Feasibility of Cervical Cancer Screening Policy Using Self-Collected Samples for HPV DNA Testing in Thailand

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Introduction

Although all Thai women are entitled to access cervical cancer screening services, the incidence and mortality rates of the cancer are still high. Several factors, such as knowledge, embarrassment, and inconvenience, affect the screening rate and hinder the success of the screening policy. Recently, self-collected samples for HPV DNA testing have been included in the health benefit coverage for Thai women. This should decrease screening-related barriers. Therefore, our study aimed to assess the feasibility of cervical cancer screening policy by using self-collected samples for HPV DNA testing in Thailand.

Material and methods

In-depth interviews were carried out in randomly-selected participants to explore their perspectives on cervical cancer screening using self-collected samples for HPV DNA testing. Participants included medical providers involved in cervical cancer screening and women aged 25-65 years who were the target group of the screening. This study was conducted at Siriraj Hospital between October and November 2022.

Data collection

Qualitative data were elicited via face-to-face individual interviews which conducted using 16 open-ended questions as a guidance. There were 2 separated listed of questions for the providers and the target group. The questions were developed follow to Bowen et al. and Thai Health Technology Assessment guidelines.

Ethics approval

The research protocol was authorized by the Siriraj Institutional Review Board (approval number: 046/2022). Written consent was obtained from each participant before the interview.

Analysis

A thematic content analysis was used to extract the interview data. The results are presented in a qualitative data format. The data were categorized in to 7 dimensions.

Results

Characteristic of participants

Target participants of the study included 20 women with mean age of 39.3 ± 8.9 years) and 20 medical providers (10 clinicians and 10 nurses). Out of 20 women, 17 (85%) reported that they had undergone previous cervical cancer screening.

Main findings

Most participants thought that a self-collected samples for HPV DNA testing was acceptable, and considered it as a promising way to decrease the barriers to screening uptake. However, some concerns were raised. Samples might not be collected and delivered accurately. Injury might occur during the self-sampling procedure. Public relations and education for patients and providers are important parts of the policy success. All pointed out that women who are at risk or have gynecological symptoms have to be examined by a clinician. Moreover, a consensus clinical practice protocol for cervical cancer screening is needed.

Further information

- The most acceptable sampling device appeared to be the one that come with applicator, instructions, and beautiful packaging.
- The policy should provide options for sampling location as far as the screening rate would gain.
- A national standard operating procedure for providers is needs to make the policy feasible.

effectiveness

interesting Convenient

decrease shyness protocols

non-attendees signs and symptoms

average-risk women stimeliness

familiarity recommendation signs and symptoms

familiarity recommendation workload guidelines accuracy price

public relation



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Summary of in-depth interviews

1. Acceptability

- The cervical cancer screening policy using self-collected samples for HPV DNA testing is a promising strategy that reduces embarrassment.
- It provides convenience, particularly for people who find visiting hospitals burdensome.
- Participants thought that this project is suitable for Thailand context, since today most people, especially teenagers, have greater access to information and are familiar with self-testing, from using a Self-Antigen Test Kit during the COVID-19 pandemic.
- There is concern about potential side effects arising from improper use of a self-sampling kit.
- Some participants are still in doubts about the accuracy of the kit, the possibility of test result errors due to improper sample collection, potential contamination, and cleanliness issues during the collection process.
- A self-sampling process could be complicated, the general public may not have sufficient knowledge, and uneducated or older adults may require advices from medical providers.

2. Demand

- Most medical providers, approximately 80-100%, desire this project to be accomplish if the results were as accurate as the method done by clinicians.
- The policy should be able to reduce healthcare providers' workload
- Many people still prefer physician-conducted examinations.
- The target group for this policy should be women aged ≥ 25 years who have no risk factors or gynecological symptoms and are uncomfortable visiting hospitals for examinations.
- Women with risk factors or gynecological symptoms should be screened by a clinician.
- Some participants thought if they had no symptoms, they would prefer self-collection as their first option. Some might decide to get examined by a clinician in the first time of screening, and if the results are normal, they would prefer self-collection during their following screenings.
- Some women still prefer to get their screenings done in hospital settings because they have faith in the medical provider's expertise and concern about their ability to collect samples.

3. Implementation

- If women have to pay for the kit, the price should be cheaper than screening by a clinician.
- If the kit are provided at no charge, 95% of participants are likely to use this method; the remaining prefer screening by a clinician.

4. Practicality

 A lack of information about the self-sampling kit may inhibit some women from undertaking the service due to doubts and hesitations.

5. Adaptation

- The policy must be publicized through many media, including television broadcasts, online platforms, posters placed at various places, and the distribution of brochures at several units.
- The information can be in the form of short and engaging videos.
- In remote communities or rural areas, the process of active screening policy provided by the Ministry of Public Health, community hospitals, or primacy cares may be used.
- The most important issue is that service providers must have knowledge and understanding of this cervical cancer screening policy. This includes how it is performed, its target population, the pricing, and the healthcare coverage, to accurately convey this information to the public.
- To ensure that medical providers are all on the same page, there should be a protocol and guidelines for handling with patients with abnormal results.
- Regarding facilities and equipment, it is expected that there is sufficient availability and that areas for conducting this type of screening are arranged, particularly for the convenience and to prevent overcrowding in the testing unit.
- Training for service providers must be conducted to prepare for patient services.
- The workload of medical providers may increase initially if the self-sampling kits are widely used. Conversely, if the patients could collect samples correctly and obtain normal results, it will reduce the workload for the providers.

6. Integration

- Before choosing a screening method, an assessment must be made to determine which method is suitable for each patient.
- Women who were at low risk, could use the self-collected method as their first option to reduce unnecessary hospital visiting, time saving, and expenses.
- Women at risk should be screened by a clinician.
- In order to instill patients' faith, reassure them by demonstrating that the procedures are the same as those carried out by medical professionals.
- Some medical providers recommend consulting with a clinician first, as other examinations may be conducted in addition to cervical cancer screening. If the results are normal, self-sampling kits will be suggested.
- The choice of screening methods is depended on the patient.

7. Expansion

- The government should play a role in supporting public relations across various organizations.
- Encouraging women to utilized a selfsampling kit should start with educating the importance of cervical cancer screening, cervical cancer burden, and the advantages and disadvantages of the kit.

Conclusions

A self-collected samples for HPV DNA testing was highly accepted and supported by both providers and the target group. To maximize the screening rate, providing awareness about the importance of screening is key. Nevertheless, this screening method cannot replace a clinician screening, it should be considered as another option to increase the screening rate in non-attendees.