WORKING TOGETHER TO EVALUATE EVIDENCE ON SINGLE-DOSE HPV VACCINATION

BACKGROUND

Cervical cancer is a leading cause of cancer death among women in low- and middle-income countries (LMIC). More than 570,000 new cases and 311,000 deaths occur annually, with more than 85% of deaths occurring in LMIC. Human papillomavirus (HPV) vaccines are highly effective and since introduction, have significantly reduced vaccine-type HPV infections and precancerous cervical lesions.

The World Health Organization (WHO) recommends two doses of HPV vaccine for girls aged 9 to 14 years, and three doses for girls aged 15 years and older and those who are immune compromised or HIV positive (regardless of age). To date, over 30 countries have experience delivering HPV vaccinations through demonstration projects and over 20 LMIC deliver HPV vaccinations in their national programs. However, the introduction of national HPV vaccination programs in LMIC has been limited compared to high-income countries in part due to financial, logistical, and other barriers.

HPV vaccine supply is insufficient to meet demand and accessibility and delivery challenges due to the COVID-19 pandemic are leaving countries unable to scale-up HPV vaccination programs per WHO recommendations. In the context of the supply constraint, the Strategic Advisory Group of Experts (SAGE) recommended countries employ alternative vaccination strategies until vaccine supply allows equitable access to HPV vaccine by all countries.

PATH/Gabe Bienczycki

RATIONALE ON SINGLE-DOSE HPV VACCINATION

Accumulating evidence suggests that a single dose of HPV vaccine may elicit an immune response to protect against incident and persistent HPV infection. Researchers are now conducting several randomized-controlled trials to generate rigorous evidence comparing efficacy and immunogenicity of a single-dose to the current multi-dose schedules for HPV vaccines. If demonstrated to be effective, a single-dose HPV vaccination schedule could offer new options for delivery and accelerate access to the vaccine, potentially protecting even more girls against cervical cancer and other HPV-related diseases.

ABOUT THE CONSORTIUM

The Single-Dose HPV Vaccine Evaluation Consortium encompasses eight leading independent research institutions and organizations working together to collate and synthesize existing evidence and evaluate new data about a potential single-dose HPV vaccination schedule. The consortium's goal is to evaluate this evidence to inform global policy discussions and program guidance, as well as to raise awareness and understanding of its implications.

The consortium compiled the current published evidence on single-dose HPV vaccination, including data from trials, other observational studies, and impact and economic modeling work in a comprehensive review and assessment. This review also comments on the strength of that evidence, the gaps, and forthcoming data.

The consortium continues to coordinate relevant scientific groups and evaluate new data as they become available. Modeling experts within the consortium are generating new evidence using existing data and conducting exploratory analyses to estimate the impact and cost-effectiveness of a single-dose schedule to alternative dosing schedules to inform decision-making.

Consortium members work collaboratively with the World Health Organization and Gavi, the Vaccine Alliance; to share and discuss the evidence base, including the implications for country programs.

The consortium will continue to update the evidence base throughout the project period (2018–2022). Summaries of the published evidence base will be made publicly available to foster discussions with scientists, researchers, program managers, and policymakers.

For more information and resources, please visit www.path.org/singledosehpv.

The consortium, coordinated by PATH, includes Harvard University, London School of Hygiene & Tropical Medicine, Université Laval, University of British Columbia, US Centers for Disease Control and Prevention, US National Cancer Institute, and Wits Reproductive Health and HIV Institute.

In addition to the consortium members, representatives from the following institutions serve as advisors: the World Health Organization, International Agency for Research on Cancer; Medical Research Council Unit, The Gambia at LSHTM; Instituto Nacional de Salud Pública de Mexico; and Quebec Institut National de Santé Publique; Victorian Cytology Services, Australia; University of Washington; and International Vaccine Institute.

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