"> <li>1. Inter menstrual bleeding</li> <li>2. Vaginal foul smelling discharges</li> <li>3. post coital bleeding</li> <li>4. Other specify _____</li> <li>5. Do not know</li> </ol>   |  |
| <b>209</b> | Can a woman prevent getting cancer of the cervix?  | <ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> <li>3. I Don't Know</li> </ol>  | If answer is <b>NO</b> and I don't know go to question no <b>211</b> |
| <b>210</b> | How can cervical cancer be prevented?<br><i>(Multiple answer possible)</i>                       | <ol style="list-style-type: none"> <li>1. avoid multiple sexual partners</li> <li>2. avoid HIV infection</li> <li>3. avoid early sexual intercourse</li> <li>4. screening</li> <li>5. use condoms</li> <li>6. Vaccination</li> <li>7. Other (please explain _____)</li> </ol> |  |
| <b>211</b> | Is cervical canceris treatable?  | <ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> <li>3. I Don't Know</li> </ol>  | If answer is <b>No</b> go to screening questions                     |
| <b>213</b> | Which one can be the   | <ol style="list-style-type: none"> <li>1. Herbal remedies</li> </ol>  |  |

|  |  |   |  |
|--|--|---|--|
|  | treatment option?<br><i>(Multiple answer possible)</i> | 2. Surgery<br>3. Radiotherapy<br>4. Chemotherapy<br>5. Cryotherapy<br>6. LEEP<br>7. Other specify _____<br>8. Do not know |  |
|--|--|---|--|

**Part III: questions on knowledge of cervical cancer screening**

|            | <b>Questions</b>          | <b>Alternatives/choices of response</b> | <b>Skip</b> |
|------------|---------------------------|---|-------------|
| <b>301</b> | Have you ever heard about | 1. Yes                                  | If no       |

|     |  |  |                            |
|-----|--|--|----------------------------|
|     | cervical cancer screening methods to detect cervical cancer?   | 2. No  | skip to attitude questions |
| 302 | Which cervical cancer screening method do you know? ( <i>Multiple answer possible</i> )                                | 1. Pap smear<br>2. Liquid based cytology<br>3. VIA<br>4. HPV test<br>5. Other specify  |                            |
| 303 | At what year of age a women is recommended to have cervical cancer screening? ( <i>Multiple answer possible</i> )      | 1. Women <30 years of age<br>2. Women $\geq$ 30 years of<br>3. At any age<br>4. <30 years of age + HIV-infected or living in a high HIV prevalence area<br>5. Other specify<br>6. I Don't Know |                            |
| 304 | How frequent, screening for cervical cancers should be done? ( <i>ask based on the answer of question number 302</i> ) | 1. By Pap smear _____<br>2. By Liquid based cytology _____<br>3. By VIA _____<br>4. By HPV test _____<br>5. By Other specify _____<br>6. Don't know  |                            |

**Part IV: questions on Attitude of cervical cancer and screening**

| s.no | Questions | Alternatives/choices of response | Skip |
|------|-----------|----------------------------------|------|
| 401  |           | 1. strongly agree                |      |

|            |   |   |  |
|------------|---|---|--|
|            | Do you agree Cervical cancer is a public health problem in Ethiopia?                  | <ol style="list-style-type: none"> <li>2. agree</li> <li>3. neither agree nor disagree</li> <li>4. disagree</li> <li>5. strongly disagree</li> </ol>                            |  |
| <b>402</b> | Cervical cancer is preventable disease.   | <ol style="list-style-type: none"> <li>1. strongly agree</li> <li>2. agree</li> <li>3. neither agree nor disagree</li> <li>4. disagree</li> <li>5. strongly disagree</li> </ol> |  |
| <b>403</b> | Cervical cancer can be cured if detected and treated early                            | <ol style="list-style-type: none"> <li>1. strongly agree</li> <li>2. agree</li> <li>3. neither agree nor disagree</li> <li>4. disagree</li> <li>5. strongly disagree</li> </ol> |  |
| <b>404</b> | Cervical cancer Screening is necessary for prevention of cervical cancer.             | <ol style="list-style-type: none"> <li>1. strongly agree</li> <li>2. agree</li> <li>3. neither agree nor disagree</li> <li>4. disagree</li> <li>5. strongly disagree</li> </ol> |  |
| <b>405</b> | Early cervical cancer screening procedures are effective in detecting cervical cancer | <ol style="list-style-type: none"> <li>1. strongly agree</li> <li>2. agree</li> <li>3. neither agree nor disagree</li> <li>4. disagree</li> <li>5. strongly disagree</li> </ol> |  |
| <b>406</b> | Early cervical cancer detection can improve chances of survival                       | <ol style="list-style-type: none"> <li>1. strongly agree</li> <li>2. agree</li> <li>3. neither agree nor disagree</li> <li>4. disagree</li> <li>5. strongly disagree</li> </ol> |  |
| <b>407</b> | Screening for cervical cancer is non-invasive/ causes no harm to the client           | <ol style="list-style-type: none"> <li>1. strongly agree</li> <li>2. agree</li> <li>3. neither agree nor disagree</li> <li>4. disagree</li> <li>5. strongly disagree</li> </ol> |  |
| <b>408</b> | All women > 30 years of age should have cervical                                      | <ol style="list-style-type: none"> <li>1. strongly agree</li> <li>2. agree</li> </ol>   |  |

|            |  |   |                 |
|------------|--|---|-----------------|
|            | cancer screening.  | 3. neither agree nor disagree<br>4. disagree<br>5. strongly disagree                                  |                 |
| <b>409</b> | If cervical cancer screening is free and causes no harm, will you be screened? | 1. strongly agree<br>2. agree<br>3. neither agree nor disagree<br>4. disagree<br>5. strongly disagree | Ask only female |

**Annex II: Afaan oromooversion Information sheet and structured questionnaire  
Kutaa odeeffannoo fii waliigaltee**

Maqaankoo -----jedhama. Ani qoranno eebbaa baqqalaatiin barataa maastersii yuunivarsitii addis ababaa kan fayyaa hawaasaa ta;een geggeeffamaa jiru irratti daataan funaana.

Hirmaannaan isin qoranno kana keessatti gootan baayyee nu gammachiisa. Odeeffannoo isin nuuf laattan kaanserii balbala gadameessaa ittisuuf ga'ee qaba. Gaaffii waliin taasifnu xumuruuf daqiiqaa 20-25 nu fudhata. Akka qabiyyee gaaffii qorannootti jalqaba wa'ee odeeffannoo walii galaa, itti aansuun waa'ee kaanserii balbala gadameessa isin gaafanna. Odeeffanno isin nuuf laattan kamiyyuu iccitiin isaa eegamadha. Akkasumas nama kamittiyyuu hin himamu, kanneen miseensa qorannoo ta'an qofa malee. Hirmaannaan qorannoo kanaa fedhii keessan irratti kan hundaa'eedha. Yoo gaaffii deebisuu hin barbaanne keessatti argitan deebisuu dhiisuu dandeessu, akkasumas yeroo kamittiyyuu addaan kutuu dandeessu. Kanaaf akkas walii galtan baree gara gaaffii ittii aanuttu haa ce'u. haa ta'u malee sababa ilaalchi keessan barbaachisaa ta'eef akkas qorannoo kana irratti hirmaattan ni abdanna.

Yeroo kana qorannoo kana ilaalchisee waan na gaafattan qabduu?

Amma jalqabuu nan danda'aa?

Mallattoo gaafataa-----Guyyaa-----/-----/-----

1. Deebisaan gaafatamuudhaaf itti walii galeera → gaafadhu
2. Deebisaan gaafatamuuf itti walii hin galle → xumuri

Odeeffanoo dabalataa fi gaaffii yoo qabaattan kan armaan gadiitiin qorataa quunnamuu dandeessu

Eebbaa baqqalaa

Lakk. Bilbilaa 0934972998

Email [ebekela@yahoo.com](mailto:ebekela@yahoo.com)

### **Foormiiwaliigaltee**

Ani -----qorannaa waa'ee beekumsa kaanserii balbala gadameessaa fi ittisa isaa irratti barataa maastersii Addis Ababaa Yuuniversitii, kolleejjii saayinsii fayyaa, mana barumsaa fayyaa hawasaatiin kan hojjetoota fayyaa wallagga lixaa, irratti gegeeffamu natti himameera. Hirmaannaan qorannaa kanaa fedhii irratti kan hundaa'eedha. Dirqami tokkollee deebii deebisuudhaafi yookaan hamaan tokkollee deebii deebisuu dhiisuudhaan namarra hin ga'u. sababa deebii deebisaniifis fayyadama addaa hin argatan. Akkasumas gaaffiin daqiiqaa 20-25 fudhata. Odeeffanno kanaa olii hunda dhaga'eera kanaaf irratti hirmaachuudhaaf fedhii qaba.

Maqaa gaafataa-----mallattoo-----

(mallattoon gaafataa akka walii galteen afaniin godhame raggaasisa)

### Gaaffii odeeffannoo walii galaa

#### Kutaa 1ffaa: Gaaffii odeeffannoo walii gala

#### Ajaja:- Deebisaanii filannoo jirutti mari

| Lakk | Gaaffii                          | Deebii   | Darbi |
|------|----------------------------------|--|-------|
| 101  | saala?                           | <ol style="list-style-type: none"><li>1. Dhiira</li><li>2. durba</li></ol>   |       |
| 101  | Umuriin keessaan waggaa meeqa?   | wagga isaan xumuraniin-----  |       |
| 103  | Haalli gaa'ila keessanii akkami? | <ol style="list-style-type: none"><li>1. Kan hin heerumne</li><li>2. Heerumtuu</li><li>3. Abbaan manaa kan du'e</li><li>4. Kan wal hiikan</li><li>5. Abbaan manaa bakka biraa kan jiru</li><li>6. Seeraan osoo wal hin fuudhin kan waliin jiraatan</li></ol> |       |
| 104  |                                  | <ol style="list-style-type: none"><li>1. Oothodoksii</li></ol>   |       |

|     |  |  |  |
|-----|--|--|--|
|     | Amantiin keessan maali?  | 2. Proteestaantii<br>3. Kaatolikii<br>4. Muusliima<br>5. Kan biraa-----        |  |
| 105 | Qomoon keessan maali?  | 1. Amaara<br>2. Guraagee<br>3. Oromoo<br>4. Tigree<br>5. Kan biraa-----        |  |
| 106 | Sadarkaan barnoota keessanii maali?  | 1. Dippiloomaa<br>2. Digrii<br>3. Maastersii<br>4. speeshaalitii sertifikeetii |  |
| 107 | Hojiin keessan mallidha?   | 1. Hakiima walii gala<br>2. Qondaala fayyaa<br>3. Neersii<br>4. miidwaayifii   |  |
| 108 | Walii galatti yeroon tajaajila keessanii hagam?  | _____ waggaa   |  |
| 109 | Kaanserii balbala (cervical cancer) gadameessan kan wal ilaallatu leenjii fudhattanii beektuu? | 1. Eeyyee<br>2. Lakkii   | Deebiiin lakkii yoo ta'e gara gaaffii beekumsaatti darbi |
| 110 | Yoomii fi eessatti leenjii kaanserii balbala gadameessaa fudhattan?                            | Yoom _____<br>Eessattii _____  |  |

**Kutaa 2ffaa: gaaffii waa'ee beekumsaa kaanserii balbala gadameessaa**

| <b>Lakk</b> | <b>Gaaffii</b>  | <b>Deebii</b>          | <b>Darbi</b>                       |
|-------------|---|------------------------|------------------------------------|
| <b>201</b>  | Kanaan dura waa'ee kaanserii balbala gadameessaa (cervical cancer) dhageessanii | 1. Eeyyee<br>2. Lakkii | Yoo lakkii ta'e asumarratti xumuri |

|            |  |  |  |
|------------|--|--|--|
|            | beektu?  |  |  |
| <b>202</b> | Yeroo jalqabaatiif kaanserii balbala gadameessa eessaa dhageessanii?   | <ol style="list-style-type: none"> <li>1. Kolleejjii/ Universitii</li> <li>2. Miidi'aarraa</li> <li>3. hiriyaarraa</li> <li>4. dhuunfaan kan dubbisanirraa</li> <li>5. leenjiirraa</li> <li>6. kan biraa</li> </ol>  |  |
| <b>203</b> | Kaanseriin balbala gadameessaa dhukkuba daddarbaadha?  | <ol style="list-style-type: none"> <li>1. Eeyyee</li> <li>2. Lakkii</li> </ol>   |  |
| <b>204</b> | Waantoti kaanserii balbala gadameessaa akka nama qabuuf saaxila nama baasan maal fa'i? ( <i>deebiin tokkoo ol ni danda'ama</i> ) | <ol style="list-style-type: none"> <li>1. hiriya wal quunnamtii saalaa baayisuu</li> <li>2. osoo umuriin hin ga'in wal quunnamtii saalaa jalqabuu</li> <li>3. hihumaan paappiloomaa vaayirasii (HPV)</li> <li>4. dhibee HIV</li> <li>5. sigaaraa xuuxuu</li> <li>6. yeroo dheeraaf kiniinii da'umsa ittisu liqimsuu</li> <li>7. ijoollee baayee da'uu</li> <li>8. kan biraa</li> </ol> |  |
| <b>205</b> | Kan armaan gadii keessaa kamtu caalmaatti kaanserii balbala gadameessaaf nama saaxila?   | <ol style="list-style-type: none"> <li>5. HPV (hihuman paappiloomaa vaayirasii)</li> <li>6. HSV (herpaas simpileksi vaayirasii)</li> <li>7. HIV (hihuman immihuno vaayirasii)</li> <li>8. Hin beeku</li> </ol>   | Yoo HPV ta'e gara gaaffii 207 tti darbi    |
| <b>206</b> | Kanaan dura waa'ee vaayirasii hihuman paappiloomaa jedhamu dhageessanii beektuu?   | <ol style="list-style-type: none"> <li>1. Eeyyee</li> <li>2. Lakkii</li> </ol>   | Lakkii yoo ta'e gara gaaffii 208 tti darbi |
| <b>207</b> | Vaayirasiin hihuman paappiloomaa maaliin namatti daddarba? ( <i>deebiin tokkoo ol ni danda'ama</i> )                             | <ol style="list-style-type: none"> <li>1. Ooroo-feekaalii</li> <li>2. Wal quunnamtii saalaan</li> <li>3. Walitti bu'iinsaan</li> <li>4. Dhiigaan</li> <li>5. Hin beeku</li> </ol>  |  |
| <b>208</b> | Maallattoon dhibee   | <ol style="list-style-type: none"> <li>1. Osoo yeroon lagu hin ga'in gidduutti dhiiguu</li> </ol>  |  |

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|------------|---|---|---|
|            | kaanserii<br>balbalagadameessaa maal<br>fa'i? ( <i>deebiin tokkoo ol ni<br/>danda'ama</i> )   | 2. dhangala'aan foolii qabu kara qaama<br>hormaataa dhangala'uu<br>3. wal qunnamtii saalaa booda dhiiguu<br>4. hin beeku<br>5. kan biraa-----   |   |
| <b>209</b> | Dubartiin tokko akka<br>kaanseriin balbala<br>gadameessaa ishee hin<br>qabnef ofirraa ittisuu ni<br>dandeessii?                           | 1. Eeyee<br>2. Lakkii<br>3. Hin beeku   | Lakkii yoo<br>ta'e gara<br>gaaffii 211<br>darbi   |
| <b>210</b> | attamitti kaanserii balbala<br>gadameessaa ittisuun<br>danda'ama? ( <i>deebiin<br/>tokkoo ol ni danda'ama</i> )                           | 1. Baayina hiriya wal quunnamtii<br>saalaa hanbisuu<br>2. Dhibee HIV ittisuu<br>3. Umuriin osoo hin ga'in wal<br>quunnamtii saala jalqabuu dhiisuu<br>4. Koondoomii fayyadamuu<br>5. Talaallii fudhachuu<br>6. Kan biraa----- |   |
| <b>211</b> | Dhibee kaanserii balbala<br>gadameessaa yaaluun ni<br>danda'amaa?   | 1. Eeyyee<br>2. Lakkii<br>3. Hin beeku  | Lakkii yoo<br>ta'e gara<br>gaaffii<br>kaanserii<br>morma<br>gadameessa<br>a adda<br>baasuu tti<br>darbi |
| <b>212</b> | Karaan ittiin dhibee<br>kaanserii balbala<br>gadameessaa yaaluun<br>danda'amu maal fa'i?<br>( <i>deebiin tokkoo ol ni<br/>danda'ama</i> ) | 1. Qoricha aadaa<br>2. Baqaqsanii yaaluu<br>3. Raadiyoteeraappii<br>4. Keemoteeraappii<br>5. Kiriyaoteeraappii<br>6. Hin beeku<br>7. Kan biraa  |   |

**Kutaa 3ffaa: gaaffii waa'ee beekumsa kaanserii balbala gadameessaa dursanii qoratamuu**

| lakk | Gaaffii  | Deebii  | Darbi   |
|------|--|---|---|
| 301  | Dhibee kaanserii balbala gadameessaa dursanii karaa ittiin qorataman( cervical cancer screening method) dhageessanii beektu?                               | <ol style="list-style-type: none"> <li>1. Lakkii</li> <li>2. Eeyyee</li> </ol>  | Lakkii yoo ta'e gara gaaffii ilaalchaatti darbi |
| 302  | Mala kaanserii afaan gadameessaa dursanii ittiin qoratan (cervical cancer screening method) keessaa kanfaa beektu? <i>(deebiin tokkoo ol ni danda'ama)</i> | <ol style="list-style-type: none"> <li>1. Paappii ismiirii</li> <li>2. Liikihud beezdi saayitoloogii</li> <li>3. Vii-ayii –ee (VIA)</li> <li>4. Sakatta'iinsa hihumaan paappiloomaa vaayirasii (HPV test)</li> <li>5. Kan biraa _____</li> </ol>  |   |
| 303  | Dubartiin tokko kaanserii balbala gadameessaa dursitee qoratamuuf umuriin ishee meeqa tahuu qaba? <i>(deebiin tokkoo ol ni danda'ama)</i>                  | <ol style="list-style-type: none"> <li>7. Dubartii umuriinshee waggaa 30 gadii</li> <li>8. Dubartii umuriinshee waggaa 30 fi isaa olii</li> <li>9. Umurii kamiinittiyyuu qoratamuu dandeessii</li> <li>10. Umuriinshee wagga 30 gadi ta'ee HIV yoo qabaatte ykn naannoo HIVn ittii baayyaatu yoo jiraatti ta'e</li> <li>11. Kan biraa _____</li> <li>12. Hin beeku</li> </ol> |   |
| 304  | tajaajilli kaanserii balbala gadameessa dursanii   | <ol style="list-style-type: none"> <li>1. Paappii ismiiriidhaan _____</li> </ol>  |   |

|  |  |  |  |
|--|--|--|--|
|  | <p>qoratamuu yeroo hagam hagamii kennamuu qaba? (<i>deebii lakkofsa 302 irraatti hundaa’ii gaafadhu</i>)</p> | <p>2. Liikihud beezdi saayitoloogiidhaan _____</p> <p>3. Vii-ayii –ee (VIA) dhaan _____</p> <p>4. Hihumaan paappiloomaa vaayirasii sakatta’amuu (HPV test)dhaan _____</p> <p>5. Kan biraadhaan _____</p> <p>6. Hin beeku _____</p> |  |
|--|--|--|--|

**Kutaa 4ffaa: gaaffii waa’ee ilaalcha kaanserii balbala gadameessaa fi dursanii qoratamuu**

| <b>lakk</b> | <b>Gaaffii</b>   | <b>Deebii</b>   | <b>darbi</b> |
|-------------|--|---|--------------|
| 401         | kaanseriinbalbala gadameessaa rakkoo hawaasa uummata itooophiyaati jettee amantaa? | <p>6. cimseen ittii walii gala</p> <p>7. ittan walii gala</p> <p>8. ittiin hinmormus itti walii hingalus</p> <p>9. itti walii hin galu</p> <p>10. cimsee itti walii hin galu</p>    |              |
| 402         | kaanseriinbalbalagadamees saa dhibee ittifamuu danda’udha.                         | <p>1. baayiseen ittii walii gala</p> <p>2. ittan walii gala</p> <p>3. ittiin hinmormus itti walii hingalus</p> <p>4. itti walii hin galu</p> <p>5. baayisee itti walii hin galu</p> |              |
| 403         | kaanseriibalbala   | 1. baayiseen ittii walii gala   |              |

|            |   |   |                     |
|------------|---|---|---------------------|
|            | gadameessaa yoo dafanii qoratamanii yaalaman dhibee irraa fayyuun danda'amudha.   | <ol style="list-style-type: none"> <li>2. ittan walii gala</li> <li>3. ittiin hinmormus itti walii hingalus</li> <li>4. itti walii hin galu</li> <li>5. baayisee itti walii hin galu</li> </ol>   |                     |
| <b>404</b> | kaanserii balbala gadameessaa dursanii qoratamuun kaanserii balbala gadameessaa ittisuuf barbaachisaadha.                                       | <ol style="list-style-type: none"> <li>1. baayiseen ittii walii gala</li> <li>2. ittan walii gala</li> <li>3. ittiin hinmormus itti walii hingalus</li> <li>4. itti walii hin galu</li> <li>5. baayisee itti walii hin galu</li> </ol>  |                     |
| <b>405</b> | Adeemsi (procedure)n kaanserii balbala gadameessa dursanii qoratamuu (screening)n, kaanserii balbala gadameessaa sirriitti addaa baasuu danda'a | <ol style="list-style-type: none"> <li>1. baayiseen ittii walii gala</li> <li>2. ittan walii gala</li> <li>3. ittiin hinmormus itti walii hingalus</li> <li>4. itti walii hin galu</li> <li>5. baayisee itti walii hin galu</li> </ol>  |                     |
| <b>406</b> | kaanserii balbala gadameessaa dursanii qoratamuun carraa jiraachuu ni dabala.   | <ol style="list-style-type: none"> <li>1. baayiseen ittii walii gala</li> <li>2. ittan walii gala</li> <li>3. ittiin hinmormus itti walii hingalus</li> <li>4. itti walii hin galu</li> <li>5. baayisee itti walii hin galu</li> </ol>  |                     |
| <b>407</b> | Akkaataan kaanserii balbala gadameessaa ittiin qorataman midhaa nama qoratamurraan hin ga'u.  | <ol style="list-style-type: none"> <li>6. baayiseen ittii walii gala</li> <li>7. ittan walii gala</li> <li>8. ittiin hinmormus itti walii hingalus</li> <li>9. itti walii hin galu</li> <li>10. baayisee itti walii hin galu</li> </ol> |                     |
| <b>408</b> | Dubartoonni umuriinsaanii wagga 30 ol ta'e hundumtuu tajaajila kaanserii balbala gadameessaa dursanii ittiin qoratamaniin ilaalamuu qabu.       | <ol style="list-style-type: none"> <li>6. baayiseen ittii walii gala</li> <li>7. ittan walii gala</li> <li>8. ittiin hinmormus itti walii hingalus</li> <li>9. itti walii hin galu</li> <li>10. baayisee itti walii hin galu</li> </ol> |                     |
| <b>409</b> | Yoo tajaajilli kaanserii balbala gadameessaa dursanii ittiin qorataman tolaa fi kan nama hin mine   | <ol style="list-style-type: none"> <li>1. baayiseen ittii walii gala</li> <li>2. ittan walii gala</li> <li>3. ittiin hinmormus itti walii hingalus</li> <li>4. itti walii hin galu</li> <li>5. baayisee itti walii hin galu</li> </ol>  | Durba qofa gaafadhu |

|  |                     |  |  |
|--|---------------------|--|--|
|  | ta'e ni qoratamtaa? |  |  |
|--|---------------------|--|--|

**Annex III: Amharic version Information sheet and structured questionnaire**

ለ ምህረብ ወለጋ የጤናማ ዕክልል አገልግሎት ሰጭ ባለ ሙያዎች ስለ ቅድመ የማህፀን ካንሰር ምርመራ ያላቸውን እውቀትና ግንዛቤ ሁኔታ ለመገምገም የተዘጋጀ መጠይቅ

ክፍል 1: የስም ምነት ማረጋገጫ ቅፅ

ጤና ይስጥልኝ፣ እኔ \_\_\_\_\_ በአዲስ አበባ ዩኒቨርሲቲ የህብረተሰብ ጤና አጠባበቅ

ቅተ ማረጋገጫ። ይህ ጥናት የምርመራ በምህረብ ወለጋ የጤና ማዕከል አገልግሎት ሰጭ ባለ ሙያዎች ስለ ቅድመ የማህፀን ካንሰር ምርመራ ያላቸውን እውቀትና

ግንዛቤ ሁኔታ ገምገም የተዘጋጀ መጠይቅ ነው። ከዚህ ጥናት ምንም ሆኖ ገንዘብ ወይንም ጥቅም ላይ አይውልም።

ለ ባለ ሙያዎች በማስረጃ የተደገፈ እቅድ ለማቀድና በዚህ ዘመን የሚከተሉት ለማከናወን

ለሚፈልጉ አገልግሎቶች እንደ መንደር ደረጃ ያለ ማህፀን ስርዓት ስላይ ይህንን በፍቃደኝነት

ላይ የተመሰረተ መጠይቅ ለመሙላት 20-25 ደቂቃ የሚፈጅ ብቻ ሲሆን ለመሳተፍ ካልፈለጉ

አይገደደም። እንዲሁም መሳተፍ ከጀመሩ በኋላ በማንኛውም ጊዜ አቋርጠው መውጣት ይችላሉ።

ለ ጥያቄዎቹ የሚሰጥዎቸው መልሶች በሙሉ ሚስጥራዊነታቸው የተጠበቀ ይሆናል። ስለዚህ

ስለ ማንነትዎ እና ስለ ሚስጥራዊ መልሶች በምስጥር መጠበቅ ምንም እይነት ስጋት አይገባዎትም።

የእርስዎ በዚህ ጥናት ውስጥ ተሳታፊ መሆን ሆኖ ጥቅም ላይ የሚውል ሁኔታ መጠናቀቅ ሳይሆን ለማህፀን በር

ካንሰር ቅድመ ምርመራ ዘዴ አገልግሎት መሻሻል ለማድረግ አስተዋፅኦ

ስለ ሚናረው በዚህ ጥናት ውስጥ እንደ ሳተፊ በአክብሮት እጠይቃለሁ።

ለተጨማሪ መረጃ በስልክ ቁጥር 0934972998 ወይም

ኢሜይል ebekela@yahoo.com ልያገኙኝ ይችላሉ።

በጥናቱ ለማሳተፍ ፈቃደኛ ናት?

እሳተፋቸው \_\_\_\_\_

አልሳተፍም \_\_\_\_\_ ለመሳተፍ ፍቃደኛነህን ወደ ቀጣዮቼ ጥያቄዎች ይለፉ። ለመሳተፍ ፈቃደኛ ካልሆኑ ደግሞ እመስግነው ጥያቄውን ያቋርጡ።

ክፍል 1: የተጠያቂው አጠቃላይ የማህበራዊ መረጃ የተመለከተ መጠይቅ

| ተራ ቁ. | ጥያቄዎች              | መልስ   | እለፍ |
|-------|--------------------|---|-----|
| 101   | ጾታ                 | 1. ሴት<br>2. ወንድ   |     |
| 102   | እዴሜዎ ስንት አመት ነው?   | -----እመት  |     |
| 103   | የጋብቻዎ ሁኔታ እንዴት ነው? | 1. ያላገባ<br>2. ያገባ<br>3. የተፋታ<br>4. በሞት የተለየ<br>5. ያለህገዊ ጋብቻ አብሮ ወ. የሚኖሩ |     |
| 104   | የሚከተሉት ሃይማኖት ምንድን? | 1. ኦርቶዶክስ   |     |

|     |   |   |                           |
|-----|---|---|---------------------------|
|     | ነው?   | <ol style="list-style-type: none"> <li>2. ፕሮቴክቶብ</li> <li>3. ካቶሊክ</li> <li>4. ሙስሊም</li> <li>5. ሌላ ከሆነ ይጥቀሱ</li> </ol>       |                           |
| 105 | ብሄርዎ ምንድን ነው?                                   | <ol style="list-style-type: none"> <li>1. አማራ</li> <li>2. ጉራጌ</li> <li>3. አሮሞ</li> <li>4. ትግሬ</li> <li>5. ሌላይግለፅ</li> </ol> |                           |
| 106 | አሁን ያሉበት የትምህርት ደረጃ ይገነዘብኛ                      | <ol style="list-style-type: none"> <li>1. ድፕሎማ</li> <li>2. ድግሪ</li> <li>3. ማስተርስ</li> <li>4. ከፕሮግራም ስርዓት ስርዓት</li> </ol>    |                           |
| 107 | የሙያዎ አይነት ምንድን ነው?                              | <ol style="list-style-type: none"> <li>1. ጠቅላላ ሀኪም</li> <li>2. ጤና መኮንን</li> <li>3. ነርስ</li> <li>4. አዋጊ-ጅነርስ</li> </ol>      |                           |
| 108 | በሙያዎ በጠቅላላው ለምን ያህል ጊዜ አገልግለዋል?                 | -----ዓ.ም  |                           |
| 109 | የማህፀን በር ካንሰር (Cervical cancer) ስልጠና ወስደዉ ያውቃሉ? | <ol style="list-style-type: none"> <li>1. አዎ</li> <li>2. አላወቅም</li> </ol>   | አላወቅም ከሆነ ወደ እውቀት ጥያቄ እለፍ |
| 110 | ወስደዉ የምዕራብ ከሆነ መቼ እና ዩት ነዉ የወሰዱት?               | መቼ? _____ ዓ.ም<br>የት? _____  |                           |

ክፍል 2: የማህፀንበር ካንሰር የእውቀት ደረጃን የሚዳስስ መጠይቅ

| ተራ ቁ. | ጥያቄዎች  | መልስ  | እለፍ           |
|-------|--|--|---------------|
| 201   | ከዚህበራትስለማህፀንበርካንሰር በሽታ ሰምተውያውቃሉ?<br>?                              | 1. አዎ<br>2. አላወቅም  | አላወቅም ከሆነ ጨርስ |
| 202   | ለመጀመሪያ ጊዜ ስለማህፀንበርካንሰር በሽታ ከየትሰሙ?<br>?                             | 1. ከኮለጅ/ዩንቨርሲቲ<br>2. ከመገነኛ ብዙሃን<br>3. ከጓደኞቼ<br>4. በራስ ጥናት<br>5. ከስልጠና  |               |
| 203   | የማህፀንበርካንሰር ተላላፊ በሽታ ነዉ?<br>?                                      | 1. አዎ<br>2. አይደለም<br>3. አላወቅም  |               |
| 204   | ለማህፀን በር ካንሰር ሊያጋልጡ የሚችሉ ሁኔታዎች ምን ምንድን ናቸው?<br>(ከአንድ መልስ በላይ መመለስ) | 1. ከተለያዩ ወንዶች ጋር የታወቁ ግንኙነት መፈፀም<br>2. እድሜ ሳይደርስ የታወቁ ግንኙነት መፈፀም<br>3. ሁማን ፓርሎማባልቫይረስ መያዝ<br>4. በኤች.አይቪ.ኤ.ድስ መያዝ<br>5. ሲጋራ ማጨስ<br>6. ለረጅም ጊዜ የወልድ መቆጠጠሪያ ክንን |               |

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|     | ይቻላል)   | መወሰድ<br>7. ብዙ ልጆች መወለድ<br>8. ሌሎች ካሉ ይጠቀሱ_____  |                              |
| 205 | ከተዘረዘሩት ውስጥ ለማህጸንበርካንሰር በጣም አጋላጭ የሆነው የትኛው ነው?              | 1. ሁማን ፓፒሎማቫይረስ (HPV)<br>2. ሄርፕስ ሲምፕሌክስ ቫይረስ (HSV)<br>3. ሁማን ኢሚዩኖ ቫይረስ (HIV)<br>4. አላውቅም       | አላውቅም ከሆነ ወደ ጥያቄ ቁጥር 207 እለፍ |
| 206 | ስለ ሁማን ፓፒሎማ ቫይረስ ሰምተው ያውቃሉ?                                 | 1. አዎ<br>2. አላውቅም  | አላውቅም ከሆነ ወደ ጥያቄ ቁጥር 208 እለፍ |
| 207 | ሁማን ፓፒሎማ ቫይረስ እንዴት ከሰው ለሰው የምትላለፈው (ከአንድ መልስ በላይ መመለስ ይቻላል) | 1. እር-ፊካል<br>2. ግብረሰጋ ግኑኝነት<br>3. በ መነካካት<br>4. በደም ኒክክ<br>5. አላውቅም                            |                              |
| 208 | የማህጸንጫፍካንሰር በሽታ ምልክቶችምን ይናገሩ (ከአንድ መልስ በላይ መመለስ ይቻላል)       | 1. በማህጸን ደም መፍሰስ<br>2. ሽታ ያለው የማህጸን ፊሳሽ<br>3. ከግብረ ሰጋ ግኑኝነት በኋላ ደም መፍሰስ<br>4. ሌሎች ካሉ ይጠቀሱ_____ |                              |
| 209 | የማህጸንበርካንሰርን መከላከል ይቻላል?                                    | 1. አዎ<br>2. አይቻልም<br>3. አላውቅም  | አላውቅም ከሆነ ወደ ጥያቄ             |

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|     |   |   | ቁጥር<br>211<br>እለፍ                      |
| 210 | የማህጸንበርካንሰር<br>ን እንዴት<br>መከላከል<br>ይቻላል?<br>(ከአንድ መልስ<br>በላይ መመለስ<br>ይቻላል)   | <ol style="list-style-type: none"> <li>1. ከብዙ ሰዎች ጋር ወሲብ አለመፈጸም</li> <li>2. ኤችአይቪ.ኤ.ድስን በመከላከል</li> <li>3. በልጅነት እድሜ የግብረሰጋ ግኑኝነት አለመጀመር</li> <li>4. የማህጸን በር ካንሰር ቅድመ ምርመራ በማድረግ</li> <li>5. ኮንዶም መጠቀም</li> <li>6. የ HPV ክትባት መወሰድ</li> <li>7. ሌሎች ካሉ ይጠቀሱ_____</li> </ol> |  |
| 211 | የማህጸንበርካንሰር<br>ን ማከም<br>ይቻላል?   | <ol style="list-style-type: none"> <li>1. አዎ</li> <li>2. አይቻልም</li> <li>3. አላወቅም</li> </ol>   | አላወቅም<br>ከሆነ ወደ ቅድመ ምርመራ እይነቶች ጥያቄ እለፍ |
| 212 | የማህጸንበርካንሰር<br>ን ለማከም<br>አማራጭ የትኞቹ<br>ናቸው?(ከአንድ<br>መልስ በላይ<br>መመለስ<br>ይቻላል) | <ol style="list-style-type: none"> <li>1. የባህልህክምና</li> <li>2. ቀዶ ጥገና</li> <li>3. የጨረርህክምና</li> <li>4. ኬሞቴራፒ</li> <li>5. ክራዮቴራፒ</li> <li>6. ሌላካለይጥቀሱ_____</li> <li>7. አላወቅም</li> </ol>  |  |

ክፍል 3: የማህፀንበር ካንሰር ቅድመምርመራ እይነቶችን የሚዳስስ መጠይቅ

| ተራ ቁ.   | ጥያቄዎች  | መልስ  | እለፍ           |
|---------|--|--|---------------|
| 30<br>1 | ከዚህበራትስለማህፀንጫፍካንሰርቅድመምርመራዘዴዎችስምተውያውቃሉ?                             | <ol style="list-style-type: none"> <li>1. አዎ</li> <li>2. አላወቅም</li> </ol>  | አላወቅም ከሆነ ጨርስ |
| 30<br>2 | ካሉት የማህፀንበር ካንሰር ቅድመምርመራ ዘዴዎች የትኞቹን ያውቃሉ? (ከአንድ መልስ በላይ መመለስ ይቻላል) | <ol style="list-style-type: none"> <li>1. ፓፕአስሚር</li> <li>2. ልኩሊድ ሳይቶሎጂ</li> <li>3. ቪ. አይ. ኤ</li> <li>4. የሁማንፓፒሎማቫይረስምርመራ</li> <li>5. ሌላካለይጥቀሱ_____</li> </ol> |               |

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| 30<br>3 | አንድ ቤት የማህፀንበር ካንሰር ቅድመ ምርመራ ለማድረግ እድሜዎ ስንት መሆን አለበት? (ከአንድ መልስ በላይ መመለስ ይቻላል) | <p>_____</p> <ol style="list-style-type: none"> <li>1. ከ 30 አመት በታች</li> <li>2. 30 አመትና ከዚያ በላይ</li> <li>3. በማንኛውም ዕድሜ ክልል ውስጥ የሉ ሴቶች</li> <li>4. እድሜዎ ከ 30 በታች ሆኖ ኤችአይቪኤድስን ከለባት ወይም ኤችአይቪኤድስ የምትዘብት አካባቢ የምትኖር ቤት</li> <li>5. ሌላካለይጥቀሱ _____</li> <li>_____</li> <li>6. አላውቅም</li> </ol> |  |
| 30<br>4 | የማህፀንበር ካንሰር ቅድመ ምርመራ በየስንት ጊዜ መደረግ አለበት?                                      | <ol style="list-style-type: none"> <li>1. በ ፓፕአስሚር _____</li> <li>2. በልኩኢድ ሳይቶሎጂ _____</li> <li>3. በቪ እይ ኢ _____</li> <li>4. በሁማንፓፕሊሎማሳይረስምር መራ _____</li> <li>5. በሌላካለይጥቀሱ _____</li> <li>_____</li> <li>6. አላውቅም</li> </ol>  |  |

ክፍል 4: የማህፀንበር ካንሰር እና ቅድመ ምርመራ አመለካከትን መመዘኛ ጥያቄዎች

| ተራ ቁ. | ጥያቄዎች  | መልስ   | እለፍ |
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| 401   | በእትዮጵያ ውስጥ የማህፀንበር ካንሰር የህብረተሰብ ጤና ችግር ነው ብለው ያምናሉ | <ol style="list-style-type: none"> <li>1. በጣም እስማማለዉ</li> <li>2. እስማማለዉ</li> <li>3. መስማማትም አለማስማማትም አልችልም</li> <li>4. አልስማማም</li> </ol> |     |

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|     |   | 5. በጣም አልስማማም  |  |
| 402 | የማህፀንበር ካንሰር ልክላክሉት የሚቻል በሽታነው።                                   | <ol style="list-style-type: none"> <li>1. በጣም እስማማለዉ</li> <li>2. እስማማለዉ</li> <li>3. መስማማትም አለማስማማትም አልችልም</li> <li>4. አልስማማም</li> <li>5. በጣም አልስማማም</li> </ol> |  |
| 403 | የማህፀንበር ካንሰር በጊዜ ከታከሙት ልዩን የምቻል በሽታ ነዉ።                           | <ol style="list-style-type: none"> <li>1. በጣም እስማማለዉ</li> <li>2. እስማማለዉ</li> <li>3. መስማማትም አለማስማማትም አልችልም</li> <li>4. አልስማማም</li> <li>5. በጣም አልስማማም</li> </ol> |  |
| 404 | የማህፀን በር ካንሰር ቅድመ ምርመራ የማህፀንበር ካንሰርን ለመከላከልበጣም አስፈላጊ ነዉ።          | <ol style="list-style-type: none"> <li>1. በጣም እስማማለዉ</li> <li>2. እስማማለዉ</li> <li>3. መስማማትም አለማስማማትም አልችልም</li> <li>4. አልስማማም</li> <li>5. በጣም አልስማማም</li> </ol> |  |
| 405 | በማህፀንበር ካንሰር ቅድመ ምርመራ ማድረጊያ ዘዴዎች የማህፀንበር ካንሰርን መለየት እናማረጋገጥ ይቻላል። | <ol style="list-style-type: none"> <li>1. በጣም እስማማለዉ</li> <li>2. እስማማለዉ</li> <li>3. መስማማትም አለማስማማትም አልችልም</li> <li>4. አልስማማም</li> <li>5. በጣም አልስማማም</li> </ol> |  |
| 406 | የማህፀንበር ካንሰር ቀድሞ ማወቅ ህይወትን ለመታደግ ይረዳል።                            | <ol style="list-style-type: none"> <li>1. በጣም እስማማለዉ</li> <li>2. እስማማለዉ</li> <li>3. መስማማትም አለማስማማትም አልችልም</li> <li>4. አልስማማም</li> <li>5. በጣም አልስማማም</li> </ol> |  |
| 407 | የማህፀንበር ካንሰር ቅድመ ምርመራ ምንም እይነት ጉዳት የለዉም።                          | <ol style="list-style-type: none"> <li>1. በጣም እስማማለዉ</li> <li>2. እስማማለዉ</li> </ol>   |  |

|     |   |  |            |
|-----|---|--|------------|
|     |   | 3. መስማማት-ም ኣለማስማማት-ም ኣልቸልም<br>4. ኣልስማማም<br>5. በጣም ኣልስማማም                               |            |
| 408 | ማንኛዎም ሴት ዕድሜዎ ከ 30 በላይ የሆነ የማህፀንበር ካንሰር ቅድመ ምርመራ ማድረግ ኣለበት። | 1. በጣም እስማማለዉ<br>2. እስማማለዉ<br>3. መስማማት-ም ኣለማስማማት-ም ኣልቸልም<br>4. ኣልስማማም<br>5. በጣም ኣልስማማም |            |
| 409 | የማህፀንበር ካንሰር ቅድመ ምርመራ ነፃ ከሆነ እና ጉዳት ከሌለዉ ትመረመረያለሽ።          | 1. በጣም እስማማለዉ<br>2. እስማማለዉ<br>3. መስማማት-ም ኣለማስማማት-ም ኣልቸልም<br>4. ኣልስማማም<br>5. በጣም ኣልስማማም | ሴቶች ብቻ ጠይቅ |

**Annexes IV. Guide for in- depth Interview with primary health care providers**

**Qualitative part**

Greetings,.....I am currently doing a research to assess Knowledge and Attitude on cervical cancer and screening among health care workers of west wollega to fulfill my thesis. I am here to interview you some issues which enable us to triangulate the quantitative findings of Knowledge and Attitude study from west wollega health service providers. Your response to this interview will remain confidential and anonymous.

Are you willing to participate in this study?

1- No (say thank you)

2- Yes (continue interviewing)

Area of Interviewee: -----

Sex of Interviewee: Male  Female

Age (completed years): ----- Years

No. of years in service: ----- Years

Highest level of Educational qualification: -----

Date of interview/in-depth (Ethiopian calendar) \_\_\_\_/\_\_\_\_/\_\_\_\_

Name of interviewer: -----

Thank you for your participation in the interview.

### Part III, Key informant in-depth interview guide for health providers

1. What do you know about the cervical cancer screening?
2. Do you think screening is important, how?
3. If the cervical cancer screening service starts in your hospital or health center how you invite women to participate in the program?
4. How do you describe capacity of health service providers to start cervical cancer screening service in your hospital or health center?
5. How do you describe your willingness to provide cervical cancer screening service if the cervical cancer screening service starts in your hospital or health center?

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

You have contributed your best!

### **Declaration**

I the under signed declared that this thesis is my original work, has not been presented for degree in this or any other university and that all sources of material used for this thesis have been fully acknowledged.

**Name: Eba Bekela**

Signature: \_\_\_\_\_

Date of submission: \_\_\_\_\_

Place: Addis Ababa University, school of public health

This thesis has been submitted for examination with my approval as university advisor

**Advisors name:**

1. **Adamu Addissie**(MD, MA, MPH, PhD)  
Signature\_\_\_\_\_
2. **Muluken Gizaw** (BSc, MSc)

Signature\_\_\_\_\_

