

**Human Papillomavirus (HPV) and Cervical Cancer: A Call to action for Pakistan**

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Madam, Human papillomavirus (HPV) is the cause of 95% of cervical cancer cases globally. In Pakistan, cervical cancer ranks as the third most prevalent cancer among women and the second most common for those aged 15 to 44. Almost 73.8 million Pakistani women are at risk of developing cervical cancer, with over 5,000 new diagnoses and 3,200 fatalities annually.<sup>1</sup> It is imperative that we address the significant barriers hindering HPV immunization in our country.

The introduction of the HPV vaccine in the United States in 2006 marked a milestone, making cervical cancer the first vaccine-preventable cancer. A 2021 report by the Centres for Disease Control and Prevention (CDC) comparing data from the pre-vaccination era until 2018 in the United States, showed an 88% decline in infections from four HPV strains, including the high-risk cancer-causing strains among females aged 14-19 years, and an 81% decline among females aged 20-24 years.<sup>2</sup> Similar results have been reported by more than 14 countries with effective HPV vaccination programmes, including Australia, Scotland, Sweden, and Denmark.

According to WHO guidelines, 1-2 doses of routine HPV vaccination are recommended for all girls aged 9-14 years, and 1-2 doses of catch-up vaccination for women aged 15 years or older. Vaccination for boys is also recommended when feasible and affordable.<sup>3</sup> In Pakistan, the current vaccination rates are distressingly low. A 2022 study by Uzma Shamsi et al. estimated that only 3.1% of the adult Pakistani population is vaccinated.<sup>4</sup> Another study conducted in Karachi in 2021 estimated the awareness of HPV vaccines to be only 20%, with uptake less than 10%.<sup>5</sup>

The WHO mandates every country to include the HPV vaccine in their immunization schedule and achieve 90% vaccination coverage among girls up to age 15 by 2030.<sup>3</sup>

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As of April 2nd, 2025, 146 countries have included the HPV vaccine in their national immunization programmes.<sup>6</sup> Unfortunately, Pakistan is among the few countries with no national program for HPV vaccination programme.

Although two globally licensed vaccines in Pakistan, the high cost, limited supply, and regional unavailability are significant obstacles to vaccination uptake, particularly in rural areas. To eliminate cervical cancer effectively, the Pakistani government needs to develop a comprehensive national policy. The HPV vaccine should be integrated into the Extended Immunization Programme, making it more accessible and affordable for the general population. Dedicated teams should be set up to plan, manage, and monitor immunization coverage. Incorporation of HPV vaccination into women's cancer prevention and control programmes can help reduce the incidence of cervical cancer.

Public health authorities should launch proactive awareness campaigns to tackle the prevalent misconception that young girls do not need HPV vaccination as it is only for sexually active women. Mass vaccination of teen aged girls must be organized in schools and colleges to safeguard the well-being of future generations. Cultural taboos and myths surrounding the HPV vaccine in Pakistan, such as fears of infertility and promiscuity, should be addressed at the grassroots level through close community engagement that includes men and adolescents.

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**MA:** Concept, design, data acquisition, analysis,

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