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BARRIERS TO CERVICAL CANCER SCREENING IN RIAU ISLANDS PROVINCE INDONESIA

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ABSTRACT

Background: Cervical cancer is the most common reproductive health cancer in Riau Islands. In most cases, women report to health when diseases in its advanced stage. In this study, the service provider's perceptions about barriers for women to access cervical cancer screening in Riau Islands Province was investigated. **Methods:** This was a qualitative study using in-depth interviews and focus group discussion to obtain data with 7 districts coordinators and 45 service providers of cervical cancer screening in public health centers in 7 districts in Riau Islands Province. The study was conducted in June – July 2021. Program data, monthly and annual report from the Provincial Cancer Control Program were analyzed to identify the health facilities which were providing cervical cancer screening. **Results:** Almost all respondents reported that the delivery and uptake of cervical cancer screening was compromised because of factors such as gross shortage of staff and the lack of supportive supervision. In addition, the lack of awareness of the disease, feeling embarrassment and anxiety about the procedure of the screening among community members. **Conclusion:** A number of factors that are barriers to cervical cancer screening. There is a need to continue creating awareness among community members and also addressing barriers such as shortage of staff. The service providers must be aware cultural barriers and should reach out community resources to alleviate these barriers. Culturally responsive communication, making faith-based groups a community resource target, social support and networking can improve screening rates.

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INTRODUCTION

Cervical cancer is probably the most thoroughly studied and preventable human cancer (Portero, S and Cebrino,J, 2022). However, it remains the fourth most common cancer and the fourth leading cause cancer mortality in women, with estimated 604.000 new cases and 342.000 deaths globally in 2020. In 2020, low and middle-income countries accounted for over 90% of new cases and death worldwide (Sung et al, 2020).

Women's cancer, including cervical cancer, lead to hundreds of thousands of premature deaths among women. Cervical cancer is the second most common cancer in women worldwide. Yet, because of poor access to screening and treatment services, the vast majority of deaths occur in women living in low- and middle-income countries. Effective methods for early detection of precancerous lesions using cytology (Pap smear) exist and have been shown to be successful in high income countries.

However, competing health care priorities, insufficient financial resources, weak health systems, and limited number of trained providers have made high coverage for cervical cancer screening in most low- and middle-income countries difficult to achieve.

The World Health organization strategy for cervical cancer elimination suggests that each country should meet 90-70-90 targets by 2030 (coverage of 90% of girls vaccinated, 70% women screened, ant treatment of 90% of women identified with cervical disease (Pham et al, 2022). At the national level, a comprehensive approach to cervical cancer prevention and control benefits from multi-disciplinary. As approach is made up of several key component ranging from community education, social mobilization, and screening, it important to involve representatives from various disciplines and other health programs such as reproductive health, cancer control and adolescent health. In developed countries, regular screening with a Papanicolaou spear has been shown to effectively lower the risk for developing invasive cervical cancer by detecting precancerous changes.

However, in developing countries, only approximately 5% of eligible women undergo cytology-based screening in five year period, secondary to constraints in technical expertise and health care infrastructure inherent to cytology-based screens. Visual Inspection with Acetic Acid (VIA) is an alternative method that has been shown to overcame the limitations and further, provide opportunity for simultaneous screening and treatment using cryotherapy. This "see and treat" approach provides health care delivery through the primary health system and ensure adherence to treatment soon after diagnosis, and has demonstrated reduction in the incidence of pre-cancerous lesions.

Despite, its demonstrated efficacy in trial settings, there has been no demonstrable reduction in cervical cancer incidence, raising questions regarding adequacy of screening and treatment provisions to at risk population.

Screening services may be provides both as organized or opportunistic (i.e taking advantage of woman's visit to health facility for another purpose) services or a combination of both. It is generally accepted that organized screening is more cost-effective than opportunistic screening, making better use of available resources and ensuring that the greatest number of women will benefit.

Visual inspections of the cervix with acetic acid (VIA) is an effective, inexpensive screening test that can be combined with simple treatment procedures for early cervical lesions, provided by trained health workers. A seven years experience in early detection or cervical cancer and pre-cancers using VIA test is a community based in Riau Island Province, where there are some districts are no existing organized cervical screening programs. VIA by trained health workers is a safe, acceptable, and effective test that can save lives from cervical cancer even in remote areas with few resources.

Cervical cancer is the most common reproductive health cancer in Riau Islands. Cervical cancer is one of the most preventable malignancies among the relevant human cancers. In most cases, women report to health when diseases in its advanced stage. Over the past seven years there has been a cancer prevention and control programs aimed to increase cervical cancer screening rate. The Ministry of Health of Indonesia recommends that women between ages 30 and 50 obtain a VIA test every 3 years. There have been a number of attempts to expand cervical cancer screening, early treatment, and prevention at all levels of health care. Cervical cancer screening and early treatment program was embarked in 2014 but the program experienced deterioration because of lack of financial resources and trained professionals.

The strategic intervention implemented through this program was the single visit approach as recommended by the World Health

Organization (WHO). In this "see and treat" approach the uterine cervix is examined through visual inspection after application of acetic acid (VIA) followed by treatment of pre-cancerous lesions with cryotherapy. All these are accomplished at one visit to health facility. The use of VIA and cryotherapy for controlling cervical cancer was endorsed in Riau Islands Province in 2014.

The Ministry of Health of Indonesia and other stakeholder are implementing cervical cancer prevention and interventions. Cervical cancer screening is the systematic application of a test to identify cervical abnormalities in an asymptomatic population. Women targeted for screening may actually feel perfectly healthy and see no reason to visit health facilities. As of the end of June 2021, 58 of 92 public health centers in Riau Islands Province were providing cervical cancer screening and since the program started 58.876 women had been screened and 0,58% were found VIA+. This generally reveals that the cervical cancer screening and early treatment program has expanded over the years.

This paper evaluates, through a qualitative study, the status of the cervical cancer prevention program and the barrier being experienced by service providers to deliver these services. The paper further looks at the acceptability of the cervical cancer screening to recipients of the service from the health providers' perspective.

In term of access, geographical variation in access and uptake of cervical cancer screening, with rural women less likely to be screened for cervical cancer compared to suburban women.

Although cervical cancer related mortality can be reduced through screening and early treatment programs, ensuring high levels of coverage or these services continues to be a serious challenge in resource-constrained setting.

A survey over 2000 women in the USA identified cancer risk perceptions to be an indirect factor in reluctance to come for screening (Rob et al, 2010). An Increase in education around risk factors for cervical cancer at the school and community level is advocated to improve screening services. Additionally, trained community health worker can be effective to identify cultural and other barriers that limit utilization of screening services (Christie de, J & Reilly, 2021).

A local need assessment examining technical and infrastructural capacities and information needs enable the management team to identify what inputs are required to achieve the objectives of a cervical cancer prevention program. The assessment is best conducted through a participatory process involving a multidisciplinary team of stake holders and obtaining the perspectives of the people involved in providing and those receiving prevention services. Based on the findings of the need of assessment and cost-effectiveness considerations, the management team can elaborate a program plan that describes a step-by-step process for reaching the program's goal of achieving high screening coverage, offering a high-quality and effective screening test and ensuring that women with positive screening test result receive treatment. The management team's role is to map out local strategies that cover all programmatic areas, including defining local programmatic targets, developing local service delivery strategies, and determining the equipment, training, and resources needed at each sites.

The main goal of service delivery is to enable women to have maximum access to quality cervical cancer screening and treatment services. Women in many countries particularly in rural states have limited access to health services.

Services need to be accessible, acceptable, affordable, and reliable. For example, programs that reduce the number of clinic visits required for screening, treatment, and follow- up make it easier for women to receive the care they need, improve follow-up rates, and reduce program costs. Programs can Implement a health facility-based (static) approach, a mobile (outreach) approach, or combine the two approaches. Trained community health workers/volunteers can be engaged to build and maintain link with the community- to encourage women to utility the service and to track women who need to be treated and followed up. Lastly, to ensure availability and reliability of services, an efficient supply distribution and logistics chain should be place (WHO, 2004).

These activities are necessary to inform and educate woman and men in communities about cervical cancer services both encourage and support women to participate in screening services and to ensure the program reaches its coverage goals. These activities should be implemented in communities, health facilities, and through various media. Linkages must be established between the community and health facilities.

The first step in developing a program involves engaging stakeholdes to participate in the planning and management on the program. Stakeholder's involvement and sense of ownership are critical for the successful implementation of

the cervical programs. To make certain that programs address women's need and concern, special effort should be made to involve women in developing, implementing, and evaluating program interventions and informational messages.

It is important to consider the perspectives of women and men in the community, their knowledge about cervical cancer, and their service needs in order to develop services that will meet their needs. Furthermore, these perspectives are important for developing promotional campaigns that address their knowledge gaps and concerns. Potential clients and their husbands (or partners) can be surveyed by community health workers or other health outreach staff who normally interact with community members. Aspects to be considered include understanding of the concept of preventing disease, knowledge of cervical cancer, awareness of cervical cancer prevention services, feelings about screening, possible barriers to utilizing screening services, and attitudes toward the health care system.

METHODS

Riau Island Province is divided into 7 districts. This study was conducted in 7 districts namely Batam, Tanjungpinang, Bintan, Karimun, Lingga, Anambas Islands and Natuna. Each district has a coordinator for the cancer prevention and control program. The study was conducted in June – July 2021. Program data, monthly and annual report from the Provincial Cancer Prevention and Control Programs were analyzed to identify the health facilities which were providing cervical cancer screening. Our point of contact in each district was the district coordinators for the services who was asked to provide the data of health facilities which were providing cervical cancer screening services.

In each district, all health facilities providing cervical cancer screening were supposed to be interviewed. In some cases there was only one such provider. A total of 7 coordinators and 45 service providers were interviewed. These interviews focused on whether cervical cancer was a problem in their respective districts, the cancer prevention efforts they were involved in, the challenges they were experiencing in the delivery of these services. While district coordinators dan service providers were asked questions on their experiences of providing cervical cancer screening they were also asked about the barrier that their clients experienced in uptaking services.

All the interviews were written. All these interviews were read and reread in order to determine the major issues that were emerging. Content analysis was used to analyze this data. The data analysis for this was focused on health workers' perspective about the barriers to accessing cervical cancer screening among women.

RESULTS

Almost all the coordinators and providers of cervical cancer considered cervical cancer screening delivery and uptake is challenging because of the low rates of cervical cancer screening in their districts. Frequently repeated cervical screening either organized or opportunistic have led to a large decline in cervical cancer incidence and mortality. In contrast, cervical cancer remains largely uncontrolled in high risk developing countries because of ineffective or no screening. Secondary data from

The Cancer Prevention and Control Program of Riau Islands Province revealed that the cervical cancer screening rates using VIA in Riau Islands Province are low. In the mid of 2021, cervical screening rate using VIA in Riau Islands is 5% of 407.726 population target which is means 95% of target population have not been screened. About 58 in 1.000 (0,58%, n=338) of the women who have been screened are identified with VIA positive or have precancerous lesions.

Coordinators and providers of cervical screening and early treatment services mentioned a wide range of cervical cancer prevention effort being implemented in their districts. The services included health education, screening through VIA and treatment of those VIA positive with cryotherapy. The respondents from Batam, Tanjungpinang, and Bintan in this study said that the health education on cervical cancer was being conducted in the communities, and integrated with family planning and sexually transmitted infections.

All districts are available for cryotherapy. There are six health facilities have cryoteraphy in Batam and and Tanjungpinang and Karimun have 2 cryotherapies. The other district Lingga, Natuna, and Anambas Island each has 1cryotherapies.

In District Tanjungpinang, Batam, and Karimun cervical cancer screening are available both organized and opportunistic services. In order to increase uptaking of cervical cancer screening the districs offer a mobile (outreach) services. While

in the other districts, are available for opportunistic service only.

Table 1
Potential barriers to cervical cancer screening

Potential Barriers	Percentage (%)
Long distance to health facilities	13.3
Innovative approaches to screening	26.7
Local need assesment	53.3
Lack awarenness among stake-holder	57.8
Lack of funds	57.8
Cultural approach	62.2
Supportive supervision	62.2
Lack of knowledge about cervical cancer	65.2
Feeling embarrasment	66.7
Fear of finding cancer	71.1
Lack of trained staffs	86.7
Anxiety about procedure	93.3

Based on Table.1 showed the percentage of respondents who strongly agreed with the items presented as potential barriers receiving a VIA test. A majority of respondents identified the barrier from clients factors. The respondents identified anxiety about procedures (93%) among the women as first barrier. Fear of finding cancer was a barrier to VIA test (71,7 %) and feelings of embarrassment was the third of the barrier (66,7%) and lack knowledge about cervical cancer screening (62,2%).

Lack of staffs was the first barriers to cervical cancer screening (86,7%) from the service providers aspects. Most informants said that one of the major weakness is that there are a few members of staff who are involved in the delivery of cervical cancer screening. In some facilities only one provider provided these services and she was also required to provide ante natal and family planning services among others; hence they were overloaded with work. During the pandemic of Covid-19 all informants have been overworked, these all affect to delivery of cervical cancer screening.

The average number of provider available in Riau Island Province was 27,5 the majority of providers seen were midwifes (86%) and 14% were medical doctors. Over the years a number cervical cancer training have been trained by various organization including Indonesian Cancer Foundation and some professional organizations. In almost all the district informants mentioned that there were more providers who were trained but others were not providing cervical cancer screening because they were not interested or had been assigned to other duties. The shortage of staff therefore, affects service delivery.

Most respondents said that provision of cervical cancer screening was a good approach. Their major concern was that wany of their clients reported when the cervical cancer was already in advanced stages. These respondents attributed this to lack awareness about cervical cancer among the general population. These also exist misperception about VIA which make some women not go for the service.

The other challenge in accessing cervical cancer screening, according to some respondents, is that services are offered to women who are generally healthy and hence the do not need any health interventions. Several studies have also investigated barriers to cervical cancer screening specifically. The. Most common barrier to routine screening highlighted in these. Studies include lack of knowledge about cervical cancer or screening, fear of abnormal result, cost and lack of adequate medical infrastructure and personnel (Mwaka et al, 2013).

Barriers and facilitators to cervical cancer screening are complex and multifactorial ranging from cognitive factors such as lack awareness to emotional, practical, cultural, and religious factors (Marlow, et al, 2015 & Rob et al, 2021). Interventions aimed at improving uptake at a population level seem to work less well than targetted interventions (Marlow et al, 2017). Cultural tailoring can be effective method of addressing screening barriers and can assist in developing targeted interventions to promote screening (Krauter et al, 2005).

Culture is often regarded as a barriers health behaviour, but it can also be used in interventions as positive health resources (Bond. C et al, 2004). Faith based health promotion consistent with principles underpinning one's faith, alongside other factors that improve uptake screening, can offer a culturally acceptable method of addressing barriers to screening (Prat et al, 2017 & Padela, 2018). Faith based messages can help tackle known barriers to screening to allow informed decision making about screening (Prat et al, 2020).

Some providers in Natuna, Anambas Islands, and Lingga, mentioned that the long distance access to health facilities also tend to deter most women accessing cervical cancer screening. This is, especially, the community targets are in

different remote islands. Distance is therefore a major barrier to accessing cervical cancer screening in Riau Island Province.

Men have a critical role to play in reducing cervical cancer burden. Yet, there is little information of male involvement in the cervical cancer screening and treatment process in Indonesia. A study showed that male partners have little or no knowledge about cervical cancer. Some men, provide various forms of suppor-financial, social, material and emotional-to their partners during the screening and treatment stage of disease. Some men, however abandoned their partners during the screening and treatment stages of disease (Charity B, 2019).

Cervical cancer education program is needed to target husbands. The education should focus on the causes of the disease, screening and treatment methods of the disease, and ultimately spousal support during the screening and treatment process. Patriarchal practice is embedded in Indonesian culture, and patriarchal culture and social culture may influence use of gynecological services including cervical cancer screening. Thus, involving me in cervical cancer prevention activities is essential. Although cervical cancer is exclusively a female disease, men can play a key role in cervical cancer prevention and treatment if they have knowledge of cervical cancer risk factors and prevention strategies (WHO, 2006).

In populations with cervical cancer disparities, empirical evidence supports positive effect associated with male involvement in cervical cancer screening practices. A. study among Mexican immigrants in the U.S indicated that men have a role in effective screening programs for cervical cancer . When the men understood the risk factors related to cervical cancer and the benefits of cervical cancer screening, they were motifated to be supportive of screening for theif female partners (Thiel, B et al, 2008).

While the aim of offering cervical cancer screening is to test, some women opt to go home first before getting the treatment and consult their husbands. It is easy, as mentioned by informants, for those who visit the health facilities with their husbands to be tested and treated. It is difficult, however, for women to adhere because in most cases their husbands do not go with their wives for counselling. Wood et al (2016) also found that nurses reported that women in general are afraid of exposing their private parts.

As far as informants were concerned, the test and treat approach to cervical cancer control is acceptable to women even though in some cases women would still want to get permission from their husbands before undergoing cryotherapy; hence the delay in seeking care. Men generally have an important role in decision making in the family and if knowledgeable about cervical cancer they can actually motivate their partners. However, studies have shown that men do not have knowledge about cervical cancer. Promoting partner participation in cervical cancer screening and early treatment service would increase the uptake of these services.

Supervision of health workers is a necessary monitoring and evaluation tool for the health system. Providers of cervical cancer screening and early treatment services were asked if they were satisfied with supervision and guidance that they received in their work. In general most providers were not satisfied with the level of supervision because their superiors did not visit them for supervision.

Supervisors are supposed to visit the facilities providing the services in order to identify if there are any problems affecting service delivery and advise providers accordingly. Most of provider claimed that either they have never been supervised since they have finished their training and started providing services or they have only been supervised once. Supervision of providers of cervical cancer screening and early treatment is generally weak.

DISCUSSION

Lack of staffs was the first barriers to cervical cancer screening (86,7%) from the service providers aspects. Most informants said that one of the major weakness is that there are a few members of staff who are involved in the delivery of cervical cancer screening. In some facilities only one provider provided these services and she was also required to provide ante natal and family planning services among others; hence they were overloaded with work. During the pandemic of Covid-19 all informants have been overworked, these all affect to delivery of cervical cancer screening.

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CONCLUSION

Some significant progress has been made in the delivery of cervical cancer screening. The number of health facilities has increased the services as a mobile (outreach) services for the screening. This has been accompanied by a corresponding increase in the number of providers who have been trained. The quality of services being delivered. However, been compromised by the general lack of supervision of provider and coordinators at a district level, the general shortage of human resources to effectively deliver cervical cancer screening.

There is a need to continue creating awareness among community members, including husbands about cervical cancer available services. The results of the current study revealed population categories with low screening adherence that may be appropriate target groups for intervention to encourage screening behaviours for detecting cervical cancer in these countries.

On the other hand, health providers must be aware of the sectors of the population at high risk of non-participation and urge screening among these women. Moreover, communication skills, as well as the ability to gather information, are required to raise women's awareness of the etiology of cervical cancer, HPV infection, preventative strategies, and early detection.

A number of factors that are barriers to cervical cancer screening. There is a need to continue creating awareness among community members and also addressing barriers such as shortage of staff. The service providers must be aware cultural barriers and should reach out community resources to alleviate these barriers. Culturally responsive communication, making faith-based groups a community resource target, social support and networking can improve screening rates.

CONFLICT OF INTEREST

The author declare that no conflict of interests in this work.

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