Principles and Practice of Clinical Research
A GLOBAL JOURNAL OF CLINICAL RESEARCH

Barriers to HPV Vaccination in Peru: The Role of Digital Strategies in a Context of Social and Structural Inequity

Samantha Mendoza Rivera[1,2], Gastón Mendoza de Lama[1,2], Enrique Oswaldo Bedoya Ismodes[3,4*]

[1] Detecta Clínica, Lima, Perú; [2] Universidad San Martin de Porres; [3] Hospital Santa Rosa, Lima, Perú; [4] Carrera de Medicina Humana, Facultad de Ciencias de la Salud, Universidad San Ignacio de Loyola, Lima, Peru.

Dear Editor,

We read with great interest the article titled "The Impact of Digital Technologies on HPV Vaccination Uptake and Intention Among Adolescents, Young Adults, and their Parents: A Systematic Review" by Bancovsky et al. (2024). The authors provide a compelling summary of how digital interventions can positively influence both vaccine uptake and intention, particularly through parental education and the use of targeted communication tools. However, when reflecting on this evidence in the context of Peru, several structural and sociocultural limitations must be considered.

In Peru, the quadrivalent HPV vaccine has been included in the National Immunization Schedule since 2011, and is provided free of charge to girls aged 9–13, primarily through school-based programs (Ministerio de Salud del Perú, 2023). Nonetheless, national coverage remains below the ideal threshold, with marked regional disparities, national coverage remains below the 90% threshold recommended by the World Health Organization for cervical cancer elimination (World Health Organization, 2020). While urban centers may report acceptable vaccination rates, coverage in rural areas—particularly the Andean and Amazonian regions—remains suboptimal due to multiple social determinants of health, including poverty, low parental education, and limited access to healthcare and digital infrastructure (ITU, 2023).

The review highlights how digital tools—such as apps, text reminders, and online videos—can enhance parental knowledge and reduce hesitancy. However, in Peru, access to such technologies is uneven. According to national statistics, only 55% of rural households have internet access, compared to 85% in urban areas (INEI, 2022). Moreover, digital literacy among parents and caregivers in low-resource communities is often limited, which restricts the impact of these interventions.

A unique barrier in the Peruvian setting is the persistence of sociocultural taboos regarding adolescent sexuality. Many parents decline HPV vaccination due to the mistaken belief that it encourages early sexual activity (Lazcano-Ponce et al., 2020). This perception is exacerbated by insufficient public education campaigns and limited dialogue between healthcare workers and families. In such contexts, digital tools alone are unlikely to be effective unless they are paired with culturally sensitive strategies that involve community leaders, schools, and trusted local health providers.

Therefore, while the systematic review presents a promising framework, its implementation in countries like Peru and low income countries requires a tailored, equity-focused approach. These countries bear a disproportionately high burden of cervical cancer incidence and mortality, largely driven by structural inequities, limited screening coverage, and suboptimal vaccination uptake. Digital interventions must be adapted to address access gaps, language diversity, and cultural beliefs. Hybrid strategies that combine face-to-face counseling, school outreach, and mobile health platforms may offer a more effective model to overcome both informational and emotional barriers to HPV vaccination.

In conclusion, digital health tools can indeed be a valuable part of HPV vaccination strategies, but

*Corresponding author: e.bed10@outlook.com
Received: April 26, 2025 **Accepted:** February 16, 2026
Published: April 26, 2026
Editor: Felipe Fregni
Keywords: HPV vaccination disparities, digital health interventions
DOI: https://doi.org/10.21801/ppcrj.2025.114.2

they must be integrated into broader public health efforts that consider the complex social realities of each region. We commend the authors for their contribution and hope to see future studies that explore the adaptation of these technologies in low- and middle-income countries with diverse sociocultural contexts.

Acknowledgement

Artificial intelligence–assisted tools were used only for language editing and improvement of readability. The authors take full responsibility for the content of the manuscript.

Funding

This research received no external funding.

Conflicts of Interest

The authors declare no conflict of interest.

References

Instituto Nacional de Estadística e Informática (INEI). Encuesta Nacional de Hogares 2022.

International Telecommunication Union. Measuring Digital Development: Facts and Figures 2023. Geneva: ITU; 2023. Available at: https://www.itu.int

Lazcano-Ponce E, et al. Barriers to HPV vaccination in Latin America: A literature review. Salud Pública Mex. 2020;62(2):161-172.

Ministerio de Salud del Perú. Esquema Nacional de Vacunación. 2023.

Ribeiro CM, Carneiro M, Silva JB, et al. The Impact of Digital Technologies on HPV Vaccination Uptake and Intention Among Adolescents, Young Adults, and their Parents: A Systematic Review. PPCR Journal. 2023;9(2):5-16.

World Health Organization. Global strategy to accelerate the elimination of cervical cancer as a public health problem. Geneva: WHO; 2020. Available at: https://www.who.int/publications/i/item/9789240014107