

# Cervical Cancer Screening

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In Southeast Asia, cervical cancer is the second most common cancer in women. Low coverage for cervical cancer screening (CCS) becomes a roadblock to disease detection and treatment. Herein, we identified the barriers to and facilitators of cervical cancer screening among women living in SEA.

Keywords: cervical cancer screening ; barriers ; facilitators ; southeast asia ; pap smear ; HPV test ; visual inspection with acetic acid

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## 1. Introduction

In 2018, approximately 570,000 women developed cervical cancer and 311,000 women died from it <sup>[1]</sup>. Approximately 84% of all cervical cancers and 88% of all deaths caused by cervical cancer occurred in lower-resource countries <sup>[1]</sup>. Over the past four decades, a significant reduction in mortality and incidence of cervical cancer have been observed with preventive strategies such as cervical cancer screening (CCS) and vaccination against the human papilloma virus (HPV) <sup>[2]</sup>. Screening modalities for cervical cancer include a pap smear, HPV test, and visual inspection with acetic acid (VIA). Despite the proven effectiveness of screening, worldwide coverage of these preventive strategies remains poor, especially in developing countries <sup>[3]</sup>.

The Southeast Asia (SEA) region comprises of 11 countries of diverse religions, cultures, and history: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Timor-Leste, and Vietnam. There are approximately 330 million women in SEA, equivalent to 4.3% of the world's population <sup>[4]</sup>. Cervical cancer is the second most common cancer among women in the region <sup>[5]</sup>. In 2020, SEA was ranked seventh for cervical cancer incidence and sixth for mortality compared to other regions of the world <sup>[6]</sup>. Given the significant disease burden of cervical cancer in the presence of effective preventive strategies, a more detailed understanding of the barriers and facilitators to screening is needed to help in the planning of interventions to improve participation in screening.

## 2. Barriers and facilitators to cervical cancer screening

The barriers and facilitators identified from this study are related to demographics, socio-economic status, social support, knowledge, attitudes, perceptions, financial access, health system, and psychological or emotional factors. We found that the top barrier category to CCS is psychological or emotional factors ( $n = 44$ ), namely embarrassment and fear. This is followed by knowledge ( $n = 38$ ), which includes the lack of knowledge and awareness to cervical cancer and CCS. The top facilitator categories are predominantly factors related to demographics ( $n = 33$ ), as well as perception, attitudes, and beliefs to screening ( $n = 29$ ). These are consistent with prior research in lower-middle income countries <sup>[7][8][9]</sup>, and interestingly in developed countries as well, such as the United States <sup>[10]</sup> and Australia <sup>[11]</sup>. Our findings also support a previously demonstrated relationship between higher education status and higher CCS uptake <sup>[12]</sup>. Similarly, psychosocial and contextual factors described in prior systematic literature reviews <sup>[13][14]</sup> were also reported by women in SEA. These include factors associated with the health system, cost, time constraints, screening attitudes, knowledge, awareness, emotional factors, social support, and experiences with healthcare professionals. However, our findings differed from a review among high cervical cancer incidence countries where the top barriers to CCS were fatalism, and negative attitudes and beliefs towards non-traditional healthcare <sup>[15]</sup>. A possible reason is that a majority of the studies included in that review are from Africa, where traditional healers are likely sought prior to or in conjunction with medical care <sup>[16]</sup>.

## 3. Considerations for barriers and facilitators in interventions aimed at increase screening uptake

Barriers common to SEA countries, reported by five to six countries, include poor awareness and knowledge of screening, poor perceived susceptibility to cervical cancer, having no symptoms, and factors related to health center characteristics. Facilitators common across countries include the influence of age, receiving advice from healthcare workers, and good

awareness of screening. These common factors identified can also provide guidance for countries with limited insights into barriers and facilitators to CCS, such as the Philippines, Timor-Leste, Cambodia, Myanmar, Vietnam, and Laos. Several factors were also unique in certain countries, which reported certain barriers and facilitators more frequently than other countries. For example, religion and poor impression of the health system were more frequently reported barriers in Thailand while occupation type, advice from employers, and receiving CCS as part of a structured health program were more frequently reported facilitators. In Malaysia, unique barriers include the lack of support from husband, family members, and friends, while unique facilitators include the knowledge of screening and the use of contraceptives. Reasons for these differences between countries could be driven by the social, cultural, religious, and health system differences of SEA countries [17], as well as researchers' interests in specific factors affecting CCS in the country. Hence, existing CCS programs should consider addressing the country-specific barriers and facilitators in the design of interventions to increase screening uptake.

Our findings also suggest that patient education-based interventions are key to increasing CCS uptake in SEA, as key barriers to CCS such as fear, embarrassment, and the lack of knowledge can be addressed. Through the use of community health workers, brochures, phone counselling, and multimedia, educational interventions alone has been found to increase the odds of CCS uptake by more than 2 times [18], compared to routine care. Equally important, facilitators of CCS should be considered in the design of such interventions to increase CCS uptake, as barriers and facilitators are often two sides of the same coin. For example, knowledge of screening is one of the 29 factors that was described both as a barrier and facilitator across studies in SEA. Improving knowledge to screening among women facilitates CCS uptake while the lack of it represents a barrier. While these factors may represent key targets for intervention design, their differential impact across various contexts have been carefully considered [19]. Furthermore, the experience of different facilitators may have a greater influence on CCS uptake in a setting where barriers are commonly experienced by women. In a UK study, women with up-to-date CCS prioritized the following facilitators of CCS compared to those who had overdue or never had CCS: (1) Perceived benefits of CCS and (2) perceived self-responsibility over one's health [20]. On the other hand, the ranking of common barriers, such as fear and embarrassment did not differ by participants' screening history. The interplay of barriers and facilitators to CCS warrants further research, and the findings can be harnessed to guide interventions to increase CCS uptake.

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## References

1. Arbyn, M.; Weiderpass, E.; Bruni, L.; de Sanjosé, S.; Saraiya, M.; Ferlay, J.; Bray, F. Estimates of incidence and mortality of cervical cancer in 2018: A worldwide analysis. *Lancet Glob. Health* 2020, 8, e191–e203.
2. Torre, L.A.; Islami, F.; Siegel, R.L.; Ward, E.M.; Jemal, A. Global cancer in women: Burden and trends. *Cancer Epidemiol. Biomark. Prev.* 2017, 26, 444–457.
3. Gakidou, E.; Nordhagen, S.; Obermeyer, Z. Coverage of cervical cancer screening in 57 countries: Low average levels and large inequalities. *PLoS Med.* 2008, 5, e132.
4. Population, Total—Timor-Leste, Singapore, Indonesia, Malaysia, Vietnam, Cambodia, Philippines, Thailand, Lao PDR, Myanmar, Brunei Darussalam, World. Available online: (accessed on 20 October 2020).
5. Cervical Cancer, Human Papillomavirus (HPV), and HPV Vaccines in Southeast Asia. Available online: (accessed on 3 March 2020).
6. Cervix uteri. Available online: (accessed on 10 January 2021).
7. Devarapalli, P.; Labani, S.; Nagarjuna, N.; Panchal, P.; Asthana, S. Barriers affecting uptake of cervical cancer screening in low and middle income countries: A systematic review. *Indian J. Cancer* 2018, 55, 318.
8. Islam, R.M.; Billah, B.; Hossain, M.N.; Oldroyd, J. Barriers to cervical cancer and breast cancer screening uptake in low-income and middle-income countries: A systematic review. *Asian Pac. J. Cancer Prev.* 2017, 18, 1751.
9. Williams-Brennan, L.; Gastaldo, D.; Cole, D.C.; Paszat, L. Social determinants of health associated with cervical cancer screening among women living in developing countries: A scoping review. *Arch. Gynecol. Obstet.* 2012, 286, 1487–1505.
10. Scarinci, I.C.; Garcia, F.A.; Kobetz, E.; Partridge, E.E.; Brandt, H.M.; Bell, M.C.; Dignan, M.; Ma, G.X.; Daye, J.L.; Castle, P.E. Cervical cancer prevention: New tools and old barriers. *Cancer* 2010, 116, 2531–2542.
11. Nagendiram, A.; Bougher, H.; FRACGP, C.H.M.D.D. Australian women's self-perceived barriers to participation in cervical cancer screening: A systematic review. *Health Promot. J. Austr.* 2020, 31, 343–353.

12. Damiani, G.; Basso, D.; Acampora, A.; Bianchi, C.B.; Silvestrini, G.; Frisicale, E.M.; Sassi, F.; Ricciardi, W. The impact of level of education on adherence to breast and cervical cancer screening: Evidence from a systematic review and meta-analysis. *Prev. Med.* 2015, 81, 281–289.
13. Bukowska-Durawa, A.; Luszczynska, A. Cervical cancer screening and psychosocial barriers perceived by patients. A systematic review. *Contemp. Oncol.* 2014, 18, 153.
14. Plourde, N.; Brown, H.K.; Vigod, S.; Cobigo, V. Contextual factors associated with uptake of breast and cervical cancer screening: A systematic review of the literature. *Women Health* 2016, 56, 906–925.
15. Driscoll, S.D. Barriers and facilitators to cervical cancer screening in high incidence populations: A synthesis of qualitative evidence. *Women Health* 2016, 56, 448–467.
16. Nelson, J.A.; Francis, S.A.; Liverpool, J.; Soogun, S.; Mofammere, N. Healers in a non-traditional role; a focus group study of Sangoma's knowledge of and attitudes to cervical cancer prevention and screening in Johannesburg, South Africa. *Sex. Reprod. Healthc.* 2010, 1, 195–196.
17. Chongsuvivatwong, V.; Phua, K.H.; Yap, M.T.; Pocock, N.S.; Hashim, J.H.; Chhem, R.; Wilopo, S.A.; Lopez, A.D. Health and health-care systems in southeast Asia: Diversity and transitions. *Lancet* 2011, 377, 429–437.
18. Musa, J.; Achenbach, C.J.; O'Dwyer, L.C.; Evans, C.T.; McHugh, M.; Hou, L.; Simon, M.A.; Murphy, R.L.; Jordan, N. Effect of cervical cancer education and provider recommendation for screening on screening rates: A systematic review and meta-analysis. *PLoS ONE* 2017, 12, e0183924.
19. Bach-Mortensen, A.M.; Verboom, B. Barriers and facilitators systematic reviews in health: A methodological review and recommendations for reviewers. *Res. Synth. Methods* 2020, 11, 743–759.
20. Wilding, S.; Wighton, S.; Halligan, D.; West, R.; Conner, M.; O'Connor, D.B. What factors are most influential in increasing cervical cancer screening attendance? An online study of UK-based women<sup>1</sup>. *Health Psychol. Behav. Med.* 2020, 8, 314–328.

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