

## A call to action addressing low awareness of HPV vaccination in women of Pakistan

Syeda Mahrukh Qadri<sup>1</sup>, Muhammad Usama Faruqui<sup>2</sup>

*Madam*, Cervical cancer, while preventable and treatable in early stages, is still prevalent in Pakistan and affects thousands of females every year. It was identified as the fourth most common cancer among Pakistani women, according to a comprehensive report by Aamer et al., 2023.<sup>1</sup> In the cervical cancer elimination plan proposed by WHO, it is estimated that 129184 women will die in Pakistan between 2020 and 2070 from cervical cancer. Despite the proven association of HPV with cervical cancer worldwide, awareness of and access to HPV vaccination remains alarmingly low.

According to a study done by Abida et al., 2014 in Punjab, where cervical cancer lesion biopsies were studied for HPV genotyping, 94.81% of the samples were positive for HPV, detection which confirms the strong association of this virus with cervical cancer in Pakistan as well.<sup>2</sup> While we know that most of the developed countries follow a strict protocol of HPV vaccination administration at a young age, the Pakistani population continues to face limited access to this critical preventive measure.

One of the major factors contributing to the increasing incidence in developing countries such as Pakistan is the lack of awareness regarding the role of HPV as a causative agent. A study conducted by Hirani et al., 2021 at a tertiary hospital in Karachi revealed that only 20.6% of women were aware of HPV as a risk factor, and only 25.5% knew that a preventative vaccine existed.<sup>3</sup> The lack of awareness is further complicated by Pakistan not having a national vaccination programme and limited local availability of HPV vaccines in Pakistan.<sup>4</sup> In addition to the high cost of imported vaccines, barriers such as religious

misconceptions, insufficient rural healthcare infrastructure, and inadequate training of healthcare professionals.

Several practical solutions have been proposed, including nationwide awareness campaigns, broader access to vaccines through schools and pharmacies, and securing financial support from global health alliances like GAVI (Global Alliance for Vaccines and Immunisation). While HPV vaccines such as Gardasil and Cervarix are being manufactured or imported in Pakistan, their high cost remains a significant barrier to mass vaccination. Considering Pakistan's status as a low-income country with limited healthcare resources, investing in preventive strategies like HPV vaccination is crucial to avert further strain on an already burdened healthcare system.

**Disclaimer:** The views and opinions expressed in this letter are solely those of the authors and do not necessarily reflect the official policies or positions of any affiliated institute or organizations. The authors take full responsibility of the content of this correspondence.

**Conflict of interest:** None

**Funding disclosure:** None.

**DOI:** <https://doi.org/10.47391/JPMA.30449>

### References

1. Ikram A, Pervez S, Khadim MT, Sohaib M, Uddin H, Badar F, et al. National Cancer Registry of Pakistan: first comprehensive report of cancer statistics 2015–2019. *J Coll Physicians Surg Pak* 2023;33:625–32. doi:10.29271/jcpsp.2023.06.857.
2. Siddiqi A, Zainab M, Qadri I, Bhatti MF, Parish JL. Prevalence and genotyping of high risk human papillomavirus in cervical cancer samples from Punjab, Pakistan. *Viruses* 2014;6:2762–77. doi:10.3390/v6072762.
3. Hirani S, Khan S, Akram S, Virji SN, Shaikh PA, Naeem E, et al. Knowledge, awareness, and practices of cervical cancer, its risk factors, screening, and prevention among women in Karachi, Pakistan. *Eur J Cancer Prev* 2021;30:97–102. doi:10.1097/CEJ.0000000000000590
4. Burney A, Zafar R. HPV vaccination as a mode of cervical cancer prevention in Pakistan. *South Asian J Cancer* 2023;12:51–2. doi:10.1055/s 0043 1764211

<sup>1</sup>Dow University of Health and Sciences, Karachi, Pakistan; <sup>2</sup>Department of Radiology, Shaikat Khanum Memorial Cancer Hospital and Research Centre, Lahore, Pakistan.

**Correspondence:** Syeda Mahrukh Qadri. e-mail: syedaqadri10@gmail.com

ORCID ID: 0009-0005-6407-2120

**Submission completed:** 16-03-2025 **1st Revision received:** 07-04-2025

**Acceptance:** 23-04-2025

**Last Revision received:** 22-04-2025

### Author Contribution:

**SMQ & MUF:** Concept, design, data interpretation, referencing, drafting, revision, final approval and agreement to be accountable for all aspects of the work.