

WORKING TOGETHER TO EVALUATE EVIDENCE FOR SINGLE-DOSE HPV VACCINATION

BACKGROUND

Cervical cancer is a leading cause of cancer death among women in low- and lower-middle-income countries (LMIC). More than a half-million new cases and 266,000 deaths occur annually, with more than 85% of deaths occurring in LMIC. Human papillomavirus (HPV) vaccines have emerged as a highly effective intervention to prevent cervical cancer. HPV vaccines have shown tangible impact in reducing HPV infections and early cervical neoplasia (precancer) in national programs, with evidence for long-term protection.

The World Health Organization 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). As of 2017, more than 40 LMIC have experience delivering HPV vaccinations through demonstration projects. Currently, 11 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, and fewer than 10% of age-eligible girls are being vaccinated, in part due to financial and logistical barriers.

RESEARCH ON SINGLE-DOSE HPV VACCINATION

Accumulating evidence from observational studies suggests that single-dose HPV vaccination may protect against HPV. Researchers are now conducting several randomized-controlled trials to generate rigorous evidence comparing efficacy and immunogenicity of a single-dose to the current



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multi-dose schedules for HPV vaccines. If demonstrated to be effective, a single-dose HPV vaccination schedule could significantly simplify and lower costs for vaccine procurement and delivery. A single-dose schedule could also offer new options for delivery and accelerate access, potentially protecting even more girls against cervical cancer and other HPV-related diseases.

ABOUT THE CONSORTIUM

The Single-Dose HPV Vaccine Evaluation Consortium encompasses nine leading independent research institutions working together to collate and synthesize existing evidence and evaluate new data on the potential for single-dose HPV vaccination. 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. This summary of evidence also comments on the strength of that evidence and the gaps.

As the project unfolds, the consortium is coordinating relevant scientific groups and evaluating new data as they become available. Modeling experts within the consortium are generating new evidence through meta analyses of existing data and conducting exploratory analyses to estimate the impact and cost-effectiveness of single-dose schedules 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. The consortium will also engage regional and national-level stakeholders to gather perspectives on the potential implications of single-dose HPV vaccination for countries.

The consortium will annually update the evidence base throughout the project period (2018–2021). 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.rho.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, Wits Reproductive Health and HIV Institute, and the World Health Organization.

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In addition to the consortium members, representatives from the following institutions serve as advisors: 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; Victoria Cytology Services, Australia; University of Washington; and International Vaccine Institute.