



**ADDIS ABABA UNIVERSITY**  
**COLLEGE OF HEALTH SCIENCES**  
**SCHOOL OF PUBLIC HEALTH**

Assessment of service quality and satisfaction of cervical cancer screening recipients  
in Addis Ababa, Ethiopia, 2020.

Principal investigator: Matewos Kumera (Bsc)

Advisor: Mr. Warrisaw Haileselassie (MPH, PhD Candidate)

A Thesis Submitted to the School of Public Health of Addis Ababa University in  
Partial Fulfillment of the Requirements for the Degree of Masters of Public Health in  
Health Systems Management.

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Board of Examiners;

1. Mr. Warrisaw Haileselassie (Supervisor): .....
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## 1. Acronyms and abbreviations

AAU	Addis Ababa University
ANC	Antenatal care
AOR	Adjusted odds ratio
ART	Antiretroviral therapy
CIN	Cervical intraepithelial neoplasia
COR	Crude odds ratio
Cx Ca/CC	Cervical cancer
FMoH	Federal Ministry of Health
HPV	Human Papilloma Virus
PET	Positron emission tomography
SIL	Squamous intraepithelial lesion
SPSS	Statistical Package for Social Sciences
STI	Sexually transmitted infection

## Table of contents

### Contents

1. Acronyms and abbreviations	II
2. List of Tables	V
3. List of figures	VI
4. Abstract	VIII
CHAPTER 1: Introduction	1
1.1 Background .....	1
1.2 Statement of the Problem.....	3
1.3 Significance of the study.....	5
CHAPTER 2: Literature Review	6
2.1 Burden of cervical cancer .....	6
2.2 Quality of cervical cancer screening.....	6
2.3 Client satisfaction towards cervical cancer screening.....	8
2.4 Conceptual framework.....	9
CHAPTER 3: Objective	10
3.1 General Objective .....	10
3.2 Specific Objectives .....	10
CHAPTER 4: Methods	11
4.1 Study area and period.....	11
4.2 Study Design.....	11
4.3 Population .....	11
4.3.1 Source Population	11
4.3.2 Study Population	11
4.4 Sampling Unit .....	11
4.5 Inclusion criteria .....	12
4.6 Exclusion Criteria .....	12
4.7 Sample size .....	12
4.8 Sampling Procedure .....	13
4.9 Data collection tools and procedures .....	14
4.10 4.10. Study Variable .....	15
4.10.1 Dependent variable	15

4.10.2	Independent variables	15
4.10.3	Operational definition	15
4.11	Data quality management.....	16
a.	Data Processing and analysis .....	16
4.12	Ethical consideration.....	16
4.13	Dissemination plan.....	17
CHAPTER 5:	Results	18
5.1	Quantitative findings: Demographic information .....	18
5.2	Client satisfaction towards cervical cancer screening service .....	19
5.3	Predictors of satisfaction.....	26
5.4	Qualitative analysis: Demographic information .....	28
5.5	Quality of health facility structure in the perspective of health professionals .....	29
5.6	Quality of cervical cancer screening process in the perspective of health professionals .....	35
5.7	Quality of health care outcome in the perspective of health professionals .....	39
CHAPTER 6:	Discussion	45
CHAPTER 7:	Strength and limitation of the study	48
7.1	Strength of the study .....	48
7.2	Limitation of the study.....	48
CHAPTER 8:	Conclusions and recommendations	49
8.1	Conclusion .....	49
8.2	Recommendation .....	49
CHAPTER 9:	References	51
5.	Annex I. Amharic Version Questionnaire for Clients	1
11.	Annex II. Key Informant Interview guide (English Version)	6

## 2. List of Tables

Table 1. Determination of sample size for the satisfaction of cervical cancer screening recipients who visited public health facilities in Addis Ababa, Ethiopia, 2020.	21
Table 2 Distribution of sociodemographic status of cervical cancer screening recipients, who visited public health facilities, in Addis Ababa, Ethiopia, 2020.	26
Table 3 Level of satisfaction related to infrastructure among cervical cancer screening recipients, in Addis Ababa, Ethiopia, 2020.	28
Table 4 Level of satisfaction related to process of service delivery among cervical cancer screening recipients in Addis Ababa, Ethiopia, 2020.	29
Table 5 Privacy related level of satisfaction among cervical cancer recipients in, Addis Ababa, Ethiopia, 2020.	30
Table 6 Autonomy related level of satisfaction among cervical cancer screening recipients, in Addis Ababa, Ethiopia, 2020.	32
Table 7 Predictors of satisfaction of cervical cancer screening recipients, in Addis Ababa, Ethiopia, 2020.	34

### 3. List of figures

Figure 1 Schematic representation of conceptual framework for service quality and satisfaction level of cervical cancer screening recipients in Addis Ababa, Ethiopia, 2020.	18
Figure 2 Schematic presentation of sampling procedure to evaluate the satisfaction level of cervical cancer screening recipients in, Addis Ababa, Ethiopia, 2020.	23
Figure 3 Pie chart presentation for satisfaction level of cervical cancer screening recipients, in Addis Ababa, Ethiopia, 2020.	34
Figure 4 Demographic presentation of cervical cancer screening service provider in Addis Ababa, Ethiopia, 2020.	38

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#### 4. Abstract

**Background:** Cervical cancer is the easiest gynecologic cancer to prevent with regular screening tests and follow-up. It is also highly curable when detected and treated early. For this quality screening service that can address the demands of clients will be of paramount importance for all women particularly those with age greater than 30 years are at risk for cervical.

**Objective:** To assess service quality and client satisfaction towards cervical cancer screening, in Addis Ababa Ethiopia, 2020.

**Methods:** Descriptive cross-sectional study was conducted using both quantitative and qualitative method, to assess quality of cervical cancer screening and client satisfaction. A facility based descriptive cross-sectional study design was used to assess service quality and client satisfaction towards cervical cancer screening. Data was collected by using a questionnaire developed based on Avedis Donabedian model that provides a framework for evaluating quality of health care and examining client satisfaction. The data collection instruments was coded and checked before entry.

Health facilities were stratified on the basis of their geographical location, after which a simple random sampling technique was used. The sample size was determined manually for each specific objective using a single population proportion formula, the total sample size was 421 for quantitative study. Purposive sampling technique was used for a qualitative study and data were ultimately collected from 9 (nine) independent health facilities (Health care providers).

**Result:** From 260 (62%) participant who were satisfied of cervical cancer screening service, 204 (39.23%) were between age group of 30-49 years, 38 (7.31%) age of  $\leq 29$ , and the rest 18 (3.46%) were  $\geq 50$  years old. Regarding the level of support from direct care giver 284 (67.5) of participants were very satisfied. Concerning the collaboration level of entire workers in the health care institution 252 (59.9) were very satisfied. In the majority of health facilities, the quality of cervical cancer screening services has been low.

**Conclusions:** The present study found that more than half or 62% of cervical cancer screening recipients were satisfied with the overall service delivery. There is a good improvement in the satisfaction rate of the recipient of the service, but overall satisfaction of the cervical cancer screening service was lowest. This study shows that the quality of service at the cervical cancer

screening center was low. The reasons for poor quality of service were lack of motivation on the part of health personnel, lack of effective follow-up and transparency on the part of the government, lack of willingness on the part of management to provide opportunities and motivate staff, lack of consistent quality assessment measures. This low standard has an impact on the use of the service.

Key terms: Quality, Satisfaction, Cervical cancer screening, Avedis Donabedian.

## CHAPTER 1: Introduction

### 1.1 Background

Cancer is a disease in which the body's cells develop out of control. Cancer is still called for the part of the body where it begins, even though it is late to feast on more body parts. It is called cervical cancer until cancer begins in the cervix. The inferior, narrow end of the uterus is the cervix. Cervical cancer, with consistent screening tests and follow-up, is the calmest gynecologic cancer to stop. When found and treated early, it is also infinitely treatable. Both women have a chance of developing cervical cancer. It happens most commonly in women over 30 years of age. (1). In developing countries, cervical cancer remains a significant public health issue where more than 80% of the global burden occurs each year, but screening has failed. (2).

Cancer of the cervix, also known as cervical cancer, begins in the cells lining the cervix. These cells do not transform into cancer all of a sudden. As a replacement, first and foremost, the normal cells of the cervix eventually turn into pre-cancer cells that can then be transformed into cancer. These modifications can be called dysplasia. The shift may occur for many years, but sometimes it happens more quickly. The VIA and Pap tests will recognize them as well as treat them to prevent cancer (3). A primary objective of the far higher prevalence of cervical cancer in developing countries is the lack of adequate screening services to diagnose and treat precancerous conditions (4).

Cervical cancer screening is based on two rule books. The first is that prevention is better than care, and the second is that early detection can enable early management as it is quietly alterable in the primary pathological manner. Screening tests are relatively straightforward procedures that differentiate healthy people from those with a high risk of developing the disease (5). In most European countries, cervical cancer screening determinations are occurring at developing stages. Rumor from countries where early structured screening was conducted shows substantial reductions in cervical cancer deaths (6).

There are two major forms of cervix cancer. There are around 8 to 9 out of 10 squamous cell carcinomas. This form of cancer, under the microscope, is made up of cells that are like squamous cells that cover the surface of the cervix. The bulk of the remaining adenocarcinomas are (3).

Three types of cervical cancer exist: Squamous tumors: This is the most common subtype, accounting for 70%-80% of cervical cancers. Glandular tumors (adenocarcinoma): This subtype accounts for 20 percent-25 percent of cervical cancers. Squamous cell carcinoma starts in the small, flat cells that line the cervix. In cervical cells that contain mucus and other fluids and other epithelial tumors, adenocarcinoma begins: adenosquamous carcinoma, neuroendocrine tumors and undifferentiated carcinoma are uncommon subtypes (7).

Cells do not spontaneously turn into cancer in the transition field. Instead, the normal cervix cells first undergo irregular changes that are considered precancerous, gradually. Doctors use many terms, including cervical intraepithelial neoplasia (CIN), squamous intraepithelial lesion (SIL), and dysplasia, to describe these pre-cancerous shifts (8). Early cervical cancer is often asymptomatic, while locally advanced disease could cause symptoms including abnormal vaginal bleeding (also after coitus), discharge, pelvic pain and dyspareunia. Gross appearance is variable.(9)

Cervical cancer examinations include: medical history and physical exams: the doctor may inquire about the health of the person, their risk factors, and the health of their family members, and if they have not already had one, the doctor may do a pelvic exam and can do a Pap test. Colposcopy: If the patient has any signs that indicate cancer, or if the Pap test indicates irregular cells, the colposcopy test may need to be done. Colposcopy is a procedure that is used to test the cervix. It is not painful in itself, has no side effects, and even though you are pregnant, it can be done safely. Cystoscopy, proctoscopy, and anesthesia examination: these are used most commonly in women with large tumors. When the cancer is caught early, they are not needed. Chest x-ray, CT scan (computed tomography), MRI scans (magnetic resonance imaging), PET scan, techniques used to acquire photographs of the inside of the body (imaging studies) are (positron emission tomography) (3).

Screening process quality assurance requires a comprehensive program management and planning framework, ensuring that all elements of the service function adequately. It is important to pay attention not only to communication and technological aspects, but also to staff qualification, performance management and auditing, as well as to the assessment of the effect of screening on disease burden (10). Quality assurance helps to ensure that an initiative contributes to the result it

is intended for; this is especially important for complicated schemes, such as screening programs designed to minimize the cancer burden in the population (11).

When it is useful, reliable and helpful, clients can judge a service as satisfying. Patient judgments, however, are essential measures of the quality of care, diagnosis accuracy and treatment efficacy. When it is useful, reliable and helpful, clients can judge a service as satisfying. Not right or wrong, all responses are correct (12).

Cervical cancer screening is the method of detecting precancerous cervical lesions before the lesions grow into cancer in healthy people. Cervical cancer screening tests are available worldwide and screening and treatment is one simplified approach that has been developed and adopted by WHO. For secondary cervical cancer prevention, it utilizes visual inspection (VIA) and immediate cryotherapy (13).

Early detection activities are an essential tool for all women in the process of preventing cancer. Customer satisfaction is strongly linked to the use of open services and the result of the services rendered (14). The aim of this study is to provide required information for the resolution of guidelines, policy development, health care decisions and teaching in Ethiopia on service quality and customer satisfaction for cervical cancer screening.

## 1.2 Statement of the Problem

A Saudi study shows a high incidence of perceived advantages and encouragement and a low incidence of perceived barriers to cervical cancer screening among women (15). A study conducted in Brazil shows that the quality metrics improved from 2006 to 2013, implying that the new cervical cancer screening program needs improvement to achieve sufficient effectiveness (16). Women's awareness of cervical cancer, approach to cervical cancer prevention and screening practice for cervical cancer are known in Ethiopia. The study reveals 46.3 percent of the respondents had low awareness, 34.8 percent of participants had negative attitudes towards cervical cancer prevention and 85.8 percent of participants had no plan to be screened for cervical cancer (17). It is also recognized for the awareness, understanding and practice of cervical cancer screening (18). Fewer than half of the study participants (42.2 percent) had ever heard of cervical cancer. 41.5 percent of those who had heard of cervical cancer had heard of cervical cancer screening, and only 3.3 percent had ever undergone a cervical cancer screening test (19).

In Ethiopia, the new research on participants' awareness and perceptions regarding pre-cervical cancer screening reveals that 46.4 percent of participants were aware of pre-cervical cancer screening. Around 51.5 percent of respondents did not know about screening for pre-cervical cancer. The acceptance of pre-cervical cancer screening was 20.9 percent among women of reproductive age. Despite this high awareness of pre-cervical cancer screening, women with a positive approach to cervical cancer were 3.38 times more likely than their counterparts to take pre-cervical cancer screening (20).

A study conducted in Tigray on variables affecting the use of cervical cancer screening indicates that there is a need to improve women's cervical cancer screening policies and guidelines, particularly with regard to age groups 21-29, current occupation with housewives, single sexual partners and null parity (21).

Through the national cancer control strategy, the first document was developed in Ethiopia to track cervical cancer by building on the current health system to strengthen cancer control capabilities in both the public and private sectors by tracking cancer risk factors, investing in cancer care personnel, equipment and research (22). A study conducted in Mekelle shows that awareness of cervical cancer and its screening is about 85.8% (18).

A research conducted in Addis Ababa confirmed that approximately half of the participants were not happy with the overall view and treatment approach that suggests acceptance of cervical cancer screening and treatment service among the study population. It also reveals that the use of cervical cancer screening is poor because of a lack of health education and a cervical cancer screening and care program awareness plan (23).

For cervical cancer screening, there are no studies that have tested the standard of service and customer satisfaction. However, in Ethiopia, the level of quality of service and customer satisfaction for cervical cancer screening is not yet known. Although there are few studies investigating factors affecting the use of screening for cervical cancer in Ethiopia, there is a shortage of standard of service awareness in Addis Ababa and Ethiopia.

In spite of the high profile of cervical cancer screening, the utilization rate is low (24). Therefore, this analysis is intended to determine the quality of the service and the satisfaction of cervical cancer screening, which could be one of the factors influencing the use of the screening service.

Therefore, the data produced from this study aimed to improve the use of cervical cancer screening, and its quality, as a result of which the burden of cervical cancer continues to decline following the study statement.

### 1.3 Significance of the study

The assessment of the quality of the service and the satisfaction of the cervical cancer screening service and the identification of predictors affecting the use of cervical cancer screening in Addis Ababa could be crucial for improving the use of the service, helping to establish quality strategies and solving the challenges found, and serving researchers and policymakers is expected.

## CHAPTER 2: Literature Review

### 2.1 Burden of cervical cancer

This disease is the fourth most commonly diagnosed cancer and the fourth leading cause of cancer death in women, with an estimated 570,000 cases and 311,000 deaths globally in 2018. In lower HDI settings, cervical cancer ranks second in incidence and mortality in arrears of breast cancer. It is, on the other hand, the most frequently diagnosed cancer in 28 countries and the leading cause of cancer death in 42 countries, primarily in Sub-Saharan Africa and South-East Asia (25). Cervical cancer ranks as the world's third leading cause of female cancer deaths. Cervical cancer is the second most common death from female cancer in women aged 15 to 44 years worldwide (26).

In Ethiopia, last year, about 6,294 new cases of cervical cancer were diagnosed. Cervical cancer ranks as the second leading cause of cancer in women. Cervical cancer in women aged 15 to 44 years is the 2nd most common female cancer (27). Cervical cancer makes consumers and their families a major trade and business burden. The expense was contingent on the remoteness of the hospital's patient residence. The quantity of household members working, the quantity of facilities stayed at and the employment of the patient was correspondingly a fee forecaster. The longer hospital stay and the prevalence of comorbidity were correlated with higher hospital costs (28). The magnitude of pre-cervical cancer was 27.7 percent in a study carried out in southern Ethiopia (29).

### 2.2 Quality of cervical cancer screening

A study conducted in Brazil points out that the results of assessing the standard of cervical cancer screening confirm the value of appropriate work systems and processes to advance the introduction of amenities, as Donabedian generally emphasizes (30). A study conducted in Brazil found that the cervical cancer screening program is quiet and far from successful because the considerations recognized by the Ministry of Health and International Organizations are free of the highest quality metrics in the Brazilian regions and states. Moreover, patterns do not indicate improvement in the quality metrics between 2006 and 2013, indicating that the new cervical cancer screening program needs to be changed to achieve tolerable efficacy (16).

The systemic model with associations concerning structure, process, and outcome rationally signified quality structures in hospital departments, according to a study accompanied in Sweden. Relationships with structure and process 0.72, structure and result 0.60, and process and result 0.20 stayed in the model direction as predictable. This will mean that appropriate assets and management, for example, may play an important role in methodical quality work (31).

A study conducted in approximately 29 countries shows that standardized energies for quality assurance, monitoring and assessment are applied across European countries to a different scope and that critical performance measures, such as coverage and compliance, are not projected in a similar way among the largest countries. The findings showed that the expected thoroughness of quality assurance, monitoring and assessment was carried out to varying degrees and was not consistent, making it difficult to relate the cost-effectiveness of the institute and the quality assurance plans. It was difficult for the largest nations to approximate the charges associated with the launch and functioning of the prearranged program (6).

According to the partnership of Engender Health, the International Agency for Cancer Research, JHPIEGO, the Pan American Health Organization and the PATH guide for directors, rationalizing the method of preparing for cervical cancer prevention and producing and mounting new cervical cancer teachers and service providers is part of the cervical cancer prevention management team. This activity includes the continuous evaluation of training desires, the conduct of training events, the allocation of learning tasks and even the monitoring of training activities (32). The European guiding principle for quality assurance in cervical cancer screening guides the quality assurance of screening practices by requiring good coding and coordination to ensure efficient operation of all phases of the service. Not only for the assertion and functional aspects, but also for the potential of the worker, the observation and analysis of performance and the effects of the finding on the burden of the disease (33). A study conducted in southern Nigeria shows that the perception of consumers of the standard of cervical cancer screening services was high, with 56.4% of respondents reporting decent or good satisfaction levels (34).

Based on a reviewed article on cervical cancer associated with human papillomavirus and expected vaccination challenges in Ethiopia, the use of a primary prevention vaccine is likely to have a major impact on the load of cervical cancer, particularly where screening is inexistent or insufficient in balance or of unfortunate quality (35).

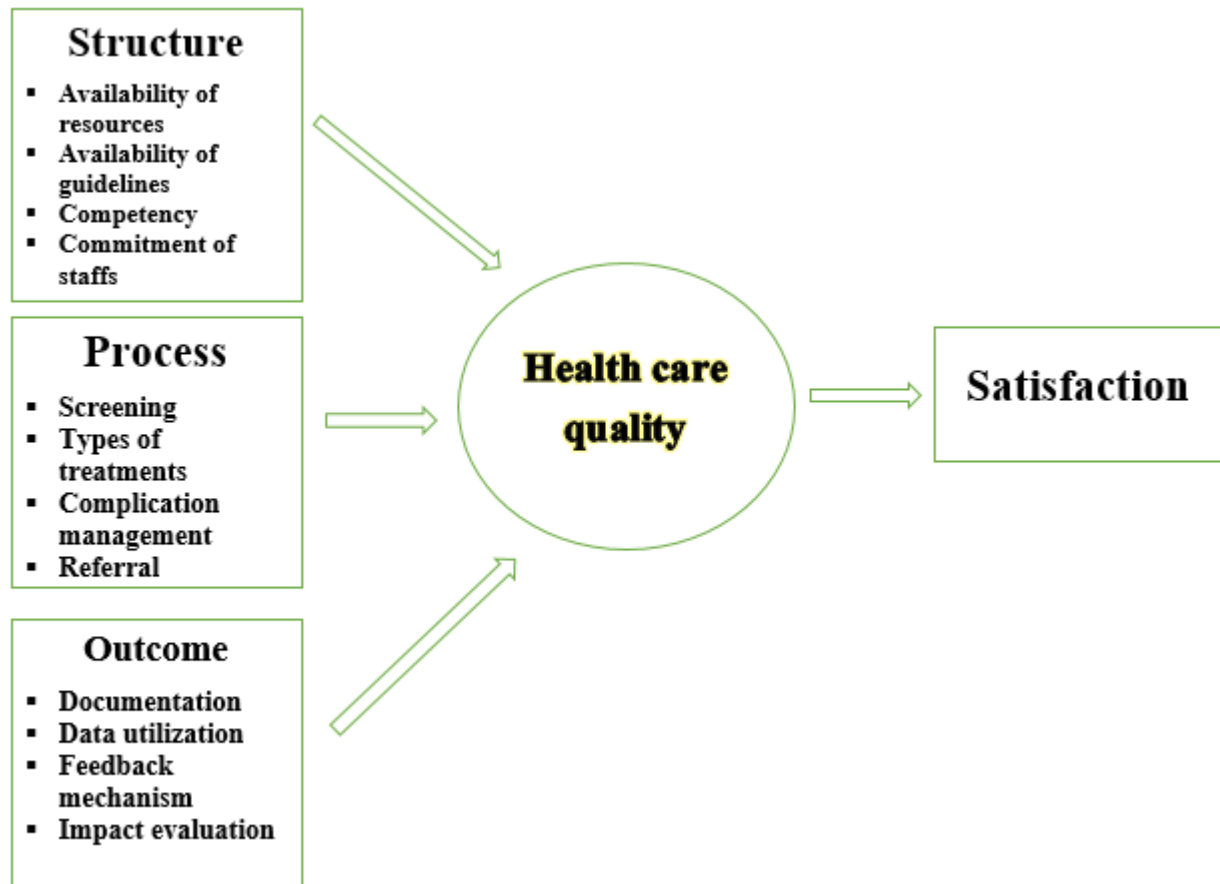
### 2.3 Client satisfaction towards cervical cancer screening

In Nevada, women from Las Vegas were questioned about their level of satisfaction with the clinic's services. A correspondence analysis was conducted which matched their level of satisfaction with variables found in previous research to influence satisfaction. With respect to time metrics, there is a strong negative association between the amount of time spent in the waiting area and the satisfaction of the exam room with the services rendered, suggesting that the more time spent waiting for services, the lower the satisfaction level of the services (14).

A research conducted in Mexico with the screening program for cervical cancer guides clients' views and experiences, the degree of consumer satisfaction by dimension (as after care) was obtained as a percentage. 53.8% of them were unsatisfied and 3.2% were very pleased with the intangibles (the physical aspects that the consumer perceives of the organization). In terms of reliability (ability to build the service as promised and correctly agreed), 54.8% were satisfied and 3.2% were unsatisfied. Responsibility, on the other hand (willingness to serve customers and provide service quickly), 51.6 percent of them were not satisfied and everyone was really satisfied. (36).

A study conducted in Malawi shows that 46 percent of women waited at least five hours before being handled at the screening center. Before and after the screening examination, most of the 97 percent of women reported being told and entirely the women except one reported that the probing atmosphere was spotless and neat. When asked whether their privacy was respected during the entire screening process, only one woman out of the 120 participants replied that their privacy was not valued (37). Some 147 (47%) respondents were happy with cervical cancer screening, according to a study conducted in Addis Ababa, Ethiopia (23).

## 2.4 Conceptual framework



*Figure 1 Schematic representation of conceptual framework for service quality and satisfaction level of cervical cancer screening recipients in Addis Ababa, Ethiopia, 2020.*

## CHAPTER 3: Objective

### 3.1 General Objective

- To assess service quality and client satisfaction towards cervical cancer screening, in Addis Ababa Ethiopia, 2020.

### 3.2 Specific Objectives

- To describe the structure of health care service for cervical cancer screening
- To assess the process of care for cervical cancer screening service
- To measure outcome of care of cervical cancer screening service
- To assess cervical cancer screening recipients level of satisfaction
- To identify the predictors of client satisfaction

## CHAPTER 4: Methods

### 4.1 Study area and period

The study area was public health facilities providing cervical cancer screening service in Addis Ababa, Ethiopia. There are 13 hospitals and 98 public health centers in Addis Ababa. All health centers and hospitals who are providing basic cervical cancer screening was targeted for this study. Addis Ababa has 10 sub cities, in those sub cities there are total of 111 all types' of governmental health facilities (primary, secondary and tertiary health facility). The data collection time was from January 2020 to October 2020.

### 4.2 Study Design

- A facility based cross sectional study was conducted using both quantitative and qualitative methods.

### 4.3 Population

#### 4.3.1 Source Population

- All cervical cancer screening recipients in the Addis Ababa during study period (quantitative study).
- All health care workers who were working in public health facilities in Addis Ababa during study period (qualitative study).

#### 4.3.2 Study Population

- All cervical cancer screening recipients who visited public health facilities in Addis Ababa during study period.
- All health care workers who were working in cervical cancer screening center of public health facilities in Addis Ababa during study period.

### 4.4 Sampling Unit

- Individual who were cervical cancer screening recipient in public health facilities in Addis Ababa during study period.
- Individual who were provide cervical cancer screening service in public health facilities in Addis Ababa during study period.

#### 4.5 Inclusion criteria

- Women of reproductive age group and above mainly between age of 30 to 49 years old and who visit the selected health facility for the purpose of cervical cancer screening. (Quantitative)
- Women of reproductive age and above who visit the selected health facility and have been screened before for cervical cancer. (Quantitative)
- Health care workers who were working in selected cervical cancer screening center of public health facilities in Addis Ababa during study period. (Qualitative)

#### 4.6 Exclusion Criteria

- Women's who were doesn't have a willingness to participate in the study. (Quantitative)
- Clients with medically confirmed or a known mental health problem those who were not stable during data collection time. (Quantitative)
- Health care worker who were not interested to participate in the study. (Qualitative)

#### 4.7 Sample size

Quantitative: The sample size was determined manually for each specific objective using a single population proportion formula considering the following assumptions: 47% proportion of client satisfaction towards cervical cancer screening (23), and over 5% level of significance ( $\alpha = 0.05$ ). The final sample size is adjusted for a non- response rate of 10%. The sample size calculated for the fourth specific objective was taken as a final sample size because it yields the largest sample size which was, 421.

Table 1. Determination of sample size for the satisfaction of cervical cancer screening recipients who visited public health facilities in Addis Ababa, Ethiopia, 2020.

Variables	Proportion	Sample size determination	Sample size
➤ Client Satisfaction	P = 47 %	$n = \frac{(Z_{\alpha/2})^2 \times p(1-P)}{d^2}$ $= \frac{1.96^2 \times 0.47 \times (1-0.47)}{0.05^2}$	421

$$0.005*0.005$$

$$=0.9569/0.0025$$

$$=382.77$$

95% CI, P= 47 %, 10% non-response rate,  
5% margin of error = 382.77+38.277=421

Qualitative: To collect data using an open-ended questionnaire, 15 (fifteen) health institutions were chosen using a purposive sampling process. Data was ultimately gathered from 9 (nine) independent health facilities (Health care provider).

#### 4.8 Sampling Procedure

The health facility was stratified by geographical location or 10 sub-cities for a quantitative study based on the geographical position of the city of Addis Ababa, and 40 (35 percent) health facilities were selected using simple random sampling to make the sample size more representative. All services intended to be checked in all health care facilities were equivalent (there was no distinction between all types of public health facilities offering basic cervical cancer screening services) to visual inspection with acetic acid (VIA), so all levels of health facilities (primary, secondary and tertiary) were provided similarly. For qualitative study the data was planned to collect from about 15 (fifteen) institution but because of ideal saturation, actually data was collected from 9 (nine) selected health facilities (Health care provider).

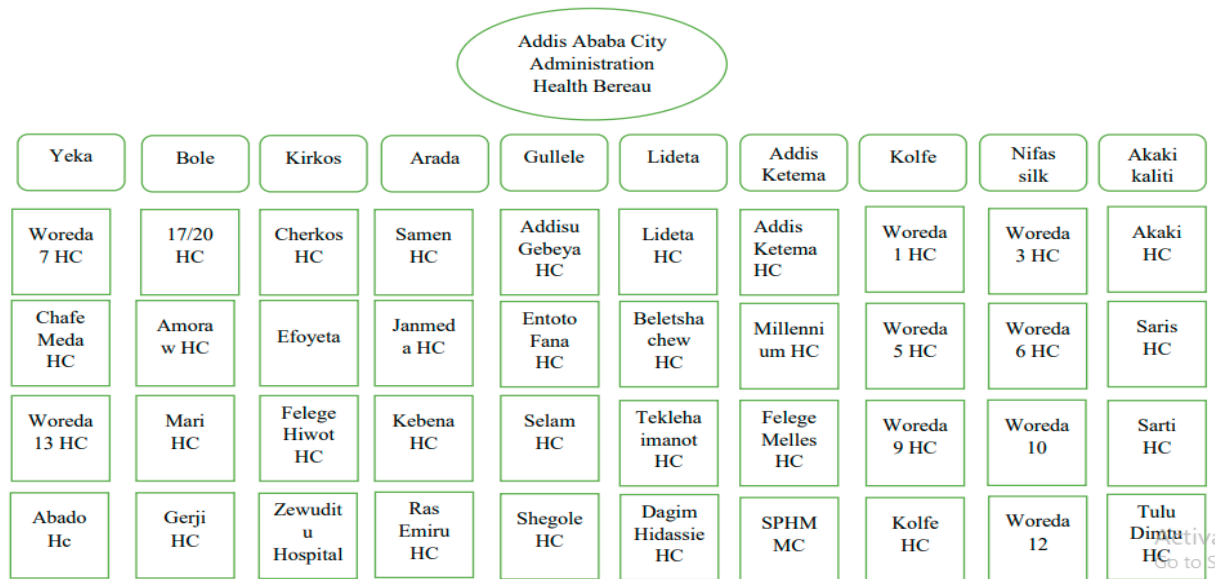


Figure 2 Schematic presentation of sampling procedure to evaluate the satisfaction level of cervical cancer screening recipients in, Addis Ababa, Ethiopia, 2020.

#### 4.9 Data collection tools and procedures

Data were collected using a pre-tested open-ended standardized questionnaire which, based on the likert scale, was developed for quantitative assessment. The data was collected by trained data collectors from the client after providing informed consent through the use of self-administered questionnaires and interviewer-based for respondents who were unable to read and write. The data collectors were health professionals (Nurses, and midwives). By reviewing related research, the questionnaire was prepared in English and then translated to Amharic for this study. Wording and consistency of the preliminary questionnaire was fixed strictly and amended after validity was completed with expert health professionals. The pre-test was performed by data collectors of the real data collection.

A qualitative data was collected by using a pre-tested structured questionnaire that was developed based on reviewing similar articles and Donabedian model that provides a framework for examining health services and evaluating quality of health care. According to the model, information about quality of care was drawn from three categories: “structure,” “process,” and “outcomes.” Structure describes the context in which care is delivered, including hospital buildings, employees, resources, equipment and its quality. Process denotes the transactions between clients and providers throughout the delivery of healthcare. Like level of prevention, types

of treatment and its process, management of complications and referral or transfer process. Finally, outcomes refer to the effects of healthcare on the health status of clients and populations including client satisfaction. The data was collected by trained data collectors from the health care workers after getting informed consent by using structured questionnaire. Wording and consistency of the preliminary questionnaire was prepared strictly and amended after validity was completed with expert health professionals. The pre-test was done by data collectors of the actual data collection.

#### 4.10 4.10. Study Variable

##### 4.10.1 Dependent variable

- Cervical cancer screening service quality status
- Level of satisfaction of service recipient

##### 4.10.2 Independent variables

- Age
- Marital status
- Job status
- Education status
- Duration of previous test
- Clients willing to come again for screening

##### 4.10.3 Operational definition

**Service Quality:** The cervical cancer screening service quality assessed based on the structured questionnaire developed based on Donabedian model. It is content was “structure”; it measures availability of resources and guidelines, competency of health facility, commitment of workforce. “Process”; which measures screening type, treatment type, complication of management and referral. “Outcome”; Documentation, data utilization, feedback mechanism and impact evaluation.

**Client satisfaction:** Client satisfaction was assessed by structured likert scale questionnaires which has five (5) response options very satisfied, slightly satisfied, undecided, slightly dissatisfied and very dissatisfied. The satisfaction level was settled as satisfied for those scored above the mean.

**Screening:** The cervical cancer examination for lesion as a result of human papilloma virus.

#### 4.11 Data quality management

To ensure the validity and reliability of the both quantitative and qualitative data, before the real data collection 10% pre-test was piloted, it was done before a week of the actual data collection period and a study was conducted in two health facilities prior to data collection process and based on the pre-test, the credibility and transferability of the questions were revised and edited with necessary modification. Training was given for the supervisor and data collectors before the pretest. The training focused on the objective of the study, the contents of the questionnaire, on issues related to the confidentiality of the response and the rights of the respondents.

##### a. Data Processing and analysis

The data collection instruments were coded and checked before entry. After the necessary data collected, the following activities on data processing were carried out. Data was entered by using Epi-info7 and exported to SPSS version 25 for analysis. Descriptive statistic was used to summarize the data. Tables and pie charts were used to present study findings. Considering the nature of our dependent variables, we used Binary logistic regression. Odds ratio with 95% confidence interval was used to measure the strength of association between dependent and independent variables. P-value  $< 0.05$  was used to determine the level of statistical significance. As well as, qualitative data collection tools were coded and Tran scripted and then analyzed in a schematized manner.

#### 4.12 Ethical consideration

Ethical clearance was obtained from the Institutional Review Board of Addis Ababa University College of Health Sciences, School of Public Health. A formal letter was written to Addis Ababa city government food, medicine and health care administration and control from the AAU School of Public Health. A formal letter was written to health facilities from the authority.

The data collector explained that the information collected would be kept confidential and would be used for research purposes only. The objectives, benefits and risks of the study were explained to the respondents. According to the agreement of the respondents to participate in the study, the data was collected.

#### 4.13 Dissemination plan

After completion of the research, the results of the study will be presented to the Addis Ababa University School of Public Health as partial fulfillment of Master Degree in Public Health. The findings of the research will be submitted to the concerned bodies like the Ministry of Health, Addis Ababa City Administration food, medicine, health care, administration and control authority, and Addis Ababa health bureau.

## CHAPTER 5: Results

### 5.1 Quantitative findings: Demographic information

The response rate for the study was 100%. From a total of 421 participants, maximum number 323 (76.7%) of participants were within the age range of 30 to 49 years. Out of 421 participants 187 (44.4%) were married/cohabited, 104 (24.7) of participants were unmarried, 74 (17.6) participants were divorced. Majority of participants 123 (29.2%) were working in government organizations when 110 (26.1%) were working at private organizations. Most of the participants 164 (39%) were jobseekers and housewives, so this indicates that the income rate of them is obviously low.

From all participants 163 (38.7%) of respondents education level was tertiary school, 34 (8.1%) participants were unable to read and write or illiterate. 283 (67.2%) participants has history of screening before, out of them 235 (55.8%) duration of previous test was less than five years. From all participants, 355 (84.3%) respondents are willing to come again for cervical cancer screening service.

Table 2 Distribution of sociodemographic status of cervical cancer screening recipients, who visited public health facilities, in Addis Ababa, Ethiopia, 2020.

Variables	Category	Frequency	Percent
Age of participant			
	29 and less than 29	58	13.8
	30 to 49	323	76.7
	50 and above	40	9.5
Marital Status			
	Unmarried	104	24.7
	Married/cohabited	187	44.4
	Divorced	74	17.6
	Divided by death	56	13.3
Working condition			
	Governmental	123	29.2
	Private	110	26.1
	Job seeker	76	18.1

House wife	88	20.9
NGO	24	5.7
Educational level		
Illiterate	34	8.1
primary school	92	21.9
Secondary school	132	31.4
Tertiary school	163	38.7
Have you been screened before		
Yes	283	67.2
No	138	32.8
How long is your previous test		
Less than 5 years	235	55.8
More than 5 years	40	9.5
I don't remember	10	2.4
Will you think to come again for screening		
Yes I will	355	84.3
No I will not	24	5.7
I am not sure	42	10.0

## 5.2 Client satisfaction towards cervical cancer screening service

### 5.2.1. Satisfaction level of participants related to structure of service area

As described below in the table from all participants 164 (39%) were slightly satisfied when 195 (46.3%) were very satisfied regarding easy access to the diagnostic center. This indicates that in the organizations who are providing cervical cancer screening, the direction pointer is not clear enough. That's why the maximum number of participants were not completely satisfied with the accessibility of the screening center. High number of respondents 175 (41.6%) were slightly satisfied with the condition of being handled by the guards at the get. Most of the respondents 256 (60.8%) were very satisfied with the condition at the reception when they came to the screening center. Regarding the overall service of the screening center 250 (59.4%) of participants were very

satisfied. As regards to the sanitation of the health institution environment 246 (58.4%) of the respondents were very satisfied.

Table 3 Level of satisfaction related to infrastructure among cervical cancer screening recipients, in Addis Ababa, Ethiopia, 2020.

Variables	Frequency	Percent
Easy access to the diagnostic center		
Very Dissatisfied	4	1.0
Slightly dissatisfied	8	1.9
Uncertain	50	11.9
Slightly satisfied	164	39.0
Very satisfied	195	46.3
The condition of being handled by the guards at the door		
Very dissatisfied	2	.5
Slightly dissatisfied	6	1.4
Uncertain	74	17.6
Slightly satisfied	175	41.6
Very satisfied	164	39.0
About the reception when you come to the examination center		
Uncertain	30	7.1
Slightly satisfied	135	32.1
Very satisfied	256	60.8
At the service level in general		
Slightly dissatisfied	4	1.0
Uncertain	12	2.9
Slightly satisfied	155	36.8
Very satisfied	250	59.4
Hygiene level around the service center		
Slightly dissatisfied	6	1.4
Uncertain	20	4.8
Slightly satisfied	149	35.4

Very satisfied	246	58.4
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### 5.2.2. Satisfaction level of participants related to process of service provision

In this process of care, counselling approach, diagnostic procedures and treatment measures were well assessed. Regarding the level of support from direct care giver 284 (67.5) of participants were very satisfied. Concerning the collaboration level of entire workers in the health care institution 252 (59.9) were very satisfied. In relation to the stage of explaining the diagnostic process 332 (78.9) were very satisfied and regards to length of time or length of stay before visiting the doctor room 262 (62.2) were very satisfied. Regarding the appropriate information received on the diagnosis and treatment process 325 (77.2) of participants were very satisfied and on the level of health professionals competence to perform in quality manner 309 (73.4) of participants were very satisfied.

Table 4 Level of satisfaction related to process of service delivery among cervical cancer screening recipients in Addis Ababa, Ethiopia, 2020.

Variables	Category	Frequency	Percent
The level of support for the diagnosis			
	Slightly dissatisfied	2	.5
	Uncertain	12	2.9
	Slightly satisfied	123	29.2
	Very satisfied	284	67.5
Collaboration level of hospital workers			
	Slightly dissatisfied	2	.5
	Uncertain	21	5.0
	Slightly satisfied	146	34.7
	Very satisfied	252	59.9
The stage of explaining the diagnostic process			
	Slightly dissatisfied	6	1.4
	Uncertain	8	1.9
	Slightly satisfied	75	17.8

	Very satisfied	332	78.9
The length of time before you go to the doctor			
	Slightly dissatisfied	2	.5
	Uncertain	12	2.9
	Slightly satisfied	145	34.4
	Very satisfied	262	62.2
Information you received about the diagnosis and treatment			
	Uncertain	10	2.4
	Slightly satisfied	86	20.4
	Very satisfied	325	77.2
Level of service delivery of health professionals			
	Slightly dissatisfied	2	.5
	Uncertain	8	1.9
	Slightly satisfied	102	24.2
	Very satisfied	309	73.4

### 5.2.3. Satisfaction level of participants related to their privacy

From 421 participants 242 (57.5%) were very satisfied to access the doctor in private and freely. Regarding the convenience of the room to express ideas without fear 256 (60.8%) of participants were very satisfied. Relating to personal freedom during examination 271 (64.4) were very satisfied. About security of personal information including patient chart 269 (69.4) were very satisfied. Regarding the cleanness of diagnostic and treatment tools or equipment 269 (63.9) were very satisfied.

Table 5 Privacy related level of satisfaction among cervical cancer recipients in, Addis Ababa, Ethiopia, 2020.

Variables	Category	Frequency	Percent
The level of access to your doctor in privacy and freely			
	Slightly dissatisfied	8	1.9
	Uncertain	34	8.1

	Slightly satisfied	137	32.5
	Very satisfied	242	57.5
The convenience of the room to express ideas without fear			
	Slightly dissatisfied	12	2.9
	Uncertain	38	9.0
	Slightly satisfied	115	27.3
	Very satisfied	256	60.8
Your personal freedom during examination			
	Slightly dissatisfied	4	1.0
	Uncertain	18	4.3
	Slightly satisfied	128	30.4
	Very satisfied	271	64.4
Level of security of your personal information			
	Slightly dissatisfied	2	.5
	Neither satisfied nor dissatisfied	24	5.7
	Slightly satisfied	103	24.5
	Very satisfied	292	69.4
Regarding the cleanness of diagnostic and treatment tools			
	Very dissatisfied	2	.5
	Slightly dissatisfied	12	2.9
	Uncertain	38	9.0
	Slightly satisfied	100	23.8
	Very satisfied	269	63.9

#### 5.2.4. Satisfaction level of participants related to autonomy

Regarding the right to autonomous decision whether or not to take the screening service maximum number of respondents 345 (81.9%) were very satisfied. Regarding the right to autonomous decision whether or not to take the treatment after the examination 366 (86.9%) of participants were very satisfied. In relating to no one influences their decision 366 (86.9%) respondents were

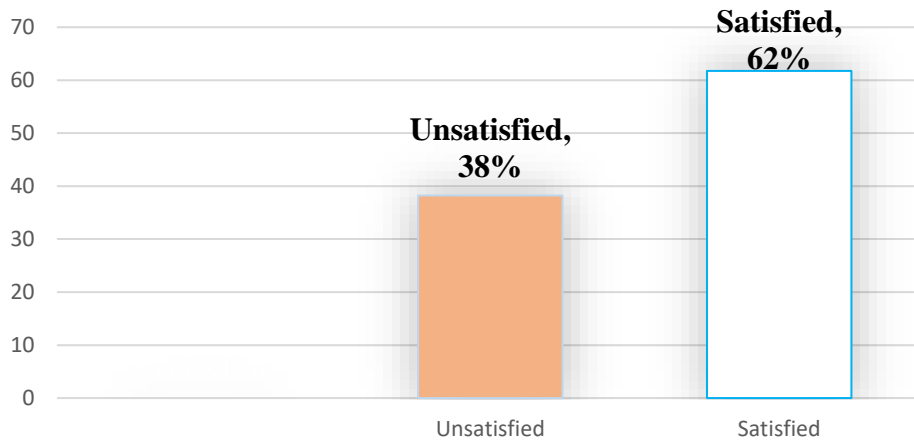
very satisfied. Concerning the opportunity to take time to think after examination for next service 357 (84.8) were very satisfied.

Table 6 Autonomy related level of satisfaction among cervical cancer screening recipients, in Addis Ababa, Ethiopia, 2020.

Variables	Category	Frequency	Percent
Regarding your right to decide whether or not to take the test			
	Very dissatisfied	2	.5
	Uncertain	8	1.9
	Slightly satisfied	66	15.7
	Very satisfied	345	81.9
Regarding your right to decide whether or not to take the treatment after the examination			
	Slightly dissatisfied	2	.5
	Uncertain	8	1.9
	Slightly satisfied	45	10.7
	Very satisfied	366	86.9
The degree to which no one influences your decision			
	Very dissatisfied	2	.5
	Slightly dissatisfied	2	.5
	Uncertain	4	1.0
	Slightly satisfied	47	11.2
	Very satisfied	366	86.9
After service provision the opportunity to take time to think			
	Very dissatisfied	2	.5
	Uncertain	4	1.0
	Slightly satisfied	58	13.8
	Very satisfied	357	84.8

#### 5.2.5. Overall Satisfaction of cervical cancer screening and treatment procedure

As clarified in Table 7 below the Socio demographic status of the participants in relation to satisfaction of cervical cancer screening service shows that out of 260 (62%) participant who were satisfied of cervical cancer screening, 204 (39.23%) were between age group of 30-49 years, 38 (7.31%) age of  $\leq 29$ , and the rest 18 (3.46%) were  $\geq 50$  years old. As illustrated in pie chart below two hundred sixty (260) or 62% of participants were satisfied with cervical cancer screening service, when the rest 38% were unsatisfied.



*Figure 3 Pie chart presentation for satisfaction level of cervical cancer screening recipients, in Addis Ababa, Ethiopia, 2020.*

Interrogation regarding satisfaction of accessibility of screening center, condition of being handled by the guards at the door, and at the examination center, hygiene level around the service center, the level of Collaboration and support for the screening, the level of explaining the diagnostic process, The length of time before service, level of information received on the diagnosis and treatment, it is delivery by health professionals, as well as the privacy, personal freedom during examination, security of your personal information and convenience of the room to express ideas without fear, the cleanness of diagnostic and treatment tools, the right to decide whether or not to take the test, the right to decide whether or not to take the treatment after the examination, the degree to which no one influences client's decision, and the opportunity to take time to think on the treatments were scored and pulled together and the mean score was computed to determine the overall satisfaction of the respondents. Respondents who scored above the mean score were considered as satisfied. The mean score of satisfaction of cervical cancer screening service in this case was 91.89. The score of participants above the mean score was considered as, satisfied to the

service and the score below the mean value considered as unsatisfied to the service. The finding from this study revealed that maximum number 260 (62%) of the participants were satisfied.

### 5.3 Predictors of satisfaction

The adjusted odds ratio married was statistically significant at a binary logistic regression. That means married women were .449 times (AOR = .449, 95% CI: .250, .806) more likely to be satisfied towards cervical cancer screening service when compared to unmarried ladies'. The adjusted odds ratio married was statistically significant at a binary logistic regression. That means married women were .449 times (AOR = .449, 95% CI: .250, .806) more likely to be satisfied towards cervical cancer screening service when compared to unmarried ladies'.

In crude odds ratio age  $\geq 50$ , married and divorced were statistically significant at a binary logistic regression. Working conditions and educational status does not have an association. Married and divorced women's were .449 and .448 times (COR = .449, 95% CI: .299, .848 and COR = .484, 95% CI: .257, .910) more likely to be satisfied respectively towards cervical cancer screening service when compared to unmarried ladies'. In crude odds ratio age  $\geq 50$  were 1.714 times (COR = 1.714 95% CI: 1.367, 2.149) times more than more likely to be satisfied.

Table 7 Predictors of satisfaction of cervical cancer screening recipients, in Addis Ababa, Ethiopia, 2020.

Variables	Category	Unsatisfied , N (%)	Satisfied, N (%)	COR (95% C.I)	AOR (95% C.I)
Age of participants	$\leq 29$	20(34.5)	38(65.5)		
	30 to 49	119(36.8)	204(63.2)	1.714 (1.367, 2.149)	1.292(.659, 2.534)
	$\geq 50$	22(55.0)	18(45.0)	.818 (.439, 1.525)	.484(.179, 1.307 )
Marital status	Unmarried	28(26.9)	76(73.1)		
	Married	79(42.2)	108(57.8)	.504 (.299, .848)	.449(.250, .806)*
	Divorced	32(43.2)	42(56.8)	.484 (.257, .910)	.559(.278, 1.127)
	Widowed	22(39.3)	34(60.7)	.569 (.286, 1.135)	.825(.356, 1.914)
Occupation	Governmental	47(38.2)	76(61.8)		
	Private	48(43.6)	62(56.4)	2.264 (.930, 5.509)	1.074(.595, 1.937)

	Job seeker	22(28.9)	54(71.1)	1.808 (.739, 4.424)	1.984(1.013, 3.886)
	House wife	30(34.1)	58(65.9)	3.436 (1.328, 8.894)	1.802(.925, 3.512)
	NGO	14(58.3)	10(41.7)	2.707 (1.075, 6.815)	.545(.213, 1.395)
Educational level	Illiterate	10(29.4)	24(70.6)		
	Primary school	42(45.7)	50(54.3)	.496 (.213, 1.154)	.446(.181, 1.096)
	Secondary school	54(40.9)	78(59.1)	.602 (.266, 1.360)	.479(.198, 1.160)
	Tertiary school	55(33.7)	108(66.3)	.818 (.365, 1.832)	.818(.332, 2.015)

#### 5.4 Qualitative analysis: Demographic information

More than half of the 9 (nine) respondents were female health professionals and most of the respondents were nurses. The average age of respondents was 33 years old with a minimum age of 26 years and a maximum age of 44 years and a median age of 31 years old. Various health professionals participated in the study, among those participants majority of the respondents were nurse professionals, and around two third of participants' educational background were first degree holders. More than half of the participants' work experience was less than five years.

*Table 8 Demographic information of cervical cancer screening service providers, in Addis Ababa, Ethiopia, 2020.*

Variables	Category	Frequency	Percent
Age of respondents	29	1	11.1
	44	1	11.1
	27	1	11.1
	31	1	11.1
	28	1	11.1
	33	1	11.1
	43	1	11.1
	26	1	11.1
	38	1	11.1
Gender	Male	4	44.4
	Female	5	55.5
Profession	Nurse	5	55.5
	Midwives	3	33.3
	Medical Doctor	1	11.1
Educational background	Diploma	1	11.1
	Degree	7	77.7
	Masters	1	11.1
Work experience	≤5 years	6	66.6
	>5 years	3	33.3
Position	Service Provider	6	66.6
	Department head	2	22.2
	Quality officer	1	11.1

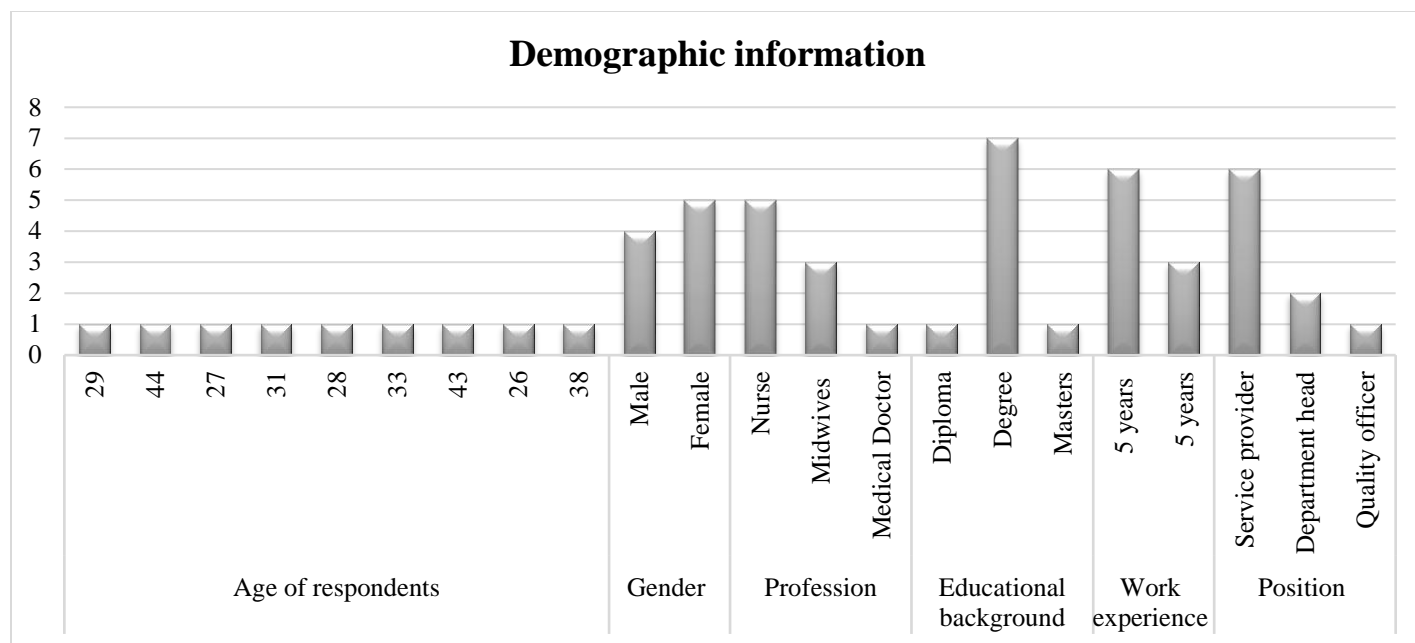


Figure 4 Demographic presentation of cervical cancer screening service provider in Addis Ababa, Ethiopia, 2020.

## 5.5 Quality of health facility structure in the perspective of health professionals

### 5.5.1. The availability of resources and its quality in the center in terms of infrastructure, human resource, and equipment's and supply.

Most health facilities were facing a lack of resources, with vague infrastructure capacity, low skilled human power and low supply.

In terms of inputs, there are many gaps. They said, if the medical device being used was damaged for some reasons that was a risk of termination of the service, the service provider was not comfortable, and there was not enough human power.

*“Human power is not enough, there is still no pressure on the work being performed by the person who does it. We do not have a room for this purpose in terms of the organization of the institution, the room was designed for another service when this service initiated, and the room was used for the purpose. So there is a room, but it is not suitable for the service. There are essential medical supplies, but if these items are damaged, the service would be terminated and there would be no biomedical services. There is a supply problem, especially acetic acid”.*

In addition to cervical cancer screening and treatment the institution gives us another responsibility. In spite of this, the quality of this service is also deteriorating.

*“Of course, human power may seem sufficient to do this service, but it is tedious. The service is being provided by the person who owns it but puts pressure on this service because the institution gives us another commitment. So there is almost no enough manpower. Clients couldn’t find the room easily because of the location of the room, so we ought to work to improve it. There is no medical device used as a reservation for one type of kind medicine, and if we worry about this, we can stop working. The supply is not continuous, it is used to save what we have. It can take a long time to even buy acetic acid, she says”.*

The participant described that the building and location of the screening center is not suitable for the service. Again argued, that making the location of cervical cancer screening centers clearly visible to everyone is not good. Because of cultural fear. Expanding the service needs additional resources.

*“The location of the facility is not suitable for this service, it is not intended for this purpose. But I believe one thing, it’s not good that the place is clearly visible. People are afraid of being easily seen as another service because of cultural fears. In connection with medical supplies the equipment is good, but if you want to expand the service, you have to add equipment. You need a battery that is well lit and with that, the lights often go out. We occasionally run out of supply, if the quality of this service is to be improved, we must provide supplies. So, in our country, the standard itself does not meet our expectations. Human resources are not enough”.*

The availability and acceptance of the vaccine still needs a lot of work, it is the good way for primary prevention. As an institution there is a shortage of resources, including the infrastructure and human resources, also there is a limitation of supplies due to COVID-19 the participant said.

*“In our institution, there is insufficient infrastructure and trained manpower. The existence and acceptance of vaccines is still an unresolved issue for our country. It is also important to evaluate the potential impact of the vaccine on the testing characteristics of various screening strategies. Because people are afraid to vaccinate their children, In order to do*

*a lot of work as an institution or as a country, all stakeholders must trust it. Another supply has been reduced due to this COVID-19”.*

5.5.2. The center’s employees and managers readiness and right competence for working with quality improvement.

In the most health facilities, readiness and right competence of the employees including managers to work with quality improvement was minimum.

Most of the employees do not have competence and readiness to work with quality improvement. Even they don’t know what kind of services are provided in this service room. On the contrary, some professionals and departments, like the ART team, family planning workers and some outpatient departments are very committed, ready and they have a good competence. The competence and readiness of the managers is moderate.

*“Even most of the professionals in our institution do not know what to do in our classroom. But some professionals and departments are working with us. For example, ART employees, family planning staff and some outpatient departments are collaborating to get clients to our room. I also think that other qualified people involved in quality improvement those who have been assigned as quality officers and to some extent management work with us”.*

The managers of our institution readiness and their competence is insignificant. This lack of readiness and incompetence to improve the quality of service has become a major problem for the country as a whole. The participants elaborated that,

*“If you want to prevent or treat cervical cancer properly, everyone must be a part of it, that's the way it should be done.*

*The managers seem to be forced to work because they don't understand when you ask them to do something important, so when I look at this, they are not really qualified and ready, but this problem is not just a problem in our institution only”.*

To improve the quality of cervical cancer screening and treatment programs, the readiness and competence of the leaders and employees in the institution are low. One participant elaborated,

*“It can be concluded that the employees of the institution are not prepared for this program because, as an institution, it is less motivated.*

*The leadership is the same, and when I look at the readiness and proper competence of the general workforce and the administration as a whole, I think it is low”.*

The level of working together and providing patient centered care is good as a department of cervical screening, but the commitment and readiness of the managers is minimum, also they do not have the right competence.

*“At our department, patient-centered care is being done at the department level, but other workers and management are not well-qualified and ready for teamwork and collaboration. To a certain extent, however, quality can only be improved if we all work together, so the quality of the service we provide is almost moderate”.*

5.5.3. The obtainability of guidelines, documents and quality improvement indicators in the center and understanding of health care workers.

Maximum of health facilities has guidelines and other necessary documentation. Most health facilities do not have quality indicators to measure the quality of service.

Guidelines, documents, training manuals and quality indicators are available. But the guideline needs to be updated. The service provision is not similar as a whole. The guidelines can't provide enough knowledge and skills. Also the quality indicators prepared by the screening center is not as a standard. One participant argued that,

*“There are important guides, we have other documents. But some documents need to be updated, including the guidelines. Since there are times when we use training manuals, I don't think these things help to provide a general, similar service. The guide should be well-structured and clear. We are working on the documentation of the staff or what it means, but as I said, you will not get enough knowledge and skills from it. As I mentioned the quality indicators, the institution has something set up, but I don't know how much it can measure the quality improvement”.*

Whatever, there is guideline it is not helpful to use alone, it needs referring different books and manuals to really understand the process of the service. Additionally, there are extra documents to smooth the workflow. One participant explained that,

*“There is a guideline that came first, but you may not be able to use it alone, because most things are not equally and clear to everyone, so we are working on it by reading training manuals and various books. When we do the work, we have the necessary documents for the work. We are working on that”.*

The guideline is available. The trained individuals are not working at the particular department, while we never get the specific and related training. There are various documents prepared from the experience of different hospitals. There is regular evaluation by using quality indicators.

*“There is guidance, we use it, we are not getting enough training, people before us have been trained, but they have left and now we are working on doing better on our own. There are various documents that have been prepared by people in the past, and there are documents that we have added from the experience of different hospitals, and we are regularly evaluating ourselves by taking a quality indicator from the health office”.*

When the understanding of the service is explained, it is clear that the guideline exists. So there is a good quality of service and a good understanding of what to do. One participant elaborated that,

*"Almost everyone who is assigned to the site has a good understanding, because the flow is small and the customers coming to our facility are being treated in a quality manner."*

5.5.4. The roles and level of commitment of administration to improve and sustain quality of service.

The management of most health facilities was not committed to improving and maintaining the quality of cervical cancer screening services.

The support of cervical cancer screening programs is compromised, because of other services. The administration's focus is on the other kinds of services, and they are not committed to allow supplies to purchase. There is no opportunities to motivate the employees. One participant argued that,

*“This service can be easier for me when I work, because I work every day, I think about it, and at the same time I have a good commitment. When we look at the administration, however, the institution is under pressure, so they do not have a direct commitment for this, and they are focusing on other diseases, rather than this cervical cancer screening. The managers may not respond when you search for specific items, but their role is to facilitate supply. So it may be difficult for me to say that their commitment is good. This is not much, it would have been a great achievement if it had provided us with educational opportunities, but it is not”.*

While commitment to improving the quality of treatment is important, there is a lack of good governance in providing opportunities and motivating staff. One participant declares that,

*“Therefore, in order to make this service better, it requires the participation of managers and good motivation, so when we look at what is in our institution, there is no good administrative motivation and participation that will maintain the quality and improve the quality. To improve the quality, this service is not getting much attention from the managers, because this service did not get much attention from them. Let me tell you the truth, you can be as competent and ready as any other person, you will be assigned to the room, No one asks you what it does, how it works, and what the conditions are”.*

The role or dedication on the part of management to enhance or sustain quality looks little.

*“Administrative work is being done. Assigning health workers, providing supplies, follow-up, training facilitation, etc. are being done, but not as expected. Any employee who works in any department will not only work because you are paid, you have to motivate the staff; it can be in terms of ideas, incentives, educational opportunities, training and so on, you just need to be motivate them. But this is not being implemented by our institution. In short, There is little role or understanding on the part of management to improve or maintain quality”.*

The work done to maintain the quality of service in the center is not satisfactory, every employee including me and the medical director the commitment and understanding of our own responsibility is not being fulfilled. One participant explained that,

*“In order to maintain the quality of the service, supply efficiency, strength of medical equipment, and trained personnel are required.*

*However, these are the roles of management, and the work done in this area is not satisfactory. This commitment to the diagnosis and treatment of cervical cancer is not coming from the administration and other workforce, including me, and everyone's role is not being fulfilled”.*

## 5.6 Quality of cervical cancer screening process in the perspective of health professionals

### 5.6.1. Level of prevention of cervical cancer in the facility

Level of cervical cancer prevention services were the same in almost all public health facilities (VIA).

The service mainly provided at this institution is primary and secondary prevention, mostly VIA test, we send the users who are over the age of 50, to a private institution and do a Pap smear test, and treatment by cryotherapy is being performed at the same time. One participant explained that,

*“It is the primary and secondary prevention provided by our institution. This means a VIA test. It is performed by opening the woman's vagina with a pre-existing device called vaginal speculum, to see if there is any sign of cervical cancer or if there is a cancerous growth. In addition, if the users are over the age of 50, the cervix enters the uterus, making it difficult to see. So we send it to a private institution and do a Pap smear test and then move on to the next job. If an ulcer is present, there is treatment at our local or institutional level. This is what our institution does”.*

The primary and secondary services including VIA and the moderate treatment or cryotherapy service is being provided for those who are suitable for the treatment. One participant elaborated that,

*“We provide education services, immunization services, VIA screenings, and these are listed as primary and secondary prevention. If the wound is small, preventive measures will be taken, which means that it is a moderate treatment”.*

The primary and secondary prevention is being provided like health education, immunization service, screening and treatment. One participant elaborated that,

*“Our institution is working on primary and secondary prevention, which include a variety of items, including health education, immunizations, screening service and treatment of uncomplicated lesions”.*

The service provided here is primary and secondary prevention, If further investigation and treatment and tertiary prevention service like palliative care is needed the procedure here is transferring the patient to the service area prepared for this purpose.

*“Primary and secondary prevention works. If tertiary prevention is needed, and if there is a related disease, we will refer to another hospital that provides the service”.*

5.6.2. Types of treatments and its process, the cervical cancer screening facility is actually providing

Almost all health facilities were providing the cryotherapy service, for those who were positive to VIA test and with lesion size of 75% and below.

If the lesion is less than 75% a type of treatment called cryotherapy that is offered at our facility following the positive result of the VIA test. One participant explained that,

*“Although there are many types of treatment available, there is a type of treatment called cryotherapy that is offered at our facility. This means freezing the lesion using a medical device designed for this purpose. This is only possible if the cervical lesion is less than 75%”.*

The purpose of cryotherapy is to remove abnormal cells from the cervix by applying cold chemicals, in order to help the normal cells to grow again. One participant argued that,

*“Cryotherapy is provided by our facility, and the treatment is to remove abnormal cells from the cervix. We put on very cold chemicals on the cervical cells to cool them and then remove them. The bad cells were removed, which means that new, normal cells can grow again in the same place, and we are providing this service according to the instructions”.*

The type of treatment given in the facility is freezing the part of the cervix affected with human papilloma viruses, based on the results of the VIA test. One participant explained that,

*“The treatment being provided here is Cryotherapy service following the results of the VIA test”.*

The service which is given by this facility is secondary prevention specifically cryotherapy based treatment and appropriate referral for further services. One participant elaborated that,

*“The service is secondary Prevention, but if better treatment is needed, we will send the clients for further investigation and treatment”.*

### 5.6.3. Managing cervical cancer complications during and after treatment

Nearly half of the health facilities began managing the complications early during counseling.

The clients are informed with the possible outcomes, including common complications. There are no complications experienced so far. One participant explained that,

*“We have not had any such problems with our facility so far, but there may be some side effects from cryotherapy treatment, but clients will be well informed, and if there is anything else they have to do, they will be brought back. The facility provides the necessary treatment, and if it is a serious problem, we send it to a better facility”.*

Providing early counseling can prevent the possibility of being shocked when the client sees the complications or late side effects. The right management of the complication during procedure is interrupting the first one and responding to the emergency one. One participant argued that,

*“In the event of a complication, things to do are, if we are providing the test or treatment, we will work to solve that problem by quitting the first procedure.*

*Most of the time, however, the problem does not occur, but when we use cryotherapy, there may be a discharge, and she may be shocked to see it as a problem, but since it provides early counseling to prevent this from happening, we will explain these things well”.*

Management of the complication is started from the caution prior to insertion of any instrument to the vaginal canal, in order to minimize the risk of the bleeding and even pain. Unexpected bleeding may occur if the lesion is disseminated to the lower part of the pelvis whole. One participant claimed that,

*“We haven't had any complications yet, but we still have the capacity to provide the necessary treatment. An unexpected event may occur.*

*The mother may bleed during or after procedure, if the lesion is large, it should be treated with caution and if there is a problem we will provide the necessary assistance”.*

The management of complications happened during screening or treatment, and starts from giving psychological support, because the event may be shockable. Consultation and calling the colleagues to support you is essential, even if the problem is beyond the control of the team, without wasting time, the mother should be sent to better service. One participant said that,

*“There may be complications when you do the treatment, there is a way to deal with it, If the problem is occurred while we are working, By given that psychological support, we provide the necessary assistance,, if the problem is beyond our control we will call the medical consultants in our institution, and if the problem is beyond our control. Without wasting time, we sent her to a better medical hospital, where we recorded the incident. But if the problem arises after she enters the home, we will give her good advice on what to do”.*

5.6.4. The existing systems of the screening center for referring clients on behalf of further investigations and treatments.

Majority of health facilities has was established referral system for those not eligible for cryotherapy treatment service.

The referral service is for the clients who fit the requirement. For those who are not critical the referral paper will be offered directly to themselves. One participant explained that,

*“If the lesion is more than 75%, the lesion is spread to the vaginal wall, if it is expanding to other organs, if the lesion is large and if she has HIV, we will refer her to a hospital where this service is widely available.*

*The delivery method is self-explanatory, accordingly, we talk to the patient and send her”.*

A client with other diseases and the size of the lesion is more than 75% covered ought to send based on the principle. One participant said that,

*“There are referral requirements and we will send it on a regular basis. If the lesion is more than 75% and is spreading to pelvic organs, and if she has other problems”.*

The patient history and referral process will be documented properly in the patient medical record. The patient will be sent after everything is written clearly in the reference form. One participant said that,

*“We clearly state why a referral is needed in the patient's medical record; when everything is written in the reference form, the patient will be sent to the hospital”.*

The reference system is a paper-based technique. Clients take the paper and go to the referral center themselves. One participant said,

*“The referral system in our facility is that, writing the necessary information on the referral form prepared by our facility and then offer the patient with a referral form and tell her to visit the referral hospital”.*

## 5.7 Quality of health care outcome in the perspective of health professionals

### 5.7.1. The Evaluation and documentation process of the cervical cancer screening performance

In the majority of health facilities there was external evaluation by the health bureau. Nearly half of health facilities have their quality measurement tools and they evaluate their performance regularly.

The institution has prepared quality indicators to measure the status of the service regularly. The health bureau has their own index to measure the quality of service. The performance results are archived using file boxes. One participant elaborated that,

*“Quality indicators are developed by our institution and are regularly reviewed with quality offices. They also occasionally come from the health bureau to evaluate by their own index. It is our own evaluation and we will document the results to compare the results with the previous ones. We archive using file boxes”.*

Based on quality indicators developed by the institute the quality focal person evaluates the progress of the service quality, the document will be kept properly. One participant said that,

*“First, we evaluate ourselves in terms of quality indicators developed by the Institute's Focal Person. Once we have seen what the results look like, we will do the documentation, and we will put the results in order for discussion. When evaluators come from the health bureau to evaluate us, while we are there, we discuss many things, exchange ideas, and copy the results if possible”.*

The measurement is carried out by an internal and external reviewer, then the performance results and specific gaps are clearly written and discussed, and the document is stored correctly. One participant explained that,

*“They usually come every 6 months and sometimes every 4 months from the health bureau and see our work, give us the necessary support at the level of ideas, and go through the assessment. Therefore we try to improve something, we evaluate ourselves, even though there is no direct evaluation for that service, there is always an institutional evaluation. That means you save the result”*

Based on the unrecognized quality indicators prepared by the quality office of the institution, the performance is being measured. The health bureau has its own index to measure the quality of service. One participant elaborated that,

*“The quality indicator is prepared by the quality office of our institution, so we measure and document the result. The other monitoring and evaluation is by an expert from the health bureau and a non-governmental organization. They have their own assessment form, but I don't think the form is designed in the same way as the whole”.*

#### 5.7.2. Discussion on the results of the evaluation and utilization information from the appraisal

Maximum of the health facilities has discussion time after both external and internal evaluation, at the same time they utilize the data of evaluation.

To determine the improvement of the service, the assigned health care worker regularly documents every procedure. The management teams and other colleagues participate in the discussion and comment on the performance results. One participant explained that,

*“When the institution and the health bureau make an assessment; the person who is assigned to the screening unit at the facility will document the results of the evaluation. He/she works with the relevant staff of the institution, as well as with the management, to determine if the results are low, and how to adjust them in the future”.*

The information in the document will be discussed at the review table, and the focus groups will set directions. One participant elaborated that,

*“We will not only leave the result as a document, we will discuss it with the quality officer, the administration and other relevant staff. We discuss what we have done, what it has increased, why it has decreased”.*

The discussion will take place with other departments and we will work together with experts at each point to come up with solutions.

*“Even if there are not enough people in the room, we will discuss each point, directly or indirectly, with the experts who work with the department, and we will move on to the next step by setting up solutions”.*

In the presence of the medical director and quality focal person discussion will take place in order to set the right direction. One participant said that,

*“Since our department works with various departments, especially with ART, we will discuss the results with the invitation of our departments, in the presence of the Medical Director, with the Quality Officer, and how it will go down, how it will increase”.*

The discussion will take place in the presence of the care provider, administrative and quality officer in order to identify the problem, and make a solution. One participant explained that,

*“We will discuss the results, good or bad, and see what our strengths are, and what our weaknesses are. The discussion will take place in the presence of the people who provide the live service, as well as the administration and quality officer, and will be discussed accordingly”.*

### 5.7.3. Feedback mechanism related to quality improvement of cervical cancer screening

Out of the facilities conducting both internal and external evaluation more than half of the facilities have established feedback systems.

The evaluators give us feedback on the result of their observation. Based on the comments, the specific problem will be fixed. One participant elaborate that,

*“After the evaluations, we will be given feedback on the quality. If the evaluator is from the quality office of our screening center we will fix what needs to be fixed together. If the evaluators are from other institutions, they will send us feedback to our institution. If it's a simple matter, it's easy to talk about it at the time”.*

The reviewer sends the feedback to the facility’s medical director, and we receive it through him or her. One participant elaborated that,

*“If the reviewer is a quality officer of the institution, the feedback will be at a time. If it is outside the facility, the reviewer will send the feedback to the facility's medical director, and we will receive it through him or her”.*

Since there is no formal feedback system, the internal reviewer is commenting immediately upon review. One participant elaborated that,

*“No formal feedback. But the reviewer will discuss the identified issues with us and we will work together to fill the gap”.*

The reviewer does not give immediate feedback, they send us feedback by mail. One participant explained that,

*“If it is outside the facility, the reviewers will take what they have measured or seen straight away, re-evaluate it as their office, and send us feedback by mail”.*

There are constructive ideas from the reviewer, based on the comments we work on the significant results. One participant said that,

*“Yes, there is feedback, the reviewer gives us constructive ideas on the results. It means we follow that and see how and why the result is significant”.*

#### 5.7.4. General improvement of the cervical cancer screening program

Most health facilities have low quality of cervical cancer screening services.

The cervical cancer screening program is not showing an improvement as it should be. The number of clients receiving the service is declining and the health professionals are demoralized. One participant elaborated that,

*“The healthcare quality improvement always needs the attention and good commitment of the health professionals and all stakeholders. But in this instance the cervical cancer screening program is not presenting an improvement as it should be. The service is declining in both number of clients screened per day and the motivation of the healthcare professional is also decreased when compared the first time”.*

There is no good quality improvement in this institution, quality improvement systems not considered so much.

*“On the quality improvement process treatment system is similar however, it has fatigue and stress but considered as an opportunity and cooperation since it is stepping stone for growing. However, we perform well in terms of quality service contrary to being performed in our organization.”*

The quality is declining compared to when it was started, because the funding from NGO is interrupted. The new initiation from the government still needs more attention, it needs better follow up and responsibility. One participant elaborated that,

*“In my opinion, the quality is declining compared to its beginning because non-governmental organizations are easy to support.*

*Added a new initiative was provided from health care and the government willing to fully operationalize on its own. If there is a better follow-up, we will increase the chance of getting better”.*

The program was started by non-governmental organizations (NGOs) and received little attention from the government on the quality of services, which was initiated by the government without adequate preparation. It is best to use standard measuring instruments to improve the quality. One participant elaborated,

*“At this point, the issue of quality has not been given much attention, because the program itself is not well developed. However, when we look at the service that was started, it does not seem that the quality was taken into account at first. I think the service started because some NGOs started providing help. Therefore I think it started without adequate preparation by the government. As a result, it is difficult for me to talk much about the quality of stand-alone measurement, as it is not standardized, but the quality is better when we use our own measurement form”.*

## CHAPTER 6: Discussion

In our analysis of client satisfaction to cervical cancer screening services using likert scale tool, the mean score was 91.89, the score of participants above the mean score was considered as, satisfied to the service and the score below the mean value considered as unsatisfied to the service. The finding from this study revealed that maximum number 260 (62%) of the participants were satisfied, on the contentment of the organizational arrangement and cleanness of the environment, process of service including, professional readiness and competency, privacy of the clients and autonomy of the clients in order to decide on the service they are getting. The data presented that women with overall satisfaction of cervical cancer screening service were 62%. Our study prevalence is higher than a study conducted by Bedassa BB, in Addis Ababa Ethiopia which reported proportion of 47%, and lower when compared with study conducted in Malawi indicated as, all women reported being satisfied with the received service at the facility, with 68.33% reported to be very satisfied (23)(37). As elaborated in qualitative analysis the possible discrepancy is because of skills achieved by experience and reading different books, the current status of cervical cancer screening is showing better than the previous one and more based on the result from qualitative analysis in order to improve the service quality. In addition hardworking of the staff of the department was first inspired then other professionals, departments and a good governance also involved, as a result it is representing a great suggestion for the progression of satisfaction rate.

Maximum number 323 (76.7%) of participants were with the age range of 30 to 49 years. This is consistent with indications of the screening service of visual inspection by the ministry of health, because all governmental health facilities are providing VIA service. The eligible age for visual inspection is premenopausal, visual methods are not recommended for postmenopausal women, because the transition zone of the cervix is most often inside the endo-cervical canal and not visible on speculum inspection, actually the premenopausal age is less than 49 years (38).

About 164 (39%) were slightly satisfied when 195 (46.3%) were very satisfied regarding easy access to the diagnostic center. This indicates that in the organizations who are providing cervical cancer screening, the direction pointer is not clear enough. That's why the maximum number of participants were not completely satisfied with the accessibility of the screening center. This

finding is consistent with D. Hughes, D. Hughes, J. Figeroa-Munoz, et al. Viewpoint Physical accessibility is defined by the suitability of the location of the service in relation to the location and mobility of the patient or geographical and physical barriers (39).

This study shows that most of the managers do not have a commitment, because of that, most of the services are interrupted, and they are not willing to buy supplies. There is no motivational support from the administration like, opportunity of education, incentives and others. This finding is reverse with the managerial manual of Planning and Implementing Cervical Cancer Prevention and Control Programs developed by cooperation of Engender Health, International Agency for Research on Cancer, JHPIEGO, Pan American Health Organization and PATH, the role of the management team in cervical cancer prevention training is to facilitate the development of the cervical cancer prevention training system, so that a continuous flow of new cervical cancer trainers and service providers are developed and deployed. This process includes assessing training needs regularly, conducting training courses, transferring learning activities, and routine supervision (32).

Most of the participants were described that, the availability of resources and its quality is not satisfactory, as they said the service provider was not comfortable, and there was not enough manpower, again participants elaborated that, the layout of the house does not work for the purpose of cervical cancer screening. In terms of service quality, it looks good, but the service is being done without a trained person. After receiving the necessary training, the health workers are being transferred to another facility. This is the biggest challenge and the main reason for declining quality of service for cervical cancer screening. Therefore in limited resource countries, prevention is more advisable this finding converse with the manual prepared for managers, that elucidate that in many resource limited countries, clinics lack training and experience, and they have the necessary equipment and supplies for simple outpatient treatment (33).

The other finding of cervical cancer screening service quality in terms of center's employees and manager's readiness and right competence for working with quality improvement, shows most of employees and managers are not ready and competent to work with quality improvement, and some departments and health professionals are integrated to work with the center and they working with right competence and they have good readiness. This study is relevant with study conducted by J. Martin, M. Elg, I. Gremyr et.al on total quality management, the competencies within the strategic and centralized roles responsibility can be described as having a high level of individual

discretion with consistent referencing by the interviewees to the amount of trust being vested into the role, as representing an important special competence. Successful QI is not only a methodology and a science, but also a "masterwork of change management." Skilled leaders and balanced groups need to personalize and adapt their approach to create changing cultures and contexts. Employees and clients who see the daily barriers to care are being addressed, and recognizing that they can be involved in the process of eliminating them, making quality improvement part of the job can raise morale. Activities such as regular clinical management meetings can be easily added to the agenda of the meeting when quality is already underway. The quality improvement results will help to increase teamwork in the clinic and identify gaps in human and material capacity. Documenting these gaps may confirm that you need additional resources for the facility (40)(41) (42).

Most of the participants elaborated the availability of guidelines and understanding health professionals, like there is an updated guideline and the staff has a better understanding of the material. In addition in terms of documentation some participants said that, there is a good documentation to assure the quality of service. And more as this study shows the confidentiality of patient information is well protected and the report is regularly performed by data officers, therefore in terms of documentation the quality of service is good.

As this study presents some facilities are initiating to start HPV vaccination in order to prevent the diseases early, and the study also shows that there are many difficult issues with providing the vaccination service. Other findings also show that the service mainly provided at governmental health facilities, especially in primary health care facilities, is primary and secondary prevention, mostly VIA test. This study is related with launched guidelines for cervical cancer prevention, which aim to provide healthcare providers, implementing partners and other stakeholders involved in the prevention and control of cervical cancer in Ethiopia (22). The training is low for those who are working at the particular department of cervical cancer screening service area. The number of health professionals who are shifting from the department after taking training is high. This is directly affecting the quality of service.

## CHAPTER 7: Strength and limitation of the study

### 7.1 Strength of the study

- The study used both quantitative and qualitative methods
- It included about 35% of health care facilities, most of them are primary health care (Health centers).

### 7.2 Limitation of the study

- Due to the fact that the study was a cross sectional study describing cause and effect relationship of the exposure and outcome variables is difficult.
- The study was conducted in urban facilities of particularly Addis Ababa, which may limit generalizability of the findings to all Women in rural areas.

## CHAPTER 8: Conclusions and recommendations

### 8.1 Conclusion

The present study highlighted that more than half or 62% of cervical cancer screening recipients were satisfied by overall service delivery. The satisfaction rate of service recipients has a good improvement, but the overall satisfaction of cervical cancer screening service was lowest.

This study shows that the quality of the service in cervical cancer screening centers was low. This study shows the quality of cervical cancer screening service has low improvement, the number of clients receiving the service was declined. The grounds for low quality of service were discussed in this way; demotivation of health professionals, lack of effective follow up and responsibility of the government, absence manager's commitment in providing opportunities and motivating employees, lack of standardized quality measurement indicators. This low quality affects the utilization of the service.

### 8.2 Recommendation

#### Policy makers

- To improve the quality of service attention should be given to the identified gaps.
- Designing the strategies for standardized quality tools, in order to provide similar service at all health facilities.
- There is a need to design policy and guidelines which could be applied at primary health care level to provide virtuous service quality.
- The government should play its part by increasing health care budgets and put priority on cervical cancer screening service quality to increase utilization service and satisfaction rate.

#### Health facilities

- Health facilities need to have a good commitment and follow up for cervical cancer screening service quality.
- Health facilities should provide necessary training for health professionals at the right time and should assign trained people at the department.
- Health facilities should motivate the employees in terms of ideal wise, incentive wise and educational opportunities.

- Attention should be given to availability of resources, and it is quality including, infrastructure, trained human resource, equipment and supplies in order offer in a decent quality.

#### Researchers

- Further research should be done on a large scale by including private facilities and regional states.
- More research should be done on service quality towards cervical cancer screening to identify association with utilization .

## CHAPTER 9: References

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## 5. Annex I. Amharic Version Questionnaire for Clients

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የጤና ሲስተም እና ፖሊሲ መኔጅመንት ትምህርት ክፍል

ወደ ተጠያቂ፣

በ ጥቁር አንበሳ ስፔሻላይዜድ ሆስፒታል እና በቅዱስ ጳውሎስ ሆስፒታል ሚሊኒየም ሜድካል ኮሌጅ የመህፀን በር ቅድመ ካንሰር ምርመራን በተመለከተ ስላለዉ የህክምናዉን ጥራት እና በህክምና አቅርቦት በኩል የተገልጋዮች እርካታን በተመለከተ ጥናት እያደረኩ ነዉ። በዚህ ምርመራ ደግሞ በማጠናወጥ ጉዳይ ላይ ጠቃሚ የሆኑ ግብዓቶችን እንዳሰባስብ ይጠበቅብኛል። ይህ የምርመራ መጠየቅ በማጥናት ላይ ስለሚገኘዉ ችግር ለመለየት እና እነዚህን ለመፍታት የሚቻልባቸዉ መንገዶች እና አማራጮች ማፈላለጊያ ጠቃሚ ምክሮችን መጠየቅ ነዉ። በዚህ መሰረት እርስዎ በደረጃቸዉ ጉብኝቶች ስለእርስዎ እና ስለገጅቸዉ አገልግሎት እና ክብካቤ ለማወቅ እፈልጋለሁኝ። ስለዚህ ጥቂት ግዜዎን ወስደዉ መጠይቁን እንዲሞሉልኝ በትህትና እጠይቅዎታለሁኝ። እርሶ የሚሰጡኝ መረጃ ሁሉ በምስጥር የሚያዝ እና ለምርመራ አላማ ብቻ ጥቅም ላይ የሚዉል ነዉ። ለዚህ ምርመራ ለሚያደርጉት አስተዋጽኦ እጅግ አመሰግናለሁ።

ጥያቄዎቹ ከዚህ ገፅ ቀጥሎ ባሉት ገጾች ላይ የሚገኙ ሲሆን፣ እባክዎን ለሁሉም ጥያቄዎች በግልጽ ለእርስዎ በጣም የሚሰማዎን ምላሽ በማክበብ መልስ ይሰጡ።

ከአክብሮት ሠላምታ ጋር

የተረጋገጠ ስምምነት

በዚህ ጥናት ውስጥ መሳተፍ ምንም አይጋ የለውም :: ስምዎ በዚህ ቅጽ ላይ አይጻፍም እና የሚሰጡት መረጃ በጭራሽ ለሌሎች አይጋራም:: መልስ መስጠት የማይፈልጉትን ማንኛውንም ጥያቄ ላይ መልሱ ይችላሉ እናም ይህንን ቃለ መጠይቅ በፈለጉበት ጊዜ ሁሉ ሊያቋርጡት ይችላሉ :: አሁን በዘፈቀደ የጥናቱ ተሳታፊ እንዲሆኑ እንደተመረጡ ልንገራችሁ :: ለቃለ መጠይቁ ትክክለኛ ምላሽዎ ለጥናቱ ዓላማ በጣም አስፈላጊ ይሆናል :: በተመሳሳይ ጊዜ በተሰጠዎት መረጃ ላይ ጥልቅ ግንዛቤ ከተደረገ በኋላ በዳሰሳ ጥናቱ ውስጥ ያሉዎትን የበጎ ፈቃድ ተሳትፎ ማድነቅ እንወዳለን ::  
ይህ የስምምነት ቅጽ ተነብብኩ እና ተብራርቼያለሁ እናም ተረድቼያለሁ ፣ ጥያቄዎቼም ተስተካክለዋል ::  
እኔ ስለዚህ; በጥናቱ ለመሳተፍ በፈቃደኝነት እስማማለሁ ::

በጥናቱ ለመሳተፍ ፈቃደኛ ነዎት?

- አዎ በጥናቱ መሳተፍ እፈልጋለሁ (እባክዎን ወደ ሚቀጥለው ገጽ ይሂዱ)
- የለም ፣ መሳተፍ አልፈልግም (አመሰግናለሁ) ፣

በጣም አመሰግናለሁ!!

የሚያነጋግሩ ሰዎች-ማንኛውም ጥያቄ ካለዎት መርማሪውን በሚከተለው አድራሻ ማነጋገርና በፈለጉበት ጊዜ መጠየቅ ይችላሉ ::

ማቴዎስ ኩማራ - የአዲስ አበባ ዩኒቨርሲቲ የህብረተሰብ ጤና ትምህርት ቤት

ሞባይል: + 251 931518535

ኢ-ሜል: matikokumera@gmail.com

የቃለ መጠይቅ ውጤት: 1. ተሞልቷል ፣ 2. ውድቅ ተደርጓል ፣ 3. መልስ ሰጭ አይገኝም ፣ 4. በከፊል ተጠናቅቋል

በተቆጣጣሪ ቁጥጥር የተደረገበት;

ስም ..... ፊርማ .....

5= በጣም ረክቻለሁ፣ 4= በመጠኑ ረክቻለሁ፣ 3= ረክቻለሁ ወይም አልረካውም/መካከለኛ፣ 2= በመጠኑ አልረካሁም፣ 1= በጣም አልረካሁም

የዲሞግራፊ መረጃ (DEMOGRAPHIC INFORMATION)

ተ.ቁጥር	ጥያቄዎች እና ማጣሪያዎች	የማጣሪያ ምድብ (CODING CATEGORIES)	
1	ዕድሜ	≤29 ዓመት	1
		30-49 ዓመት	2
		≥50 ዓመት	3
2	የጋብቻ ሁኔታ	ያላገባች	1
		ያገባች / አብሮ የሚኖሩ	2
		የተፋቱ	3
		በሞት የተለዩ	4
3	የስራ ሁኔታ	የመንግስት	1
		የግል	2
		ሥራ ፈላጊ	3
		የቤት እመቤት	4
		የመንግስት ያልሆነ ድርጅት	5
4	የትምህርት ደረጃ	ማንበብ እና መጻፍ የማይችሉ	1
		1ኛ ደረጃ	2
		2 ኛ ደረጃ	3

		3 ኛ ደረጃ	4
5	የማህጸን ጫፍ ካንሰር ምርመራ አድርጎ ያወቃል	አዎ	1
		አይደለም	2
6	የመጨረሻው ምርመራ ካደረጉ ምን የህል ጊዜ ይሆናል?	ከ 5 ዓመት በታች	1
		ከ 5 ዓመታት በላይ	2
		አላስታወስም	3
7	በሚቀጥለው ጊዜ ለመምርመራ ተጋብዟል ይሄዳለሁ ብለው ያስባሉ?	አዎ	1
		አይደለም	2
		እርግጠኛ አይደለሁም	3

የጎበኘሁበት በዚህ ገጽ ምን ያህል ረክቻለሁ? ብሎ፣ እራስዎን በእራስዎ ይጠይቁ

ተ  
ቁ

የማጣሪያ ምድብ (CODING CATEGORIES)

	ጥያቄዎች	5	4	3	2	1
		በጣም ረክቻለሁ	በመጠኑ ረክቻለሁ	መካከለኛ	በመጠኑ አልረካሁም	በጣም አልረካሁም
1	ተቋሙን እና ሰራተኞቹን መሰረት ያደረገ ጥያቄ					
	6. የምርመራ ማዕከሉን ሳይቸገሩ በቀላሉ የማግኘት ደረጃ	5	4	3	2	1
	7. በበሩ ላይ በሚገኙ ጥበቃዎች የማስደተናገድ ሁኔታ በደረጃው	5	4	3	2	1
	8. ወደ ምርመራ ማዕከሉ ስመጡ፣ የነበረው የአቀባበል ሁኔታን በተመለከተ	5	4	3	2	1
	9. በአጠቃላይ በአገልግሎት አሰጣጥ ደረጃ	5	4	3	2	1
	10. በአገልግሎት ሰጪው ማዕከል አካባቢ የንፅህና ደረጃ	5	4	3	2	1
2	የአገልግሎት አሰጣጥ ህደትን መሰረት ያደረጉ ጥያቄዎች					
	1. ምርመራውን ለማድረግ በሚደረገው ድጋፍ በደረጃው	5	4	3	2	1

2.	በሆስፒታል ሰራተኞች በትብብር ደረጃ	5	4	3	2	1
3.	የምርመራውን ህደት የማስረዳት ደረጃ	5	4	3	2	1
4.	ሀኪም ጋር ከመግባትዎ በፊት ያለው ቆይታ በደረጃ	5	4	3	2	1
5.	ስለ ምርመራ ውጤት እና ህክምናውን በተመለከተ የተቀበሉት የመረጃ ደረጃ	5	4	3	2	1
6.	የጤና ባለሙያዎች የአገልግሎት አሰጣጥ ደረጃ	5	4	3	2	1
3	የግል ነፃነት ላይ የተመሰረቱ ጥያቄዎች					
1.	ሀኪምዎን በግላዊነት እና በነፃነት የማግኘት ደረጃ	5	4	3	2	1
2.	ያለ ፍርሃት ሀሳቦችን ለመግለፅ የክፍሉ ምቹነት	5	4	3	2	1
3.	ሀኪምዎት ምርመራውን በሚያደርግበት ወቅት የነበረዎት የግል ነፃነትን በተመለከተ	5	4	3	2	1
4.	የግል መረጃዎን ደህንነት አጠባበቅ ደረጃ	5	4	3	2	1
5.	የመመርመሪያ መሳሪያዎች ንፅህናን በተመለከተ	5	4	3	2	1
4	የራስ-ስልጣንን መሰረት በማድረግ የተዘጋጁ ጥያቄዎች					
1.	ምርመራውን ለማድረግ ወይም ላለማድረግ በራስ የመወሰን መብትዎን በተመለከተ	5	4	3	2	1
2.	ከምርመራው በኋላ ህክምናውን ለማሰራት ወይም ላለማሰራት በራስዎት የመወሰን መብትዎን በተመለከተ	5	4	3	2	1
3.	ለውሳኔዎት የማንም ተፅዕኖ ያለመኖሩ ደረጃ	5	4	3	2	1
4.	ከማማከሩ ወይም ምርመራው ወይም ከህክምና በኋላ፣ ግዜ ወስዶ ለማሰብ የሚሰጠው እድል በደረጃ	5	4	3	2	1

## 11. Annex II. Key Informant Interview guide (English Version)

### Informed consent

Dear participant,

We invite you and your hospital to take part in a research study being conducted by Matewos Kumera who is a student at Addis Ababa University, College of health science, school of public health, as part of his assessment of cervical cancer screening service quality and client satisfaction. The aim of the study, as well as your rights as a participant, are described below.

Participating in this study has no any risk. Your organization name will not be written on this form and the information you give will never be shared to others. You may not answer any questions that you don't want to answer and you may end this interview at your convenient time. Please kindly note that your organization was selected randomly to be participant of the study. Your genuine response to the interviews will be very important for the purpose of the study. At the same time, I would like to appreciate your voluntary participation in the survey after a thorough understanding of the information given to you.

This consent form has been read and explained to me and I have understood, and my questions have been addressed. I, therefore, willingly agree to take part in the study.

Are you willing to participate in the study?

- Yes, I want to participate in the study (please go to the next page)
- No, I don't want to participate (say thank you);

**THANK YOU VERY MUCH!!**

Persons to contact: If you have any question you can contact the investigator by the following address and you may ask at any time you want.

Matewos Kumera: Addis Ababa University School of Public Health

Mobile: + 251 931518535

E-mail: [matikokumera@gmail.com](mailto:matikokumera@gmail.com)

Result of interview: 1. Completed, 2. Refused, 3. Respondent not available, 4. partially completed

Checked by supervisor;

Name ..... Signature ..... Date .....

Part I- Demographic data

Organizational code: \_\_\_\_\_ Organizational category:  Primary/ Secondary/ Tertiary

What is your age? \_\_\_\_\_

What is your gender? Male  Female

1. How long have you been working here?
  
2. What is your educational background?
  
3. What qualification do you have?
  
4. How long have you been working on the cervical cancer screening program?
  
5. Describe the context, current status and objectives of the cervical cancer screening program.
  
6. What is your key roles and responsibilities? (ToR/Job description)
  
7. What are the quality related goals of this program?

## Part II Based on Avedis Donabedian model

### 1. Structure

- 1.1 How would you describe the availability of resources and its quality in your center? (Such as infrastructure, human resource, equipment's, supply and etc.)
  
- 1.2 How would you describe center's employees and managers readiness and right competence for working with quality improvement?
  
- 1.3 What are the obtainability of guidelines procedure (documents) in the centers and understanding of health care workers? (Such as routine treatments, quality improvement indicators)
  
- 1.4 How do you describe the roles and level of commitment of administration to improve and sustain quality of service? (Such as opportunities of education, ideal wise, incentive wise...)

### 2. Process

- 1.1 At what level of prevention your organization is providing cervical cancer screening and treatment service? Please clarify
  
- 1.2 How do you state the types of treatments and its process, your center is actually providing?
  
- 1.3 How do you manage any complications followed by procedures of precancerous lesions treatment?

1.4 What are the existing techniques in your center for referring and transferring clients on behalf of further investigations and treatments?

3. Outcome

1.1 How do you measure and document the performance result? (Any internal and external evaluation)

1.2 On the results of the evaluation, how would you communicate with the employees (With your co-workers)?

1.3 Is there any feedback mechanism related to quality improvement of cervical cancer screening?

1.4 In general, how do you describe the improvement of the program?

Assurance of principal investigators

The undersigned agrees to accept responsibility for the scientific ethical and technical conduct of the research project and for provision of required progress reports as per terms and conditions of the Research publications office in effect at the time of grant is forwarded as the result of this application.

Name of the student: Matewos Kumera

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

Approval of the primary advisor

Name of the primary advisor: Mr. Werissaw Haileselassie (MPH, PhD Candidate)

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

