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DEPARTMENT OF PUBLIC HEALTH

CERVICAL CANCER SCREENING PRACTICE AND ITS ASSOCIATED FACTOR AMONG WOMEN OF REPRODUCTIVE AGE IN DILLA TOWN, SOUTHERN ETHIOPIA: A COMMUNITY-BASED CROSS-SECTIONAL STUDY, 2025

BY: MISIKIR ALEMU (BSC)

AUGUST, 2025

HAWASSA, ETHIOPIA

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BY: MISIKIR ALEMU (BSC)

TELL: - +251916834870

EMAIL: - emu.beni61@gmail.com

ADVISOR: ANTENEH FIKRIE (ASSISTANT PROFESSOR)

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DECLARATION

I hereby declare that; this thesis is my original work and has not been presented by another person in this or any other university and all source material used for this proposal have been duly acknowledged.

Name: Misikir Alemu (BSc)

Signature: ----------

Date: ----------

The MPH thesis has been submitted for examination with my approval as a College Academic Advisor.

Name: Anteneh Fikrie (Assistant Professor)

Signature: ----------

Date: ----------

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ABBREVIATIONS AND ACRONYMS

AIDS ----------	Acquired Immuno- Deficiency Syndrome
CSIL----------	Cervical Squamous Intraepithelial Lesion
DHIS ----------	District Health Information System
DNA ----------	Di-nucleic Acid
FMOH----------	Federal Minister of Health
FP----------	Family planning
HBM----------	Health Belief Model
HH----------	House Hold
HIV----------	Human immune deficiency virus
HPV----------	Human Papilloma Virus
ICC----------	Invasive Cervical Cancer
IUCD----------	Intra uterine contraceptive device
LMICs----------	Low- and Middle-Income Countries
Pap----------	Papanicolaou
PSI----------	Population Service International
SER----------	Southern Ethiopia Regional
SSA----------	Sub- Saharan Africa
STI----------	Sexual transmitted infection
VIA----------	Visual inspection with acetic acid
VILI----------	Visual inspection with Lugol's Iodine
WHO----------	World Health Organization

ABSTRACT

Background: Cervical cancer is the second most common and the leading causes of morbidity and mortality among female cancers. Globally a marked increase has been predicted, especially in developing countries with 58% cases and 63% deaths to 2025. Despite this fact, very few women have received screening services in Ethiopia. Ethiopia has a strategic goal to reduce cancer incidence and mortality by 15% by 2020 of which cervical cancer is the priority.

Objective: To assess cervical cancer screening practice and its associated factor among women of reproductive age in Dilla Town, Southern Ethiopia, 2025

Methodology: A community-based cross-sectional study was be conducted among 599 eligible women of reproductive age residing in Dilla town from April,2025 to August 2025. A multi-stage sampling approach was implemented to ensure representative involvement. A structured questionnaire in the Amharic language were used. The data cleaned and analyzed by SPSS version 27. Descriptive statistics was used to describe the results and bivariate and multivariate logistic regression has done to identify associated factors for cervical cancer screening practice.

Result

In this study, 592 females of reproductive age participated with a response rate of 98.7%. Eighty-four 14.2% 95% CI= (11.1 - 15.7) of participants were screened for cervical cancer in the study area before the study. A total of 295 (25.8%) participants were knowledgeable about cervical cancer and screening, and those who were knowledgeable were about 3.5 times more likely to undergo screening compared with those who were not (95% CI: 1.63 –7.47). About 228 (39%) participants had heard about cervical cancer from media sources, and these participants were nearly 1.9 times more likely to be screened compared with those who had not (95% CI: 1.04–3.49). In addition, 261 (44.1%) participants who received health education were about 6 times more likely to undergo screening (95% CI: 3–14).

Conclusion and Recommendations

Cervical cancer screening uptake among reproductive-age women in Dilla town was low. Knowledge, perceived barriers, media exposure, monthly income, and health education were key predictors. Efforts should focus on raising awareness and improving attitudes through health education using various communication channels.

1. INTRODUCTION

1.1.Background of the Study

Cervical cancer is a form of cancer that affects a woman's reproductive system and is mostly the result of chronic infection with cervical cancer-causing virus, Human papillomavirus types 16 and 18. These two types cause close to 70% of all diagnosed cases of cervical cancer worldwide (Bruni et al., 2023).

Squamous cell carcinoma (SCC), the most common type of cervical cancer (approximately 60% of cases), originates in the cervix's squamous cells, and adenocarcinoma, a less common form (about 30% of cases), arises in the glandular cells higher up in the cervix and is more difficult to diagnose due to its location and the nature of the abnormal cells (Cancer Council, 2023).

If it is not detected and treated cervical cancer is classified into four stages. Stage I cancer stays in the cervix. Stage II cancer grows around the cervix and into the outer part of the vagina but does not spread to the pelvic wall. By Stage III, the cancer has advanced to involve the lower vagina, pelvic wall, or near lymph nodes. By Stage IV, the cancer has spread to distant organs, making treatment more complicated. Early detection through Screening is essential to prevent progression to advanced stage (Cancer Council, 2023).

Cervical cancer is the other most common cancer in women worldwide, with an estimated 662, 000 new cases and 349, 000 deaths reported in 2022, in the majority of cases occurring in Sub-Saharan Africa (World Health, 2021), and 40.0% of women were not In 2022, 40. 0% of women did not know that more than 95 percent of cervical cancer was caused by human papillomavirus; 39. 1% have not had cervical cancer screening, an increase over the global average of 31. 2% (Genomics, 2023).

Cervical cancer is still a significant public health concern in sub-Saharan African (SSA) countries, where there are over 75,000 new cases and 50,000 fatalities recorded each year. A combination of delayed diagnosis, low disease knowledge, and restricted access to screening and early detection services contribute to this high burden(Mekonen et al., 2024), and the prevalence of cervical cancer screening in sub-Saharan Africa is still low with an overall estimated average of only 19% ever screened out of all eligible women (Ba et al., 2021).

In Ethiopia, cervical cancer is the second most common cancer, accounting for an estimated 6,200 new cases and 5,000 deaths annually. According to Addis Ababa Population-Based cancer Registry (2012-2015), breast cancer ranks first (32.3%), followed by cervical cancer (14.5%). However, cytology-based screening coverage remains extremely low, with only 0.4% of rural areas and 1.6% of urban areas receiving such service(Federal Ministry of Health, 2021), In response, World Health Organization (WHO) has established the 90-70-90: targets: 90% of girls fully vaccinated against Human Papillomavirus by age 15, 70% of women screened between ages 35 and 45, and 90% of women with cervical disease receiving appropriate treatment(World Health, 2021). Its aim is to investigate the determinants and cervical cancer screening coverage among women of reproductive age in Dilla town in order to identify comprehensive local barriers and to inform planning of specific intervention measures to increase cervical cancer screening coverage.

1.2.Statement of the problem

Cervical cancer remains a major public health concern worldwide, particularly in low- and middle-income countries. Globally, it is the fourth most common cancer among women, with an estimated 569,847 new cases and over 311,000 deaths every year (Federal Ministry of Health, 2021) and In Sub-Saharan Africa, over 70,722 new cases of invasive cervical cancer (ICC) primarily caused by Human Papillomavirus type16 &18 reported annually with an incidence rate of 31 per 100,000 women (Louie et al., 2009).

In Ethiopia has a population of 20.9 million women aged 15 and above who are at risk of cervical cancer(Mekuria et al., 2021), and accounting for more than 6,200 new cases and approximately 5,000 death each year. According to the Addis Abeba Population Based Cancer Registry (2012-2015), breast cancer 32.3% is the major cause of cancer among women, followed by cervical cancer 14.5%(Federal Ministry of Health, 2021). Global prevalence women aged 15-49 years had lifetime cervical cancer screening coverage of 84% in high-income countries, 48% in upper-middle-income countries, 9% in lower-middle-income countries, and 11% in low-income countries(Bruni et al., 2022).

In a study conducted in Indian, only 2.0% reported ever having undergone cervical cancer screening. The rates of screening were more prevalent among urban residents (2.4%) in comparison to rural residents (1.8%). The highest screening coverage was found among

Christians; the lowest rates were observed in Muslim's women. The major barriers to cervical cancer screening uptake, identified in the study, were distance from cervical cancer screening health facilities, poor training of healthcare workers and lack of adequate healthcare infrastructure (Garg et al., 2025).

According to other studies only 36% of women between the ages of 30 and 49 have undergone screening for cervical cancer, which is significantly lower than the WHO goal of 70%(Bruni et al., 2022), While Sub-Saharan Africa (15%) and South-East Asia (8%). Several critical factors contributing to this gap, including lack of formal programs and limited access to HPV testing, which is caused by high expenses and shortages of infrastructure, a lack of qualified staff, resource constraints, and the stigma associated with obtaining screening services (Bruni et al., 2022).

In Ethiopia, during the past five years, the national coverage of cervical cancer screening and treatment for women age 30-49 hit only 5% and the estimated coverage of cytology-based cervical cancer screening in Ethiopia is 1.6% in urban settings and 0.4% in rural areas(Federal Ministry of Health, 2021). In Gedeo zone screening rate is 23.8%(Demeke et al., 2025), Some critical factors contributing to low cervical cancer screening in the Gedeo Zone are the low awareness and knowledge in terms of cervical cancer and early detection research shows that women who have adequate understanding of cervical cancer are 3. 68 times more likely to undergo cervical cancer screening than women with poor understanding of cervical cancer(Demeke et al., 2025), and in Dilla town is also low, as only 2%, 4%, and 5% of the eligible women were screened in 2022, 2023, and 2024 G.C., respectively (System, 2024).

Studies conducted in St. Paul's Teaching and Referral Hospital Only 12.2% of women had participated in cervical cancer screening within the last three years. The screening rates were notably higher in women aged 40 to 49 years (36.1%) compared to those between 18 and 29 years (8%). Women living in urban areas were more likely to be screened (15.9%) than those in rural areas (3.9%). Furthermore, factors such as low monthly income, a perceived low risk of developing cancer, insufficient knowledge about cervical cancer, and fear of test outcomes were significantly linked to the low rates of screening participation(Woldetsadik et al., 2020). Early cervical cancer detection can result in prompt interventions and a considerable reduction in

mortality rates when achieved by screening procedures such Pap smear tests, Human Papilloma Virus (HPV) DNA testing, and visual inspection with acetic acid (VIA) (Oraon, March2024).

Different studies have pointed out various demographic, socioeconomic, cultural, and health system-related elements that affect practices surrounding cervical cancer screening (Oraon, March2024). The problem of low cervical cancer screening uptake is influenced by various barriers at multiple level. Individual-level challenges, such as lack of knowledge, fear, stigma, discomfort with male healthcare providers. Some community-level barriers, such as misinformation, cultural norms, language or literacy limitations, may also be to blame. Other health facilities may, for example, lack staff training, provide substandard care or provide women with concerns about privacy, impede their access to treatment. Systemic barriers, such as distance to health facilities and transport problems may also be at the root of the low cervical cancer screening rates (Organization, 2014).

The low cervical cancer screening rates observed in Gedeo Zone and Dilla Town pose a serious public health problem. While awareness of this disease is growing, there is still a lack of research on the mechanisms / reasons for low cervical cancer screening utilization among residents of these regions. The lack of research entails lack of access to comprehensive information about the barriers at individual, community and health facilities level, which makes it difficult to develop effective approaches to increase coverage of cervical cancer screening. Otherwise, efforts to minimize risk of cervical cancer through early detection would be limited. This added to the health challenges experienced in this town. Therefore, it is urgently necessary to undertake research on the mechanisms to establish and address the root causes / reasons why screening was not engaging among Population of Dilla town.

1.3.Significance of the study

Screening for cervical cancer is one of the preventive interventions well ingrained to thwart incidence and mortality. Yet in the context of regular screening, whether or not a woman screen depends on a host of factors such as health beliefs, awareness, attitude, and culture health barriers. Provides are confronted with considerable challenges in comprehending the customary health beliefs that influence women’s health choices, the cultural norms male dominance and the general environmental and societal determinants that influence cervical cancer prevention reproductive health attitudes, Knowledge, and practice.

This research will seek to examine attitudes and perceptions of Ethiopian women towards cervical cancer and screening. The results would be useful for health care professionals in Ethiopia, with enhanced knowledge of cultural barriers to early screening. Additionally, data from this study could be used to help develop culturally sensitive preventive programs, thereby improving cervical cancer screening coverage and minimizing morbidity and mortality rates among women.

2. LITERATURE REVIEW

2.1.Magnitude of Cervical Cancer Screening Utilization

Cervical cancer is a disease that can potentially be prevented through reliable and safe screening methods; these include cytology (Pap smear), HPV DNA testing, and visual inspections using acetic acid (VIA) or Lugol's iodine(Federal Ministry of Health, 2021; World Health, 2021).

Research indicates that 31.2% of individuals worldwide have never undergone cervical cancer screening. Among women oblivious to the HPV cervical cancer connection, a substantial 39.1% have never undergone screening, exceeding the global average. Specifically, Saudi Arabia (55.8%) and Serbia (36.5%) have the highest percentages of women who have never undergone cervical cancer screening (Genomics, 2023).

Utilization of screening is generally greater in developed nations, with percentages like 62% in Japan, 68% in South Korea, and 61% in Israel. Conversely, numerous developing nations experience low screening utilization, with rates under 19%. Specially, Ethiopia sees a rate of 3%, Mozambique also at 3%, and Tanzania at 11%(Bruni et al., 2022). Study conducted in India coverage of cervical cancer screening was 2.0% (2.4% in urban and 1.8% in rural areas) undergone screening test (Garg et al., 2025).

In Nepal cervical cancer screening utilization women is 17% in hospital settings and 16% in the community and Screening usage was compared between rural and urban areas in community-based studies. In rural areas, the use of the Pap smear test for cervical cancer screening ranged

from 3.3% (for women aged 21–65) to 14.8% (for women aged 20–65). In urban areas, the rates ranged from 7.3% (for women aged 21–65) to 20.1% (for women aged 20–65) (Shrestha et al., 2022).

In Sub-Saharan Africa (SSA), the rate of cervical cancer screenings is 10.29%. Namibia has the highest rate at 39.3%, whereas Benin has the lowest at just 0.5%.(Hailegebireal et al., 2024). In 2001 and 2002, WHO population-based surveys estimated that coverage of screening for cervical cancer ranged widely, averaging as high as 20.2% in urban and 14.0% in rural parts of Sub-Saharan Africa (Louie et al., 2009).

In Ethiopia, it was significantly lower, with 1.6% of urban and 0.4% of rural women having been screened(Federal Ministry of Health, 2021). Studies on screening uptake in different parts of Ethiopia; in Adigrat town 38.1% of (Tsegay et al., 2021). Assosa Zone, Benishangul-Gumuz 36%(Gelassa et al., 2023), In Bishoftu town, 5.8%(Ebo GG, 2020), In Gurage zone Only 3.8% of respondents practiced cervical cancer screening(Endalew et al., 2020), In Gedeo Zone 23.8%(Demeke et al., 2025). In Wolaita Zone 22.9%(Tekle et al., 2020), St. Paul's Teaching and Referral Hospital 12.2%(Woldetsadik et al., 2020), Durame town 13.8%(Amado et al., 2022), in Adare General Hospital in Hawassa 19.8% women attending maternal health services had been screened for cervical cancer in the past five years (Assefa et al., 2024) and in Dilla town district health information System(DHIS) report indicated that only 2%, 4%, and 5% of the eligible women were screened in 2022, 2023, and 2024 G.C., respectively (System, 2024).

Cervical cancer screening with VIA combined with access to cryotherapy was piloted in Ethiopia by the FMOH in collaboration with Pathfinder started from 2009 as a single-visit approach but still 3.3% of eligible women undergo cytology-based screening (Federal Ministry of Health, 2021). World Health Organization (WHO) has put a strategic goal 90-70-90 targets by 2030 and cervical cancer was considered priority for intervention(Hailegebireal et al., 2024; World Health, 2021). The possible variation in screening uptake among the nations were due to; Economical, technological, facilities, accessibility of the service and lack of standard policy and low level of community awareness, attitude and motives (Louie et al., 2009).

2.2.Factors Associated with Utilization of Cervical Cancer Screening

The primary obstacles to expanding cervical cytology-based screening initiatives can be categorized into four interconnected factors: the subtle progression of the disease, factors at the

individual level, factors within the community, and factors at the institutional level(Oraon, March2024; World Health, 2021). Limited resources, lack of a national screening framework, and restricted access to healthcare for the impoverished population lead to ineffective testing and delayed diagnoses in many African countries and Absence of a well-organized surveillance and recall system is a major obstacle to effective implementation (Hussein et al., 2024).

2.2.1. Socio-demographic Factors

Cervical cancer is closely associated with factors like being in the reproductive age range, having low socioeconomic and educational backgrounds, marrying young, starting sexual activity early, and experiencing multiple pregnancies. Consequently, women exhibiting these traits need increased emphasis in screening initiatives (Woldetsadik et al., 2020).

There is significant association utilization of cervical cancer screening with age, according to study conducted in St. Paul‟s Teaching and Referral Hospital (Addis Ababa, Ethiopia) Women in the age group between 40 to 49 years old was more likely to be screened (36.1%) than women age 18 to 29 years (8%). Women who were multiparity, self-employed, and those whose salaries were over 3000 Birr were found to be more screened than the rest and urban residents (15.9%) were more screened than rural residents (3.9%) (Woldetsadik et al., 2020). Study conducted in Debremarkos town (Ethiopia) women between 40–49 years are more than 3 times as likely to be screened for cervical cancer as women between 30–39 years (Aynalem et al., 2020).

A study conducted in India age above 30-49 was significantly associated with cervical cancer screening(Garg et al., 2025). Study conducted in Adigrat town older women were significantly more aware of cervical cancer screening than their younger peers among this population(Tsegay et al., 2021). A study conducted in in Debremarkos town show that education level had association with utilization of cervical cancer screening (Aynalem et al., 2020), women with degree/diploma level of education 7.3 times more cervical cancer screening informed compared to those not formally educated (Tekle et al., 2020). A study conducted Southern Ghana Muslim women in this study as less than 5% had participated in screening.

Cervical cancer is becoming one of public health concern in Ethiopia. In “Tikur Anbesa specialized Hospital”, Addis Ababa, Ethiopia a total of 16,622 new cases of cancer in the TASH registry data set were diagnosed between 1997 and 2012. Out of these 5293 (prevalence =

31.8%) were cervical cancer patients' prevalence of, Addis Ababa, Oromia, and Amhara 32.98%, 30.11% & 19.72%, respectively (Abate, 2019).

Study conducted in Assosa Zone, Benishangul-Gumuz was the setting in which a sociodemographic determinant of awareness of cervical cancer screening study was carried out. Residents in urban areas were 3.68 times more likely to be aware of cervical cancer screening than those residing in rural areas. Females with a history of cervical cancer in the family were 2.5 times more likely to be aware than those without a family history (Gelassa et al., 2023).

In four sub–Saharan African countries study indicate that older women were much more likely to be screened for cervical cancer than young women, and were more prevalent for screening for age groups 25–34 and 35–49. Women with education at primary or secondary or higher levels were more screened than women without education. Women with employment were more likely to be screened than women without any employment. Wealth status also had an effect on screening rates, with greater probability of being screened in middle- and high-income household women. Women exposed to media (radio, TV, or newspaper) were more likely to be screened (Mekonen et al., 2024).

2.2.2. Knowledge Related Factor

Many individuals, including health care professionals, might lack a thorough understanding of HPV infection and how it relates to the development and prevention of cervical cancer. This issue is intensified by the fact that cervical cancer often shows no symptoms until it reaches a more advanced stage(Organization, 2014). Worldwide, a significant (40.0%) of women did not know that HPV is accountable for more than 95 percent of cervical cancer cases(Delie et al., 2024). The awareness level within the community is closely linked to the overall adoption of cervical cancer screening services and boosts motivation for cytology-based tests. A lack of awareness greatly obstructs the prompt use of these screening services (Federal Ministry of Health, 2021).

A study conducted in Nepal, showed that 44.7% of women had heard of cervical cancer and the screening test (Nepal et al., 2022). Studies conducted in India indicated that the general awareness regarding cervical cancer was at 40.22%. Knowledge of risk factors and signs and symptoms was fairly adequate among the women, while merely 13.22% of women knew that early age of marriage was a risk factor for cervical cancer and of 23.01% women who mentioned

that early age of initiation of sexual activity was a common risk factor for cervical cancer (Taneja et al., 2021)

A study conducted in different parts of Ethiopia, including Adigrat Town in Eastern Tigray, found that just 14.2% of respondents had a thorough grasp of cervical cancer, while 85.8% had minimal information(Tsegay et al., 2021), in Assosa Zone, Benishangul-Gumuz, women in urban areas were 3.68 times more likely to know about cervical cancer than women in rural areas and women with a family history of cervical cancer were 2.5 times more likely to be aware of cervical cancer screening than women without such a history (Gelassa et al., 2023).

A study conducted in Bishoftu town 51.2% had extensive knowledge of cervical cancer, whereas 48.8% had little knowledge. In addition, 46.7% of participants were unaware of the cause of cervical cancer, while 47.2% had no idea how to prevent it (Ebo GG, 2020). In Gurage zone 26.2% of respondents had good knowledge, whereas 76.9% were unaware of any symptoms of cervical cancer (Endalew et al., 2020), in Gedeo zone, southern Ethiopia, 5.4 % of women had adequate knowledge of cervical cancer screening (Demeke et al., 2025).

A study conducted in Wolaita Zone, Southern Ethiopia 43.1% of women had good knowledge for cervical cancer screening and 42.4% of women understood the symptoms of cervical cancer, 45.5% know the disease's risk factors. Additionally, 45.3% of women indicated high understanding of cervical cancer prevention strategies. (Tekle et al., 2020), in Durame town 50.2% had good knowledge about cervical cancer screening (Amado et al., 2022). The study identified a number of obstacles to cervical cancer screening, including a lack of understanding about the disease, fear of the procedure and its outcomes, and fears about not being cured. Women feared divorce because of the embarrassment (Olubodun et al., 2023).

2.2.3. Health Care Delivery System

Health facilities are responsible for the implementation and design of appropriate communication and advocacy strategies to increase the utilization of cervical cancer screening services (Federal Ministry of Health, 2021). Health education efforts should incorporate facility-based, community-based, and outreach methods, targeting both individual and group settings, to increase awareness among all women of reproductive age who seek any health services at health facilities (Federal Ministry of Health, 2021).

Health Research Africa indicated that only 54.6% of the study participants were requested by healthcare professionals for cervical cancer screening and only 35.4% of women have ever had cervical cancer screenings, despite the significance of early detection. This is mainly because screening instruments like Pap smears and HPV tests are not widely available, and there is a lack of qualified medical staff, especially in rural and underdeveloped areas (Oraon, March2024). Even though almost half (48.5%) of the women reported having a history of STIs, ever been screened for cervical cancer had been accomplished in only 22.3%, emphasizing lost opportunities for integrating screening services with ongoing STI care and family planning services (Oraon, March2024).

Cervical cancer is still a serious public health problem in Ethiopia However; efficient screening programs are still hampered by obstacles associated to health facilities. Among these are the lack of a national population-based cancer registry and monitoring system, a lack of specialty treatment, and inadequate in-service training for healthcare professionals. Further limiting the health system's ability to provide high-quality cervical cancer screening are inadequate public-private partnerships and a low percentage of medical practitioners with the necessary training. Women's avoidable morbidity and mortality are a result of these difficulties, which severely hinder early detection and prompt care (Hussein et al., 2024).

Studies in Adigrat Town 40.3% of women were informed about cervical cancer and its screening by healthcare professionals (Tsegay et al., 2021). In Gurage zone 7.8% of women were informed about cervical cancer and its screening by healthcare professionals (Endalew et al., 2020) and in Durama 25.6% of women were informed about cervical cancer and its screening by healthcare professionals (Amado et al., 2022).

Studies done in Arba minch indicated that the possible organizational factors for women not utilize cervical cancer screening are lack of effective screening programs, lack of active invitation to screening**,** lack of female screeners, computing health priority and insufficient health care delivery (Gebru Z, 2015), lack of infrastructure and essential medicines, trained personnel’s, being technician-dependent (Federal Ministry of Health, 2021).

Challenges of cervical cancer screening in developing countries include limited access to health services and laboratories, the absence of organized screening programs, low or insufficient among both the general population and health workers, shortage of well-trained staff and

inadequate referral and follow-up system also the major facility related problems on the diminished cervical cancer screening uptake (Dulla et al., 2017).

2.2.4. Reproductive and Behavioral Characteristics

Research conducted in Ambo Town, Central Ethiopia, identified parity as a significant determinant of cervical cancer screening utilization among women aged 30–49 years, with Para five and above being the most specific(Lemma et al., 2022). Research conducted in the Bench Sheko Zone, Southwest Ethiopia, demonstrates a significant association between the use of modern contraceptives and participation in cervical cancer screening programs. Specifically, women who use modern contraceptives are substantially more likely to utilize cervical cancer screening services compared to non-users (Belay et al., 2023), study conducted in the Gurage Zone, Southern Ethiopia, found that women with multiple sexual partners were significantly more likely to undergo cervical cancer screening (Endalew et al., 2020).

The study was conducted in India, 43.64% of women showed a positive attitude toward cervical cancer screening (Taneja et al., 2021). Study conducted in four Sub-Saharan African countries, Women who were exposed to media were 1.31 times more likely to screen for cervical cancer than those who were not exposed(Mekonen et al., 2024). Studies conducted in different parts of Ethiopia; in Adigrat town 53.3% were favorable for cervical cancer screening, while 46.7% were negative. Furthermore, 54.6% believed that HPV infection is the leading risk factor for the development of cervical cancer (Tsegay et al., 2021).

Study conducted in Gurage zone individuals who knew about cervical cancer were 10.2 times more likely to have a screening than those who didn't. Similarly, people who had several sexual partners were 3.96 times more likely to get cervical cancer screenings (Demeke et al., 2025) and in Adare General Hospital about 38.9% of participants recognized having multiple sexual partners as a risk factor (Assefa et al., 2024). Some Community-level barriers such as perceiving cervical cancer as a deadly disease; misconceptions, such as screening causing infertility, and the absence of open discussion (Hussein et al., 2024; Mekonen et al., 2024).

2.3. CONCEPTUAL FRAMEWORK

The Conceptual frame work of the study is given below. (Figure 1)

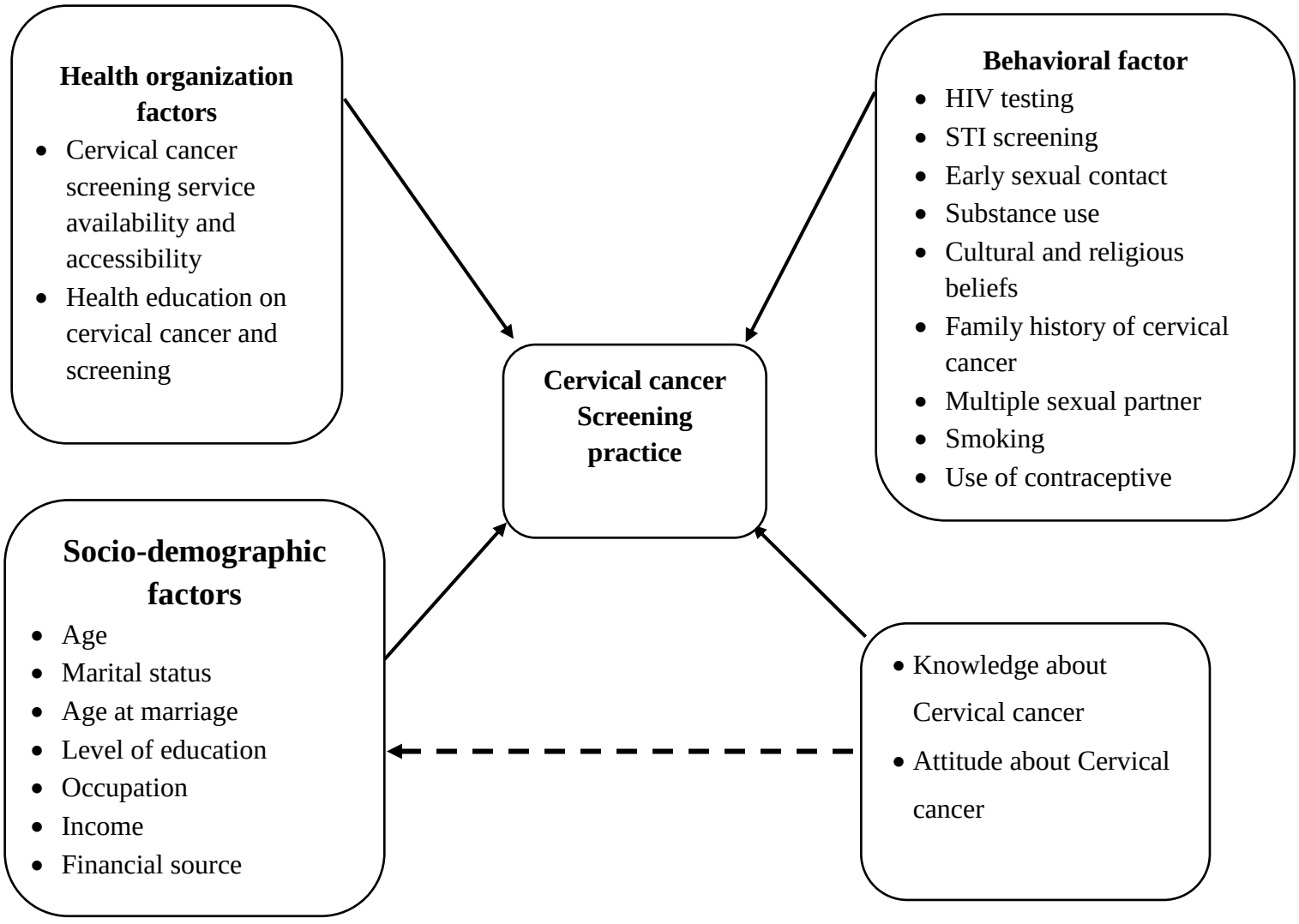

Figure 1: A conceptual framework indicating factors affecting cervical cancer screening practices among women of reproductive age in Dilla Town, 2025

3. OBJECTIVE

3.1.General objective

To assess cervical cancer screening practice and its associated factor among women of reproductive age in Dilla town, Southern Ethiopia, 2025

3.2.Specific objective

- ✓ To determine the magnitude of the c cervical cancer screening practices among women of reproductive age in Dilla town, Southern Ethiopia, 2025
- ✓ To identify factors associated with cervical cancer screening practice among women of reproductive age in Dilla town, Southern Ethiopia, 2025

4. METHOD AND MATERIALS

4.1.Study area and period

The study was conducted in Dilla Town, Gedeo Zone, South Ethiopia from June, 2025 to July 2025. Dilla town is the administrative center Gedeo zone and located in Southern 360Km far from Addis Ababa the capital city of Ethiopia and 165 kilometers from South Ethiopia capital city wolayita sodo. The town has situated at approximately 1,570 meters above sea level, with the average annual rainfall being 1,464 millimeters and temperatures usually ranging from 15°C to 27°C. According to Dilla town health department report, the total population of 104,001in 2025 consists of 50,960 (49%) males and 53,040 (51%) females and an estimated number of 21,225 households (ref). Estimated number of women of reproductive age (15-49) is 24,230.

Dilla town has twelve Kebles. In the twon, there are one referral hospital, two public health Center, thirteen private medium clinic and ten pharmacies. Cervical cancer screening by Visual Inspection with Acetic Acid (VIA) is provided in Dilla Referral Hospital, Haroresa Health Center, and Odaya Health Center, which is supervised by the Dilla Town Health Office.

4.2.Study design

Community based cross-sectional study supplemented by qualitative methods was conducted.

4.3.Source population and Study population

4.3.1. Source population

All reproductive age women who are living in Dilla town were source population of this study.

4.3.2. Study population

All reproductive age women who are living in randomly selected kebeles of Dilla Town were the study population of this study

4.4. Inclusion and exclusion criteria

4.4.1. Inclusion Criteria

All reproductive age women who are living in the study area for at least 6 months were included in this study

4.4.2. Exclusion criteria

All women who are critically ill and those who have had total hysterectomy at the time of data collection were excluded.

4.5.Sampling units

The sampling unit of this study is Household

4.6.Study unit

Women of reproductive age (15-49 yrs)

4.7.Sample size determination

4.7.1. Sample size for first objective

The sample size for the first objective determined by using single population proportion formula taking 0.05 margins of errors at 95% confidence level. Proportion of Utilization of cervical cancer screening 38.1% was used in the sample size calculation by taking similar research conducted at Adigrat town (19) using the formula for estimation of single population proportion n= (Zα/2)2p (1−p)/d2, where

n= minimum sample size,

Z 1-α/2= significance level at α =0.05 (standard normal variable at 95% confidence level =1.96)

d= expected margin of error (5%)

P= proportion of unintended pregnancy (38.1%)

$$n = \frac{(Z)^2\ P(1-P)}{d^2} \qquad n = \frac{(1.96)^2\ 0.381(0.619)}{0.05^2}$$

n=363

For possible none response rate during the study, the final sample size was increased by 10% to: n = 399 and to Calculate by effect size 1.5= **n599**

Sampling techniques and procedures

Multi-stage sampling technique was used. Initially, out of twelve kebeles of the town, five kebeles are selected by using simple random sampling techniques (lottery methods). Namely, Tena Kebele, Elicho Kebele, Bareda Kebele, Michel Kebele, and Bedecha kebeles are selected.

Households are sampling units for this study and the final sample size was allocated proportionally for each kebele based on the number of women. The census was conducted to identify the number of reproductive age women are living at least one year in the selected kebeles. Initially, the center of each kebele was identified during the census then random direction was chosen by spinning a pencil. After getting the direction walk along a straight line until reaching the boundary (numbering left and right) and then walk along the other direction until to the boundary. The final sample size was allocated proportionally for each kebeles based on the number of women that avail in the kebeles. Then the study households were be selected from each kebele through a simple random sampling technique by using a computer-generated random number starting from kebele one from a random start point after developing the sampling frame having a list of individual's house number which will be given during census. One woman per household will be interviewed. When two or more eligible women are found in one household, only one will be interviewed by using the lottery method. (Figure 2)

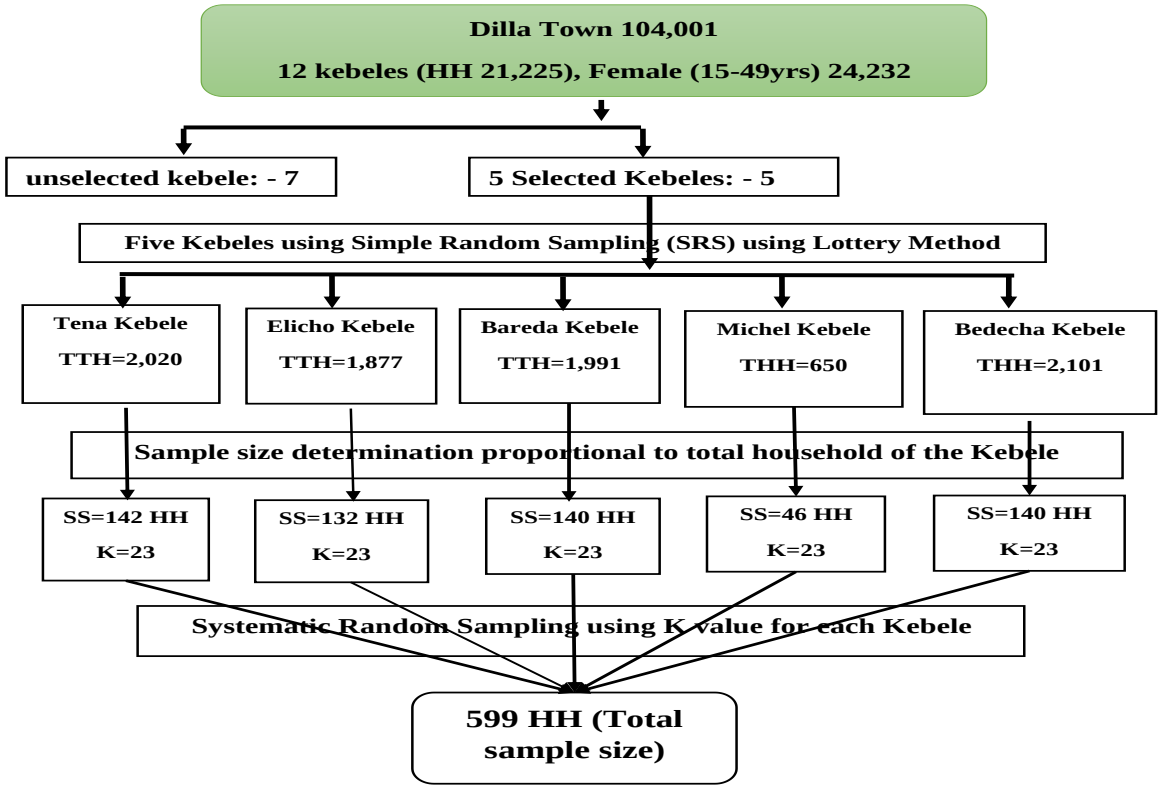

Figure 2: Schematic presentation of the sampling procedure for study conducted on eligible women of reproductive age in Dilla town, 2025

4.8.Study variables

4.8.1. Dependent variables

- Cervical cancer screening practice

4.8.2. Independent variables

4.8.2.1. Socio-Demographic factors.

- Age, marital status, level of education, occupation, financial sources, income, age at marriage.

4.8.2.2. Individual associated factors

- Knowledge, attitude towards cervical cancer screening, Others associated factors on cervical cancer and screening (Hormonal contraceptive usage, family/relatives' history of cervical cancer, HIV and STI testing history and substance use.

4.8.2.3. Community associated factors on cervical cancer and screening

- Community cervical cancer and screening agenda and advocacy; media, literatures, educational centers, family, relatives & friends and social institutions.

4.8.2.4. Health organization associated factors on cervical cancer and screening

- Cervical cancer education, screening service accessible, availability of nearby health organization/s.

4.9. Data collection tool and procedure

The data was collected by using face to face interview with structured questionary. The questionnaire was adapted, which was prepared in the English language (Annex II) and then translated to Amharic (Annex III) and back-translated to English language will be done by an independent translator for consistency. Data was collected by 9 data collectors and 3 supervisors who had BSc in midwifery and nursing. Three days training was given for data collectors and supervisors on the overall procedure of the study. Pre-test were done on 10% of the total participants (39 women) in Dilla Zuria worda near to the study area.

During the pretest, the questionnaire was assessed for its clarity, readability, comprehensiveness, accuracy, and optimal time for completing the interview. Based on the results of the pretest, modifications and corrections was made. Internal consistency/reliability of the item will be checked by computing Cronbach's alpha.

Data was collected through face-to--to-face interviews moved from house to house by the data collectors after verbal and written consent was obtained from the respondents. The data collection process was conducted individually at a convenient location of the respondents.

4.10. Data Quality

To keep the data quality, standard questionnaire was adapted. The data collectors and supervisors were trained for 02 days on the aims of the research, content of the questionnaire, and how to conduct interview to increase their performance in the activities. Pretest was conducted on 10% of study participants with participants from other side of the study area. All the interviews were collected at the residences of the study participants. Empty or closed houses during the day of visit was revisited two times to preserve the required sample size. The collected data were checked every day by supervisor and principal investigator for its completeness and consistency. All questionnaires were kept under lock and key for security and confidentiality of gained information.

4.11. Data analysis and interpretation

Data was checked for completeness, edited, coded and entered in to SPSS version 27.0 statistical software for analysis. Descriptive statistics such as mean, median, frequency and percentage were used. Bivariate analysis was done and all explanatory variables which had association with the outcome variable with P-value less than 0.25 was included in multivariable analysis. Multi variable analysis were employed to determine independent determinant factor among explanatory variables. Adjusted odds ratio (AOR), 95% confidence interval and P-value less than or equal to 0.05 was used to decide statistically significant association with outcome variable. Finally, results will be compiled and presented by using tables, graphs and texts.

4.12. Operational definitions

Cervical cancer screening practice- a female who had been screened for cervical cancer once or more in her life time.

Knowledge on cervical cancer and screening – assess the response on proposed awareness Questions (risk, Prevention measures and possible means of screening of cervical cancer)

Good knowledge of cervical cancer and screening: Respondents who correctly identify more than 50% of the items related to risk factors, prevention methods, and screening methods.

Poor knowledge of cervical cancer and screening: Respondents who correctly identify less than 50% of the items related to risk factors, prevention methods, and screening methods

Attitude – Asses reproductive age females' perception of susceptibility, severity, benefits and barriers on cervical cancer and screening based on HBM (Health Belief Model) "Likert scale"; strongly agree, agree, undecided, disagree and strongly disagree

Perceived susceptibility, severity and benefits- a female responding on proposed attitude questions (considering as risky, severity of the disease and benefit of screening)

Good Perceived susceptibility, perceived severity, perceived benefits, and perceived barriers-were assessed using Likert scale items. Participants who correctly responded to 50% or more of the attitude-related questions were considered to have a positive attitude.

HIV and STI testing history- HIV and STI testing history with in the past 4 years.

Discussion among/with family, relative and friends and community: Any formal or informal discussion on cervical cancer and screening among, family, relatives, friends and community.

4.13. Ethical Considerations

Ethical clearance for the study was sought from the Institutional Research Ethics Review Committee (IRERC), Pharma College, School of Graduate Studies, Department of Public Health. Formal support letter from the Dilla town Health Office was then be utilized in informing the stakeholders about the study before the collection of data. Purpose of the study, participants' rights, issues related to confidentiality, and voluntary participation were discussed with each respondent in simple language before data is collected. Verbal informed consent was requested from all the participants to assure their willingness to participate and ethically collect information.

4.14. Dissemination of the result

The findings of the study were submitted to the IRERC of Pharma College, School of Graduate Studies, Department of Public Health, to inform future public health intervention. The results were also be disseminated to key governmental and non-governmental stakeholders, included the dilla town health office, the gedeo zonal health department, the south Ethiopia reginal health bureau and other relevant partner. A one-day dissemination conference was organized at the town level to present the study outcome. Furth more, efforts was made to published the findings in peer-reviewed journals and to share the results through presentations at various national and international conference.

5. RESULT

5.1. Socio-demographic characteristics

In this study, 592 females of reproductive age participated with a response rate of 98.7%. The mean age of study participants was 29.15 years (6.63±SD). One hundred sixty-one (27.2) and 130 (22%) participants were reached to Primary and Secondary education respectively. The average monthly income of the study participants was 1,677 and 237 (40 %) of them have their own income. Majority, 191 (32.3%) of the study participants are Orthodox Christianity followers followed by Protestant, 163 (27.5%). Regarding occupation the majority of the study participants were housewives, accounting for 269 (45.4%), followed by student 79 (13.3%)

Table 1: Socio-demographic characteristics of females of reproductive age, Dilla town, Ethiopia, 2025

Variables	Category	Freq	%
Age	15 - 18 years	26	4.4
	19 – 29 years	301	50.8
	30 – 39 years	219	37.0
	40 – 49 years	46	7.8
Marital status	Single	151	25.5
	Married	403	68.1
	Divorced	28	4.7
	Widowed	10	1.7
Religion	Orthodox	191	32.3
	Muslim	163	27.5
	Protestant	157	26.5
	Catholic	81	13.7
Age at marriage	Before 18 years	67	11.3
	After 18 years	346	58.4
	Not yet married	179	30.2
Educational status	No formal education	167	28.2
	Primary education (1- 8)	134	22.6
	Secondary education (9-12)	161	27.2

	Tertiary education (>12 grade)	130	22.0
Occupation	House wife	269	45.4
	Student.	79	13.3
	Employee*	76	12.8
	Other**	168	28.3
Monthly income	≤ 2000 EB	345	58.3
	2001 - 4000EB	85	14.4
	> 4001EB	162	27.4
Financial source	Self	237	40.0
	Husband	244	41.2
	Family & relative	111	18.8

NB *Governmental & non-governmental) ** Merchant, Private & daily Laboure

5.2. Knowledge on cervical cancer and screening

Four hundred seventy-sex (80.4%) and 340 (57.4%) heard of cervical cancer and screening respectively. Overall, 291, (49.1%) participants found to be having a good knowledge. Hundred seventy-eight (29.1%) and 295 (48.3%) heard at least one risk factor and preventive measure respectively.

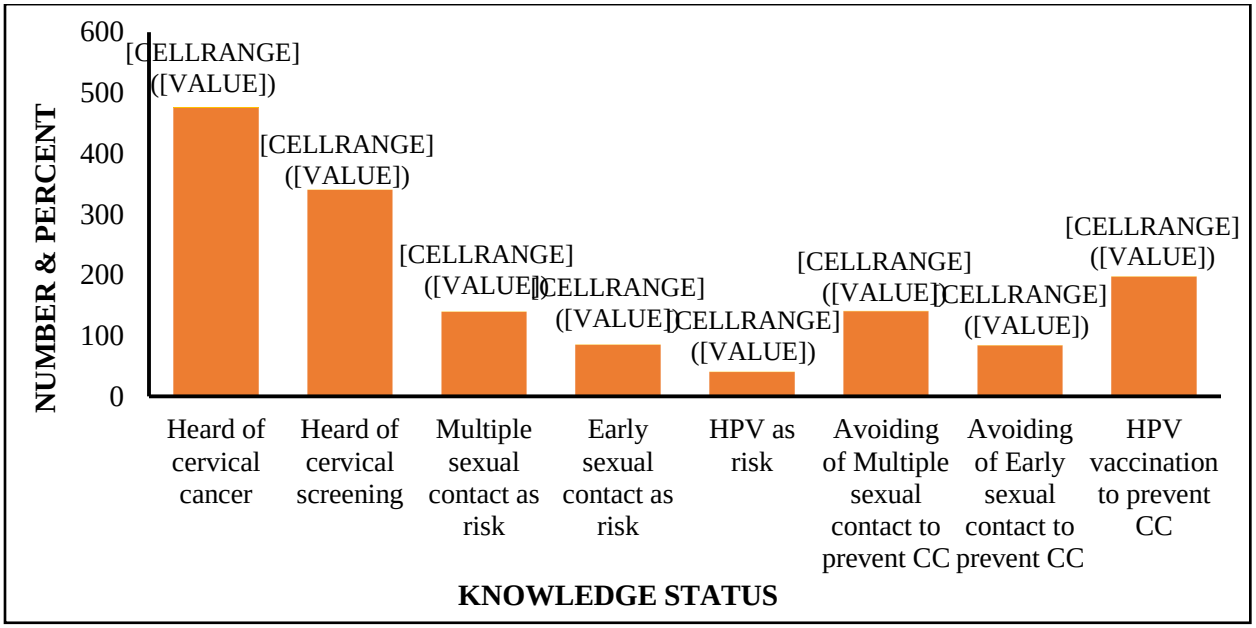

Figure 3: Knowledge status on cervical cancer and screening among women of reproductive age in Dilla town, 2025

5.3. Attitude on cervical cancer and screening

Based on Health Belief Model (HBM) conceptual frame works in health behaviors. The following figure showed that, among those 476 who, heard about cervical cancer and their poor perception

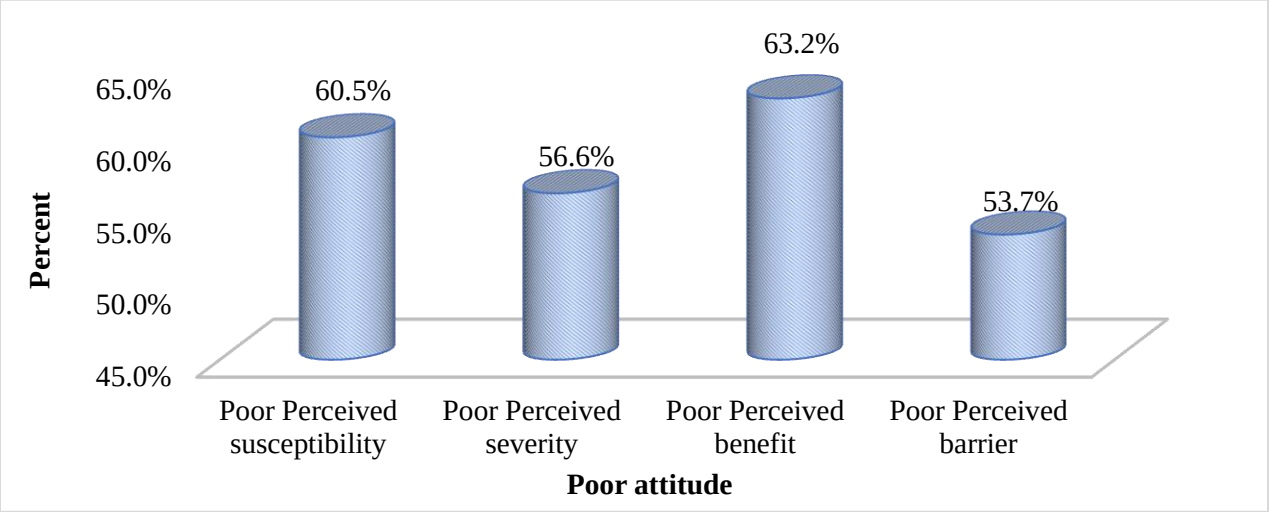

Figure 4: Poor attitude towards cervical cancer and screening for those who were heard about the disease, among females of reproductive age groups, Dilla, Ethiopia, 2025

5.4. Individual related factors

Some risk and related factors are highly associated with cervical cancer screening service uptake. As stated from FMOH cervical cancer guide (7) some of the related factors illustrated as below.

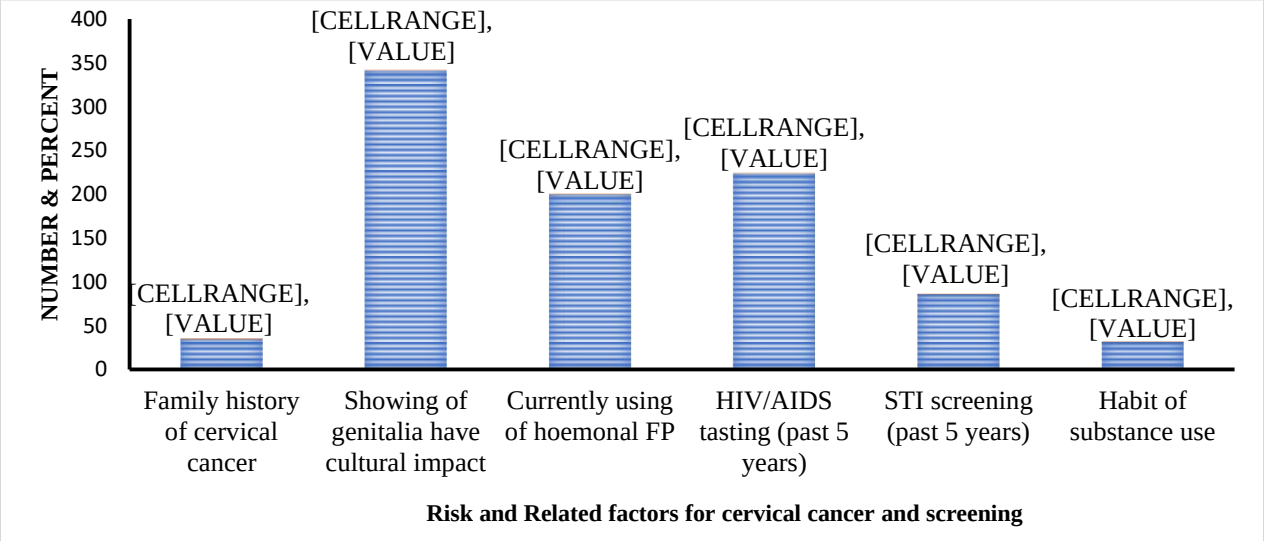

Figure 5: Individual risk factors for cervical cancer and driving for screening among females of

reproductive age, Dilla, Ethiopia, 2025

5.5.Community factors for cervical cancer and screening

Community factors like; media information, literatures reading, families discussion and advise, friends discussion, educational centers teaching and social institutions discussion on cervical cancer and screening have great role on cervical cancer screening service utilization among community members. (Table)

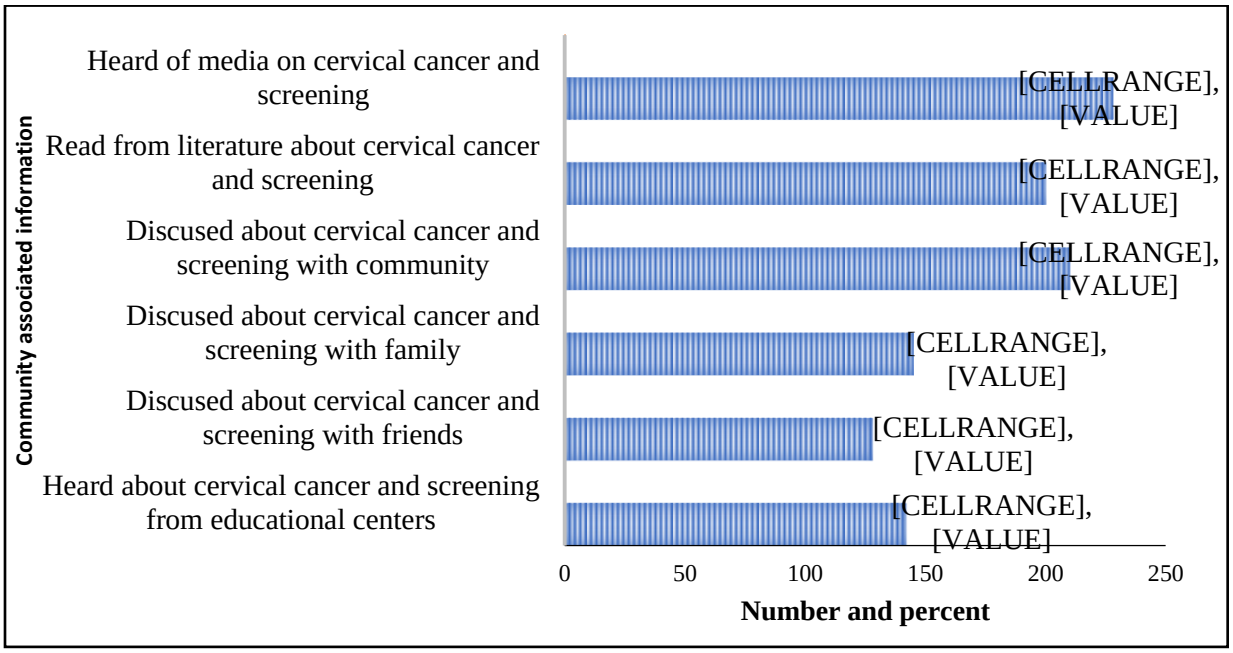

Figure 6: Community associated factors for cervical cancer and screening among females of reproductive age, Dilla, Ethiopia, 2025

5.6. Health organization factors for cervical cancer and screening

Health education on cervical cancer and screening, availability and accessibility of screening service in nearby health facilities and service advocacy to the community are major decisive factors for routine screening service utilization among women. The following table shows organizational factors for screening service

Table 2: Health organization associated factors for cervical cancer and screening among females of reproductive age, Dilla, Ethiopia, 2025.

Variables description	Category	Freq	%

Aware of screening service availability in health organization/s	Yes	148	25%
	No	448	75%
Aware of availability of nearby health organization which giving screening service	Yes	151	25.5%
	No	441	74.5%
Advocacy on screening service from nearby health organization	Yes	150	25.3%
	No	442	74.7%
Health education about cervical cancer	Yes	261	44.1%
	No	331	55.9%
Believed that health professionals' unethical behavior can affect screening service utilization?	Yes	317	53.5%
	No	275	46.5%
The assigned male health professional for cervical cancer screening may have certain implications	Yes	240	40.5%
	No	352	59.5%

5.7. Practice of Cervical Cancer Screening

Of the total 592 (100%) reproductive-age women who participated in the study, 84 (14.2%) had ever been screened for cervical cancer. Among those who had ever been screened, 71 (12.0%) were screened within the past two years, 9 (1.5%) within the past three years, and 4 (0.7%) within the past five years.

Table 3: Cervical cancer screening practice among reproductive-age women in Dilla town, 2025

Variable	Categories	Frequency	Percentage
Have you ever been screened for cervical cancer?	Yes	84	14.2
	No	508	85.8
	Total	592	100
When was the last time you were screened?	Past two years	71	12
	Past Three years	9	1.5
	Past five years	4	0.7
	Total	84	100

Majority of study participants were not screened. The reason is illustrated on the table

Table 4: Reason for not utilized cervical cancer screening among women of reproductive age in Dilla town, 2025

Reason for not screed	Frequency	% from not screened
Never heard of screening	116	18.5
Heard of screening but not screened	508	81
Not have information	88	14.9
Being of healthy	322	54.4
Not decided	98	16.6

5.6. Bivariate and multivariate analysis

Bivariate logistic regression analysis was done for all independent variables to identify candidate for multivariate logistic regression. Multivariable logistic regression analysis was done only for those 13 (thirteen) variables with (p- value <0.05) to identify association between independent variables with dependent one. The model was good fitted with Hosmer and lemeshow test of **0.989**

Table 5: Bivariate and Multivariate analysis of factors associated with cervical cancer screening service uptake among females of reproductive age group, Dilla Town, Ethiopia, 2025

Variables and variable category		Ever screened condition (n592)		COR	AOR	P-value
		Screened	Not screened	95% CI	95% CI	
Educational Background	No formal educated	6 (3.6%)	161 (96.4%)	1	1	
	Primary education (grade 1 – 8)	18 (13.4%)	116 (86.6%)	4.164 (1.603 - 10.812)	4.774 (1.690 - 13.484)	0.003
	Secondary education (grade 9–12)	26 (16.1%)	135 (83.9%)	5.168 (2.066 - 12.925)	3.662 (1.372 - 9.779)	0.01*
	Tertiary education (grade >12)	34 (26.2%)	96 (73.8%)	9.503 (3.849 - 23.467)	4.92 (2 1.799 - 13.465)	0.002*
Religion	Orthodox	42 (22.0%)	149 (78.0%)	1	1	
	Protestant	22 (13.5%)	141 (86.5%)	0.554 (0.315 - 0.974)	0.505 (0.242 - 1.051)	
	Muslim	13 (8.3%)	144 (91.7%)	0.320 (0.165 - 0.621)	0.493 (0.264 - 0.919)	0.026*
	Catholic	7 (8.6%)	74 (91.4%)	0.336 (0.144 - 0.783)	0.465 (0.181 - 1.194)	
Occupation	House wife	38 (14.1%)	231 (85.9%)	1	1	
	Student	4 (5.1%)	75 (94.9%)	0.324 (0.112 - 0.938)	0.138 (0.029 - 0.670)	0.014*
	Gov't employee	21 (29.6%)	50 (70.4%)	2.553 (1.381 - 4.720)	0.372 (0.129 - 1.067)	
Monthly	≤ 2000EB	12 (3.5%)	333 (96.5%)	1	1	

Income	2001 - 4000 EB	34 (40.0%)	51 (60.0%)	18.500 (8.995 - 38.048)	15.990 (7.498 - 34.102)	<.001*
	> 4000EB	38 (23.5%)	124 (76.5%)	8.504 (4.304 - 16.802)	5.697 (2.609 - 12.440)	<.001*
Income Source	Self	51 (21.5%)	186 (78.5%)	1	1	
	Husband	14 (5.7%)	230 (94.3%)	0.222 (0.119 - 0.414)	0.042 (0.015 - 0.120)	<.001*
	Family, relative/s	19 (17.1%)	92 (82.9%)	0.753 (0.420 - 1.349)	1.825 (0.556 - 5.988	0.321*
Knowledge	Poor Knowledge	11 (3.6%)	295 (96.4%)	1	1	
	Good Knowledge	73 (25.5%)	213 (74.5%)	9.191 (4.760 - 17.747)	3.494 (1.634 - 7.473)	<.001*
Perceived benefit	Poor perception	21 (5.6%)	353 (94.4%)	1	1	
	Good perception	63 (28.9%)	155 (71.1%)	6.832 (4.027 - 11.593)	3.136 (1.685 - 5.836)	<.001*
Perceived barrier	Poor perception	22 (6.9%)	296 (93.1%)	1	1	
	Good perception	62 (22.6%)	212 (77.4%)	3.935 (2.345 - 6.601)	3.702 (2.032 - 6.745)	<.001*
Past (5 yrs) HIV testing	No	22 (6.0%)	346 (94.0%)	1	1	
	Yes	62 (27.7%)	162 (72.3%)	6.019 (3.575 - 10.134)	2.002 (1.061 - 3.781)	0.032*
Past (5yrs) STI screening	No	52 (10.3%)	454 (89.7%)	1	1	
	Yes	32 (37.2%)	54 (62.8%)	5.174 (3.067 - 8.729)	4.093 (1.946 - 8.610)	<.001*
Media Heard about cervical ca. and screening	No	30 (8.2%)	334 (91.8%)	1	1	
	Yes	54 (23.7%)	174 (76.3%)	3.455 (2.133 - 5.598)	1.942 (1.090 - 3.461)	0.024*
Discussed about cervical cancer with families	No	42 (8.5%)	455 (91.5%)	1		
	Yes	42 (44.2%)	53 (55.8%)	8.585 (5.136 - 14.349)	2.930 (1.301 - 6.601)	0.003*

5.7. Factors associated with cervical cancer screening practice

Bivariate logistic regression analysis was done to assess association between individual independent variables and women of reproductive age cervical cancer screening practice. After controlling the effect multicollinearity among variables, multi variable logistic regression analysis was done to assess significant associated factors.

Knowledge, perceived benefit, and perceived barrier were significantly associated with cervical cancer screening service uptake. Among individual-level factors, history of HIV testing and history of STI screening were significant predictors of screening utilization. At the community level, exposure to media about cervical cancer and screening, as well as discussions with family members, were significantly associated with screening uptake. Furthermore, at the health organization level, receiving health education about cervical cancer was significantly related to cervical cancer screening service utilization ($P < 0.05$).

Women's educational status showed a significant association with cervical cancer screening practice. Those who had completed primary education were about 4.8 times more likely to undergo screening compared to women with no formal education (AOR = 4.774, 95% CI: 1.690–13.484, p = 0.003). Similarly, women with secondary education were nearly 3.7 times more likely to be screened (AOR = 3.662, 95% CI: 1.372–9.779, p = 0.010), while those who had attained tertiary education were about 4.9 times more likely to be screened (AOR = 4.920, 95% CI: 1.799–13.465, p = 0.002). Religion also influenced cervical cancer screening uptake. Muslim women were 50.7 times less likely to be screened compared to Orthodox women (AOR = 0.493, 95% CI: 0.264–0.919, p = 0.026).

Occupation was significantly associated with cervical cancer screening uptake. Students were about 86.2% less likely to be screened compared to housewives (AOR = 0.138, 95% CI: 0.029–0.670, p = 0.014). Monthly income was strongly associated with cervical cancer screening uptake. Women earning 2001–4000 ETB were about 16 times more likely to be screened compared to those with the lowest income (AOR = 15.990, 95% CI: 7.498–34.102, $p < 0.001$). Women earning more than 4000 ETB were about 5.7 times more likely to be screened than those with the lowest income (AOR = 5.697, 95% CI: 2.609–12.440, $p < 0.001$). Income source was significantly associated with cervical cancer screening uptake. Women whose income came from their husband were about 95.8% less likely to be screened compared to those with their own income (AOR = 0.042, 95% CI: 0.015–0.120, $p < 0.001$).

With regard to knowledge, Women with good knowledge were about 3.5 times more likely to be screened compared to those with poor knowledge (AOR = 3.494, 95% CI: 1.634–7.473, $p < 0.001$). Perceptions played a significant role in cervical cancer screening uptake. Women with a good perceived benefit of screening were about 3.1 times more likely to be screened compared to those with poor perception (AOR = 3.136, 95% CI: 1.685–5.836, $p < 0.001$). Similarly, women with a good perception of overcoming barriers were about 3.7 times more likely to be screened than those with poor perception (AOR = 3.702, 95% CI: 2.032–6.745, $p < 0.001$).

In terms of risk-related behaviors, Women who had HIV testing in the past five years were about 2 times more likely to be screened compared to those who had not been tested (AOR = 2.002, 95% CI: 1.061–3.781, $p = 0.032$). Similarly, women who had STI screening in the past five years were about 4.1 times more likely to be screened than those who had not undergone STI screening (AOR = 4.093, 95% CI: 1.946–8.610, $p < 0.001$).

Community factors significantly influenced cervical cancer screening uptake. Women who had heard about cervical cancer and screening through media were about 1.9 times more likely to be screened compared to those who had not (AOR = 1.942, 95% CI: 1.090–3.461, $p = 0.024$). Additionally, women who had discussed cervical cancer with family members were about 2.9 times more likely to be screened than those who had not (AOR = 2.930, 95% CI: 1.301–6.601, $p = 0.003$).

6. DISCUSSION

Individual, community, health organization, and sociodemographic factors play a crucial role in shaping opportunities for comprehensive prevention, screening, and control strategies for various diseases, including cervical cancer. Understanding these factors is essential for improving health outcomes. Therefore, this study aimed to assess the status of cervical cancer screening practices and examine how sociodemographic, individual, community, and health organization factors influence screening uptake among women of reproductive age in Dilla town.

The current study found that the uptake of cervical cancer screening among women of reproductive age in the study area was 14.2%, 95% CI= (11.1 - 15.7). This finding is much lower than reports from developed countries, where screening coverage reaches 62% in Japan, 68% in South Korea, and 61% in Israel (10). It is also lower than findings from Nepal, where utilization ranged between 16–17% (17). On the other hand, the result of this study is greater than reports from several developing countries, including India (2.0%) (11), Mozambique (3%), and Tanzania (11%) (10).

When compared with Sub-Saharan Africa, where the overall average screening rate is 10.29% (18), the present finding is greater than the regional average and higher than reports from countries such as Benin (0.5%), but it is lower than Namibia's 39.3% (18).

In the Ethiopian context, the uptake of 14.2% is higher than the national average, where only 1.6% of urban women and 0.4% of rural women have ever been screened (7). It is also greater than results from Bishoftu town (5.8%) (21), Gurage zone (3.8%) (22), and Durame town (13.8%) (24). However, the current finding is lower than studies conducted in Adigrat town (38.1%) (19), Assosa Zone (36%) (20), Gedeo Zone (23.8%) (12), Wolaita Zone (22.9%) (23), and Hawassa (19.8%) (25).

Overall, the uptake in this study is encouraging compared to the very low national average and some regional reports, but it remains lower than several Ethiopian studies and significantly below global standards. The observed differences may be due to variations in awareness levels, accessibility and availability of screening services, socioeconomic status, and health policy priorities (8).

In current study, educational status was found to be a strong determinant of cervical cancer screening uptake. Women who had completed primary, secondary, and tertiary education were 4.8, 3.7, and 4.9 times more likely, respectively, to undergo screening compared to those with no

formal education. This finding is lower than a study conducted in Debremarkos town, where women with higher educational attainment were 7.268 times more likely to be screened compared to those with no formal education (27). Similarly, in the Wolaita Zone, women with a secondary level of education were about 5 times more likely to undergo cervical cancer screening compared to those with no formal education (23). On the other hand, the present finding is higher than evidence from four Sub-Saharan African countries, where women who completed primary and secondary/higher education were 2.17 and 2.50 times more likely, respectively, to practice cervical cancer screening (5). Findings from the Gedeo Zone also showed that women with college education and above were 5.49 times more likely to undergo screening compared to those with no formal education, which is slightly higher than our result. In contrast, studies from India reported smaller effect sizes, where women who had completed primary, secondary, and tertiary education were 1.2, 1.3, and 1.3 times more likely, respectively, to undergo screening compared to women without formal education (11), In Adigrat Town, Adigrat Town women Primary (4.9 times), Secondary (3.4 times), Diploma & above (3.2 times) more likely to be screened compared to illiterate women(19).

The current study indicates that religion also has a significant influence on screening behavior. Muslim women were found to be 50.7 less likely to undergo cervical cancer screening compared to Orthodox Christian women. This finding is consistent with a study conducted in Southern Ghana, where Muslim women were 12 times less likely to participate in cervical cancer screening (38). Similarly, in a study conducted in India, the highest screening coverage was observed among Christians, while Muslim women were 30 times less likely to undergo cervical cancer screening (11).

Occupational status was found to significantly influence cervical cancer screening uptake. in the current study, students were about 86.2% less likely to undergo cervical cancer screening compared to housewives (AOR = 0.138, 95% CI: 0.029–0.670, p = 0.014). Similarly, government employees in Ambo town were 2.4 times more likely to undergo cervical cancer screening compared to housewives (AOR = 2.4, 95% CI: 1.5–11.6) (35). In Durama town, self-employed women were about 2.6 times more likely to be screened compared to housewives (AOR = 2.58, 95% CI: 1.06–6.27) (24), and at St. Paul's Teaching and Referral Hospital, government employees were 2.4 times more likely to undergo screening (AOR = 2.4, 95% CI: 1.5–11.6) (14).

In the current study, monthly income emerged as a strong determinant of cervical cancer screening. Women earning 2,001–4,000 ETB were nearly 25 times more likely to undergo screening compared to those earning ≤2,000 ETB. This finding underscores the importance of economic empowerment in accessing preventive health services. Similar findings have been reported in other studies. In St. Paul's Hospital, Addis Ababa, women earning 2,000–3,999 Birr were 2.9 times more likely to be screened compared to women with lower income (AOR = 2.93, 95% CI: 1.32–6.51), while those earning 4,000 Birr and above were 3.0 times more likely to be screened (AOR = 2.97, 95% CI: 1.27–6.92) (14). In Durama town, women with higher income were 4.9 times more likely to undergo cervical cancer screening compared to those with lower income (AOR = 4.9, 95% CI: 1.1–22.0) (24). In Adigrat, women with higher income were about 2.3 times more likely to undergo cervical cancer screening compared to those with lower income (AOR = 2.3; 95% CI: 1.096–5.036) (19). Similarly, across sub-Saharan African countries, women with middle and highest wealth status were 1.38 and 2.23 times more likely to undergo cervical cancer screening compared to those with the lowest wealth status, respectively (AOR = 1.38; 95% CI: 1.24–1.54 and AOR = 2.23; 95% CI: 2.02–2.48) (5).

The current study found that women with good knowledge about cervical cancer were 3.4 times more likely to undergo screening compared to those with poor knowledge. Among women with good knowledge, 74.5% had not been screened, compared to 96.4% of those with poor knowledge. highlighting the importance of awareness in preventive health behavior. This finding aligns with previous studies in Ethiopia and other developing countries, which consistently show that knowledge is a key driver of screening uptake. For example, in Adigrat Town, only 14.2% of women had a good understanding of cervical cancer, while the majority (85.8%) had minimal information (19). In Bishoftu town, about 51.2% had extensive knowledge (21), whereas in Gurage Zone only 26.2% of women had good knowledge (22), in Gedeo zone, southern Ethiopia, 5.4 % of women had adequate knowledge of cervical cancer screening (12) and A study conducted in Wolaita Zone, Southern Ethiopia 43.1% of women had good knowledge (23). These findings emphasize that higher levels of awareness are strongly associated with increased screening.

In the current study, women's perception of the benefits of cervical cancer screening was strongly associated with their screening practice. Among women with poor perceived benefits,

only 5.6% had undergone screening, compared to 28.9% of those with good perceived benefits. Women with good perceived benefits were 27 times more likely to undergo cervical cancer screening. Compared to this, a study in Nepal reported an even higher likelihood, with women being 30 times more likely to be screened (17), which is above the current study. In contrast, studies conducted in southern Ethiopia and another region of Ethiopia reported lower associations, with women having high perceived benefits being 12 times (12) and 4.2 times (34) more likely to undergo screening, respectively, which are below the current study.

In this study, women's history of HIV testing in the past five years was strongly associated with cervical cancer screening practice. Among women who had not undergone HIV testing, only 6.0% were screened, compared to 27.7% of women with a history of HIV testing. A similar pattern was observed in Asella town, where 30.3% of women with HIV had undergone screening (39), and in Nepal, where women tested for HIV were significantly 25 times more likely to have been screened (34). In contrast, a study in southern Ethiopia found that women who had been tested for HIV were less likely to receive cervical cancer screening (34). This may be because women accessing HIV testing are more connected to healthcare services and motivated to seek preventive care.

Similarly, prior screening for sexually transmitted infections (STIs) within the last five years was associated with an increased likelihood of cervical cancer screening. In the current study, women who had been screened for STIs were nearly 4 times more likely to undergo cervical cancer screening compared to those who had not been screened. Compared to this, a study in Mertule Mariam Town, East Gojjam Zone, reported an even higher likelihood, with women who had undergone STI testing being 11 times more likely to be screened (40), which is above the current study. In contrast, studies conducted in Durame town and Shabadino District reported lower associations, with women having a history of STIs being 4.2 times and 2.6 times more likely to undergo screening, respectively (24.37), which are below the current study. These findings highlight the importance of integrating STI counseling and screening programs with cervical cancer prevention efforts to improve the uptake of screening services.

Finally, health system factors were strongly associated with cervical cancer screening. In the current study, 29.1% of women reported receiving health education about cervical cancer from health institutions, and those who received such education were over 15 times more likely to be screened than those who did not. Compared to this, a study in Adigrat Town reported that 40.3%

of women received information from healthcare providers (19), which is above the current study. In contrast, studies in Gurage Zone and Durame Town reported lower figures, with 7.8% and 25.6% of women receiving health education respectively (22,24), which are below the current study. These findings highlight the critical role of health education and proactive health system engagement in increasing cervical cancer screening uptake.

Strength of the study

This study encompasses qualitative data and a relatively sufficient sample size for better results and applicability. It focused on the most vulnerable reproductive-age groups of the community to show the extent of screening uptake and associated factors. In addition, the study used only female urban health extension nurses as data collectors to ensure respondents' privacy and obtain reliable information on the issue.

Limitation of the study

This study was conducted in Dilla Town and included only urban females of reproductive age (15–49 years), which may limit the generalizability of the findings to rural areas or other age groups. Selection bias could have occurred because data collectors selected participants from those present at the time of data collection. Additionally, variations in how data collectors explained the questions might have affected the consistency and clarity of responses.

7. CONCLUSION AND RECOMMENDATION

7.1. Conclusion

In this study, less than a quarter of the participants had undergone cervical cancer screening, indicating that screening practice remains low, although it is slightly higher than the national coverage. The majority of women did not participate in screening due to limited awareness of cervical cancer and its prevention, and a perception of being healthy. Several socio-demographic factors were significantly associated with screening uptake. Women with higher educational levels, higher monthly income, and those who were housewives were more likely to undergo screening, whereas students, government employees, women with no formal education, low-income earners, and women from Muslim and Catholic backgrounds were less likely to be screened. These findings highlight the need for intensified health education, targeted awareness campaigns, and community-based advocacy to improve cervical cancer screening uptake among women of reproductive age in Dilla town.

7.2. Recommendation

Even if cervical cancer screening service relatively accessible with in the study area, but its up take is not satisfactory. The local responsible bodies should give attention to tackle the individual, communities and organizational related problems on cervical cancer and screening by means of different means of communications.

Based on the findings of the study, we recommend the following specific groups

To Dilla Town health office and Heath facility

- Strengthen community mobilization at all levels by linking women to available cervical cancer screening services equipped with adequate facilities and trained health professionals. Collaborative efforts should involve Dilla Town Women's and Child Affairs Office, urban health extension workers, kebele and religious leaders, influential community members, schools, and other social institutions to promote awareness, encourage participation, and ensure sustained utilization of screening services.

Local media

- Should give prioritize and intensify information dissemination about cervical cancer and available screening services. Emphasis should be placed on raising awareness, educating the public about risk factors and prevention, and encouraging women to utilize screening services.

To Health care providers

- Health care providers should deliver coordinated and routine health education to the community, including school-based programs, to intensify awareness about cervical cancer and the importance of screening.

To Researchers

- Cervical cancer is an emerging public health concern. There is a need for larger-scale clinical and population-based studies at regional and national levels to better understand its prevalence, risk factors, and effective strategies for prevention and screening.

Reference

1. Bruni L, Albero G, Serrano B, Mena M, Collado JJ, Gómez D, et al. Human Papillomavirus and Related Diseases in the World. Summary Report 10 March 2023. Barcelona (Spain): ICO/IARC Information Centre on HPV and Cancer (HPV Information Centre); 2023 2023/03/10.
2. Cancer Council A. Understanding cervical cancer: a guide for people with cancer, their families and friends. 1st ed. Sydney: Cancer Council Australia; 2023.
3. World Health O. WHO guideline for screening and treatment of cervical pre-cancer lesions for cervical cancer prevention: use of dual-stain cytology to triage women after a positive test for human papillomavirus (HPV): World Health Organization; 2021.
4. Genomics B. Empowering women's health: BGI Genomics Global 2023 state of cervical cancer awareness report. 2023.
5. Mekonen EG, Gebrehana DA, Tamir TT. Determinants of cervical cancer screening among women of childbearing age in four sub-Saharan African countries: insights from large population surveys. BMC cancer. 2024;24(1):1304.
6. Ba DM, Ssentongo P, Musa J, Agbese E, Diakite B, Traore CB, et al. Prevalence and determinants of cervical cancer screening in five sub-Saharan African countries: a population-based study. Cancer epidemiology. 2021;72:101930.
7. Federal Ministry of Health E. Guideline For Cervical Cancer Prevention And Control In Ethiopia. Addis Ababa: Federal Ministry of Health; 2021.
8. Louie KS, De Sanjose S, Mayaud P. Epidemiology and prevention of human papillomavirus and cervical cancer in sub-Saharan Africa: a comprehensive review. Tropical Medicine & International Health. 2009;14(10):1287-302.
9. Mekuria M, Edosa K, Endashaw M, Bala ET, Chaka EE, Deriba BS, et al. Prevalence of Cervical Cancer and Associated Factors Among Women Attended Cervical Cancer Screening Center at Gahandi Memorial Hospital, Ethiopia. Cancer Informatics. 2021;20:117693512110684.

10. Bruni L, Serrano B, Roura E, Alemany L, Cowan M, Herrero R, et al. Cervical cancer screening programmes and age-specific coverage estimates for 202 countries and territories worldwide: a review and synthetic analysis. The Lancet Global Health. 2022;10(8):e1115-e27.
11. Garg P, Krishnamoorthy Y, Halder P, Rajaa S, Verma M, Kankaria A, et al. Urban-rural disparities in cervical cancer screening among Indian women between 30–49 years: a geospatial and decomposition analysis using a nationally representative survey. BMC Cancer. 2025;25(1).
12. Demeke AD, Deribe B, Girma M, Gizaw M, Getachew S, Unverzagt S, et al. Screening attendance of breast or cervical cancers and its associated factors among 30–49 year old women in Gedeo zone, South Ethiopia: Cross-sectional study. PLOS ONE. 2025;20(1):e0315891.
13. System DHI. Cervical Cancer screening Report Dilla Town Health Office; 2024.
14. Woldetsadik AB, Amhare AF, Bitew ST, Pei L, Lei J, Han J. Socio-demographic characteristics and associated factors influencing cervical cancer screening among women attending in St. Paul's Teaching and Referral Hospital, Ethiopia. BMC Women's Health. 2020;20(1).
15. Oraon BP, Singh, S.B. Factors Associated With Cervical Cancer Screening Practices In Reproductive-Age Women. Health Research Africa. March2024;5.
16. Organization WH. Comprehensive Cervical Cancer Control: A Guide to Essential Practice. Geneva: World Health Organization; 2014.
17. Shrestha AD, Andersen JG, Gyawali B, Shrestha A, Shrestha S, Neupane D, et al. Cervical cancer screening utilization, and associated factors, in Nepal: a systematic review and meta-analysis. Public Health. 2022;210:16-25.
18. Hailegebireal AH, Bizuayehu HM, Tirore LL. Far behind 90-70-90's screening target: the prevalence and determinants of cervical cancer screening among Sub-Saharan African women: evidence from Demographic and Health Survey. BMC Cancer. 2024;24(1).
19. Tsegay A, Araya T, Amare K, G/Tsadik F. Knowledge, Attitude, and Practice on Cervical Cancer Screening and Associated Factors Among Women Aged 15–49 Years in Adigrat Town, Northern Ethiopia, 2019: A Community-Based Cross-Sectional Study. International Journal of Women's Health. 2021;Volume 12:1283-98.

20. Gelassa FR, Nagari SL, Jebena DE, Belgafo D, Teso D, Teshome D. Knowledge and practice of cervical cancer screening and its associated factors among women attending maternal health services at public health institutions in Assosa Zone, Benishangul-Gumuz, Northwest Ethiopia, 2022: a cross-sectional study. BMJ Open. 2023;13(5):e068860.
21. Ebo GG TT, Heyi WD. Cervical Cancer Screening Practice and Associated Factors in Bishoftu Town, Eastern Ethiopia. Gynecol Obstet. 2020;. 2020;10:538.
22. Endalew DA, Moti D, Mohammed N, Redi S, Wassihun Alemu B. Knowledge and practice of cervical cancer screening and associated factors among reproductive age group women in districts of Gurage zone, Southern Ethiopia. A cross-sectional study. PLOS ONE. 2020;15(9):e0238869.
23. Tekle T, Wolka E, Nega B, Kumma WP, Koyira MM. <p>Knowledge, Attitude and Practice Towards Cervical Cancer Screening Among Women and Associated Factors in Hospitals of Wolaita Zone, Southern Ethiopia</p&gt. Cancer Management and Research. 2020;Volume 12:993-1005.
24. Amado G, Weldegebreal F, Birhanu S, Dessie Y. Cervical cancer screening practices and its associated factors among females of reproductive age in Durame town, Southern Ethiopia. PLOS ONE. 2022;17(12):e0279870.
25. Assefa AA, Feleke T, G/Tsadik SA, Degela F, Zenebe A, Abera G. Utilization and associated factors of cervical cancer screening service among eligible women attending maternal health services at Adare General Hospital, Hawassa city, Southern Ethiopia. Scientific Reports. 2024;14(1).
26. Hussein K, Wafula F, Kassie GM, Kokwaro G. Barriers and facilitators to implementation of the Ethiopian national cancer control plan strategies: Implications for cervical cancer services in Ethiopia. PLOS Global Public Health. 2024;4(7):e0003500.
27. Aynalem BY, Anteneh KT, Enyew MM. Utilization of cervical cancer screening and associated factors among women in Debremarkos town, Amhara region, Northwest Ethiopia: Community based cross-sectional study. PLOS ONE. 2020;15(4):e0231307.
28. Abate SM. Trends of Cervical Cancer in Ethiopia. 2019.
29. Delie AM, Bogale EK, Anagaw TF, Tiruneh MG, Fenta ET, Endeshaw D, et al. Healthcare providers' knowledge, attitude, and practice towards cervical cancer screening in Sub-Saharan Africa: systematic review and meta-analysis. Frontiers in Oncology. 2024;14.

30. Nepal J, Poudyal AK, Duwal S, Gyawali S, Basel P. Utilization of Cervical Cancer Screening and Associated Factors among Women in Bhaktapur, Nepal. Kathmandu University Medical Journal. 2022;20(3):330-6.
31. Taneja N, Chawla B, Awasthi AA, Shrivastav KD, Jaggi VK, Janardhanan R. Knowledge, Attitude, and Practice on Cervical Cancer and Screening Among Women in India: A Review. Cancer Control. 2021;28:107327482110107.
32. Olubodun T, O Ogundele O, A Salisu Z, O Odusolu Y, U Caleb-Ugwuowo U. Cervical cancer awareness and risk factors among women residing in an urban slum in Lagos, Southwest Nigeria. African Health Sciences. 2023;23(3):269-79.
33. Gebru Z GM, Dirar A. Utilization of cervical carcinoma screening service and associated factors among currently married women in Arba Minch Town, Southern Ethiopia. Ethiop J Health Sci. 2015;4:349–58.
34. Dulla D, Daka D, Wakgari N. Knowledge about cervical cancer screening and its practice among female health care workers in southern Ethiopia: a cross-sectional study. International Journal of Women's Health. 2017;Volume 9:365-72.
35. Lemma D, Aboma M, Girma T, Dechesa A. Determinants of utilization of cervical cancer screening among women in the age group of 30–49 years in Ambo Town, Central Ethiopia: A case-control study. PLOS ONE. 2022;17(7):e0270821.
36. Belay AS, Asmare WN, Kassie A. Cervical cancer screening utilization and its predictors among women in bench Sheko Zone, Southwest Ethiopia: using health belief model. BMC Cancer. 2023;23(1).
37. Shiferaw Y, Gebremedhin T, Ayalew M. Determinants of cervical cancer screening utilization among women in **Shabadino District**, Southern Ethiopia: Community-based cross-sectional study. [Add journal details if available].
38. Enyan NI, Davies AE, Opoku-Danso R, Annor F, Obiri-Yeboah D. Correlates of cervical cancer screening participation, intention and self-efficacy among Muslim women in southern Ghana. BMC Women's Health. 2022 Jun 13;22(1):225.
39. Cervical cancer screening service utilisation and related factors among women on antiretroviral therapy in public health facilities of Asella town, Ethiopia, cross-sectional study

40. esfaw K, Kindie W, Mulatu K, Bogale EK. Utilisation of cervical cancer screening and factors associated with screening utilisation among women aged 30–49 years in Mertule Mariam Town, East Gojjam Zone, Ethiopia, in 2021: a cross-sectional survey. BMJ Open. 2022 Nov 22;12(11):e067229. doi: 10.1136/bmjopen-2022-067229.

41. Determinants of cervical cancer screening intention among reproductive age women in Ethiopia: A systematic review and meta-analysis.

42. Cognitive determinants of cervical cancer screening behavior among housewife women in Iran: An application of Health Belief Model.

1. ANNEXES

Annex I: Information Sheet

My name is **Misikir Alemu**. I am investigator of the study being conducted in this community. I kindly request your attention to briefly explain you about the study and study participants in general.

Title: To assess cervical cancer screening practice and its associated factor among women of reproductive age in Dilla Town, Southern Ethiopia,

Name of the Town: Dilla Town, Southern Ethiopia

Name of the sponsor: ----------

Introduction: This information sheet and consent form is prepared by the investigator whose aim is to determine proportion of cervical cancer screening utilization and associated factor for utilization of cervical cancer screening and its barrier among reproductive age in Dilla Town, Southern Ethiopia**.**

Purpose: The main purpose of the research is to assess cervical cancer screening practice and its associated factor among women of reproductive age in Dilla Town, Southern Ethiopia,

Procedure and duration: In order, to assess cervical cancer screening practice and its associated factor among women of reproductive age in Dilla Town, Southern Ethiopia,

I invite you to take part in this research. If you are willing to participate in this research, you need to give consent through signing. Then, you will be asked to fill your response by yourself on the questions.

Risk and/or Discomfort: By participating in this study, you may feel that some discomfort specially on wasting your time but this will not be too much to fill the questions while you are on free time and there is no risk in participating in this study.

Benefits: If you participate in this study, you may not get direct benefit. But the correct information that you provide us in combination with information we obtain from other sources have great importance in designing and implementing effective utilization of cervical cancer screening and to explore its barrier among women of reproductive age in Dilla Town, Southern Ethiopia,

Incentives: You will not be provided any incentives to take part in this study.

Confidentiality and Anonymity: The information acquired from participants will be confidential. There will be no information that will identify in particular. The findings of the study will be general for the study population and will not reflect anything particularly of individual persons. The checklist will be coded to exclude showing names and other personal identifiers". No reference will be made in oral or written reports that could link participants to the study.

Right to Refuse or Withdraw: Giving permission for this study is fully voluntary. You have the right to permit or not for this study. If you decide to permit the study, you have the right to terminate the study at any time if you consider something related to the study is wrong.

Contact address: If there are any questions or enquires any time about the study or procedures, please contact in this address.

Principal investigator: **Misikir Alemu,** email; **emu.beni61@gmail.com**

Mobile No: +251916834870

ANNEX II Consent Form

Questionnaires on cervical cancer screening practice and associated factors among reproductive age groups in Dilla town, southern Ethiopia.

To be filled by data collectors Greeting to client!

My name, my profession is ……. I came from Health organization. Here by, if you are volunteer, I would like to ask you a few questions on cervical cancer screening practice and associated factors among reproductive age groups. I would be very grateful if you could spend a few minutes with me to answer questions. The information you give will be kept confidential and you name will not register.

The purpose of this study is to assess cervical cancer screening practice and associated factors among reproductive age groups in Dilla town, southern Ethiopia and finally to give important information to concerned bodies that will help to strengthen and improve screening service, for this, your information is very important.

Are you volunteer to continue? Yes ……. No ……

Code number of the client…….…… Name Responsibility Signature----------

ANNEX III Questionnaire English version ———————

Part 1 -Socio demographic data

CODE	QUESTIONS	CATEGORIES	SKIP
101	How old are you?	…..... Years	
102	How is your marital status?	1. Single 2. Married3. Divorced 4. Widowed 88. Refuse to respond	
103	Religion	1. Orthodox 2. Muslim 3. Protestant 4. Catholic 88. Others (Specify)	
104	At what age did you marry	1. Before 18 years 2. After 18 years 3. Not yet married 88. Refuse to respond	
105	Educational Status	1. No formal education 2. Primary education (1- 8) 3. Secondary education (9-12) 4. Tertiary education (>12 grade) 88. Refuse to respond	
106	What is your occupation?	1 . House wife 2 . Student. 3 . Government employer 4 . Private employee 5 . Merchant 6 . Daily laborer 7 . non-government employee. 8 . Refuse to respond	
107	How much money do you get per month?	_____ Ethiopian Birr	

108	Who is your individual financial source?	1. Self 2. Husband 3. Family, relative/s and others	
109	At what age did you have first intercourse?	1. Before 18 years 2. After 18 years 3. Yet to start intercourse 88. Refuse to	
110	How money children do you have	1. One 2.Two 3.Three 4. >=4 5. I didn't have 88. Refuse to respond	

Part 2. Utilization of cervical cancer screening

CODE	QUESTIONS	CODING CATEGORIES	SKIP
111	Have you ever screened for cervical cancer?	1. Yes 2. No 88. Refuse to respond	If no, go to115
112	How many times do you had cervical screened?	1. Once 2. Two times 3. More than two 88. Refuse to respond	
113	When was the last time you had CC screened?	1. past two years 2. past three years 3. past five years 4. past ten years 88. Refuse to respond	
114	What was the reason for undergone cervical cancer screening?	1. Media 2.H/ professional advise 3. Personal initiation	

		4. Literature reading 5. Friend advice 6. Family advice 88. Refuse to respond	
115	If not screened! What was the reason/s?	1. Not have information 2. Being of healthy 3. Not decided 4. Other …… 88. Refuse to respond	If 111 Yes, skip 115
116	Have you ever have interest on cervical cancer screening test?	1. Yes 2. No 88. Refuse to respond	
117	Have you ever have plan on cervical cancer screening test?	1. Yes 2. No 88. Refuse to respond	
118	Have you ever made effort to get cervical cancer screening test?	1. Yes 2. No 88. Refuse to respond	
119	Have you ever got any advice on cervical cancer screening?	1. Yes 2. No 88. Refuse to respond	

Part 3. Individual associated factors on cervical cancer and screening

3.1 Knowledge on cervical cancer

COD	QUESTIONS	CATEGORIES			SKIP
120	Have you ever heard of cervical cancer?	1. Yes	2. No	88. Refuse to respond	If No go to123
121	If yes! Do you know about the risk factors of cervical cancer?	1. Yes	2. No	88. Refuse to respond	If No to 122

121A	Do you think multiple sexual partners contact can be the risk factor?	1. Yes	2. No	88. Refuse to respond	
121B	Do you think early age sexual intercourse can be the risk factor for cervical cancer?	1. Yes	2. No	88. Refuse to respond	
121C	Do you think HPV can be the risk factor for cervical cancer?	1. Yes	2. No	88. Refuse to respond	
122	Do you know prevention measures for cervical cancer?	1. Yes	2. No	88. Refuse to respond	If No to 123
122A	Do you think that early cervical cancer screening preventive measure?	1. Yes	2. No	88. Refuse to respond	
122B	Do you think that avoid multiple sexual partner (? > one partner) is one of preventive measure?	1. Yes	2. No	88. Refuse to respond	
122C	Do you think that avoid early age sexual contact? is preventive measure?	1. Yes	2. No	88. Refuse to respond	
122D	Do you think that vaccination preventive measure?	1. Yes	2. No	88. Refuse to respond	
123	Do you ever heard of cervical cancer screening?	1. Yes	2. No	88. Refuse to respond	If No to 125
124	If yes!, do you know the importance of cervical cancer screening?	1. Yes	2. No	88. Refuse to respond	
124A	Is screening important for married women only?	1. Yes	2. No	88. Refuse to respond	
124B	Is screening important for	1. Yes	2. No	88. Refuse to respond	

	unmarried women only?				
124C	Is screening important for all women?	1. Yes	2. No	88. Refuse to respond	

3.2 Attitude on cervical cancer and screening

3.2.1 Perceived susceptibility

CODE	QUESTIONS	CODING CATEGORIES	SKIP
125	Do you think that you may be at risk of cervical cancer?	1. Strongly disagree 2. Disagree 3.Undecided, 4. Agree 5.Strongly agree 88. Refuse to respond	
126	Do you think, there may be possible risk for cervical cancer?	1. Strongly disagree 2. Disagree 3.Undecided, 4. Agree 5.Strongly agree 88. Refuse to respond	
127	Do you think that unprotected sexual contact may be the risk for cervical cancer?	1. Strongly disagree 2. Disagree 3.Undecided, 4. Agree 5.Strongly agree 88. Refuse to respond	
128	Do you think that your fiancé may become possible risk factor to you for cervical cancer?	1. Strongly disagree 2. Disagree 3.Undecided, 4. Agree 5.Strongly agree 88. Refuse to respond.	
129	Do you think that STI may be the risk factors for cervical cancer?	1. Strongly disagree 2. Disagree 3.Undecided, 4. Agree 5.Strongly agree 88. Refuse to respond	

3.2.2 Perceived severity

CODE	QUESTIONS	CODING CATEGORIES	SKIP
130	Do you think that cervical cancer is severe disease?	1. Strongly disagree 2. Disagree 3. Undecided, 4. Agree 5. Strongly agree 88. Refuse to respond	
131	Do you think that cervical cancer is fatal?	1. Strongly disagree 2. Disagree 3. Undecided, 4. Agree	

		5. Strongly agree 88. Refuse to respond	
132	Do you think that cervical cancer have no good? chance of cure?	1. Strongly disagree 2. Disagree 3. Undecided, 4. Agree 5. Strongly agree 88. Refuse to respond	
133	Do you think that cervical cancer can lead to advanced stage if not detected early?	1. Strongly disagree 2. Disagree 3. Undecided, 4. Agree 5. Strongly agree 88. Refuse to respond	
134	Do you think that cervical cancer can have severe pain at late stage, if not detected early?	1. Strongly disagree 2. Disagree 3. Undecided, 4. Agree 5. Strongly agree 88. Refuse to respond	

3.2.3 Perceived benefits

CODE	QUESTIONS	CODING CATEGORIES	SKIP
135	Do you believe cervical cancer screening test beneficiary for once health?	1. Strongly disagree 2. Disagree 3. Undecided, 4. Agree 5. Strongly agree 88. Refuse to respond	
136	Do you feel sense of safe if once having cervical cancer	1. Strongly disagree 2. Disagree 3. Undecided, 4. Agree 5. Strongly agree 88. Refuse to respond	
137	Do you believe cervical cancer screening help to detect pre-cancerous?	1. Strongly disagree 2. Disagree 3. Undecided, 4. Agree 5. Strongly agree 88. Refuse to respond	
138	Do you believe that early cervical cancer screening can reduce late complication of the disease?	1. Strongly disagree 2. Disagree 3. Undecided, 4. Agree 5. Strongly agree 88. Refuse to respond	
139	Do you believe early cervical cancer screening is beneficiary for all female?	1. Strongly disagree 2. Disagree 3. Undecided, 4. Agree 5. Strongly agree 88. Refuse to respond	

3.2.4 Perceived barriers

CODE	QUESTIONS	CODING CATEGORIES	SKIP
140	Do you think that cervical cancer screening expensive	1. Strongly disagree 2. Disagree 3. Undecided, 4. Agree 5. Strongly agree 88. Refuse to respond	
141	Do you think that cervical cancer screening time consuming?	1. Strongly disagree 2. Disagree 3. Undecided, 4. Agree 5. Strongly agree 88. Refuse to respond	
142	Do you think that cervical cancer screening service accessible?	1. Strongly disagree 2. Disagree 3. Undecided, 4. Agree 5. Strongly agree 88. Refuse to respond	
143	Do you think that cervical cancer screening complex procedure?	1. Strongly disagree 2. Disagree 3. Undecided, 4. Agree 5. Strongly agree 88. Refuse to respond	
144	Do you think that cervical cancer screening test is embarrassing?	1. Strongly disagree 2. Disagree 3. Undecided, 4. Agree 5. Strongly agree 88. Refuse to respond	
3.3 Risk and related factors for cervical cancer and screening			
CODE	QUESTIONS	CODING CATEGORIES	SKIP
145	Is there history of family or relative with cervical cancer?	1. Yes 2. No 88. Refuse to respond	
146	Do you believe that showing your cervix for screen is culturally not acceptable?	1. Yes 2. No 88. Refuse to respond	
147	Do you use any form of Hormonal contraceptives?	1. Yes 2. No 88. Refuse to respond	
148	Do you have a history of HIV testing?	1. Yes 2. No 88. Refuse to respond	
149	Do you have history of STI testing?	1. Yes 2. No 88. Refuse to respond	
150	Do you any habit of substances use?	1. Yes 2. No 88. Refuse to respond	If no to 152

151	If, Yes which type do you use	1. Smoking 2. Drinkig(>1/each day 3. khat chewing 4. Protected elite drugs 5. Other …… 88. Refuse to respond	

Part 4. Community associated factors on cervical cancer screening

COD	QUESTIONS	CODING CATEGORIES	SKIP
152	Did you heard on cervical cancer and screening from the any media?	1. Yes 2. No 88. Refuse to respond	
153	Did you ever got information on cervical cancer and screening from any literatures?	1. Yes 2. No 88. Refuse to respond	
154	Did you heard or made any discussion on cervical cancer and screening among your community?	1.Yes 2. No 88. Refuse to respond	
155	Did you heard any information on cervical cancer and screening from social institution/s?	1.Yes 2. No 88. Refuse to respond	
156	Did you discussed on cervical cancer and screening among your family and/or relatives?	1.Yes 2. No 88. Refuse to respond	
157	Did you discussed on cervical cancer and screening among your friends?	1.Yes 2. No 88. Refuse to respond	
158	Did you get information on cervical cancer and screening from educational centers?	1.Yes 2. No 88. Refuse to respond	
159	Did you get advice to screen for cervical cancer from your friends, family and relatives?	1.Yes 2. No 88. Refuse to respond	

Part 5. Health organization associated factors on cervical cancer and screening

CODE.	QUESTIONS	CODING CATEGORIES	SKIP
160	Do you know the availability of cervical cancer screening test service in health organization/s?	1. Yes 2. No 88. Refuse to respond	If no g to 161

161	Is there nearby health organization which giving cervical cancer screening service?	1. Yes 2. No 88. Refuse to respond	
162	Did you heard of any advocacy on cervical cancer screening service from your nearby health organization/s?	1. Yes 2. No 88. Refuse to respond	
163	Did you get any advice or education on screening from any health professional/s?	1. Yes 2. No 88. Refuse to respond	
164	Do you believe that health professional may have unethical behavior that can effect on screening service utilization?	1. Yes 2. No 88. Refuse to respond	
165	The appointment of a male health professional for cervical cancer screening has implications	1. Yes 2. No 88. Refuse to respond	

ANNEX IV Quantitative questionnaire (Amharic version)

ስለ ማህጸን በር ካንሰር በሽታ እና ምርመራ መጠይቅ በፋርማ ኮሌጅ፤ የጤና ት/ርት ክፍል፤ የኤም ፒ ኤች ዲፓርትመንት በደቡብ ኢትዮጵያ በዲላ ከተማ ውስጥ በመራባት የዕድሜ ክልል ውስጥ በሚገኙ ሴቶች ላይ የማህጸን በር ካንሰር ምርመራ እና ተዛማጅ ነባራዊ ሁኔታዎችን መጠይቅ.

በመረጃ ሰብሳቢዎች የሚሞላ ለደንበኛ ሰላምታ መስጠት!

እኔ ስሜ .....ይባላል እኔ የመጣሁት ..... ጤና ድርጅት ነዉ በጎ ፈቃዶ ከሆነ በመራባት የዕድሜ ክልል ውስጥ ለሚገኙ ሴቶች የማህጸን በር ካንሰር ምርመራ እና ተዛማጅ ነባራዊ ሁኔታዎችን ለጥቂት ደቂቃዎች ልንጠይቅዎት/ሽ እፈልጋለሁ ፍቃደኛ ከሆኑ ከልብ እያመሰገንኩኝ የሚሰጡት ማንኛዉም መረጃ በምስጢር ተጠብቆ የሚቆይ ሲሆን ስምዎትም/ሽም አይመዘገብም። የመጠይቁ ዋና አላማ በፋርማ ኮሌጅ ለሁለተኛ ዲግሪ /ማስተር/ መርሃግብር ለሚከናወን ጥናት አላማ ነው.

የዚህ ጥናት አላማ በደቡብ ኢትዮጵያ በዲላ ከተማ ውስጥ በመራባት የዕድሜ ክልል ውስጥ በሚገኙ ሴቶች ላይ የማህጸን በር ካንሰር ምርመራ እና ተዛማጅ ነባራዊ ሁኔታዎችን ለመጠየቅ ብሎም እንደአስፈላጊነቱ ለሚመለከተው ክፍል ተገቢውን መረጃ በማሳወቅ የማህጸን በር ካንስር ምርመራ አገልግሎትን ለማጠናከር እና ለማሻሻል እንዲረዳ ነው። ስለሆነም የእርስዎ መረጃ እጅግ በጣም ጠቃሚ ነው.

ለመቀጠል ፈቃደኛ ነዎት? አዎ ..... አይ .....

የደንበኛው የመለያ ቁጥር .....

የጠያቂዉ ስም ..... ፊርማ .....

የተቆጣጣሪ ስም ..... ፊርማ .....

ክፍል አንድ - ስነ ማህበራዊ ሁኔታ መረጃ

ኮዶ	ጥያቄ	የመጠይቅ ዝርዝር ምርጫ	ዝለል
101	እድሜዎ/ሽ ስንት ነው?	_____ዓመት	
102	የጋብቻ ሁኔታ እንዴት ነው?	1. ያላገባ 2. ያገባች 3. የተፋታች 4. ባል የሞተባት 88. ምላሽ ያለመስጠት	
103	ሀይማኖትሽ ምንድ ነው?	1. ኦርቶዶክስ 2. ሙስሊም 3. ፕሮቴስታንት 4. ካቶሊክ	
104	በስንት ዓመትሽ/ዎ አገባሽ/ቡ?	1 .18 ዓመቴ በፊት 2. 18 ዓመቴ በኋላ 3. ገና አላገባሁም 88. ምላሽ ያለመስጠት	
105	እስከ ምን ደረጃ ተምረሻል/ዋል?	1. መደበኛ ትምህርት የለም 2. የመጀመሪያ ደረጃ ትምህርት (1-8) 3. የሁለተኛ ደረጃ ትምህርት (9-12) 4. ከፍተኛ ትምህርት (> 12 ኛ ክፍል) 88. ምላሽ ያለመስጠት	
106	ሥራሽ/ዎ ምንድነው?	1.የቤት እመቤት 2. ተማሪ 3. የመንግስት ሰራተኛ 4. የግል ሰራተኛ 5. ነጋዴ 6. የቀን ሰራተኛ 7. መንግስታዊ ያልሆነ ድርጅት ሰራተኛ 88. ምላሽ ያለመስጠት	
107	በ ወር ምን ያህል ገቢ ታገለኛሽ/ ያገኛሉ?	_____ብር	
108	የእርስዎ/ ያንቺ የገቢ ምንጭ ማነው?	1. እራሴ. 2. ባለቤቴ 3. ቤተሰብ ዘመድ እና ሌላ 88. ምላሽ ያለመስጠት	
109	የመጀመሪያው ፅታ ግንኙነት የፈጸምሽዉ/ሙት በስንት አመትሽ/ዎ ነበር?	1 .18 ዓመቴ በፊት 2. 18 ዓመቴ በኋላ 3. ገና አልፈጸምኩም88. ምላሽ ያለመስጠት	
110	ስንት ልጅ አለዎት/ሽ?	1. አን2. ሁለት 3. ሶስት 4. አራት እና ከዚያ በላይ	

		5. ልጆች የሉኝም 88. ምላሽ ያለመስጠት	

ክፍል ሁለት: የማህጸን በር ካንሰር ምርመራ የማድረግ ልምድ

ኮዶ	ጥያቄ	የመጠይቅ ዝርዝር ምርጫ	ዝለል
111	የማህጸን በር ካንሰር ምርመራ አድርገው ያውቃሉ/ታውቂያለሽ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	አይ ከሆነ ወደ 115
112	ምን ያክል ጊዚያት የማህጸን በር ካንሰር ምርመራ አድርገው ያውቃሉ	1. አንድ ጊዜ 2. ሁለት ጊዜ 3. ከሁለት በላይ 88. ምላሽ ያለመስጠት	
113	የማህጸን በር ካንሰር ምርመራ ለመጨረሻ ጊዜ ያደረጉት/ግሽው መቼ ነበር?	1. ባለፉት ሁለት ዓመታት 2 ባለፉት ሦስት ዓመታት 3. ባለፉት አምስት ዓመታት 4. በአለፉት አስር ዓመታት ውስጥ 88. ምላሽ ያለመስጠት	
114	አዎ ከሆነ! ምርመራውን ያከናወኑበት/ንሽበት ምክንያት ምን ነበር?	1. መገናኛ ብዙዓን 2. የጤና ባለሙያ ምክር 3. የግል ፍላጎት 4. ስነፅሁፍ መረጃ 5. የጓደኞች ምክር 6. የቤተሰብ ምክር 7. ሌላ ..... 88. ምላሽ ያለመስጠት	
115	የማህጸን በር ካንሰር ምርመራ እስካሁን ካላደረጉ ያላደረጉበት/ሽበት ምክንያት ምን ነበር?	1. መረጃ ባለማግኘት 2. ጤነኛ ስለሆንኩኝ 3. ስላልወሰንኩኝ 4. ሌላ ..... 88. ምላሽ ያለመስጠት	111 አዎ ከሆነ 115 ይዘለል
116	የማህጸን በር ካንሰር ምርመራ ለመመርመር ፍላጎት ነበረዎት/ሽ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
117	የማህጸን በር ካንሰር ምርመራ ለማድረግ ዕቅድ ኖሮዎት/ሽ ያውቃል?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
118	የማህጸን በር ካንሰር ምርመራ ለማድርግ ጥረት አድርገው/ሽ ያውቃሉ/ ታውቂያለሽ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	

119	ስለ ማህጸን በር ካንሰር ምርመራ ምክርም አግገኝተው/ሽ ያውቃሉ/ ታውቂያለሽ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	

ክፍል. ሦስት ስለ ማህጸን በር ካንሰር እና ምርመራ ግለሰብ ተኮር እና ተዛማጅ ሁኔታዎች

ስለ ማህጸን በር ካንሰር እና ምርመራ ግንዛቤ

ኮዶ	ጥያቄ	የመጠይቅ ዝርዝር ምርጫ	ዝለል
120	ስለ ማህጸን በር ካንሰር ሰምተው/ሽታዉቂያለሽ/ ያውቃሉ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	አይ ከሆነ ወደ 123
121	አዎ ከሆነ!, ስለ መንስኤዎች ታዉቂያለሽ/ ያውቃሉ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	አይ ከሆነ ወደ 122
121ሀ	ከብዙ ሰዎች ጋር የግብረ ሥጋ ግንኙነት መፈጸም ለማህጸን ካንሰር ያጋልጣል ብለው ታስቢያለሽ/ ያስባሉ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
121ለ	በለጋ እድሜ የጾታ ግንኙነት መፈጸም ለማህጸን ካንሰር ያጋልጣል ብለው ታስቢያለሽ/ ያስባሉ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
121ሐ	HPVለማህጸን ካንሰር ያጋልጣል ብለው ታስቢያለሽ/ ያስባሉ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
122	ስለ ማህጸን በር ካንሰር መከላከያ ዘዴዎች ታውቂያለሽ/ያዉቃሉ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	አይ ከሆነ ወደ 123
122ሀ	አስቀድሞ መመርመር የመከላከያ ዘዴ ነው ብለው ታስቢያለሽ/ ያስባሉ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
122ለ	ከብዙ ሰዎች ጋር የግብረ ሥጋ ግንኙነት አለመፈጸም የመከላከያ ዘዴ ነው ብለው ታስቢያለሽ/ ያስባሉ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
122ሐ	በለጋ እድሜ ከየግብረ ሥጋ ግንኙነት መታቀብ የመከላከያ ዘዴ ነው ብለው ታስቢያለሽ/ ያስባሉ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
122መ	ክትባት የመከላከያ ዘዴ ነው ብለው ታስቢያለሽ/	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	

	ያስባሉ?		

123	ስለ ማህጸን በር ካንሰር ምርመራ ሰምተው ያውቃሉ/ ታዉቂያለሽ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	አይ ከሆነ ወደ 125
124	አዎ ከሆነ ማህጸን በር ካንሰር ምርመራ ማድረግ ይጠቅማል?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
124ሀ	የማህጸን በር ካንሰር ምርመራ ማድረግ ለባለትዳር ሴቶች ብቻ ይጠቅማል?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
124ለ	የማህጸን በር ካንሰር ምርመራ ማድረግይ ላላገቡ ሴቶች ብቻ ጠቅማል?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
124ሐ	የማህጸን በር ካንሰር ምርመራ ማድረግ ለሁሉም ሴቶች ይጠቅማል?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	

3.2 ስለ ማህጸን በር ካንሰር እና ምርመራ አመለካከት

3.2.1 ተጋላጭነትን ከማሰብ አንጻር

ኮዶ	ጥያቄ	የመጠይቅ ዝርዝር ምርጫ	ዝለል
125	ለማህጸን በር ካንሰር ተጋላጭ ነኝ ብለው ያስባሉ/ታስቢያለሽ?	1. በጣም አልስማማም 2. አልስማማም 3. መወሰን የሚከብድ 4. እስማማለሁ 5. በጣም እስማማለሁ 88. ምላሽ ያለመስጠት	
126	ለማህጸን በር ካንሰር አጋላጭ የሆኑ ሁኔታዎች አለው ብለው ያምናሉ/ታምኛለሽ?	1. በጣም አልስማማም 2. አልስማማም 3. መወሰን የሚከብድ 4. እስማማለሁ 5. በጣም እስማማለሁ 88. ምላሽ ያለመስጠት	
127	ጥንቃቄ የጎደለው የግብረ ሥጋ ግንኙነት ለማህጸን በር ካንሰር እንዲከሰት አጋላጭ ምክንያት ነው ብለው ያምናሉ/ታምኛለሽ?	1. በጣም አልስማማም 2. አልስማማም 3. መወሰን የሚከብድ 4. እስማማለሁ 5. በጣም እስማማለሁ 88. ምላሽ ያለመስጠት	
128	የፍቅር አጋሬ ምናልባት ለማህጸን በር ካን ሰር አጋላጭ ምክንያት ሊሆን ይችላል ብለው/ሽ ያስባሉ/ታስቢያለሽ?	1. በጣም አልስማማም 2. አልስማማም 3. መወሰን የሚከብድ 4. እስማማለሁ 5. በጣም እስማማለሁ 88. ምላሽ ያለመስጠት	

129	የመራቢያ አካል በሽታዎች ምናልባት ለማህጸን በር ካንሰር ሊያጋልጡ ይችላሉ ብለው/ሽ ያስባታስቢያለሽ?	1. በጣም አልስማማም 3. መወሰን የሚከብድ 5. በጣም እስማማለሁ	2. አልስማማም 4. እስማማለሁ 88. ምላሽ ያለመስጠት	
2.2 አደገኛነትን ከማሰብ አንጻር				
ኮዶ	**ጥያቄ**	**የመጠይቅ ዝርዝር ምርጫ**		ዝለል
130	የማህጸን በር ካንሰር አደገኛ በሽታ ነው ብለው/ሽ ያስባሉ/ ታስቢልሽ?	1. በጣም አልስማማም 3. መወሰን የሚከብድ 5. በጣም እስማማለሁ	2. አልስማማም 4. እስማማለሁ 88. ምላሽ ያለመስጠት	
131	የማህጸን በር ካንሰር ሞትን የሚያስከትል ነው ብለው/ሽ ያስባሉ/ ታስቢልሽ?	1. በጣም አልስማማም 3. መወሰን የሚከብድ 5. በጣም እስማማለሁ	2. አልስማማም 4. እስማማለሁ 88. ምላሽ ያለመስጠት	
132	የማህጸን በር ካንሰር በጊዜ በምርመራ ካልታወቀ የመዳን ዕድል የለውም ብለው ያስባሉ/ታስቢያለሽ	1. በጣም አልስማማም 3. መወሰን የሚከብድ 5. በጣም እስማማለሁ	2. አልስማማም 4. እስማማለሁ 88. ምላሽ ያለመስጠት	
133	የማህጸን በር ካንሰር በጊዜ በምርመራ ካልታወቀ ወደ ከፍተኛ ደረጃ ሊሸጋገር ይችላል?	1. በጣም አልስማማም 3. መወሰን የሚከብድ 5. በጣም እስማማለሁ	2. አልስማማም 4. እስማማለሁ 88. ምላሽ ያለመስጠት	
134	የማህጸን በር ካንሰር በጊዜ በምርመራ ካልታወቀ ወደ ከፍ ያለ ደረጃ ደርሶ ከፍተኛ ሕመም እና ስቃይ ሊያስከትል ይችላል ብለው/ሽ ያስባሉ/ታስቢያለሽ?	1. በጣም አልስማማም 3. መወሰን የሚከብድ 5. በጣም እስማማለሁ	2. አልስማማም 4. እስማማለሁ 88. ምላሽ ያለመስጠት	
3.2.3 ጥቅምን ከማሰብ አንጻር				
ኮዶ	**ጥያቄ**	**የመጠይቅ ዝርዝር ምርጫ**		**ዝለል**
135	የማህጸን በር ካንሰር ምርመራ ማድረግ ለራስ ጤና ጠቃሚ ነው ብለው ያስባሉ/ ታስቢያለሽ?	1. በጣም አልስማማም 3. መወሰን የሚከብድ 5. በጣም እስማማለሁ	2. አልስማማም 4. እስማማለሁ 88. ምላሽ ያለመስጠት	

136	የማህጸን በር ካንሰር ምርመራ ቢያደረጉ/ ብታደርጊ ደህንነት ይሰማልዎታል/ሻል?	1. በጣም አልስማማም 3. መወሰን የሚከብድ 5. በጣም እስማማለሁ	2. አልስማማም 4. እስማማለሁ 88. ምላሽ ያለመስጠት	
137	የማህጸን በር ካንሰር ምርመራ ማድረግ ቅድመ-ካንሰርን ለመለየት ያግዛል ብለው/ ያምናሉ/ታምኛለሽ	1. በጣም አልስማማም 3. መወሰን የሚከብድ 5. በጣም እስማማለሁ	2. አልስማማም 4. እስማማለሁ 88. ምላሽ ያለመስጠት	
138	የማህጸን በር ካንሰር ምርመራ ማድረግ ወደፊት ሊከሰት ከሚችል ውስብስብ የበሽታው ጠንቅ መቀነስ ያሰችላል ብለው/ሽ ያምናሉ/ታምኛለሽ	1. በጣም አልስማማም 3. መወሰን የሚከብድ 5. በጣም እስማማለሁ	2. አልስማማም 4. እስማማለሁ 88. ምላሽ ያለመስጠት	
139	የማህጸን በር ካንሰር ምርመራ ማድረግ ለሁሉም ሴቶች ይጠቅማል ብለው/ሽ ያምናሉ/ ታምኛለሽ	1. በጣም አልስማማም 3. መወሰን የሚከብድ 5. በጣም እስማማለሁ	2. አልስማማም 4. እስማማለሁ 88. ምላሽ ያለመስጠት	

3.2.4 *ማነቆዎችን ሊሆኑ የሚችሉ ሁኔታዎችን ከማሰብ አንጻር*

ኮዶ	ጥያቄ	የመጠይቅ ዝርዝር ምርጫ		ዝለል
140	የማህጸን በር ካንሰር ምርመራ ውድ ነው ብለው/ሽ ያምናሉ/ታምኛለሽ?	1. በጣም አልስማማም 3. መወሰን የሚከብድ 5. በጣም እስማማለሁ	2. አልስማማም 4. እስማማለሁ 88. ምላሽ ያለመስጠት	
141	የማህጸን በር ካንሰር ምርመራ ጊዜ ይወስዳል ብለው/ሽ ያምናሉ/	1. በጣም አልስማማም 3. መወሰን የሚከብድ 5. በጣም እስማማለሁ	2. አልስማማም 4. እስማማለሁ 88. ምላሽ ያለመስጠት	
142	የማህጸን በር ካንሰር ምርመራ አገልግሎት ተደራሽ ነው ብለው/ ያምናሉ/ታምኛለሽ?	1. በጣም አልስማማም 3. መወሰን የሚከብድ 5. በጣም እስማማለሁ	2. አልስማማም 4. እስማማለሁ 88. ምላሽ ያለመስጠት	
143	የማህጸን በር ካንሰር ምርመራ ሂደት ውስብስብ ነው ብለው/ሽ ያምናሉ/ታምኛለሽ?	1. በጣም አልስማማም 3. መወሰን የሚከብድ 5. በጣም እስማማለሁ	2. አልስማማም 4. እስማማለሁ 88. ምላሽ ያለመስጠት	

144	የማህጸን በር ካንሰር ምርመራ ማድረግ የሚያሳፍር ነው ብለው/ሽ ያምናሉ/ ታምኛለሽ?	1. በጣም አልስማማም 2. አልስማማም 3. መወሰን የሚከብድ 4. እስማማለሁ 5. በጣም እስማማለሁ 88. ምላሽ ያለመስጠት	
3.3 ለማህጸን በር ካንሰር አጋላጭ እና ከምርመራ ጋር ተዛማጅነት ያላቸው ሁኔታዎች			
ኮዶ	**ጥያቄ**	**የመጠይቅ ዝርዝር ምርጫ**	**ዝለል**
145	ከቤተሰብ ወይም ከዘመድ በማህጸን በር ካንሰር ታሞ የሚያውቅ ነበረ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
146	ለማህጸን በር ካንሰር ምርመራ ሂደት ሀፍረተ ስጋዎን/ሽ ማሳየት የባህል ተጸእኖ ይኖረዋል ብለው/ሽ ያስባሉ/ታስቢያለሽ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
147	ዘመናዊ የቤተሰብ ምጣኔ አገልግሎትይጠቀማሉ/ ትጠቀሚያለሽ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
148	ባለፉት 5 ዓመታት ውስጥ ለኤች አይ ቪ/ኤድስ ምርመራ	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
149	ባለፉት 5 ዓመታት ውስጥ ለአባላዘር በሽታ ምርመራ አድርገው/ሽ ያውቃሉ/ ታውቂያለሽ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
150	የተለያዩ ደባል ሱስ የመጠቀም ልምዶች አለዎት/ሽ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	አይ ከሆነ ወደ 152
151	አዎ ከሆነ የትኛውን ዓይነት ይጠቀማሉ/ትጠቀሚያለሽ?	1. ሲጃራ ማጨስ 2. አልኮል መጠጣት 3. ጫት መቃም 4. የተከለከሉ አደንዘዥ መድሃኒቶች 5. ሌላ 88. ምላሽ ያለመስጠት	

ክፍል አራት: ስለ ማህጸን በር ካንሰር እና ምርመራ ማህበረሰብ ተኮር እና ተዛማጅ ሁኔታዎች

ኮዶ	ጥያቄ	የመጠይቅ ዝርዝር ምርጫ	ዝለል
151	ስለ ማህጸን በር ካንሰር እና ምርመራ መረጃ ከማንኛውም የአካባቢ ወይም ሀገር አቀፍ መገናኛ ብዙሀን ተላልፎ ሰምተው/ሽ ያውቃሉ/ ታውቂያለሽ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
152	ስለ ማህጸን በር ካንሰር እና ምርመራ መረጃ ከማንኛውም ስነ ጽሁፍ አንብበው ወይም ሰምተው/ሽ ያውቃሉ/ ታውቂያለሽ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	

153	ስለ ማህጸን በር ካንሰር እና ምርመራ በማህበረሰቡ ውስጥ ሲወራ ሰምተው/ሽ ወይም ተወያይተው ያውቃሉ/ ታውቂያለሽ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
154	ስለ ማህጸን በር ካንሰር እና ምርመራ መረጃ ከማንኛውም የማህበረሰብ አቀፍ ተቋማት ተላልፎ ሰምተው/ሽ ያውቃሉ/ ታውቂያለሽ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
155	ስለ ማህጸን በር ካንሰር እና ምርመራ ከቤተሰብ እና/ወይም ከዘመድ ጋር ተወያይተው/ሽ ያውቃሉ/ ታውቂያለሽ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
156	ስለ ማህጸን በር ካንሰር እና ምርመራ ከጓደኛ ጋር ተወያይተው/ሽ ያውቃሉ/ ታውቂያለሽ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
157	ስለ ማህጸን በር ካንሰር እና ምርመራ መረጃ ከማንኛውም የትምህርት ተቋም ተላልፎ ሰምተው/ሽ ያውቃሉ/ ታውቂያለሽ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
158	የማህጸን በር ካንሰር ምርመራ እንዲያድረጉ ከማህበረሰብ ከቤተሰብ ወይም ከዘመድ ወይም ከጓደኛ ምክር አግኝተው/ሽ ያውቃሉ/ ታውቂያለሽ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	

ክፍል አምስት: ስለ ማህጸን በር ካንሰር እና ምርመራ የጤና ድርጅት ተኮር እና ተዛማጅ ሁኔታዎች

ኮዶ	ጥያቄ	የመጠይቅ ዝርዝር ምርጫ	ዝለል
159	የማህጸን በር ካንሰር ምርመራ አገልግሎት በጤና ድርጅቶች መኖሩን ያውቃሉ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	አይ ከሆነ ወደ 161
160	በአቅራቢያዎ/ሽ የማህጸን በር ካንሰር ምርመራ አገልግሎት የሚሰጥ የጤና ድርጅት/ቶች አለ/አሉ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
161	በአቅራቢያዎ/ሽ ካለ የጤና ድርጅት/ቶች የማህጸን በር ካንሰር ምርመራ አገልግሎት የሚሰጥ መሆኑን	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	

	ማሰታወቂያ ወይም መረጃ ሰምተው ያውቃሉ/ታውቂያለሽ?		
162	ስለ ማህጸን በር ካንሰር ምርመራ ከማንገኛውም የጤና ባለሙያ ምክር ወይም ትምህርት አግኝተው/ሽ ያውቃሉ/ ታውቂልሰሽ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
163	የጤና ባለሙያ/ዎች ስነ ምግባር ጉድለት ለማህጸን በር ካንሰር ምርመራ ለመጠቀም እንቅፋት ይሆናል ብለው/ሽ ያስባሉ/ታስቢያለሽ?	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	
164	ወንድ ጤና ባለሙያ ለማህጸን በር ካንሰር ምርመራ መመደቡ ተዕኖ አለው	1. አዎ 2. አይ 88. ምላሽ ያለመስጠት	