

## LETTER to the EDITOR

Editorial Process: Submission:03/27/2023 Acceptance:05/16/2023

# Comment on Self-Sampling Methodology Impression for Cervical Cancer Screening

*Asian Pac J Cancer Prev*, **24** (5), 1449-1451

### Dear Editor

Dear Editor, we would like to discuss on the publication “Results of Self-Sampling Methodology Impression for Cervical Cancer Screening in Mongolia Tsedenbal et al., (2022)”. Tsedenbal et al., (2022) compared the interest of attendees in this study in physicians taking samples versus self-sampling. Tsedenbal et al., (2022) stated that using the self-sampling tool could be considered primary screening. Tsedenbal et al., (2022) concluded that the self-sampling test can be integrated into the early screening program, potentially increasing screening coverage and improving quality. We agree that self-sampling could be a useful tool in cancer prevention research. It has the potential to address the issue of insufficient cancer screening resources (Fuzzell et al., 2021). However, it is necessary to consider the locals’ ability to perform the test. Mongolia may have a good socioeconomic background, and the locals may be well educated. Local people may be less educated than in other parts of the world, particularly in poor developing countries, which can lead to poor specimen collection practices, which can lead to false screening results. According to a survey from Nigeria in Africa, self-collected samples were more frequently invalid than those taken by medical personnel, most likely because of inadequate collection (Feng et al., 2022). This results in the need for a new specimen collection (Feng et al., 2022). Furthermore, there is still an issue with the self-sampling return rate in a recent study from China that included Inner Mongolia. Using self-sampling, 0.1% of cases did not return the samples for examination, according to data from a population survey (Chen et al., 2021). Another issue is the process for delivering samples. There is a chance that some samples will be misplaced or contaminated during delivery (Chen et al., 2021). Lower return rates are to be expected in environments with less developed local transportation systems, and managing these issues when employing the self-sampling approach becomes a major challenge. Direct active case screening into the community by medical staff might be more efficient in a distant place with a subpar sampling delivery infrastructure. Additionally, if self-sampling is used, it is important to consider the expense of going back to the clinic with the sample (Saidu et al., 2018). According to a recent study, patients preferred having a self-sampling test at a hospital rather than at home (Saidu et al., 2018). Also, a lot of ladies are more certain that the doctor will obtain a superior sample (Saidu et al., 2018). These elements are crucial to

consider when making plans to promote the self-sampling program moving forward.

If self-screening is planned, patient education must be planned and a monitoring system for specimen collection quality control must be in place. Also, a education session is necessary. This can improve a woman’s ability to collect the sample accurately. Also, it may boost practicing confidence. The most often given justification for favoring clinician-collected samples, per the most current report, was lack of confidence in the ability to get a trustworthy sample (Nishimura et al., 2021). Additionally, self-sampling at a medical center is reported to be more preferable than at home (Nishimura et al., 2021). Thus, having a good educational system is crucial. According to the research from our region in Indochina, local women readily accept the use of self-sampling in medical facilities but the problem still exists in case of self-collection at home (Thay et al., 2019). A study from India also demonstrated that one-on-one counseling sessions could enhance screening acceptance rates, proper specimen collection, and follow-up after positive results (Adsul et al., 2019).

### References

- Adsul P, Srinivas V, Gowda S, et al (2019). Community-based, cross-sectional study of hrHPV DNA self-sampling-based cervical cancer screening in rural Karnataka, India. *Int J Gynaecol Obstet*, **146**, 170-6.
- Chen XY, Qin JF, Tang LW, Zhang RR (2021). Construction and application of home self-sampling processes for cervical human papillomavirus detection. *Zhonghua Yu Fang Yi Xue Za Zhi*, **55**, 1145-8.
- Feng N, Ezechi O, Uwandu M, et al (2022). Self-collected versus medic-collected sampling for human papillomavirus testing among women in Lagos, Nigeria: a comparative study. *BMC Public Health*, **22**, 1922.
- Fuzzell LN, Perkins RB, Christy SM, Lake PW, Vadaparampil ST (2021). Cervical cancer screening in the United States: Challenges and potential solutions for underscreened groups. *Prev Med*, **144**, 106400.
- Nishimura H, Yeh PT, Oguntade H, Kennedy CE, Narasimhan M (2021). HPV self-sampling for cervical cancer screening: a systematic review of values and preferences. *BMJ Glob Health*, **6**, e003743.
- Saidu R, Moodley J, Tergas A, et al (2018). South African women’s perspectives on self-sampling for cervical cancer screening: A mixed-methods study. *SAfr Med J*, **109**, 47-52.
- Thay S, Goldstein A, Goldstein LS, et al (2019). Prospective cohort study examining cervical cancer screening methods in HIV-positive and HIV-negative Cambodian Women: a

comparison of human papilloma virus testing, visualization with acetic acid and digital colposcopy. *BMJ Open*, **9**, e026887.

Tsedenbal B, Enebish G, Tserensodnom B, Saio M (2022). Results of self-sampling methodology impression for cervical cancer screening in Mongolia. *Asian Pac J Cancer Prev*, **23**, 4099-4107.

## Amnuay Kleebayoon<sup>1\*</sup>, Viroj Wiwanitkit<sup>2,3</sup>

<sup>1</sup>Private Academic Consultant, Samraong, Cambodia. <sup>2</sup>Adjunct Professor, Chandigarh University, Punjab, India. <sup>3</sup>Visiting Professor, University of Nis, Serbia. \*For Correspondence: rahul.anand303@gmail.com

### Reply to the letter to the editor: Comment on Self-Sampling Methodology Impression for Cervical Cancer Screening

#### Dear Editor

We would like to thank letter from Professor Amnuay Kleebayoon and Professor Viroj Wiwanitkit for their comments and interest in our recent work on the Self-sampling methodology impression among women in Mongolia (Tsedenbal et al., 2022). We agree with the authors that good knowledge and the ability of women to perform the self-sampling test are crucial for sample adequacy and diagnostic validity in cervical cancer and its precursors. Self-sampling devices should have an instruction pamphlet to follow, and its contents encouraged to be understandable for women at a minimal level of education (Huynh et al., 2010). Videos or pictures are preferred to improve understanding (Othman and Zaki, 2014). Our study also considered the comprehensive instruction pamphlet for the participants to follow by individual consultants provided to each participant about how to use the sampler. However, we still faced the challenges of self-sampling to get samples lacking endocervical columnar cells in most inadequate samples. Previous studies had the same limitation of self-sampling, inability to get satisfactory criteria cells (Schmeink et al., 2011), and lower sensitivity since harvested cells are mostly vaginal cells (Brink et al., 2006; Othman and Zaki, 2014). Therefore, appropriate knowledge and skills for self-collection would give adequate samples and proper diagnosis and prevent repeated samples.

We also agree with the authors concerning the return rate. All participants returned a self-sampled test and received test results by telephone. This complete coverage is likely explained by the few women offered by self-sampling methods, and we were able to reach out to each woman, which was one of the limitations of our study. However, this is impossible to reach out to each participant in a large group of self-sampling studies. According to the survey from the USA, two-thirds of the study population returned a self-collected test (Smith et al., 2018).

Nowadays, different types of self-sampling tests with different storage systems are available. Most of the tests are used a liquid-based storage system and transportation. This liquid system provides cytology and HPV testing processes from one sample (Sancho-Garnier et al., 2013; Yoshida et al., 2013; Othman and Zaki, 2014). There might be a leakage or delay issue due to inappropriate sample handling and poor road and local transportation system. We agree with the challenges in delivering the sample issues that the authors mentioned. Equal access to health care services is crucial for our country, where one-third of the population lives in the capital city, Ulaanbaatar, and the rest live sparsely in the vast territory of Mongolia (Tsedenbal et al., 2022). According to our study, self-sampling can attract the local remote non-attendees of cervical screening. However, despite the well-trained knowledge and skills in using self-sampler, there are many infrastructural challenges, including self-sampled kit validation, processing laboratories, delivering system, test validation, quality control, and economic value of this alternative method, before implementing the self-sampling tests in public.

Our study is a first and pilot study aimed at presenting impressions and interest in self-sampling tests, which could be an alternative method for screening in Mongolia. We had positive impressions from the self-sampling test among participants, but its correct usage or sample adequacy was their primary concern. However, it is essential to offer women alternative methods for cervical cancer prevention; as same as providing knowledge of preventing cervical cancer activates them to have further tests and investigations. Therefore, we agree that more studies still need to be done on improving access and adequacy of self-sampling tests with high economic values for providing this alternative test in Mongolia, a developing country.

#### References

- Brink AA, Meijer CJ, Wiegierinck MA, et al (2006). High concordance of results of testing for human papillomavirus in cervicovaginal samples collected by two methods, with comparison of a novel self-sampling device to a conventional endocervical brush. *J Clin Microbiol*, **44**, 2518-23.
- Huynh J, Howard M, Lytwyn A (2010). Self-collection for vaginal human papillomavirus testing: systematic review of studies asking women their perceptions. *Low Genit Tract Dis*, **14**, 356-62.
- Othman NH, Zaki FHM (2014). Self-collection tools for routine cervical cancer screening: a review. *Asian Pac J Cancer Prev*, **15**, 8563-9.
- Sancho-Garnier H, Tamalet C, Halfon P, et al (2013). HPV self-sampling or the Pap-smear: A randomized study among cervical screening nonattendees from lower socioeconomic groups in France. *Int J Cancer*, **133**, 2681-7.
- Schmeink CE, Bekkers RL, Massuger LF, et al (2011). The potential role of self-sampling for high-risk human papillomavirus detection in cervical cancer screening. *Rev Med Virol*, **21**, 139-53.
- Smith JS, Des Marais AC, Deal AM, et al (2018). Mailed human papillomavirus self-collection with Papanicolaou test referral for infrequently screened women in the United States. *Sex Transm Dis*, **45**, 42.

Tsedenbal B, Enebish G, Tserensodnom B, et al (2022). Results of self-sampling methodology impression for cervical cancer screening in Mongolia. *Asian Pac J Cancer Prev*, **23**, 4099-107.

Yoshida T, Nishijima Y, Hando K, et al (2013). Primary study on providing a basic system for uterine cervical screening in a developing country: analysis of acceptability of self-sampling in Lao PDR. *Asian Pac J Cancer Prev*, **14**, 3029-35.

**Batchineg Tsedenbal<sup>1,2\*</sup>, Gerelmaa Enebish<sup>1</sup>, Bayasgalan Tserensodnom<sup>1</sup>, Masanao Saio<sup>3</sup>**

<sup>1</sup>Mongolian National University of Medical Sciences, Mongolia .

<sup>2</sup>National Center for Pathology, Mongolia. <sup>3</sup>Gunma University, School of Health Sciences, Japan. \*For Correspondence:

Batchineg.int@gmail.com