CERVICAL CANCER SCREENING AND ASSOCIATED FACTORS AMONG WOMEN AGED 30-49 IN BURERA DISTRICT

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Abstract: **Background: Cervical cancer remains a major global health concern, with over 85% of cases occurring in low- and middle-income countries. In Rwanda, 70.3% of women diagnosed with cervical cancer die from the disease, while screening coverage among women aged 30–49 years remains low (23–28.3%). This study assessed the magnitude and factors associated with cervical cancer screening uptake among women in Burera District.**

Methods: A cross-sectional study was conducted among 250 women aged 30–49 years in five selected health facilities. Data were collected using structured questionnaires and analyzed using descriptive statistics, chi-square tests, and logistic regression to determine factors associated with screening uptake.

Results: The cervical cancer screening rate was 31.6%. Factors significantly associated with screening included marital status (AOR = 3.08, 95% CI: 2.27–7.15), education level (AOR = 0.12, 95% CI: 0.03–0.57), knowledge about screening (AOR = 3.13, 95% CI: 1.21–46.59), screening method (AOR = 4.16, 95% CI: 2.25–10.11), male partner support (AOR = 2.45, 95% CI: 1.50–7.21), distance to facility (AOR = 14.21, 95% CI: 2.16–93.68), availability of trained staff (AOR = 3.86, 95% CI: 1.99–15.04), media exposure (AOR = 3.80, 95% CI: 2.01–7.21), and health facility visit in the past year (AOR = 31.36, 95% CI: 12.04–81.66).

Conclusion: Cervical cancer screening uptake in Burera District (31.6%) remains far below Rwanda's 70% target. Improving awareness, enhancing provider training, involving male partners, and decentralizing services could enhance screening coverage.

Keywords: **Cervical cancer, Screening uptake, Determinants, Burera District, Rwanda.**

1. INTRODUCTION

Cervical cancer has evolved into a major global health concern in the past decades, affecting women in both the developed and developing world, yet the developing world is disproportionately touched (Bogdanova, Andrawos, & Constantinou, 2022). Over 85% of global cervical cancer cases occur in LMICs in accordance with International Agency for Research on Cancer (IARC) (Ferlay J, 2024). Asia, being the most affected, carries 60.9% of global cases or 282543 cases annually, followed by Africa, representing 68134 (14.7%), and Latin America and the Caribbean, accounting 47383 (10.2%) of the global cases respectively in 2022. Additionally, Europe has also recognized a higher rate of cervical cancer compared to other developed continents, where the reported cases of cervical cancer were 49543 (10.7%) in 2022 (Bray et al., 2024).

The mortality associated with cervical cancer is similarly high in developing countries compared to developed countries. In 2022, the five-year death toll from cervical cancer was estimated at 199795 (57.3%) cases in Asia, 80614 (23.1%) cases in Africa and 33514 (9.6%) cases in Latin America and the Caribbean (Bray et al., 2024; Ferlay J, 2024). Additionally, current figures suggest that Africa ranks the second most burdened continent following Asia, with regional disparities observed. These figures indicate that the East African region experienced the highest prevalence of cervical cancer, with an estimated 58145 cases in 2022. Moreover, the mortality led by cervical cancer in the region was 39476 women, representing 68% of

all cervical cancer cases (Ferlay J, 2024). Furthermore, according to the GLOBOCAN 2022, around 866 women were identified with cervical cancer disease, of which 609 (70.3%) died of cancer in Rwanda in 2022 (Bray et al., 2024; Ferlay J, 2024).

In contrast, taking into consideration the high prevalence of cervical cancer and associated mortality and morbidity, current evidence indicates that the provision and effective use of screening services is essential for the early detection and treatment of precancerous cervical lesions. These strategies are fundamental for curbing the disease progression, leading to promising outcomes in the majority of cases (Basoya & Anjankar, 2022). Notably, early-stage cervical cancers have demonstrated a high treatability potential when diagnosed promptly.

Consequently, countries with adequate resources and robust screening programs have witnessed substantial reductions of the occurrence and fatality rates for cervical cancer over the past few decades (Basoya & Anjankar, 2022). Yet, factors such as restricted access to screening services, deficient awareness, cultural beliefs, and socioeconomic factors contribute to the underutilization of screening services for cervical cancer, leading to increased incidence of cervical cancer in most LMICs including Rwanda (Adedimeji et al., 2021).

Rwanda, a densely populated country located in the east African region with 13,246,394 citizens, is consisting of 51.5% females in accordance with the findings of the fifth Population and Housing Census (PHC) of 2022 (NISR, 2023). Like most other LMICs, Rwanda is burdened with morbidity and mortality associated with cervical cancer. A study conducted in 2022 indicated that there were 3.7 million Rwandan women aged between 15 and 59 years at risk for cervical cancer in 2020 (Gafaranga et al., 2022), highlighting the urgent need for tailored interventions to ensure that all women at risk are screened.

2. METHODS

Study design and setting

This cross-sectional study was conducted in Burera District, Northern Province, Rwanda, to examine socio-demographic, knowledge-related, socio-cultural, and healthcare system factors influencing cervical cancer screening (CCS) among women aged 30–49 years. Burera is a rural district comprising 20 health facilities, all providing cervical cancer screening services, including the Butaro Cancer Centre of Excellence (BCCOE), a national referral institution for cancer treatment. The district was selected for its representativeness of rural settings and its accessibility, providing a suitable context to explore screening uptake among women of reproductive age.

Study population

The study population consisted of women aged 30–49 years residing in Burera District who provided written informed consent to participate. This age range aligns with international screening recommendations (Nessa et al., 2019). Women previously diagnosed with cervical cancer or unable to communicate effectively were excluded.

Sample size and sampling procedures

The sample size was determined using the single population proportion formula, assuming a 95% confidence level (Z = 1.96), a 5% margin of error, and an estimated prevalence of 18% of women previously screened for cervical cancer (Gahongayire et al., 2023). Allowing for a 10% non-response rate, the final sample size was set at 250 participants.

Five health facilities were included: four health centres randomly selected from the district list and the BCCOE. Within each facility, participants were chosen systematically using antenatal and family-planning registers as sampling frames. The sampling interval was calculated by dividing the total number of eligible women by the required number of participants for each site.

Data collection tools and procedures

Data were collected through structured, interviewer-administered questionnaires developed from existing literature and expert consultation. The questionnaire comprised three sections: (1) socio-demographic characteristics, (2) knowledge and awareness of cervical cancer, and (3) practices and barriers related to screening. It was translated into Kinyarwanda and back-translated into English to ensure linguistic accuracy. Trained nurses and midwives conducted face-to-face interviews under close supervision. Completed questionnaires were checked daily for completeness, and data were securely entered into an electronic database. Identifiers were stored separately to maintain confidentiality.

Validity and reliability

Content validity was established through expert review by two social science researchers, whose feedback informed refinement of the questionnaire. Reliability was assessed through a pilot test involving 5% of the sample (n = 13) within the study area but excluded from the main analysis. Test–retest reliability produced coefficients exceeding 0.7, indicating satisfactory internal consistency. Data collectors received one-day training, and double data entry was performed to ensure data accuracy and completeness.

Data analysis

Data were cleaned in Microsoft Excel and analysed using SPSS version 21. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarise participant characteristics. The dependent variable, CCS uptake, was coded "1" for "yes" and "0" for "no." Associations between CCS uptake and independent variables were evaluated using the chi-square test, with statistical significance set at $p < 0.05$. Variables with $p < 0.05$ in bivariate analysis were included in binary logistic regression to calculate adjusted odds ratios (AOR) and 95% confidence intervals (CI).

3. RESULTS

Sociodemographic characteristics of the respondent among women in Burera District

The sociodemographic characteristics of respondents in this study shows that the majority were aged 36–44 years (53.6%), followed by those aged 30–35 years (32.8%), with a smaller proportion aged 45 -49 years old (13.6%). Most participants were Christian (96.4%), while a few reported being Muslim (0.8%) or having no religious (2.8%). In terms of marital status, a large proportion were married (90.8%), with smaller percentages being single (1.6%), divorced (4%), or reporting other statuses (3.6%). Based on level of education, most respondents had attained primary education (62%), followed by secondary education (16.8%), informal education (12.8%), and university-level education (8.4%). Regarding occupation, over half were unemployed (55.6%), while 28.8% were self-employed and 15.6% were public servants. (92.4%) of respondents reported having health insurance while 7.6 were not having insurance as shown in Table 1

**Table 1. Sociodemographic characteristics of the respondent among women in Burera District**

Variable	Frequency(n)	%
Age group		
30-35	82	32.8
36-44	134	53.6
45-49	34	13.6
Residence place		
Bungwe	31	11.8
Butaro	74	28.1
Gatebe	50	19
Kivuye	34	12.9
Rugarama	60	22.8
Rusarabuye	14	5.3
Religion		
Christian	241	96.4
Muslim	2	0.8
None	7	2.8
Marital status		
Married	227	90.8
Single	4	1.6
Divorced	10	4
Other	9	3.6
Education level		
Informal	32	12.8
Primary	155	62
Secondary	42	16.8

University	21	8.4
Occupation		
Unemployed	139	55.6
Self employed	72	28.8
Public servants	39	15.6
Insurance		
Yes	243	92.4
No	20	7.6

Prevalence of cervical cancer screening uptake among women aged 30-49 years in Burera District

The finding has shown that the prevalence of cervical cancer screening among women aged 30-49 years in Burera District was 31.6% as illustrated in figure 1

Figure 1. Prevalence of cervical cancer screening uptake among women aged 30-49 years in Burera District
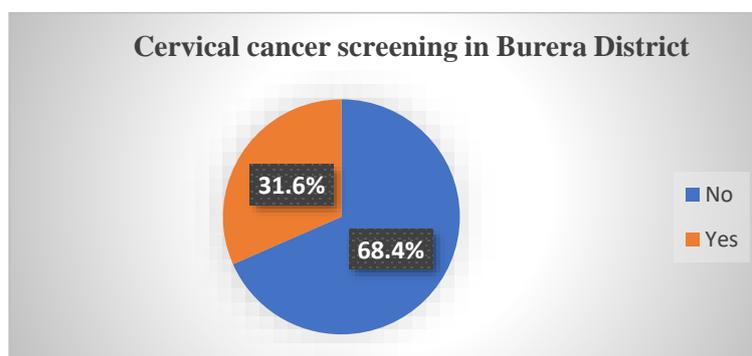
Factors associated with cervical cancer screening uptake among women aged 30-49 years in Burera District

Bivariate analysis on demographic factors associated with cervical cancer screening uptake among women aged 30-49 years in Burera District

Table 2 Shows the bivariate analysis of demographic factors associated with cervical cancer screening uptake among women aged 30–49 years in Burera District reveals mixed associations. Demographic factors associated with cervical cancer screening uptake were Religion (χ^2 = 7.577, p = 0.014), Education level (χ^2 = 17.377, p = 0.001), occupation (χ^2 = 8.622, p = 0.013), Residence of the respondent (χ^2 = 12.873, p = 0.023) and history of visit to HF in the past 12 months (χ^2 = 83.916, p = 0.0001).

In contrast, age of the respondent (χ^2 = 0.284, p = 0.147), Marital status (χ^2 = 2.573, p = 0.576) and insurance (χ^2 = 0.609, p = 0.410) were not significantly associated with cervical cancer screening uptake.

Table 2. Bivariate analysis on demographic factors associated with cervical cancer screening uptake among women aged 30-49 years in Burera District

Variable	Cervical cancer screening uptake		Chi-square test	P- value
	Yes (%)	No (%)		
Age group			0.284	0.147
30-35	61(74.4)	21(25.6)		
36-45	91(67.9)	43(32.1)		
>45	19(55.9)	15(44.1)		
Residence place			12.873	**0.023**
Bungwe	9(29)	22(71)		
Butaro	12(16.2)	62(83.8)		
Gatebe	20(40)	30(60)		
Kivuye	11(32.4)	23(67.6)		
Rugarama	24(40)	36(60)		
Rusarabuye	3(21.4)	11(78.6)		

Religion				
Christian	77(32)	164(68)	7.577	**0.014**
Muslim	2(100)	0(0)		
None	0(0)	7(100)		
Marital status			2.573	0.576
Married	73(32.2)	154(67.8)		
Single	0(0)	4(100)		
Divorced	4(40)	6(60)		
Other	2(22.2)	7(77.8)		
Level of education			17.377	**0.001**
Informal	6(18.8)	26(81.3)		
Primary	42(27.1)	113(72.9)		
Secondary	17(40.5)	25(59.5)		
University	14(33.3)	7(66.7)		
Occupation			8.622	**0.013**
Unemployed	37(26.6)	102(73.4)		
Self employed	22(30.6)	50(69.4)		
Public servant	20(51.3)	19(48.7)		
Insurance			0.609	0.410
Yes	74(30.5)	169(69.5)		
No	5(25)	15(75)		
History of visit to HF in the past 12 months				
Yes	74(55.6)	59(44.4)	83.916	**0.0001**
No	5(3.8)	125(96.2)		

Bivariate analysis on awareness and perceptions associated with cervical cancer screening uptake among women aged 30-49 years in Burera District

The table 3 shows the bivariate analysis of awareness and perceptions related to cervical cancer screening uptake among women aged 30–49 years in Burera District. The awareness and perception significantly associated with cervical cancer screening uptake include women who were aware of cervical cancer screening (χ^2 = 47.191, p = 0.001), awareness of the causes of cervical cancer (χ^2 = 36.718, p = 0.001), Awareness of the reasons for undertaking cervical cancer screening (χ^2 = 51.283, p = 0.0001) and awareness of the methods of used (χ^2 = 5.48, p = 0.0001).

Table 3. Bivariate analysis on awareness and perceptions associated with cervical cancer screening uptake among women aged 30-49 years in Burera District

Variables	Cervical cancer screening uptake		Chi- square test	P-value
	Yes	**No**		
Awareness on Cervical cancer screening			47.191	0.001
Yes	66(51.2)	63(48.8)		
No	13(10.7)	108(89.3)		
Awareness on causes of cervical cancer			36.718	0.001
Yes	52(54.2)	44(45.8)		
No	27(17.5)	127(82.5)		
Awareness on the reasons to undertake cervical cancer screening			51.283	0.0001
Yes	5(5.2)	92(94.8)		
No	74(48.4)	79(51.6)		
Awareness on method of screening			5.48	0.0001
Yes	74(100)	0(0)		
No	5(2.8)	171(97.2)		

Bivariate analysis on barriers to up taking cervical cancer screening uptake among women aged 30-49 years in Burera District

Table 4. Shows the bivariate analysis of barriers to cervical cancer screening uptake among women aged 30–49 years in Burera District barriers significantly associated with cervical cancer screening uptake were availability of trained healthcare workers in the community(χ^2 = 10.786, p = 0.001), availability of screening services (χ^2 = 8.072, p = 0.005), family encouragement (χ^2 = 11.854, p = 0.035), Male partner support (χ^2 = 9.248, p = 0.002), Fear of the cost of screening services (χ^2 = 2.652, p = 0.034), longer distance to health facilities (χ^2 = 7.936, p = 0.003) and exposure to media such as TV ,Radio as well as Newspapers.

Table 4. Bivariate analysis on barriers to up taking cervical cancer screening uptake among women aged 30-49 years in Burera District

Variable	Cervical cancer screening uptake		Chi-square	P-value
	Yes	**No**		
			10.786	0.001
Availability of trained healthcare workers in community				
Yes	24(21.1)	90(78.1)		
No	55(40.4)	81(59.6)		
Availability of cervical cancer screening services			8.072	0.005
Yes	60(38)	98(62)		
No	19(20.7)	73(79.3)		
Family encouragement to cervical cancer screening			11.854	0.035
Yes	17(16.3)	84(83.2)		
No	62(41.6)	87(58.4)		
Support by a male partner			9.248	0.002
Yes	18(19.8)	73(80.2)		
No	61(38.4)	98(61.6)		
Fear for the cost of the screening procedure			2.652	0.034
Yes	15(23.4)	49(76.6)		
No	64(34.4)	122(65.5)		
Longer distance to the screening health facility			7.936	0.003
Yes	67(36.6)	116(63.4)		
No	12(17.9)	55(82.1)		
Exposure to media (TV, radio or newpaper			20.096	0.0001
Yes	63(40.1)	94(59.9)		
No	15(14.3)	90(85.7)		

Multivariate analysis on factors associated with cervical cancer screening uptake among women among women aged 30-49 years in Burera District

Table 5. Indicate multivariate analysis of factors associated with cervical cancer screening uptake among women aged 30–49 years in Burera District. The factors independently associated with cervical cancer screening uptake among women aged 30-49 years in Burera District were Marital status (AOR = 3.076, 95% CI: 2.266–7.148, p = 0.042), Education level also showed strong effects: women with primary (AOR = 0.115, 95% CI: 0.032–0.411, p = 0.001), secondary education (AOR = 0.186, 95% CI: 0.070–0.492, p = 0.001) compared to those with informal education, while those with university education had higher odds of screening (AOR = 0.340, 95% CI: 1.114–1.218, p = 0.034), history of visit health facility in the past 12 months(AOR:31.356, 95%CI: 12.041-81.655, p=0.0001).

Awareness and perceptions associated with cervical cancer screening uptake were awareness about cervical cancer screening (AOR = 3.132, 95% CI: 1.211–46.588, p = 0.041), and awareness on methods of screening (AOR = 4.158, 95% CI: 2.25–10.11, p = 0.037).

Barrier associated to cervical cancer screening uptake were availability of trained healthcare workers (AOR = 3.860, 95% CI: 1.991–15.041, p = 0.044), lack of support by their male partners (AOR = 2.446, 95% CI: 1.496–7.208, p = 0.049), longer distance to health facility (AOR = 14.214, 95% CI: 2.157–93.679, p = 0.006) and exposure to media (AOR=3.802, 95%CI: 2.006-7.208, p=0.0001). On the other side, the residence of the respondents was associated with cervical cancer screening uptake (P>0.05).

Table 5. Multivariate analysis on factors associated with cervical cancer screening uptake among women among women aged 30-49 years in Burera District

Variables	Cervical screening uptake		P-value
	AoR	**95% CI**	
Marital status			
Married	3.076	2.266-7.148	0.042
Single	0.2	0.01-3.25	0.999
Divorced	1.379	0.266-8.14	0.742
Other	Ref[1.0]		
Residence place			
Bungwe	1.5	0.337-6.680	0.595
Butaro	0.710	0.172-2.931	0.636
Gatebe	2.444	0.605-9.877	0.210
Kivuye	1.754	0.405-7.588	0.452
Rugarama	2.444	0.617-9.689	0.203
Rusarabuye	Ref[1.0]		
Level of education			
Informal	Ref[1.0]		
Primary	0.115	0.032-0.411	0.001
Secondary	0.186	0.070-0.492	0.001
University	0.340	1.114-1.218	0.034
Awareness on Cervical cancer screening			
Yes	3.132	1.211-46.588	0.0407
No	Ref[1.0]		
Awareness on method of screening			
Yes	4.158	2.25-10.11	0.037
No	Ref[1.0]		
Availability of trained healthcare workers in community			
Yes	3.860	1.991-15.041	0.044
No	Ref[1.0]		
Support by a male partner			
Yes	2.446	1.496-7.208	0.049
No	Ref[1.0]		
Longer distance to the screening health facility			
Yes	14.214	2.157-93.679	0.006
No	Ref[1.0]		
Exposure to media			
Yes	3.802	2.006-7.208	0.0001
No	Ref[1.0]		
History of visit health facility in past 12 months			
Yes	31.356	12.041-81.655	0.0001
No	Ref[1.0]		

4. DISCUSSION

This study found that the prevalence of cervical cancer screening among women aged 30–49 years in Burera District was 31.6%. This uptake is higher than Rwanda's national average. For example, a recent demographic health survey and studies in other parts of Rwanda reported screening rates between 1% and 16 % between 2018 to 2023(Hassan, 2024). A study conducted in Kigali, Rwanda's capital, showed a slightly lower prevalence of 28.3%(Niyonsenga et al., 2021).

Regionally, in East Africa, the screening uptake is comparably low. A study in Uganda found a cervical cancer screening rate of just 4.8% among eligible women in Rural area(Ndejjo et al., 2016), while in Kenya, the national screening coverage has been estimated at about 25.5% (Gatumo et al., 2018). These figures place the Burera District's screening rate above average for the region, possibly due to community health worker interventions and ongoing national awareness campaigns in Rwanda.

Cervical cancer screening in Sub-Saharan Africa remains suboptimal. A meta-analysis by Tesfa et al. (2023) estimated the overall screening coverage in the region at 12.87% with Namibia having the highest screened women 39.3%(Hailegebireal et al., 2024).

The findings from this study however remain very low compared to the global target. The WHO's global cervical cancer elimination strategy aims for 70% of women to be screened with a high-performance test by age 35 and again by 45 in 2030 among low and middle income countries(WHO, 2020).

Concerning factors associated with uptake of cervical cancer screening, married women were more likely to undergo screening (AoR = 3.076, 95% CI: 2.266–7.148, P = 0.042). This aligns with findings from Ethiopia, marital status were reported to be an important predictor to cervical cancer screening(Gizaw et al., 2022) . Women with informal and primary education were less likely to be screened (AoR = 0.12, 95% CI: 0.026–0.567, P = 0.007; AoR = 0.195, 95% CI: 0.052–0.737, P = 0.015). This finding is consistent with studies in Ethiopia where lower educational levels were associated with reduced screening uptake(Gizaw et al., 2022),(Ayenew et al., 2020).

In addition, this study has shown that knowledge of the women on cervical cancer were important predictors to cervical cancer screening. For instance, Women with knowledge about cervical cancer screening (AoR = 3.132, 95% CI: 1.211–46.588, P = 0.041), Women who knew the screening method (AoR = 4.158, 95% CI: 2.25–10.11, P = 0.037) were more likely to get screened than their counterparts. This finding is in line with the study conducted in Tanzania whereby knowledge of the women about cervical cancer were a predictor to get screened (Moshi et al., 2019). Again support by male partner (AoR = 2.446, 95% CI: 1.496–7.208, P = 0.049) was shown by this study to be associated with cervical cancer screening and this finding is similar with the study conducted in Kenya whereby family support other than spouse (OR 1.53, 95% CI 1.09–2.16) were shown to be associated with screening(Choi et al., 2022).

Women living near health facilities were more likely to be screened (AoR = 14.214, 95% CI: 2.157–93.679, P = 0.006). This finding is in line with the study conducted in Sub saharian Africa whereby longer distance to health facility were reported as barrier to cervical cancer screening (Dickson et al., 2023).

The findings have shown that women who were exposed to media such TV, radio and new papers were more likely to be screened for cervical cancers (AOR=3.802, 95%CI: 2.006-7.208, p=0.0001) than their counterparts. This indicate a powerful role of media in raising awareness on cervical cancer screening among women and the finding are in line with a study conducted in Sub-Saharian exposure to media were shown to promote cervical cancer screening among women living in rural area(Bawuah et al., 2025).   Another study conducted in Lesotho and Kenya on the determinant of cervical cancer screening uptake has supported this this finding from our study whereby accessible media platform were shown to raise awareness on the screening among women(Wassie et al., 2025),(Gebreegziabher et al., 2024). Similarly, a study in Côte d'Ivoire has shown that women who had visited a health facility in the last 12 months before the survey [aOR=1.83; 95% CI=1.27, 2.65] were more likely to be screened for cervical cancer compared to their counterparts(Adzigbli, Dowou, et al., 2025).

Women who visited health facility in the past 12months were more likely to take up cervical cancer screening services than women who did not visit health facility (AOR:31.356, 95%CI: 12.041-81.655, p=0.0001). This finding is in line with the study with study conducted in Ghana which has shown that women who visited a health facility in the past year had higher odds of being screened for cervical cancer [aOR = 1.48; 95% CI = 1.02, 2.15] relative to those who did not(Adzigbli, Aboagye, et al., 2025).

This study focused on finding the magnitude and factors associated with cervical cancer screening among women aged 30-49 years old. However, it faced some limitations as it used a cross-sectional design, which limits the ability to establish causality between identified factors and cervical cancer screening uptake. Associations observed may not imply a cause-effect relationship and even the generalizability of the study findings beyond the study population were also a limitation to this study.

5. CONCLUSION

This study revealed a low cervical cancer screening uptake of only 31.6% among women aged 30–49 years in Burera District, indicating that a substantial majority (68.4%) of eligible women remain unscreened. The findings highlight critical barriers to screening, including marital status, low levels of education, poor knowledge of cervical cancer and screening methods, limited availability of trained healthcare personnel, lack of male partner support, long distances to health facilities, limited media exposure, and infrequent visits to health facilities within the past 12 months. These results underscore the urgent need for targeted public health interventions to increase awareness, improve accessibility, and enhance support systems for cervical cancer screening.

6. RECOMMENDATIONS

Policy makers should implement key strategies such as launching widespread health education campaigns to raise awareness and integrating cervical cancer screening into routine maternal and reproductive health services. Strengthening the healthcare workforce through targeted training will ensure the availability of skilled providers, while improving service accessibility by expanding health facilities and introducing mobile clinics can help overcome distance barriers. Engaging male partners in reproductive health education is equally important to encourage greater support for women's participation in screening.

At the district level, particularly in Burera, community-based interventions are essential to enhance cervical cancer screening. Collaboration with local leaders, community health workers, and non-governmental organisations (NGOs) can facilitate grassroots campaigns that educate women and families about the importance of early detection. Improving transport and infrastructure is also critical to ensure that women in remote areas can easily access screening services. Establishing an effective monitoring and evaluation system will further help track coverage and outcomes, promoting continuous improvement of screening programmes.

Future research should focus on qualitative studies to explore the cultural, social, and personal beliefs that hinder women from seeking cervical cancer screening. Researchers should also evaluate the effectiveness of various interventions, such as mobile clinics, education programmes, and male involvement strategies, in increasing screening uptake and improving overall programme outcomes.

Declarations

Ethics approval

Ethical approval was obtained from the Mount Kenya University Institutional Review Board. Permission to conduct the study was granted by Burera District authorities and participating health facilities. Written informed consent was obtained from all participants prior to data collection, and confidentiality and anonymity were strictly maintained throughout the research process.

Consent to participate

All participants provided signed informed consent. This study adhered to the ethical guidelines and regulations outlined in the 1964 Declaration of Helsinki and its subsequent amendments or comparable ethical standards for participant recruitment and informed consent procedures in all interviews conducted.

Consent for publication

We, the authors of this manuscript, consent to the publication of this work.

Clinical trial number: Not applicable

Availability of data and materials

Data will be available upon reasonable request from Oscar NDAHAYO through oscanado@gmail.com.

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