

HPV vaccine may not be cost-effective in populations of adults over 30

Study suggests vaccinating men and women aged 30-45 is expensive with limited health benefits

In the United States, vaccination against human papillomavirus (HPV) is recommended for males and females up to age 26. However, the cost effectiveness and health impact of vaccination on older individuals are unclear. A study published in *PLOS Medicine*, by Jane Kim at Harvard University, United States and colleagues suggests that HPV vaccination of 30-45 year olds provides limited health benefits at a high cost.

A human papillomavirus (HPV) vaccine has been licensed for use in women and men up to age 45 years in the United States. However, national guidelines for HPV vaccination have not been expanded beyond age 26. To determine vaccine efficacy and cost effectiveness in older populations, researchers evaluated two models that simulated HPV infection and cervical cancer, as well as six noncervical HPV-related cancers and genital warts. Using this data, they estimated lifetime costs, benefits, and cost-effectiveness of extending HPV vaccination from current guidelines to vaccinating both women and men up to age 45 years. To determine long-term outcomes associated with extending HPV vaccine to people up to age 45, the authors projected the lifetime health and economic consequences for vaccinated and unvaccinated older adults. The researchers also calculated medical costs of vaccination, cervical cancer screening, and disease in U.S. dollars and estimated health benefits using quality-adjusted life years.

Findings from both models suggest that HPV vaccination beyond age 26 years has limited health benefits and is not cost-effective. The study has several important limitations, however, including uncertainty of vaccine efficacy at older ages and potential changes in the disease burden of noncervical cancers over time. The authors reported a lack of trial data on vaccine effectiveness on males older than 26 and future studies will be needed for more accurate assessments of health outcomes in older populations receiving HPV vaccine.

According to the authors, “HPV vaccination of women and men aged 30-45 years provides limited health benefit at the population level, at a substantial cost. Public health decision-makers considering the option to extend HPV vaccination to adults up to age 45 years should consider this evaluation of the value – and the opportunity costs – of adopting such a policy”.

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