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SERVICE ACCESSIBILITY AS A DETERMINANT OF CERVICAL CANCER SCREENING IN GWANDA DISTRICT, ZIMBABWE

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ABSTRACT: *Zimbabwe has one of the highest prevalence of cervical cancers in the world. The country has a low screening coverage despite the availability of cost-effective and evidence-based interventions for the prevention of the disease that include screening. This study therefore assessed service accessibility as a determinant of screening in Gwanda District, Zimbabwe. An explanatory sequential mixed-method design was employed firstly using a quantitative survey of 609 screening-eligible women selected through multi-stage random sampling. Subsequently, 36 women purposely selected from the quantitative phase were engaged in focus group discussions, and 25 health-care workers as key informants. About 74.4% of rural participants had never been screened compared to 62.1% of urban participants. Qualitative findings revealed that the district has two screening sites, both in urban locations. Rural based women access the service through outreach clinics which are inconsistent with no provision for treatment. Furthermore, treatment facilities are centralised to the provincial hospital at a fee. Financial constraints associated with travel expenses and treatment costs emerged as the key factor that hinders participation in screening. Improved access to services could greatly increase screening rates to match the high demand in the district. Decentralising screening to primary health facilities could ensure ready access of the service and enhance screening. Supplemental to that, outreach services to hard to reach areas need to be increased and sustained.*

KEYWORDS: Cervical cancer, VIAC, Screening, Accessibility, Gwanda, Zimbabwe.

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INTRODUCTION

Globally, cervical cancer ranks the fourth most commonly diagnosed and leading cause of cancer death in women (World Health Organization, 2021). In 2020, an estimated 604,000 new cases and 342,000 deaths occurred worldwide (Sung et al., 2021). The disease is more prevalent in low resource settings, namely sub-Saharan Africa, Melanesia, South America and South-Eastern Asia, with the highest regional incidence and mortality in sub-Saharan Africa (Sung et al., 2021). Cervical cancer is highly preventable if effective primary and secondary prevention measures are implemented (Sung et al., 2021). Primary prevention is applied through early human papillomavirus (HPV) vaccination of preadolescent girls prior to their sexual debut, while secondary prevention is directed towards early identification of high risk HPV lesions through screening and treatment of precursor lesions (Sung et al., 2021). The disease can also be cured if diagnosed and adequately treated at an early stage (Fowler, Maani, Dunton, Jack & Miller, 2022). Consequently, the World Health Organization has declared that no woman should die from cervical cancer; a preventable and curable disease (World Health Organization, 2022a).

Organised screening programmes resulting from longstanding cancer health promotion efforts have enhanced consistent and sustained uptake of cervical cancer screening in high income countries (Sullivan, Sullivan, & Ginsburg, 2015). Accordingly, incidence and mortality rates have sustainably declined in most of these settings in the past few decades and this to a large extent is linked to the effective implementation of cervical cancer screening programmes (Sung et al., 2021). Regrettably, the combined vaccination and screening strategy which has proven to be cost effective has not been equitably implemented across several low and middle income countries (LMICs) for varied reasons (Sung et al., 2021). Many LMICs and geographically remote regions in the upper-middle-income countries are characterised by women's delayed presentation to health facilities for cancer management which results in poor prognosis (Sullivan, Sullivan & Ginsburg, 2015). This state of affairs is attributable to a range of structural, equity, and socio-cultural reasons which include poor accessibility of cervical cancer screening services (Sullivan, Sullivan & Ginsburg, 2015).

Despite its potential preventability and curability, cervical cancer remains the most common cancer responsible for most cancer deaths among women in Zimbabwe (Tapera et al., 2021). To bridge this gap, the Zimbabwean Government in its commitment to fulfilling the United Nations Sustainable Development Goals (SDGs) on non-communicable diseases (United Nations, 2015), and in conforming with the global agenda of eliminating cervical cancer as a public health problem (World Health Organization, 2020), has developed strategies aimed at achieving these goals. The first Zimbabwe Cervical Cancer Prevention and Control Strategy (ZCCPCS) 2016 – 2020 was developed for comprehensive cervical cancer prevention and treatment to enhance related activities which were already being implemented (Ministry of Health and Child Care, Zimbabwe, 2015).

The key primary prevention activity is HPV vaccination of in and out of school girls in the 10-14-year age group which was launched in 2018 (Ministry of Health and Child Care, Zimbabwe, 2015). For secondary prevention, the country embarked on a national screening programme based on Visual Inspection with Acetic Acid and Cervicography (VIAC) 'screen and treat' method in a phased approach targeting women in the 30-49-year age group (Ministry of Health and Child Care, Zimbabwe, 2015). Younger and older women outside the targeted group with

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risk factors for acquiring HPV, the necessary cause of cervical cancer which is transmitted sexually, are also encouraged to get screened.

The ZCCPCS 2020 targets were:

- to establish VIAC clinics at all provincial hospitals providing comprehensive VIAC services which include screening and cryotherapy treatment of precancerous lesions by trained nurses, and loop electrosurgical excision procedure (LEEP) by doctors for advanced precancerous lesions;
- to establish VIAC clinics at all district hospitals providing comprehensive services while also having at least one VIAC outreach clinic which provides basic services of screening and cryotherapy;
- to establish one VIAC clinic at one centrally situated rural health centre (RHC) /clinic in each district providing basic VIAC services;
- to have one or two VIAC clinics offering basic VIAC services at Council run clinics depending on the volumes; and
- to have basic or comprehensive services at private clinics depending on location, volumes and skill levels and for all districts to provide VIAC outreach services.

For the management of invasive cervical cancer, the nation envisions building institutional capacity at the regional and national referral centres for the appropriate tertiary management of cervical cancer (Ministry of Health and Child Care, Zimbabwe, 2015).

As part of monitoring and evaluation of the ZCCPCS 2016 – 2020 to assess its performance against set targets, a mid-term evaluation was conducted in 2019. Findings revealed that the coverage for the first dose of HPV vaccination was 86% against a target of 80%, there was better coverage of cervical cancer screening services using VIAC with all districts in the country having a screening site, and a total of 106 clinics across the whole country were offering services, while 66% of women with precancerous lesions received treatment in 2018 against a target of 80% (Tapera et al., 2021). This reflects the positive strides the country has made although screening coverage that was set at 50% is still to be assessed from the yet to be conducted demographic and health survey.

Sexual and reproductive health, a component of holistic health, is considered a fundamental human right to be upheld by all sectors. Evidence shows that health systems driven by a whole-of-society approach, also known as primary health care, is the most effective and cost-effective way to bring services for health and well-being closer to people (World Health Organization, 2022b). These services should be readily available, affordable, and not too far away from where people reside (World Health Organization, 2022b). Furthermore, the 2030 agenda for sustainable development has developed seventeen sustainable development goals (SDGs) which seek to realise the human rights of all, and to achieve gender equality and the empowerment of all women and girls, among other development agendas (United Nations, 2015). Related to that, SDG 3.7 advocates for universal access to sexual and reproductive health care services and the integration of reproductive health into national strategies and programmes by 2030 (United Nations, 2015). As a component of sexual and reproductive health, it necessarily follows that cervical cancer screening be made readily accessible to

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women who require it. This study therefore evaluated the implementation of the ZCCPCS to identify barriers to cervical cancer screening with a focus on accessibility of cervical cancer screening services as a determinant of screening uptake.

METHODOLOGY

An explanatory sequential mixed-method research design was employed in this study which was conducted in two phases in Gwanda district. The district has 30 health facilities and comprises urban, mining and rural populations. The first phase conducted in June and July 2019 was a cross-sectional survey of 609 screening-eligible women selected from 10 of 34 electoral wards in the district using multi-stage random sampling. The quantitative survey informed the content of the second qualitative phase which was conducted in January 2021. Thirty-six women were selected for five focus group discussions (FGDs) using maximum variation sampling to further explore accessibility of cervical cancer screening services in the district. Twenty-five health care workers with different roles in the screening programme were also purposively selected from the health facilities located in the 10 study wards for in-depth interviews, with sample size guided by data saturation when no new information added could enhance or change the findings of the study (Faulkner & Trotter, 2017). Community Health Workers (CHWs) from each of the 10 study wards were among the 25 purposely selected health-care workers to participate in the study.

The sample size for the quantitative phase was determined at 628 using the formula n = $\left[t^2 \times \frac{p \times q}{d^2}\right] \times DEFF$, assuming a 0.5 prevalence rate, desired precision of 5%, 95% Confidence Interval and a design effect of 1.5, which is a correction factor that accounts for the heterogeneity between clusters in cluster sampling (SMART, 2012).

For the survey, data were collected using Mobenzi Researcher. This is an android mobile application software that captures digital data offline and automatically uploads responses in the background onto a coded database from a pre-created questionnaire. Data were analysed using STATA version 15.1. Frequencies were used to disaggregate women's screening status by residential area. Focus group discussion and key informant interview guides were used to collect qualitative data. Thematic analysis was applied using the Web-based Atlas.ti software.

Ethical approval was obtained from Stellenbosch University Health Research Ethics Committee, reference numbers S18/10/217 and S20/09/259, and the Medical Research Council of Zimbabwe, reference number MRCZ/A/2426. Written informed consent was also obtained from participants, an explanation that participation was voluntary and all information collected would be handled in a confidential manner. It is worth noting that the second phase of the study was delayed by 18 months due to the COVID-19 pandemic.

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RESULTS

Quantitative Findings

Participants' socio-demographic characteristics

Of the 628 women recruited, 609 women agreed to participate, giving a response rate of 97%. The participants' median age was 34 years (IQR 29-42) with slightly more than half (317:52.10%) in the youngest age group (25-34 years). Marginally, half the women were unemployed (277: 54.52%) with most married (439:72.09%), having a median of 3 children (IQR 2-4), and two thirds having attained a secondary school level of education (407:66.83%). More than half (371:60.92%) resided in rural communities (332:54.52%) and would access health services from a RHC where no cervical cancer screening services are provided and 426 (69.95%) had never been screened (Table 1).

Table 1: Participants' socio-demographic characteristics

Variable	Category	Frequency (n)	Percentage(%)
		n = 609	100
Age in years (mean age = 34, IQR 29-42)	25-34	317	52.06
	35-44	177	29.06
	45 – 50	115	18.88
Place of Residence	Rural	371	60.92
	Urban	206	33.83
	Mine	32	5.25
Marital status	Not married	170	27.91
	Married	439	72.09
Parity (median = 3, IQR 2-4)	0	23	3.78
	1-4	486	79.80
	5^{+}	100	16.42
Educational attainment	≤ Primary school	164	26.93
	Secondary school	407	66.83
	Tertiary education	38	6.24
Employment status	Employed	277	45.48
	Unemployed	332	54.52
Usual health service provider	RHC	332	54.52
	Urban clinic	179	29.39
	Mine clinic	33	5.42
	Gwanda Provincial Hospital	58	9.52
	Other	7	1.15
Screening status	Yes	183	30.05
	No	426	69.95

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Participants' Screening Status

More than two-thirds of the respondents (426:69.95%) reported they had never been screened for cervical cancer. When disaggregated according to residential location, results reveal that of the rural participants, 276 (74.4%) reported not ever having been screened, compared to 128 (62.1%) of urban participants (Table 2).

Table 2: Participants' Screening Status by Residential Area

		Screened	Not screened
	n= 609	**183**	**426**
Place of residence	**Total no of participants by residence**		
Rural	371	95 (25.6)	276 (74.4)
Urban	206	78 (37.9)	128 (62.1)
Mine	32	10 (31.3)	22 (68.7)

Reasons for not screening

Asked to explain why they had never been screened, the most common reasons given by the participants were lack of awareness of the programme (91:21.36%), local clinics not providing screening services (75:17.6%), inadequate knowledge on screening (73: 17.14%) and apathy (64:15.02%) (Table 3).

Table 3: Participants' Reported Reasons for Not Screening

Reason	**Frequency (n)**	**Percent (%)**
	N = 426	**100.00**
Have never heard of the programme	91	21.36
Screening not offered at local clinic	75	17.60
Have inadequate information on screening	73	17.14
Apathy	64	15.02
No perceived risk for cervical cancer	42	9.86
No time to go for screening	32	7.51
Fear of being diagnosed with cervical cancer	21	4.93
They only screen a limited number per day	14	3.29
Fear that the test is painful	8	1.88
There is an age restriction on screening	3	0.70
Cultural and religious beliefs	3	0.70
Total	**426**	**100**

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Qualitative Findings

Inaccessibility of cervical cancer screening services came out as one of the key factors that deterred women from screening thus necessitating further qualitative exploration by means of FGDs and key informant interviews.

Socio-demographic profile of participants

Age ranges and screening status were almost equally distributed among the participants. Most were married (30:83.33%), had attained a secondary level of education (21:58.33%) and had less than 5 children (31:86.11%) (Table 4).

Table 4: FGD participants' socio-demographic characteristics

Characteristics	Frequency (n)	Percentage (%)
	n = 36	100
Age range in years		
25-34	13	36.11
35-44	12	33.33
45-50	11	30.56
Parity		
1-4	31	86.11
5^{+}	5	13.89
Marital status		
Single	2	5.56
Married	30	83.33
Widowed	3	8.33
Divorced	1	2.78
Educational attainment		
Primary and below	13	36.11
Secondary	21	58.33
Tertiary	2	5.56
Screening status		
Screened	19	52.78
Not screened	17	47.22

Table 5 presents the 25 key informants' work titles and operational levels drawn from health workers at community, primary, district and provincial levels. Doctors, nurse administrators, VIAC and non-VIAC trained nurses that provide maternal, newborn and child health care in the provincial hospital's departments and primary health facilities, and community based health providers were among the key informants who were interviewed.

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Table 5: Key informants' work positions and operational levels

Cadre	Work Station	Number of participants
Doctors	Provincial Hospital	2
VIAC trained nurses	Provincial Hospital's VIAC clinic	2
VIAC trained nurse	Urban clinic	1
Community Health Nurse	Gwanda District	1
Nurse Administrator	Gwanda Provincial Hospital	1
None VIAC trained nurses	Provincial Hospital departments	6
None VIAC trained nurse	Urban clinic	1
None VIAC trained nurse	Mine clinic	1
None VIAC trained nurses	RHCs	3
Health Promoters	Urban setting	2
Village Community Workers	Rural setting	3
Village Community Workers	Mine setting	2

Emerging themes

From the quantitative findings, one of the major areas of interest that motivated the ensuing qualitative exploration was the inaccessibility of cervical cancer screening services to screening eligible women, more so among those residing in rural and mining areas. This was subsequently identified as the major theme. Five sub-themes were deduced as;

- lack of VIAC screening services at local health facilities,
- inconsistency of outreach VIAC clinics,
- lack of money to travel to centralised VIAC clinics in the district for screening,
- lack of money for screening, and
- lack of money for treatment of precancerous lesions identified during screening.

Both FGD participants and KIs highlighted the lack of accessible screening services as a determinant of low screening uptake. Within the whole district that has 30 health facilities, free VIAC services are only provided at two sites, that is; the provincial hospital which provides comprehensive VIAC services since 2013, and a Council run clinic which provides basic VIAC services commencing 2020. These health facilities are both located in Gwanda town, hence making it necessary for the rural and mine based women to travel long distances to access screening.

VIAC screening not provided at local health facilities

Participants revealed that as a result of the on-going awareness campaigns on cervical cancer screening, most women now have a better understanding of the benefits of screening and wish

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to be screened. However, the services are not provided at health centres that are nearer to where they live.

"*Screening is only done in Gwanda that's why some of us have not been screened because it is expensive to go to Gwanda"* (FGD 5, rural, 40 years, 10 children, married, primary education, not screened).

"*I recommend that screening services be offered at local health facilities too so that we won't have the problem of finding money and time to go to Gwanda……. then women can access the services anytime they decide to be screened"* (FGD 3, mine, 42 years, 3 children, married, secondary education, screened".

Key informants underscored the lack of VIAC screening services at local health facilities through the following expressions:

"The problem comes because VIAC is only done in Gwanda. If this programme can be rolled out to every clinic in the district [more women would be screened]. So we just need to have more screening sites (Doctor 1, provincial hospital).

"*Looking at the size of our district, you will find that it's only the hospital that is providing this VIAC service so it infringes on other clients who are unable to access the service due to issues to do with finance"* (Nurse administrator, provincial hospital).

"*……. the major issue is distance since screening is only done in Gwanda. It would help to decentralise the service and have primary health facilities doing the screening. I think that can improve the uptake of the service*" (Nurse, mine clinic).

"The *major problem is distance because screening is done only in Gwanda"* (VCW, RHC 2).

Inconsistency of outreach VIAC clinics

Although outreach VIAC clinics are provided to rural health facilities by the provincial hospital team, these are far spaced and not consistent. Moreover, they were completely paused at the height of the COVID-19 pandemic around March 2020 and were still not operational by January 2021 when the second phase of the study was conducted.

"The problem is that the screening team from Gwanda only comes once a year…My recommendation is that the mobile clinic should come more often, maybe 3 or 4 times a year so that every woman gets the opportunity to get screened" (FGD 4, rural, 39 years, 2 children, married, primary education, screened).

"*The best thing that can be done for women is that those who screen should come here more often so that everyone can be free to have screening without the challenge of thinking about money"* (FGD 5, 40 years, 10 children, married, primary education, not screened).

Health care workers confirmed the inconsistency of outreach VIAC clinics as highlighted in the following quotes:

"Mobile clinics are just doing what they can now but that's not the best. The best is to have our Rural Clinics provide VIAC screening then we don't need to have patients that depend on mobile clinics" (Doctor 2, provincial hospital).

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"We [VIAC clinic outreach team] visit RHCs every Saturday. We cover a different RHC each week. That means with the number of RHCs in the district we can visit each centre maybe once every six months or so…. women don't have money to come to Gwanda for screening so I think more outreach programmes would work for the rural areas so that more women would be screened" (VIAC trained nurse 2, provincial hospital).

"Here, they [the outreach team] come maybe once a year ….and they usually target the HIV positive mothers only. That's the challenge we have. They should make it quarterly if possible" (Nurse, RHC 2).

"As of this year, we haven't had the outreach team coming to our facility. Maybe the mobile team could come more frequently… every month or every 2 months, maybe the women would end up getting used and share the idea of screening with others." (Nurse, RHC 3).

"They (VIAC mobile team) come maybe after 6 months or so and they only screen those who are HIV positive" (CHW, RHC 2).

"The outreach team comes once a year, they don't come all the time" (CHW, RHC 3).

Lack of money to travel to the urban screening sites

Some women from the urban and mining settings who make decisions for screening reportedly fail to access the service because they have to travel to the provincial town, but lack money to pay for transport.

"*Women want to be screened but the main challenge is that they have no money to go to Gwanda to have that screening done. Women try to look for money over a long period so that they can go to Gwanda but before they get enough, the bus fare goes up"* (FGD 3, rural, 26 years, 2 children, secondary education, not screened)

"Women want to be screened but have no money to go to Gwanda where screening is done. Although we may talk about other things, money is our major challenge" (FGD 5, 50 years, 6 children, single, secondary education, not screened).

"*The problem is that the hospital where screening is done is far away such that even if you may have a desire to be screened, money to travel to Gwanda for screening is a challenge"* (FGD 4, rural, 38 years, 2 children, married, primary education, screened).

The challenge of women securing bus fare to travel to Gwanda was reiterated by the key informants.

"…… in the screening for cervical cancer, we want to pick it before it becomes cancer. For someone to look for bus fare for something which does not cause pain to them is not likely to happen" (Doctor 2, Provincial Hospital).

"…the major reason is financial constraints. If we look at the population that we are servicing, … they will cite reasons due to financial constraints. It is a challenge for them to move from their homes to this institution" (Nurse Administrator, provincial hospital".

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"I have already said that since Gwanda Hospital and Phakama [urban] clinic are the only ones which do screening, maybe the challenge with rural women is the funds to come into Gwanda and have these services" (VIAC trained nurse, provincial hospital).

"*I think even if some women want to be screened, the fact that VIAC is only done at Gwanda provincial hospital is a challenge. Funds for travelling. Even if someone has heard about VIAC, money then to come to Gwanda poses a barrier to them"* (Nurse, provincial hospital female ward).

"For *them [women] to travel to Gwanda to be screened, the challenge is on money because these days they charge in Rands and US Dollars, so the challenge is about money"* (Nurse, RHC 2).

"What makes women fail to be screened is that screening is done in Gwanda. People have problems with money for transport to Gwanda. This is the major reason. …. screening should be done at our clinic…." (CHW1, mine).

"What could also help is to have the outreach team coming more frequently because even if women are willing to be screened, telling them about Gwanda is another story because they say they have no money for bus fare" (CHW 2, mine).

"Women say to me "even if we wish to be screened, our problem is that it's too far, it requires money". They really understand the programme. They say yes screening is free, but the problem is transport because they have no money" (CHW, RHC 3).

Lack of money for screening

In addition to the two health facilities that offer free screening services in the provincial town, comprehensive VIAC services are also provided by a private medical practitioner in the small town at a fee**.** Women on medical aid and those who can afford and desire a quicker service with less waiting time are able to access the service from the private sector.

"Yes, there is a doctor who screens at his surgery but then money talks because there you have to pay for the service. We prefer to go to those places where the service is free. While the private doctor provides the service and the waiting period is short, most of us cannot afford the required fees (FGD1, urban, 29 years, 3 children, married, secondary education, not screened).

"*…. the private doctor here has set up a VIAC unit, but of course not everyone can go because of the charge"* (Doctor 2, provincial hospital).

Lack of money for treatment

Women who get a VIAC positive screen result at outreach clinics still have to travel to Gwanda for treatment, and those who require treatment beyond cryotherapy provided by VIAC trained nurses are required to pay a fee for successive management.

"……even if they can be referred to Gwanda for treatment, it costs and they have no money" (FGD 3, mine, 50 years, 4 children, married, secondary education, not screened).

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"*The problem is that even if you get screened, if they find anything wrong, instead of getting treatment here you are told to go to Gwanda. Most fail to go because they have no money."* (FGD 4, rural, 43 years, 3 children, married, primary education, not screened).

"I have also heard that if they find anything wrong when they screen you, they will ask you to pay for the treatment" (FGD 5, rural, 38 years, 2 children, married, primary education, not screened).

"…. if they could make everything related to VIAC free including the treatment then more women would be willing to be" (VIAC trained nurse 1, provincial hospital).

" *….. if you have to be treated, you need to pay for that and women say they have no money"* (CHW 2, mine).

"*There is a small fee which is paid to the accounts department if the LEEP is done under the hospital*" (Doctor 1, provincial hospital).

DISCUSSION

Accessibility of cervical cancer screening services was explored as a determinant of screening uptake in Gwanda district, Zimbabwe. Findings revealed that static screening facilities in the district are inadequate, and centralised to the urban setting. This renders the service not readily accessible to rural and mine based women who have to travel long distances to be screened. Subsequently, potential motivated women are deterred from screening as recommended.

Our findings are similar to those reported in Tanzania where proximity to screening facilities was associated with higher screening rates (Lyimo & Beran, 2012), and in India where limited availability of screening services was identified as a barrier to screening (Dsouza, Van den Broucke, Pattanshetty & Dhoore, 2020). Similarly, a study conducted in Malawi revealed that cervical cancer screening services were offered mostly at hospital level hence compelling primary health facilities to refer cases to central hospitals which are situated very far (Munthali, Ngwira, & Taulo, 2015). Further in harmony with our study results, unavailability of screening services at local health institutions was found to be a major barrier of cervical cancer screening in a study conducted in one rural district of Zimbabwe (Nyamambi, Murendo, Sibanda, & Mazinyane, 2020).

Considering that screening is not provided at rural health facilities, financial constraints are a major factor that affects access to screening services by women. This study's findings are consistent with those from related studies (De Abreu, Horsfall, & Learmonth, 2013; Nyamambi, Murendo, Sibanda, & Mazinyane, 2020), which also identified travel costs as a deterrent to screening. Women from rural and mining areas face travel expenses which most cannot afford due to other competing household demands which also require money. Lack of provision for screening at local health facilities therefore needs to be addressed if screening rates are to improve.

Although VIAC screening services are provided to women in lower level health facilities through outreach services as espoused in the ZCCPCS (Ministry of Health and Child Care, Zimbabwe, 2015), our findings reveal that these are sporadic and therefore ineffective.

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Consequently, women who routinely access health services from rural primary health facilities are still obliged to spend time and money travelling to the urban based screening sites. Consistent with our findings, a mid-term evaluation of the 2016-2020 ZCCPCS also reported the infrequency of VIAC outreach services in the country despite their being critical in reaching hard-to-reach populations (Tapera et al., 2021). On the understanding that accessibility to health services is known to improve cervical cancer screening uptake (Lyimo & Beran, 2012), it is imperative that the district intensifies its efforts in providing constant screening services closer to communities.

Lack of geographic access to VIAC services was recognised as having cascading financial effects on women who seek screening. Notwithstanding the high transportation costs to distant screening and treatment sites, if LEEP and/or other follow up surgical procedures are indicated, a fee is charged, an additional cost to transportation. This is a disincentive that has negative implications. Women's motivation to undergo screening is destroyed if treatment is not readily and freely available to those who require it. Alternatively, women may get screened, but fail to follow through the relevant management due to financial limitations.

In concurrence with our findings, a secondary data analysis of the utilisation and outcomes of cervical cancer screening services in Zimbabwe's capital city found that only 44% of facilities that offered VIAC services offered treatment for VIAC positive clients (Gabaza et al., 2019). Although the coverage of cervical cancer screening services is not comparable to the district in this study, the common finding is that referring clients to other sites for treatment poses a challenge, as some may not access the referral centres resulting in missed opportunities for treating these women. Likewise, a study conducted earlier in Peru found that some patients with abnormal results find needed treatment to be out of their financial or geographic reach and are thus subsequently lost to follow-up (Paz-Soldán, Bayer, Nussbaum, & Cabrera, 2012). These findings demonstrate the need to establish basic VIAC services at primary health facilities to enhance screening and treatment opportunities.

Screening accessibility issues for urban based women were related to the long waiting periods at the two screening sites before the service could be provided. This is because the demand for the service currently exceeds the VIAC clinics' capabilities especially in terms of trained staff availability. Health-care workers bemoan the limited number of screening facilities that are inadequate to service the whole district. To circumvent the situation, women with financial means seek screening from a privately owned VIAC clinic in the town. This service is however only accessible to a few as most find the required service fees costly. The private sector has done well in complementing government efforts at increasing access to VIAC screening in the district to ensure women on medical aid and those who have the money are able to access screening services conveniently. This also reduces the pressure from the two public screening facilities.

The World Health Organisation quotes a woman from Guinea who states that she got into the habit of screening because the service is free and that if she had to pay, she would not have been able to afford it (World Health Organization, 2023). Expanding the capacity for free screening services and treatment could thus be the best for increasing screening access to eligible women in the district.

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Implications to Policy

The high demand for cervical cancer screening through sustained awareness activities has not been equitably matched with ready access of the service in the district. Pursuant to the ZCCPCS 2016-2020 unmet target of establishing VIAC clinics in at least one centrally situated RHC and at some council clinics, a more collaborative approach should be considered especially since there are two mission hospitals within the district which could be supported to establish and operate VIAC clinics. This could increase screening coverage and women's access to the service. Supplementary to that, VIAC clinic outreach services need to be increased and regularised in order to bridge the screening access disparities between urban and rural based women. Non-governmental organisations currently implementing vertical outreach programmes in the district such as voluntary male medical circumcision could be engaged to integrate VIAC screening into their activities.

Elimination of geographical inaccessibility in the utilisation of cervical cancer screening services could address the associated financial barriers and enhance overall availability of VIAC services. Moreover, all screening related management should be freely provided as an incentive for women to be screened. All these activities require funding and will therefore necessitate concerted efforts among the internal and external stakeholders to mobilise the needed resources.

CONCLUSION

Access to cervical cancer screening services in Gwanda district is very limited and centralised to the urban setting. Whereas VIAC screening outreach clinics are in place for women in urban and mining areas, there is no consistency in service provision which necessitates referral of women to the provincial hospital for screening and/or treatment of precursor lesions. Often, women are lost to follow up as they fail to follow through their referral path due to financial constraints. Collaborative action is required amongst stakeholders to make cervical cancer screening services readily accessible to women in the district in order to increase screening coverage towards elimination of cervical cancer as a public health concern by 2023.

Future Research

The World Health Organization has recommended human papillomavirus (HPV) cervical self-sampling as a highly acceptable method for cervical cancer screening (Nishimura, Yeh, Oguntade, Kennedy & Narasimhan, 2021). This method has been associated with improved screening participation in low and middle income countries because of its high sensitivity and specificity if correctly done, ease of use, convenience and physical and emotional comfort. This study therefore recommends subsequent research on the feasibility of adopting HPV-DNA as the national screening method using a rural setting for the pilot study. This could overcome barriers associated with the current VIAC screening method.

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