

# Cervical Cancer Prevention Paradox: Unveiling Screening Barriers and Solutions

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## Abstract

Cervical cancer is still a major worldwide health concern, particularly in areas with high rates of infection and little resources. The important connection between human papillomavirus (HPV) infection and cervical cancer is examined in this publication, which also highlights the need for early screening and detection and highlights the rising incidence among teenagers and young adults. Women continue to confront numerous obstacles to cervical cancer screening and treatment, even in spite of the World Health Organization's strategy to eradicate the disease through prompt detection and treatment. Personal concerns, cultural and religious beliefs, and a lackluster healthcare system are a few of these obstacles. It is critical to identify and eliminate obstacles to screening uptake in developing countries in order to lower the incidence of cervical cancer. Therefore, this paper outlined the obstacles to cervical cancer screening in developing countries, provided mitigation strategies, and emphasized the need for better policy and campaign measures in order to eradicate cervical cancer. This study used relevant published research from reliable databases.

**Key Words:** cervical cancer; human papillomavirus; HPV infection; developing countries; early detection; healthcare system

## Introduction

A sexually transmitted infection with the human papillomavirus (HPV) is the cause of cervical cancer. Estimated to be the fourth most frequent cancer in women worldwide, 341 831 deaths and 604 127 new cases are expected in 2020 [1]. With rates seven to ten times greater than in industrialized nations, cervical cancer is the second most frequent malignancy in Africa [1]. In Sub-Saharan Africa, it is the leading cause of death for women [1]. Sadly, the number of adolescents and young adults with cervical cancer is rising, notably in the 21–30 age range, among patients under 30 [2]. To stop cervical dysplasia from developing into cervical cancer, precancerous abnormalities can be screened for, detected, and treated globally to prevent cervical cancer [3, 4]. According to cervical cancer screening guidelines, women should have a Pap test every three years if they are between the ages of 21 and 29; women between the ages of 30 and 65 should get an HPV test every five years or a Pap test every three years if they have spoken with their doctor; and women over the age of 66 should inquire with their doctors about the need for ongoing screening every five years [5]. In the case that preventive services are not rapidly expanded, estimates indicate that by 2040, the

disease's death toll will increase to around 460,000 [6]. Regrettably, less people are getting screened in nations with limited resources [7]. More so, the high rate of HIV infection in these regions is fueling this menace. HIV infection enhances the risk of cervical cancer [8-13]. Generally, early screening and detection of cancers enhances treatment outcomes [14-20]. The majority of cases (72.3%) of cervical cancer are detected at an advanced stage [21]. Women often use cervical cancer screening services between the ages of 37 and 49 [22], which is a relatively late period for them to do so. Low socioeconomic position [5], fear and shame [23, 24], as well as unpleasant previous screening experiences [25], may all be factors in the low uptake. Women have to utilize cervical screening services to check for HPV and stop precancerous cells from turning into cancerous cells in order to lessen the incidence of cervical cancer. This is especially important in nations where access to human papillomavirus vaccinations is limited. A key element of prevention that will increase screening uptake and ultimately lower the worldwide incidence of cervical cancer is the implementation of efficient screening programs tailored to the requirements of women. As a result, the World Health Organization's global strategy to expedite the elimination of cervical cancer offers a vision of a world in which women's

needs, social circumstances, and the structural, personal, cultural, and financial barriers preventing them from accessing health services are all taken into consideration when implementing policies to eradicate cervical cancer as a public health issue [26]. Since human papillomavirus (HPV) infection is linked to almost all cases of cervical cancer (99%), HPV vaccination is an important primary preventive strategy. Screening, or secondary prevention, is still an important tool in the toolkit for eradicating cervical cancer, particularly in areas with low uptake, availability, and access to HPV vaccination. In contrast to 63% in industrialized nations, the average screening coverage of eligible women is 19% in the majority of developing nations [27]. In order to reduce the incidence of cervical cancer in developing nations, it is crucial to identify and remove obstacles to screening uptake. Therefore, in order to eradicate the illness, this article highlights the need for improved campaigns and policy initiatives while identifying obstacles to cervical cancer screening in underdeveloped nations. Studies on women's barriers to cervical cancer screening that were published between 2010 and 2023 were collected and synthesized from Google Scholar, PubMed, Scopus, and Web of Science databases.

### Obstacles to the Adoption of Cervical Cancer Screening

#### Barriers in the health system

Health system barriers to the uptake of cervical cancer screening include capacity constraints, inadequate service organization, a lack of awareness about cervical cancer among healthcare professionals, a lack of screening promotion, unfriendly attitudes of healthcare professionals toward patients, and a lack of public trust in the health system. Insufficient healthcare facilities are a widespread issue plaguing developing nations worldwide, particularly those residing in rural areas. Due to the dearth of screening facilities, personnel shortages, hurried and short consultations, and equipment and material shortages in these areas, women are frequently referred for screening far from their homes, which results in expensive and time-consuming screening procedures [28, 29]. As a result, some rural inhabitants seek treatment for cervical cancer from traditional medical professionals. Plant-based remedies are used in traditional medicine to preserve health. It is a long-standing worldwide custom [30-32]. Remarkably, studies have shown that plants offer medicinal potential for treating a wide range of conditions, including cancer [15, 18], rheumatoid arthritis [33-35], diabetes mellitus [36-41], malaria [42,43], anemia [44, 45], and liver illnesses [46-48]. Although there have been many reports of plants having potential medicinal uses, it is advised to use caution when using them as the toxicity profile of such plants has not been well studied by science. Women from Uganda and South Africa and revealed that the low uptake of cervical cancer screening was due to a lack of privacy in healthcare facilities [49, 50]. Malawian women cited a hurdle as the lack of room in healthcare institutions for screening services according to Munthali et al. [51]. Nigerian women said that one of the barriers was their lack of trust in the healthcare system [52]. Recently, Ari et al. [53] found that good cervical screening experiences increased the uptake of cervical screening by Nigerian women. In South Africa, Kenya, Uganda, and China, lengthy wait times in medical institutions have been noted as a deterrent to screening [54-57].

#### Barriers based on customs and culture

Numerous studies have revealed that women were not examined due to restrictions and religious or cultural reasons [58, 59]. Conflicts between traditional and western perspectives on cervical cancer screening were noted by Nugus et al. [60]. Similarly, reports from South Africa and Ghana [50, 59] indicated a preference for traditional treatment and a skepticism of

western medicine. Additionally, there have been stories of males disliking their wife's cervical cancer screenings [28, 29]. Furthermore, according to a different study, women's health issues—including those related to sexual and reproductive health—were not given the same urgency or priority as other health issues [61]. Furthermore, because cervical cancer is perceived as a terminal illness, stigma is said to contribute to low screening uptake [58, 61]. Adewumi et al. [63] claim that the stigma stems from its link to sexual transmission, since women who undergo screenings are occasionally thought to be having an extramarital affair. According to a qualitative study of women's experiences with cervical cancer screening in South Africa, stigma resulting from concurrent HIV testing and the connection between HIV infection and cervical cancer has been documented [64].

#### Structural Barriers

Several authors have highlighted structural constraints that contribute to the low acceptance of cervical cancer screening. These barriers include high screening costs, poor transport networks, and large travel distances to screening centers and the related travel expenditures. All continents face screening costs, but impoverished countries are more affected [59, 61]. Prolonged wait periods also lead to higher lunch expenses, which raises the total cost of screening. Researchers have also found that insecurity, obstacles to freedom of movement, and inadequate road networks to screening facilities exist in Nigeria and Uganda [65, 66]. Women who live in rural communities in developing nations tend to be poor and have low levels of education, which are other structural difficulties that have been noted [67]. Interestingly, Baussano et al. [68] reported that free screening resulted to an increase in seeking behavior of women resident in rural Bhutan. Similarly, Antinyan et al. [68] also reported that timely reminders and offering transportation cost boosts cervical cancer screening uptake. Ari et al. [53] state that free screening, raising awareness of the condition and screening, providing assistance with transportation, and using influencers to promote screening are among the strategies to increase screening participation depending on women's needs.

#### Individual obstacles to the acceptance of cervical cancer screening

The most often mentioned personal obstacles to the uptake of cervical cancer screening are: ignorance of the disease, screening, and its advantages [29, 50, 51, 56], anxiety over positive test results because many people view a positive result as a death sentence [24, 50], discomfort from the screening process, and fear of potential consequences like getting cancer or injuring one's cervix or uterus during screening [58, 59]. Some women are deterred from screening for cervical cancer by the simultaneous testing for HIV infection and cervical cancer [24]. Another disadvantage is that some women find it embarrassing to be inspected by a man or a young healthcare professional [57, 70].

#### Conclusion

Given the detailed analysis of barriers to cervical cancer screening in developing countries, it's evident that multifaceted challenges exist at systemic, cultural, structural, and individual levels. These barriers encompass healthcare system limitations, cultural beliefs, financial constraints, and personal fears surrounding the screening process. To confront these challenges, a comprehensive approach integrating targeted policies, improved healthcare infrastructure, culturally sensitive awareness campaigns, and tailored interventions is imperative. Efforts should focus on enhancing healthcare accessibility, dispelling cultural misconceptions, reducing financial burdens, and addressing individual concerns to encourage

greater uptake of cervical cancer screening. By acknowledging and dismantling these obstacles, progress can be made toward the World Health Organization's vision of eradicating cervical cancer through proactive screening, timely detection, and effective treatment, especially in regions with limited resources and high disease burdens.

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