



SUSTAINABILITY



Sustainability

The introduction of human papillomavirus (HPV) vaccine has the potential to save the lives of millions of women and girls worldwide. Based on a review conducted by the London School of Hygiene & Tropical Medicine and PATH, this brief highlights findings, key lessons and recommendations relevant to the theme of **HPV vaccine sustainability**.

Findings and key lessons

FINANCING AND COSTS

Across the review, 66 demonstration projects in 44 countries received support through vaccine donations and/or contributions towards delivery costs. This support was provided by various partners, including the GARDASIL® Access Program through Axios International; Gavi, the Vaccine Alliance; PATH, with funding from the Bill & Melinda Gates Foundation; Merck & Co., Inc.; GlaxoSmithKline; the Australian Cervical Cancer Foundation; the Cancer Institute Foundation through Jhpiego, an affiliate of Johns Hopkins University; and country-based funders.

In 12 countries with national programmes, Merck & Co., Inc.; Gavi; the Australian Cervical Cancer Foundation; and national governments (in low- and middle-income countries) provided financing.

Eighteen projects provided detailed estimates of the financial costs of HPV vaccine delivery, excluding vaccine costs. Financial costs – expenditures for planning and implementation – ranged from US\$1.11 to US\$2.10 per dose in early pilot projects. The mean cost per dose reported from seven Gardasil® Access Program (GAP) pilots was US\$2.74 (range: US\$1.38–US\$5.39). Six demonstration projects funded by Gavi reported the most variability in financial cost per dose: US\$2.24, US\$3.10, US\$6.04, US\$6.09, US\$6.42 and US\$9.21 (all used school-based delivery). Annualised start-up costs represented up to 50% of all financial and economic costs. Delayed disbursement of implementation funds, particularly for transportation and health worker allowances, also affected key activities, such as social mobilisation and the provision of transport for health workers.



Key lesson: The financial cost of vaccine delivery was perceived to be high by project/programme implementers and was driven by allowances and transport costs for health workers and supervisors and social mobilization activities.



Key lesson: Funding provided for implementation typically covered a share of delivery costs, although some countries reported this was inadequate.



Key lesson: Start-up costs represented up to 50% of financial and economic costs and were particularly challenging to finance; underestimating them led to disruption of activities.



PATH/Scott LaMontagne

FACTORS INFLUENCING SCALE-UP

Important lessons about cost drivers influenced countries' perspectives on scale-up. Out of 34 countries with information about scale-up, ten had scaled up nationally from demonstration projects, eleven reported that they were not planning to scale up in the foreseeable future and the remaining 13 countries planned to apply to Gavi for a national HPV grant.



PATH/Robin Bieilik

Recommendations

Based on country experience, decision-makers assessing financing of HPV vaccination in view of national scale-up should:

1. **Use available tools to model the costs of different strategies for national scale-up.** Technical support is available to countries to use these tools effectively.
2. **Share operational costs with the national immunisation programme to reduce costs of implementation.** This might include costs for allowances or transportation.
3. **Explore sustainable funding options and expand the funding base beyond Gavi.** Countries no longer qualifying for Gavi support should note that vaccines are offered at the Gavi-purchased price following the countries' graduation from eligibility for Gavi support.
4. **Call for and facilitate additional research on scale-up experiences.** In particular, countries would profit from further research on the costs of a variety of HPV vaccine delivery approaches at national scale.
5. **Test different delivery strategies, if implementing a demonstration project, to compare implementation costs and identify a sustainable option.** Strategic design and implementation can help identify efficiencies, areas for cost savings and the best delivery options.

Six of the ten countries that scaled up nationally noted that experience gained from demonstration projects had provided important insights about financial and operational planning and acceptability and had garnered political support.

The 11 countries not planning to scale up cited uncertainty of future funding as the only reason for hesitancy. Two of them stated the demonstration project actually generated negative media attention, which deterred national policymakers from endorsing scale-up.

Even among the 13 countries planning to scale up nationally, considerable uncertainty remained regarding future funding.



Key lesson: *Because start-up and delivery costs were found to be high in demonstration projects, countries expressed concern about securing the financial resources necessary for national scale-up.*



Key lesson: *Vaccine costs were considered a significant issue for sustainability, especially among those currently eligible for or soon to graduate from Gavi support.*



Key lesson: *Estimates of costs per dose delivered during demonstration projects were important to inform country planning on securing adequate financial resources for national introduction but were often higher than those projected for national introduction.*

About this project: Since 2007, countries have been gaining knowledge about how best to deliver HPV vaccines through demonstration projects and national introductions. To aid decision-makers, the London School of Hygiene & Tropical Medicine and PATH conducted a review of HPV vaccine delivery experience in 46 low- and middle-income countries. These activities represent 12 national programmes and 66 demonstration projects – some of which implemented multiple delivery strategies – resulting in 92 distinct vaccine delivery experiences.

Additional topic summaries address preparation, delivery, achievements, communications, value and pitfalls. Find those briefs and more information at www.rho.org/HPVlessons.