# Working towards affordable pricing for HPV vaccines for developing countries: The role of GAVI

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Working towards affordable pricing for HPV vaccines for developing countries: The role of GAVI

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## About this publication

This publication is part of the Global Task Force on Expanded Access to Cancer Care and Control in Developing Countries (GTF.CCC) Working Paper and Background Note Series. It was produced in collaboration with the GAVI Alliance as a background note for a database on innovative finance strategies on cancer care and control in lowand middle-income countries (LMICs), and particularly to document examples at the global level.

This is a working background note and therefore represents research currently in progress that has not gone through a review process. Comments are welcomed at <a href="mailto:gtfccc@harvard.edu">gtfccc@harvard.edu</a>.

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Working towards affordable pricing for HPV vaccines for developing countries: the role of GAVI June 13<sup>th</sup> marked a milestone in public health. The GAVI Alliance's (GAVI) pledging conference saw donors pledge US\$ 4.3 billion. The funding includes support for the first introduction of human papillomavirus (HPV) vaccines into the immunisation programmes of low-income countries through GAVI. Another breakthrough was achieved in lowering vaccine prices. In the lead-up to the conference, Merck & Co announced an offer to provide its HPV vaccine to GAVI at US\$ 5 per dose, a 67% reduction in the current lowest public price.<sup>1,2</sup>

The combination of full funding for GAVI and a reduction in vaccine prices is a major step towards helping to prevent hundreds of thousands of cervical cancer deaths every year among women in the developing world.

# **GAVI** support for HPV vaccine access

HPV vaccines can play a critical role in cancer prevention. This is especially important in low-income countries, where access to prevention and treatment for cervical cancer is often limited. In October 2008, the GAVI Board prioritised HPV vaccine for support as part of its vaccine investment strategy, which identified the vaccines that would have the biggest impact on the disease burden in developing countries. However, due to financial constraints at the time of the Board decision, GAVI was unable to offer support immediately.

In the meantime, GAVI has been working with manufacturers on strategies to lower HPV vaccine prices in order to make them more affordable to developing countries, and encouraging them to make public an indicative price for HPV vaccine for GAVI-eligible countries. Such information is critical to enable countries to decide if the vaccine will be a cost-effective and appropriate public health intervention for them.

### **HPV** vaccine prices

Currently two manufacturers, Merck and GlaxoSmithKline (GSK), produce licensed HPV vaccines. Merck licensed its vaccine in the US in 2006. The vaccine requires three doses, and the private market price

<sup>&</sup>lt;sup>1</sup> Merck press release. Merck Commends GAVI Alliance on Continued Efforts to Improve Access. 05 June 2011. Accessed at: http://www.merck.com/newsroom/news-release-archive/corporate-responsibility/2011\_0605.html <sup>2</sup> GAVI press release. GAVI welcomes lower prices for life-saving vaccines. 06 June 2011. Accessed at: http://www.gavialliance.org/media\_centre/press\_releases/vaccine\_prices.php

was initially US\$ 120 per dose. In 2007, the US public market price was US\$ 97 per dose,<sup>3</sup> making it the most expensive publicly funded vaccine at the time.

GSK's first licence for its three-dose HPV vaccine was obtained in 2007. The price of the vaccine was initially in line with Merck's, but then rapidly decreased. For example, in late 2008 GSK announced a 60% price reduction in the Philippines to approximately \$48 per dose. In South Africa, a 36% price decrease brought the price down to \$44 per dose.

Overall, HPV vaccine prices varied widely from 2007 to 2011. In industrialised countries the price ranged from US\$ 100 to US\$ 233 per dose and in developing countries from US\$ 30 to US\$ 100 per dose, and were mainly available through the private sector.<sup>6</sup>

The two licensed HPV vaccines produced by Merck and GSK were prequalified by WHO in 2009, opening the door for purchase by UN organisations. The price offered to the Pan American Health Organization (PAHO) Revolving Fund decreased from US\$ 32 per dose in January 2010 to US\$ 14.00 per dose in April 2011 for the GSK vaccine. The Merck vaccine was offered to PAHO within the same price range.

GAVI's preliminary work with vaccine manufacturers has resulted in a further price reduction. Merck's recent offer to provide its HPV vaccine at US\$ 5 per dose to GAVI<sup>8,9</sup> marks the first-ever public offer of a price for HPV vaccines for low-income countries.

In November 2011, the GAVI Board will decide whether to invite countries to apply for funding for HPV vaccines. Once a funding window is approved, GAVI, through its procurement partners, will issue a formal tender to ensure that it achieves the lowest sustainable price for GAVI countries. The prices offered need to translate into a cost-effective and affordable proposition for GAVI and its eligible countries.

# Implications for developing countries

In April 2009, WHO issued a position paper on HPV vaccination.<sup>10</sup> It recommended that routine HPV vaccination be included in national immunisation programmes, provided that cervical cancer or other HPV-related disease prevention measures are a public health priority for the country. Assessments of

<sup>&</sup>lt;sup>3</sup> IAVI, PATH. HPV Vaccine Adoption in Developing Countries: Cost and Financing Issues. December 2007. Accessed at: http://screening.iarc.fr/doc/IAVI PATH HPV financing.pdf

<sup>&</sup>lt;sup>4</sup> GSK press release. **GlaxoSmithKline cervical cancer vaccine now accessible to more Filipinas. 28 November 2008. Accessed at:** http://www.gsk.com.ph/CervarixAccessible.html

<sup>&</sup>lt;sup>5</sup> Cervical Cancer Action. GSK Announces South African Price for HPV Vaccine. 2 December 2008. Accessed at: http://www.cervicalcanceraction.org/news/news-detail.php?id=30

<sup>&</sup>lt;sup>6</sup> Politi C and Kaddar M. Briefing Note HPV Vaccine: Supply, demand, price and financing for low and middle income countries - Preliminary analysis. WHO: December 2009

<sup>&</sup>lt;sup>7</sup> PAHO. Financing for HPV Vaccines: America's Experience with New Vaccines. Accessed at: http://www.technet21.org/index.php/documents/view-document/1098-financing-for-hpv-vaccines-americas-experience-with-new-vaccines.html

<sup>&</sup>lt;sup>8</sup> Merck press release. Merck Commends GAVI Alliance on Continued Efforts to Improve Access. 05 June 2011. Accessed at: http://www.merck.com/newsroom/news-release-archive/corporate-responsibility/2011\_0605.html <sup>9</sup> GAVI press release. GAVI welcomes lower prices for life-saving vaccines. 06 June 2011. Accessed at: http://www.gavialliance.org/media centre/press releases/vaccine prices.php

<sup>&</sup>lt;sup>10</sup> WHO. Human papillomavirus vaccines WHO Position Paper in WHO Weekly epidemiological record 10 April 2009: No .15, 2009, 84 117-132. Accessed at: http://www.who.int/wer/2009/wer8415.pdf

programmatic feasibility, financial sustainability and cost-effectiveness based on country or regional estimates were also recommended. WHO advised that the vaccine should be part of a comprehensive approach to cervical cancer prevention and control including education, screening, diagnosis and treatment. There are strong indications that developing countries are eager to provide HPV vaccines as part of their routine immunisation programmes.

# **Next steps**

This vaccine falls outside the system for delivery of childhood vaccines, and the target group of girls aged 9–13 years may not have regular contact with health services in most GAVI-eligible countries. Further investments in the vaccine infrastructure, such as cold chain expansion, may be required to ensure that the vaccine is delivered safely. Costs will also vary by country and delivery strategy. Furthermore, countries will need to consider the cost-effectiveness of HPV vaccines for their population. This will depend on factors such as the price of the vaccine, and access to cervical cancer screening and treatment.

In the near term, GAVI is focusing on working with the existing two manufacturers to further increase the affordability of the vaccines to GAVI. GAVI has also begun engagement with potential new suppliers, and will explore the possible role of push-funding mechanisms and of procurement strategies such as advanced purchase agreements and longer-term awards in reducing prices. Such strategies would leverage GAVI's ability to pool procurement for volumes over longer time periods, enabling manufacturers to forgo some level of margin for certainty of demand.<sup>11</sup>

<sup>&</sup>lt;sup>11</sup> Nguyen A, Furrer E and Schwalbe N. Market shaping: strategic considerations for a healthy vaccine marketplace. GAVI Alliance: May 2011. Accessed at: www.gaviallliance.org



The Global Task Force – convened in November 2009 by the Harvard Global Equity Initiative, Harvard Medical School, Harvard School of Public Health, and the Fana-Farber Cancer Institute – is comprised of leaders from the global health and cancer care communities, and is dedicated to the development, implementation and evaluation of strategies to advance the agenda of Expanded Access to Cancer Care and Control in Developing Countries

The Harvard Global Equity Initiative (HGEI) is an interfaculty research program at Harvard University devoted to promoting equitable development with a particular focus on the dimension of health and serves as the Secretariat of the GTF.CCC

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