

Gulzhanat Aimagambetova¹, Torgyn Issa¹, Aisha Babi¹, Sholpan Akhanova², Natalya Udalova³, Svetlana Koktova⁴, Zhanna Sattarkyzy⁵, Zhuldyz Abakasheva⁶, Alpamys Issanov¹, Azliyati Azizan^{1,7}, Saleem A. Khan⁸, Chee Kai Chan^{1,9}, Raushan Alibekova¹

¹ Department of Biomedical Sciences, School of Medicine, Nazarbayev University, Nur-Sultan, Kazakhstan

² Obstetrics and Gynecology department, Keruen Medicus clinic, Almaty, Kazakhstan

³ Obstetrics and Gynecology department, East Kazakhstan Hospital, Oskemen, Kazakhstan

⁴ Diagnostic department, Regional Perinatal Center, Aktobe, Kazakhstan

⁵ Obstetrics and Gynecology department, City polyclinic №6, Nur-Sultan, Kazakhstan

⁶ Gynecology department, Daliya clinic, Pavlodar, Kazakhstan

⁷ College of Osteopathic Medicine, Touro University Nevada, Henderson, Nevada, USA

⁸ School of Medicine, University of Pittsburgh, Pennsylvania, USA

⁹ College of Science and Technology, Wenzhou-Kean University, Wenzhou, China

Objectives

The Kazakhstani Ministry of Healthcare has updated and implemented a free cervical cancer screening program using Papanicolaou testing every 4 years for women aged 30-70 years since 2017, which is in place in every region of the country (1). Despite the presence of a free cervical cancer screening program (1), cervical cancer is among the leading causes of female death-related cancer in Kazakhstan (2). One of the possible reasons for such high rates of cervical cancer is low awareness of the free cervical cancer screening program. Therefore, this study aimed to assess awareness of the program and to identify the factors associated with awareness. Moreover, this study aimed to identify the sources of information on free cervical cancer screening.

Methods

A cross-sectional study was conducted among 2,210 women visiting gynecology clinics in 5 urban regions. A paper-based questionnaire was used to assess awareness of the free cervical cancer screening program and to identify associated factors. A multivariable logistic regression model was built to analyze data using STATA 16 software (3).

Results

In total 2,210 females participated in the study. The mean age was 36.43 ± 11.26 . Approximately a quarter (28%) of participants were aware that free cervical cancer screening existed. A major source of information were medical workers. Women aged between 36 and 45 were 2.54 times more likely to be aware of free cervical cancer screening in comparison with females aged between 18 and 25. Women from the Northern urban region were 0.54 times less likely to be aware of free cervical cancer screening in comparison with females from the capital city. Females with high income were 1.89 times more likely to be aware of free cervical cancer screening in comparison with those with low income.

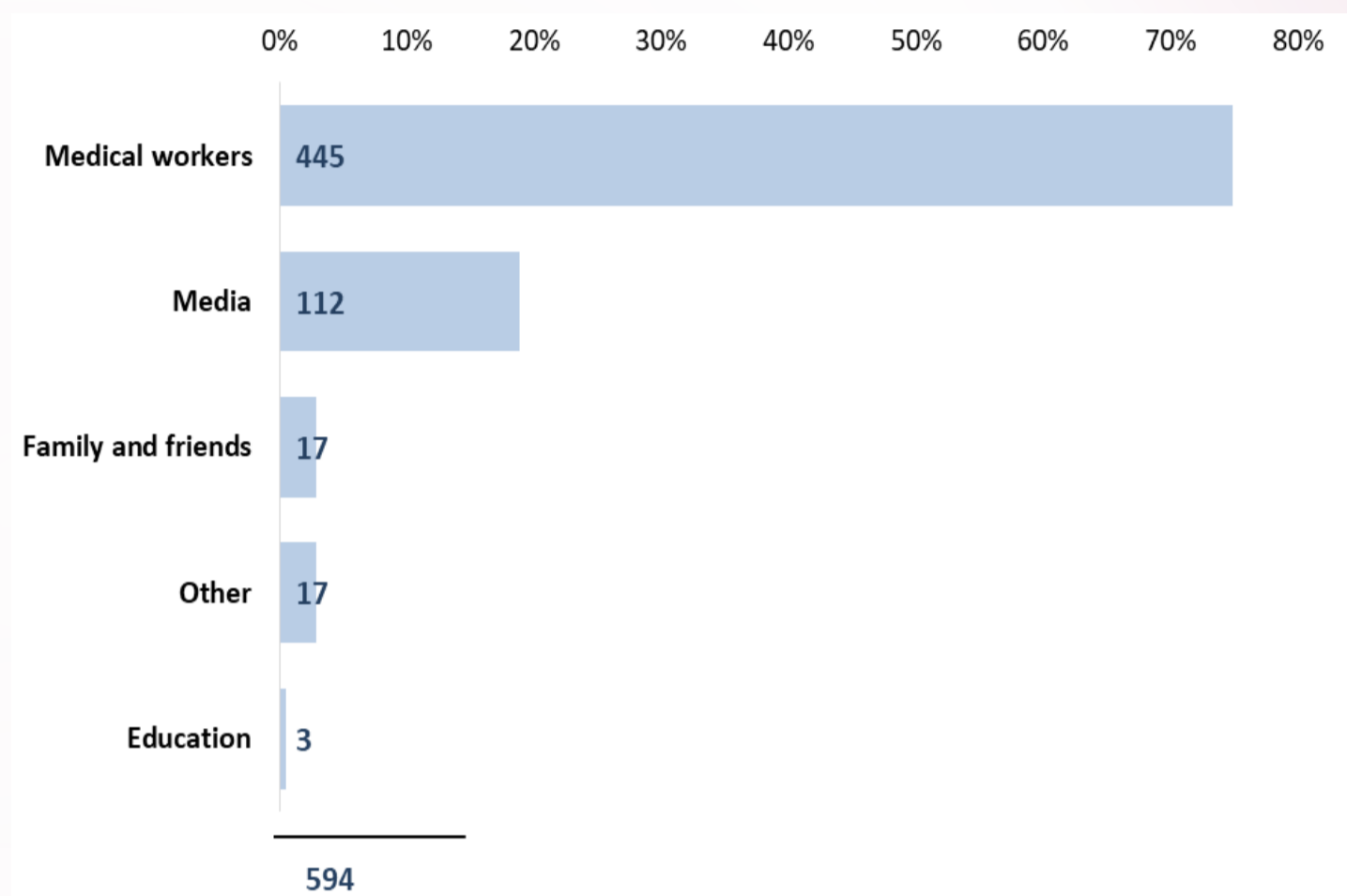


Figure 1. Sources of information on free cervical cancer screening.

Conclusions

This study found low level of awareness of free cervical cancer screening among Kazakhstani females. Factors such as age, living in an urban area, and income were associated with awareness of free cervical cancer screening.

Funding: This study was supported by the Nazarbayev University Grant Number is 110119FD4528, 2019-2021.

References

1. Aimagambetova G, Chan CK, Ukybassova T, et al. Cervical cancer screening and prevention in Kazakhstan and Central Asia. *J Med Screen.* 2021;28(1):48-50. doi:10.1177/0969141320902482
2. Igissinov N, Igissinova G, Telmanova Z, Kulmirzayeva D, Kozhakhmetova Z, Turebayev D, et al. New Trends of Cervical Cancer Incidence in Kazakhstan. 2021;22:1295-304.
3. StataCorp LLC. Stata Statistical Software: Release 16 [Internet]. 2019. Available from: <https://www.stata.com/support/faqs/resources/citing-software-documentation-faqs/#:-:text=2019.,Station%2C TX%3A StataCorp LLC.&text=StataCorp.,-2017>.