

## One Out of Five Women Practiced Cervical Cancer Screening in Felege Hiwot Referral Hospital, Amhara, North West Ethiopia

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### Abstract

#### Background

Eighty five percent of cervical cancer occurrence in resource-poor countries. Contributing factors for these are inadequate

knowledge about the disease, early initiation of sexual intercourse and multiple sexual partners. Early screening is an intervention in reduction of maternal deaths due to cervical cancer. Consequently this study was conducted aiming to find out about the practice of cervical cancer screening and its associated factors.

#### Methods

A facility based cross sectional study was conducted using a pretested structured questionnaire among women attended Maternal and Child Health (MCH) department of Felege Hiwot Referral Hospital (FHRH) from March 15 to April 15, 2019. The study participants were selected systematically. The collected data were entered and analyzed using SPSS version 20. Logistic regression analysis was employed to examine factors association with cervical cancer screening that was confirmed using AOR with its 95% CI.

#### Results

A total of 400 study participants were included with a response rate of 99.5%. Of the total study participants only 78 (19.5%; 95% CI: 15.6, 23.4) practiced screening for cervical cancer. The cervical cancer screening practice was affected by age (AOR=2.025; 95% CI: 1.118, 3.668). Of those women who had ever heard of about cervical cancer were seven fold more likely to practice cervical screening (AOR=6.924; 95% CI: 1.602, 29.928) compared to those who did not have any information before. Moreover, knowing genital tract discharge as a problem of female organ implement fourfold more likely compared to that of knowing nothing about problem of genital tract (AOR=3.766; 95% CI: 1.761,8.055).

## Conclusion and Recommendation

The study depicted there was low utilization of cervical cancer screening. Awareness creation about cervical cancer and knowledge of genital tract problems had positive influence for screening practice.

## Introduction

Majority (85%) of cervical cancer occurs as global burden in less developed regions with an estimate of 528,000 cases every year worldwide. It ranks the fourth most cancer affecting women <sup>1</sup>.

Low and middle income countries approximately contributed 90% the total deaths occurred from cervical cancer in 2015 <sup>2</sup>. Nearly half a million women will die of cervical cancer by 2030. From these, low and middle-income countries will have more than 98% deaths <sup>3</sup>.

Cervical cancer is also common in Eastern Africa region and in Ethiopia, which is estimated as, 45,707 new cases and 28,197 deaths, and 7,095 new cases and 4,732 deaths every year respectively <sup>4</sup>.

The first top cancer in adults above age of 14 years old is cervical cancer which was the second most common of all cancers (15.2%) based on a study handled at Gondar referral hospital in 2016 <sup>5</sup>.

Cervical cancer, malignant neoplasm arising from cells originating in cervix uteri, may be completely asymptomatic in early stages<sup>6</sup>. It can be presented as persistent pelvic pain, unexplained weight loss, bleeding between periods, unusual vaginal discharge, bleeding, and pain after sexual intercourse<sup>7</sup>. Globally, 75% of cervical cancer is initiated by human *papilloma virus* (HPV) types 16 and 18 infection while other risk factors like tobacco consumption, multiple sexual partners, early age of sexual intercourse, increasing parity, prolonged use of oral contraceptive pills, and sexually transmitted diseases also subsidized the rest<sup>8, 9</sup>.

Ethiopia lost around 4,732 women per year, cancer related highest mortality rate, due to cervical cancer with an adjusted incidence of 18.9 per 100, 000 women. These may be also underestimated by way of low level of awareness, screening and diagnostic limited access and national cancer registry unavailability<sup>10-13</sup>.

Screen and treat cervical cancer with a single-visit approach is suggested by many studies in low-resource settings as the most successful and cost-effective way since Papanicolaou (pap) smear is used in a limited scope and no national screening program in Ethiopia<sup>14</sup>.

Studies which assess the current knowledge of women about cervical cancer and their preventive practice in Ethiopia are rare particularly in the study area. Identifying practice and its associated factors related to cervical cancer screening among women of age  $\geq 21$  will enable to reverse the increasing trend of cervical cancer in Ethiopia particularly in FHRH, and there by its immediate and long term consequences through design of effective preventive strategies Figure 1.

## Methods and Materials

### Study Periods and Setting

An institutional based quantitative cross-sectional study was conducted in Maternal and child health department Felege Hiwot Referral Hospital from March 15 -April 15, 2019.

Table 1. Socio demographic status of study participants at maternal and child health department in FHRH from March 15- April 15, 2019 (n=400)

Variable	Category	Frequency	Percent
Age of women	21-29 Years	215	53.8
	30-65 Years	185	46.2
Religion	Orthodox	371	92.8
	Protestant	8	2.0
	Muslim	21	5.2
Ethnic group	Amhara	380	95.0
	Oromo	10	2.5
	Tigirie	4	1.0
	Agew	6	1.5
Marital status	Single	53	13.2
	Married	322	80.5
	Separated	11	2.8
	Widowed	7	1.8
	Divorced	7	1.8
Educational status	Unable to read and write	90	22.5
	Able to read and write	35	8.8
	Primary	48	12.0
	Secondary	81	20.2
	College and above	146	36.5
Residence	Urban	314	78.5
	Rural	86	21.5
Occupation	Student	26	6.5
	Self	55	13.8
	Government employee	111	27.8
	Private employee	22	5.5
	Housewife	171	42.8
	No work	15	3.8
Monthly income (Ethiopian birr)	up to 1000	109	27.2
	1001-2000	107	26.8
	2001-2500	25	6.2
	2501-4500	84	21.0
	> 4501	75	18.8

### *Target Population*

All women aged  $\geq 21$  years who were attending in Felege Hiwot Referral Hospital at MCH department to obtain different health services. Women unable to communicate due to their sick condition were excluded from the study.

### *Sample Size Determination and Sampling Technique*

The sample size was determined using single population proportion formula using the following assumptions: 95% level of confidence, proportion of women have been screened for cervical cancer, 19.8% community based cross-sectional study conducted in Mekellezone<sup>15</sup>, 5% margin of error (desired precision between sample and population parameter), design effect 1.5, and contingency of 10% for possibilities of non-response rate and incomplete data. The calculated sample size was = 402.

Sample size was allocated to each MCH departments based on the proportion of eligible women (Figure 2). Selected study subjects at each MCH department using systematic random sampling every 5<sup>th</sup> entry at each department during study period, and interviewed to collect information until the proportion of the sample size reached. The first participant was drawn using lottery method random sampling technique.

### *Data Collection Instrument and Procedure*

A Semi-structured and pretested questionnaire was used to collect data on demographic, knowledge, and practice assessing questions. The data collection tool (questionnaire) was adapted by reviewing literature<sup>16</sup>. Face-to face interview was used.

The questionnaire was initially prepared in English and translated into the local language (Amharic) by fluent speakers of both languages to maintain its consistency. Training was given for data collectors and about the objectives, methods, tool and ethics (confidentiality and privacy) of the study to be conducting; and pre-test was conducted on 5% of the sample in an

area where the study was not be undertaken; with similar set up in order to assess the quality of the data collection tool, and time consuming. Based on the pre-test finding modification was made on the questionnaire. Data was collected only by trained data collectors and supervised by trained supervisor. Regular meetings were held between the data collectors, supervisor, and principal investigator to solve problematic issues faced during data collection period. Each questionnaire was checked for completeness and consistency daily.

Data were coded and entered, cleaned, analyzed using statistical package for social science (SPSS) version 20. Frequency and cross tab was performed to clean the data. Descriptive statistics (Frequency distribution, percentages, graphs and proportion) was computed. A binary logistic regression was used to identify associated factors. Adjusted Odds ratios at 95% confidence interval were used to see the significance of the study and the strength of association between study variables.

### *Ethical Consideration and Permission*

Ethical approval was obtained from Institutional Review Board of GAMBY medical & Business College. An official letter of co-operation was written from GAMBY medical & Business College of science by department of public health to Amhara public Health institute and then to Felege Hiwot Referral Hospital. Respondents were informed about the objectives and purpose of the study to obtain verbal consent from each respondent before interview. A one page cover information sheet that explained the purpose, procedure and significance of the study was attached with each questionnaire. The data were maintained confidential and used only the purpose of this study.

### *Operational Definitions*

1. Knowledgeable: refers those who respond 'Yes' for Yes/No knowledge measuring questions and minimum one of the alternatives except the alternative 'I don't know' for multiple questions.

2. Attitude: refer those who answer attitude questions scored above the mean have positive attitude while, those who answered below the mean said to be negative attitude.
3. Ever been diagnosed for cervical cancer (Practice) woman that has been diagnosed for cervical cancer in the past pelvic examination Pap or VIA test.
4. multiple sexual partners is to identify those who have had sexual intercourse with more than one partner
5. Smoking - questions are responded yes or no for active smoking practices and those who respond yes are analyzed as below 10 years and above.
6. Substance abuse is any response other than never to any of the substance questions chat, alcohol, marijuana, narcotic & drugs.

## Results

### *Socio-Demographic Status Factors of Respondents*

A total of 400 women were included with a response rate of 99.5%. Of these, 53.8%, 92.8%, 95.0%, 80.5%, 36.5%, 78.5%, 42.8% and 27.2% were at the age group of 21-29 years, Orthodox Christian, Amhara ethnic group, married, at college and above educational status, rural dweller, housewife and earned less than 1001 Ethiopian Birr per month correspondingly as stated on table 1.

### *Behavioral, Health Facility and Family History Factors of Respondents*

Six (1.5%) individuals smoke cigarette from two to five years. On other hand, 29 (7.2%) of the participants were addicted to different substance use (khat, alcohol and stimulant drugs) that ranges from one to fifteen years and 353 (88.2%) experienced sexual intercourse; of them 278 (78.8%) have been experienced with one sexual partner (Table 2).

### *Knowledge of Study Participants about Cervical Cancer*

A quarter of study participants did not hear about cervical cancer (Table 3). Many of the participants also did not know about cause of cervical cancer (48.0%),

symptom of cervical cancer (30.8%) and treatment of cervical cancer (39.0%).

Among the study participants who had ever heard about cervical cancer (306), majority got the information from media (41.8%) while the least numbers heard from religious leaders (figure 3).

### *Attitude Assessment of Cervical Screenings*

Out of total (400) participants 56.2% had good attitude about cervical cancer screening and 43.8 % were by the side of poor attitude with mean score of 31.725+4.71559 for the eight questionnaires (figure 4).

### *Practice of Cervical Cancer Screenings*

Recent study showed that, out of total 78(19.5%) had practiced cervical cancer screening, 77/ 78 (98.7) did it at once in their life (Table 4). Of these, three (3.9%), 32 (41.0%) and 43 (55.1%) explained it should be practiced with a frequency of every year, two years and three years respectively.

### *Association of Socio-Demographic Characteristics*

Participants whose age belong to the range of 30-65years were two times more likely to have a good level of performance (AOR=2.025; 95% CI: 1.118, 3.668) than those age were fallen in the range of 21-29 years (Table 5). Of the total study participants family history about cervical cancer were two fold more likely to practice cervical cancer screening than who do not have (AOR =2.441; 95% CI: 1.278, 4.661) while, who had ever heard about cervical cancer were seven fold more likely to practice cervical screening (AOR=6.924; 95% CI: 1.602, 29.928) compared to those who did not have any information before. Moreover, knowing genital tract discharge as a problem of female genital organ implement fourfold more likely compared to that of knowing nothing about problem of genital tract (AOR=3.766; 95% CI: 1.761,8.055) (Table 6).

### *Factors of Cervical Cancer Screening Practice*

Of the total study participants who had ever heard about cervical cancer were seven fold more likely to

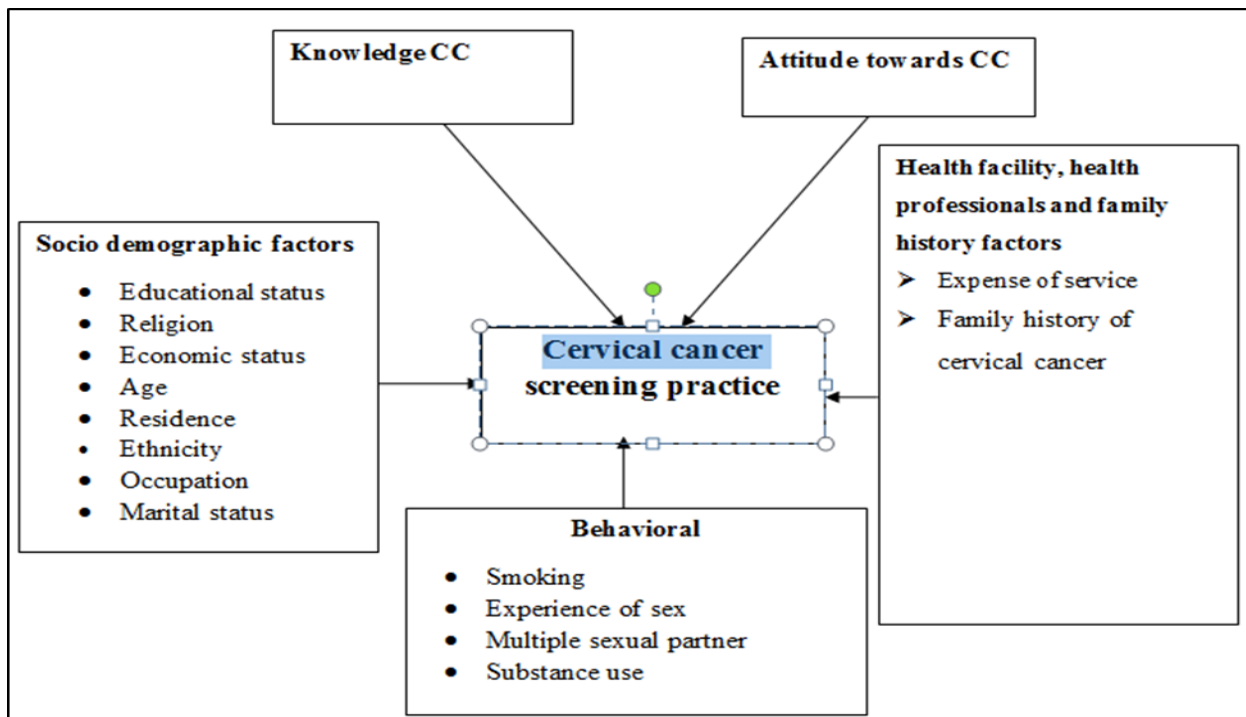


Figure 1. Conceptual framework for factors influencing cervical cancer screening practice taken from review literature and adapted contextually

Table 2. Family history of women cervical cancer of study participants at maternal and child Health Department in FHRH from March 15- April 15, 2019 (n=400).

Variable	Category	Frequency	Percent
Family history for Cervical CA	Yes	50	12.2
	No	350	87.8
Relationship of family history	Mother	15	30.0
	Sister	15	30.0
	Grandmother	2	4.0
	Aunt	8	16.0
	Other	10	20.0
Experienced sexual intercourse	Yes	353	88.2
	No	47	11.8
Number of sexual partner (s) (n=353)	One person	278	78.8
	Two person	53	15.0
	Three person	14	4.0
	Five and more	8	2.3
Addicted with substance abuse	Yes	29	7.2
	No	371	92.8

Table 3. Knowledge of study participants about cervical cancer screening at maternal and child Health Department in FHRH from March 15- April 15, 2019 (n=400).

Variable	Category	Frequency	Percent
Problems of genital tract	I don't know	180	45.0
	Discharge	97	24.2
	Sexual transmitted disease	38	9.5
	Cervical cancer	59	14.8
	Uterine tumor	26	6.5
Ever heard about cervical cancer	Yes	306	76.5
	No	94	23.5
Causes of cervical cancer	I don't know	192	48.0
	Any sexual partner	24	6.0
	Early initiation of sexual intercourse	39	9.8
	Havening multiple sexual partner	67	16.8
	Sexual transmitted disease	19	4.8
	HIV	11	2.8
	Papiloma virus	18	4.5
	Long years use of Combined oral contraceptives	16	4.0
	Other	14	3.5
symptoms of cervical cancer	I Don't know	123	30.8
	Bleeding	94	23.5
	Post coital bleeding	25	6.2
	Vaginal foul smelling discharges	100	25.0
	Painful coitus	29	7.2
	Post-menopausal bleeding	29	7.2
Treatment of cervical cancer	I don't know	156	39.0
	Surgery	95	23.8
	Chemotherapy	70	17.5
	Radiotherapy	72	18.0
	Others	7	1.8
The outcomes early undetected of cervical cancer	I don't know	84	21.0
	Metastasis	82	20.5
	Chronic illness	19	4.8
	Bleeding	8	2.0
	Death	202	50.5
	Other	5	1.2



Ever heard of cervical cancer screening method	Yes	304	76.0
	No	96	24.0
Methods of cervical cancer screening	VIP	145	36.2
	Pap smear	159	39.8
Who should be screened	I don't know	99	24.8
	Age greater than 21	114	28.5
	Commercial sex workers	71	17.8
	Elderly women	104	26.0
	Other	12	3.0
Frequency of screening	Every year	185	46.2
	Every two year	54	13.5
	Every three year	74	18.5
	Every five year	43	10.8
	Other	44	11.0
Expense of cervical cancer screening	I don't know	135	33.8
	Free	105	26.2
	It is reasonably priced	47	11.8
	moderately expensive	54	13.5
	very expensive	59	14.8
Reason of cervical cancer screening	I do not know	117	29.2
	To check cervix	218	54.5
	To check infections passed through sex	24	6.0
	To check infections transmitted through blood transfusion	18	4.5
	Others	23	5.8
Cervical cancer preventable	Yes	344	86.0
	No	56	14.0
Prevention method cervical-cancer	I do not know	60	17.4
	No multiple partner	151	43.9
	Treat papiloma virus	52	15.1
	Use condom	36	10.5
	Vaccine	30	8.7
	Other	15	4.4



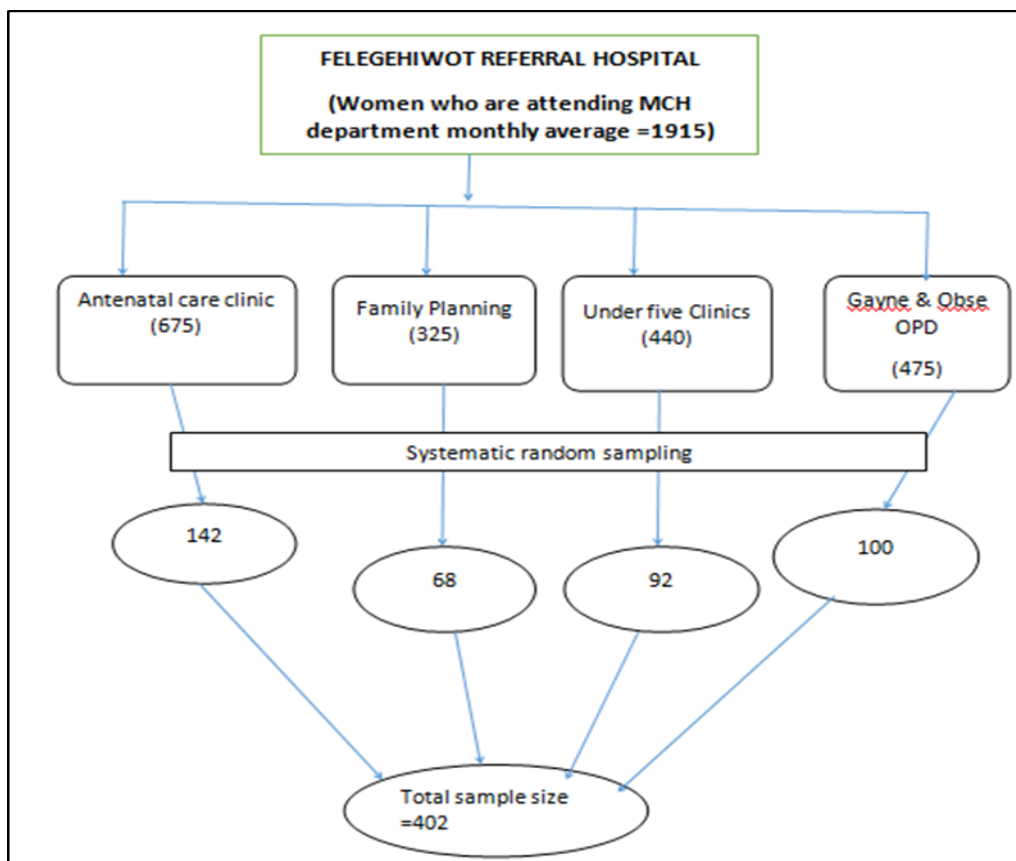


Figure 2. Sampling technique for cervical cancer screening practice among women aged  $\geq 21$  years who have attended MCH Department at Felege Hiwo Referral Hospital, Amhara Region, Ethiopia, 2019.

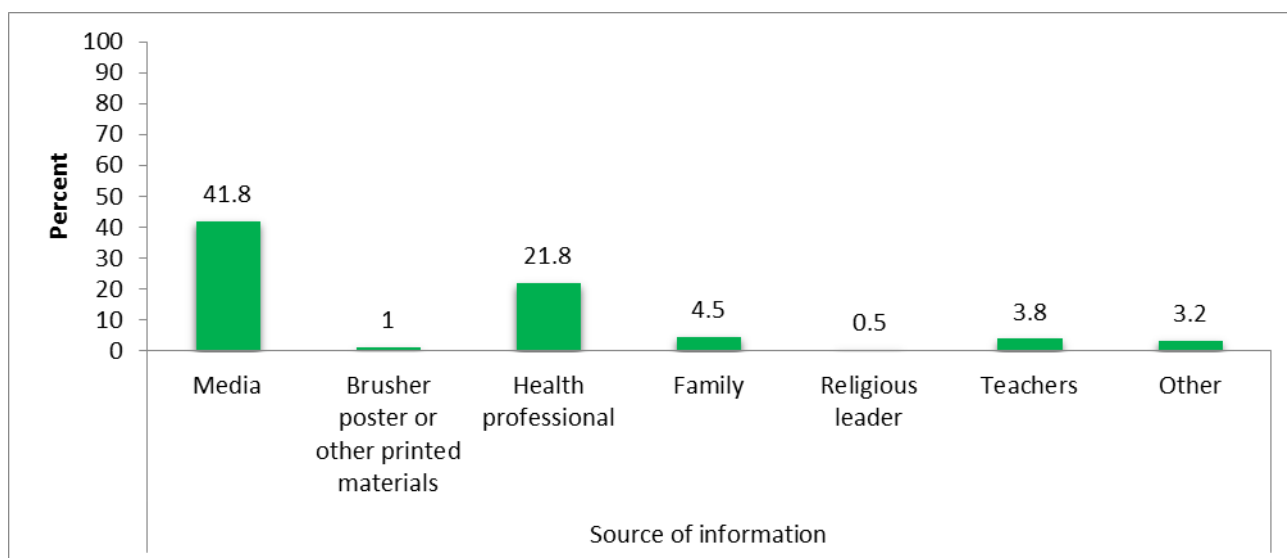


Figure 3. Source of information about cervical cancer among study participants at maternal and child Health Department in FHRH from March 15- April 15, 2019.

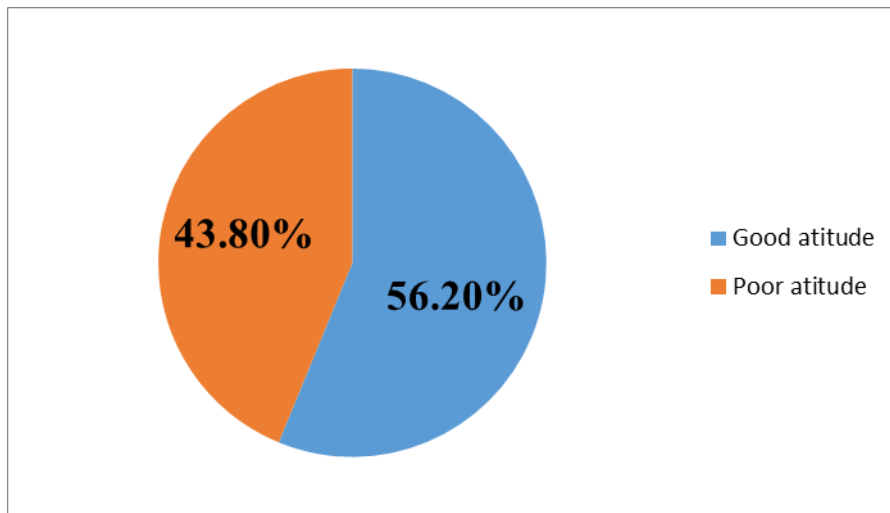


Figure 4. Attitude of study participants about cervical cancer screening at maternal and child Health Department in FHRH from March 15- April 15, 2019

Table 4. Cervical cancer screening practice of study participants at maternal and child Health Department in FHRH from March 15- April 15, 2019 (n=400).

Variable	Category	Frequency	Percent
Have you ever screened for cervical cancer	Yes	78	19.5
	No	322	80.5
Time of last cervical cancer screening	less than two years	50	64.1
	Two to three years	19	24.4
	Greater than three years	9	11.5
Method of screening	PAP smear	50	64.1
	VIA	17	21.8
	Both method	11	14.1
Reason of not to get screening	Screening is painful	44	11.0
	Healthy	129	32.2
	Her husband would not agree	9	2.2
	No information about screening	58	14.5
	Not informed health professional	69	17.2
	Workload	11	2.8
	Other	2	0.5

Note: PAP –Papanicolaou, VIA-Visual inspection with Acetic Acid

Table 5. Association of socio demographic status of study participants to the practice of cervical cancer screening at maternal and child health department in FHRH from March 15-April15, 2019

Variable	Category	Have you ever screened for cervical cancer		X <sup>2</sup> test / Fisher exact test/	COR ( 95%CI)	AOR at 95% CI
		Yes	No			
Age group	21-29 Years	34	181	0.045	1	1
	30-65 Years	44	141		1.661 (1.009,2.736)	2.025 (1.118,3.668)
Religion	Orthodox	71	300	0.000*		
	Protestant	6	2			
	Muslim	1	20			
Ethnic group	Amhara	75	305	0.371*		
	Oromo	3	7			
	Tigirie	0	4			
	Agew	0	6			
Marital status of women	Single	6	47	0.210*		
	Married	70	252			
	Separated	1	10			
	Widowed	1	6			
	Divorced	0	7			
Educational status of women	Unable to read and write	15	75	0.834		
	Able read and write	6	29			
	Primary	10	38			
	Secondary	19	62			
	College and above	28	118			
Address of women	Urban	65	249	0.247		
	Rural	13	73			
Occupation of women	Student	3	23	0.215		
	Self	11	44			
	Government employee	30	81			
	Private employee	5	17			
	Housewife	27	144			
	No work	2	13			
Monthly income (Ethiopian birr)	up to 1000	14	95	0.192		
	1001-2000	20	87			
	2001-2500	7	18			
	2501-4500	18	66			
	greater than 4501	19	56			

Table 6. Association of knowledge and attitude of study participants to the practice of cervical cancer screening at maternal and child health department in FHRH from March 15-April 15, 2019

	Category	Have you ever screened for cervical cancer		X <sup>2</sup> test	COR at 95% CI	AOR at 95% CI
		Yes	No			
Family history of cervical cancer	Yes	17	32	0.006	2.441(1.278, 4.661)	
	No	61	290			
Experience of sexual intercourse	Yes	71	282	0.396		
	No	7	40			
Problem of genital tract of women	I don't know	22	158	0.018	1	1
	Discharge	27	70			
	Sexual transmitted disease	9	29			
	Cervical cancer	13	46			
	Uterine tumor	7	19			
Ever heard of cervical cancer	Yes	74	232	0.000	7.177(2.549, 20.206)	6.924(1.602,29.928)
	No	4	90			
Source of information about Cervical Cancer	Media	36	130	0.032*		
	Brusher poster other printed material	2	1			
	Health professional	24	63			
	Family	4	14			
	Religious leader	2	0			
	Teachers	3	12			
	Other	2	11			
Causes of cervical cancer	I don't know	27	165	0.026*		
	Any sexual partner	8	16			
	Early initiation of sexual intercourse	12	27			
	Havening multiple sexual partner	11	56			
	Sexual transmitted disease	3	16			
	HIV	5	6			
	Papiolma virus	5	13			
	Long years use of Combined oral contraceptives	5	11			
	Other	2	12			

Symptom of cervical cancer of women	I Don't know	10	113	0.002	1	
	Bleeding	21	73		3.251(1.448,7.296)	
	Post coital bleeding	4	21		2.152(0.617,7.509)	
	Vaginal foul smelling discharges	27	73		4.179(1.910,9.144)	
	Painful coitus	6	23		2.948(0.974,8.918)	
	Post-menopausal bleeding	10	19		5.947(2.183,16.203)	
Treatment of cervical cancer	I don't know	22	134	0.125		
	Surgery	23	72			
	Chemotherapy	16	54			
	Radiotherapy	17	55			
	Others	0	7			
Outcome of untreated cervical cancer	I don't know	2	82	0.000*		
	Metastasis	19	63			
	Chronic illness	6	13			
	Bleeding	3	5			
	Death	48	154			
	Other	0	5			
Ever heard of cervical cancer screening method	Yes	68	236	0.010	2.478(1.220,5.031)	
	No	10	86		1	
Who should be screened	I don't know	8	91	0.005	1	
	agegreaterthan21	20	94		2.420(1.015,5.772)	
	Commercial sex workers	20	51		4.461(1.834,10.849)	
	Elderly women	27	77		3.989(1.713,9.288)	
	Other	3	9		3.792(0.852,16.878)	
Expense of screening	I don't know	9	126		1	
	Free	26	79	0.000	4.608(2.053,10.342)	
	It is reasonably priced	14	33		5.939(2.365,14.918)	
	moderately expensive	14	40		4.900(1.973,12.171)	
	very expensive	15	44		4.773(1.951,11.678)	

Expense of screening	I don't know	9	126		1	
	Free	26	79	0.000	4.608(2.053,10.342)	
	It is reasonably priced	14	33		5.939(2.365,14.918)	
	moderately expensive	14	40		4.900(1.973,12.171)	
	very expensive	15	44		4.773(1.951,11.678)	
Reason of screening	Do not know	14	103	0.152*		
	To check cervix	50	168			
	To check infections passed through sex	4	20			
	To check infections passed through blood transfusion	4	14			
	Others	6	17			
Is cervical cancer preventable	Yes	70	274	0.288		
	No	8	48			
Prevention method of cervical cancer	I do not know	2	58	0.017	1	
	No multiple partner	38	113		9.752(2.272,41.855)	
	Treat papillomavirus	11	41		7.780(1.637,36.982)	
	Use condom	9	27		9.667(1.954,47.820)	
	Vaccine	6	24		7.250(1.365,38.494)	
	Other	4	11		10.545(1.716,64.802)	
Know age of cervical cancer manifestation	Yes	69	294	0.437		
	No	9	28			
Know the right sex starting age group	Yes	69	242	0.009	5.560(1.309,23.607)	
	No	2	39		1	
Had good attitude towards cervical cancer screening	Yes	40	185	0.324		
	No	38	137			

Note:\* The association was performed using fisher exact test since 20% or more cells had expected count less than five.

practice cervical screening (AOR=6.924; 95% CI: 1.602, 29.928) as compared to those who did not have any information before. Moreover, knowing genital tract discharge as a problem of female genital organ implement fourfold more likely compared to that who have nothing knowledge about genital tract problems (AOR=3.766; 95% CI: 1.761,8.055) (Table 7)

## Discussion

The result of our study revealed that, out of total 400 participants enrolled in this study, 78 (19.5%) were subjected for cervical cancer screening. Of these, 17/78 (21.8%) were screened by Visual Inspection Acetic Acid (VIA) method. This may contribute for the low screening of cervical cancer screening though low resource settings should implement evidence-based and affordable alternative approach for cervical cancer screening science VIA reduce the deaths of women in developing countries because it is the simplest method for screening with relative ease of use and lowest cost<sup>17</sup>.

The current study illustrated as it is fallen in the practice of developing countries; screening coverage is still low, ranging from 0.4% to 14.0% in rural areas and from 2.0% to 20.2% in urban areas<sup>18</sup>. Cross sectional studies conducted in Nigeria, India, Ghana, Mekele town and Ethiopia exhibited 10%, 8%, 11.6%, 10.7% and 0.6% of cervical cancer screening practice respectively<sup>15, 18-21</sup>. It is far from developed countries carry out; the proportions of women who are screened by Pap test vary from 68 to 84%<sup>22</sup>. A good example for this utilization reported in study conducted in Brazil gave a picture of 94.7% service consumption<sup>23</sup>.

It was founded that out of total screened, 78 (19.5%), study participants 77 (98.7%) did it at once. This also depicted the low utilization of cervical screening service in the study area though women aged 18–69 who are or have ever been sexually active recommended to have two-yearly Pap tests with the current screening program<sup>24</sup>.

In the current study 94 (23.5%) and 180 (45%) of

study participants did not hear about cervical cancer and problems of genital tract. Many of the participants also did not know about cause of cervical cancer 192(48.0%), symptom of cervical cancer 123(30.8%) and treatment of cervical cancer 156(39.0%). Forty two percent of participants got information about cervical cancer from media.

Very small number of women being screened in sub-Saharan Africa and other developing countries was evidenced by reasons of low levels of awareness and poor knowledge of cervical cancer coupled with unavailability and inaccessibility of cervical cancer screening services<sup>23</sup>.

The result 94 (23.5%) was found less than carried out in Finote Selam town, Amhara region in 2017 that the awareness of women on cervical cancer was 34.3%<sup>21</sup>.

Regarding participants who know about prevention methods ((Avoid multiple partner (AOR=6.806; 95%CI: 1.405, 32.967) and treatment of *Papilloma virus* (AOR=6.978; 95% CI: 1.279, 38.070) of cervical cancer had seven times more likely to get cervical cancer screening service compared to individuals that did not be familiar about methods of prevention. Moreover, the recent study revealed that patients who have knowledge on vaccination against *Papilloma virus* were nine times more likely to practice screening (AOR= 8.597; 95%: 1.401, 52.744).

Mass campaign early screening and focus from the government and other stake holders to control having multiple sexual partners, human immune deficiency virus positive, history of sexually transmitted infection and early age at initiation of sexual intercourse will reduce cervical cancer by strengthening both cancer prevention and control program and implementation strategies through due attention on the associated risk factors of the study<sup>25</sup>. Multiple sexual partners' increases the risk of cervical cancer has been previously documented in studies conducted in Ethiopia and Tanzania<sup>26,27</sup>.

On other hand, the present study showed that the reasonably priced had four times more likely for screening



Table 7. Association of knowledge and attitude of study participants to the practice of cervical cancer screening at maternal and child health department in FHRH from March 15-April 15, 2019

Variable	Have you ever screened for cervical cancer		COR at 95% CI	AOR at 95% CI
	Yes	No		
<b>Age group</b>				
21-29 Years	34	181	1	1
30-65 Years	44	141	1.661(1.009, 2.736)	2.025(1.118,3.668)
<b>Family history of cervical cancer</b>				
Yes	17	33	2.441(1.278, 4.661)	1.572(0.673,3.670)
No	61	289	1	
<b>Experience of sexual intercourse</b>				
Yes	71	282	1.439(0.619,3.346)	
No	7	40	1	
<b>Problem of genital tract of women</b>				
Discharge	27	70	2.770(1.476, 5.198)	3.766(1.761,8.055)
STD	9	29	2.229(0.933, 5.324)	1.872(0.664,5.281)
Cervical cancer	13	46	2.030(0.949, 4.341)	2.091(0.864,5.059)
Uterine tumor	7	19	2.646(0.998, 7.012)	2.709(0.871,8.425)
I don't know	22	158	1	1
<b>Ever heard of cervical cancer</b>				
Yes	74	232	7.177(2.549, 20.206)	6.924(1.602,29.928)
No	4	90	1	1
<b>Symptom of cervical cancer of women</b>				
Bleeding	21	73	3.251(1.448,7.296)	1.022(0.299,3.494)
Post coital bleeding	4	21	2.152(0.617,7.509)	0.804(0.156,4.154)
Vaginal foul smelling discharges	27	73	4.179(1.910,9.144)	1.460(0.436,4.889)
Painful coitus	6	23	2.948(0.974,8.918)	2.001(0.416,9.624)
Post-menopausal bleeding	10	19	5.947(2.183,16.203)	2.844(0.591,13.679)
I Don't know	10	113	1	1
<b>Ever heard of cervical cancer screening method</b>				
Yes	68	236	2.478(1.220,5.031)	0.642(0.231,1.786)
No	10	86	1	1
<b>Who should be screened</b>				
Age greater than 21	20	94	2.420(1.015,5.772)	0.747(0.182,3.069)
Commercial sex workers	20	51	4.461(1.834,10.849)	1.214(0.280,5.260)
Elderly women	27	77	3.989(1.713,9.288)	0.900(0.221,3.657)
Other	3	9	3.792(0.852,16.878)	5.868(0.711,48.418)
I don't know	8	91	1	1

Expense of screening				
Free	26	79	4.608(2.053,10.342)	1.575(0.592,4.187)
It is reasonably priced	14	33	5.939(2.365,14.918)	3.547(1.111,11.320)
moderately expensive	14	40	4.900(1.973,12.171)	2.814(0.942,8.406)
very expensive	15	44	4.773(1.951,11.678)	2.225(0.757,6.546)
I don't know	9	126	1	1
Is cervical cancer preventable				
Yes	70	274	1.533(0.693,3.388)	
No	8	48	1	
Prevention method of cervical cancer				
No multiple partner	38	113	9.752(2.272,41.855)	6.806(1.405,32.967)
Treat papillomavirus	11	41	7.780(1.637,36.982)	6.978(1.279,38.070)
Use condom	9	27	9.667(1.954,47.820)	5.214(0.868,31.327)
Vaccine	6	24	7.250(1.365,38.494)	8.597(1.401,52.744)
Other	4	11	10.545(1.716,64.802)	16.989
I do not know	2	58	1	1
Know age of cervical cancer manifestation				
Yes	69	294	0.730(0.330,1.618)	
No	9	28	1	
Know the right sex starting age group				
Yes	69	242	5.560(1.309,23.607)	3.996(0.880,18.149)
No	2	39	1	1
Knowledgeable about cervical cancer				
Yes	62	191	2.658(1.469,4.808)	0.624(0.182,2.142)
No	16	131	1	
Presence of substance abuse				
Yes	4	25	0.642(0.217,1.902)	
No	74	297	1	
Had good attitude towards cervical cancer screening				
Yes	40	185	0.780(0.475,1.280)	
No	38	137	1	

Note STD-sexual transmitted disease

practice for cervical cancer (AOR=3.547; 95% CI: 1.111, 11.320). This is in agreement with Hadiya, Southern Ethiopia<sup>16</sup>.

### Conclusion and Recommendation

The study depicted that there was low utilization of cervical cancer screening that is 19.5% got screened. Awareness about cervical cancer, knowledge of genital tract problems, increased age group, knowledge about prevention method of cervical cancer, and reasonably priced expense had positive influence for screening practice. Therefore, awareness creation about cervical cancer and prevention method is expected from different stakeholder.

### Conflicts of Interest

No conflicts of interest regarding the publication of this paper from the side of all authors.

### Authors' Contributions

Tenagnework Antefe Abebe, Berhanu Elfu, Abel Lule Tessema, Mulusew Alemneh Sinishaw designed the study, collected data, performed analysis and wrote the manuscript. All authors read and agreed on the final manuscript submitted.

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