

## AWARENESS, KNOWLEDGE, AND ACCEPTANCE OF HPV VACCINATION AMONG REPRODUCTIVE-AGE WOMEN IN UZBEKISTAN

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**Abstract.** Human papillomavirus (HPV) is one of the most common sexually transmitted infections globally and a leading cause of cervical cancer. In Uzbekistan, the awareness and uptake of the HPV vaccine remain low due to limited public health campaigns and social stigma. This study aims to assess the awareness, knowledge, and acceptance of HPV vaccination among reproductive-age women in Uzbekistan.

**Key words:** Human papillomavirus (HPV), cervical cancer, social stigma, public health,

### INTRODUCTION

Cervical cancer remains a major public health challenge, particularly in low- and middle-income countries (World Health Organization [WHO], 2022). The primary causative agent is the human papillomavirus (HPV), a common sexually transmitted infection (WHO, 2022). The introduction of HPV vaccines has demonstrated a significant reduction in cervical cancer incidence in countries with high vaccine coverage (Bruni et al., 2019).

Despite the availability of effective vaccines, awareness and uptake in Central Asian countries, including Uzbekistan, remain critically low (Ferlay et al., 2020). Cultural stigmas, lack of public health education, and limited access to preventive services have contributed to this gap (Mirzaeva et al., 2021).

With cervical cancer being one of the top causes of cancer-related death among Uzbek women, understanding public awareness of HPV vaccination is essential for designing targeted health interventions (WHO, 2022)

General Objective:

To assess the awareness, knowledge, and acceptance of HPV vaccination among reproductive-age women in Uzbekistan.

Specific Objectives:

1. To evaluate the level of knowledge about HPV and its link to cervical cancer.
2. To determine awareness about the availability and benefits of HPV vaccination.
3. To identify factors associated with HPV vaccine acceptance.
4. To assess the influence of sociodemographic factors on HPV awareness

### MATERIAL AND METHODS

A cross-sectional survey was conducted from February to April 2025 in Tashkent and Samarkand, Uzbekistan. Women aged 18–45 years attending outpatient gynecology clinics and community health centers were invited to participate. A total of 200 participants were selected through convenience sampling. A structured questionnaire was developed, covering demographics, knowledge about HPV, awareness of the HPV vaccine, attitudes towards vaccination, and barriers to vaccine acceptance. The questionnaire was pre-tested on 20 women for clarity and reliability. Data were analyzed using SPSS version 26. Descriptive statistics summarized participant characteristics. Chi-square tests assessed associations between awareness and sociodemographic variables. Verbal informed consent was obtained from all participants. The study was approved by the Ethics Committee of .

### RESULTS

Of 200 participants, 62% were from urban areas, and 38% from rural regions. Most participants (56%) were aged 25–35 years. Only 35% of women had heard of HPV, and 29% recognized its association with cervical cancer. 18% were aware of the HPV vaccine. The majority (72%) had never heard of it, while 10% had misconceptions, believing it was for sexually transmitted diseases other than HPV. Among those aware, only 12% had received the vaccine, and 24% expressed willingness to vaccinate if it were available. Major barriers included lack of information (72%), fear of side effects (41%), and cultural and religious beliefs (28%). Higher education level was significantly associated with better awareness ( $p = 0.003$ ).

### DISCUSSION

This study reveals alarmingly low awareness of HPV and the HPV vaccine among reproductive-age women in Uzbekistan, consistent with findings from other Central Asian countries (Ferlay et al., 2020; Mirzaeva et al., 2021).

Educational attainment emerged as a strong predictor of vaccine awareness, indicating the necessity of integrating HPV education into school and university curricula. The high rate of misinformation and cultural barriers calls for culturally sensitive awareness campaigns.

The findings underscore the urgent need for national immunization programs and mass media campaigns to increase HPV vaccine uptake, as successfully implemented in other LMICs (Bruni et al., 2019).

### CONCLUSION

Awareness and acceptance of HPV vaccination remain low among reproductive-age women in Uzbekistan. Targeted public health interventions addressing knowledge gaps and cultural misconceptions are essential to reduce cervical cancer incidence.

Recommendations.

1. Implement national HPV vaccination programs
2. Launch culturally appropriate public health campaigns
3. Integrate HPV education in schools, universities, and health facilities
4. Conduct further large-scale research to support national policy-making

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