Improved Access to Immunizations for Children in the Developing World: The Case of the Global Alliance for Vaccines and Immunizations

**Context**

The Global Alliance for Vaccines and Immunizations (GAVI) is an international organization and public–private partnership that was created to improve immunization rates around the world. GAVI was launched in January 2000 to address a growing disparity in medical coverage between the developed and developing worlds. At the time, more than 30 million children in developing countries did not receive routine immunizations against life-threatening diseases such as polio, diphtheria, tuberculosis, pertussis, and measles. Those diseases had been nearly eradicated in the developed world but continued to produce nearly 3 million premature deaths per year in the world’s poorest countries (UNICEF 2000). The high cost of vaccines, lack of research, and inadequate supply chains for new drugs long prevented the expansion of immunizations in the developing world and held back full social and economic development.

**Development Challenge**

The challenge was to improve immunization rates for preventable diseases for children in the developing world.

**Intervention**

Recognizing the urgent challenge, the GAVI was launched in 2000 at the World Economic Forum with the goal of improved access to immunizations in the world’s poorest countries. To leverage resources and expertise, GAVI drew its membership from a range of partner organizations, including the World Bank, the World Health Organization (WHO), and United Nations Children’s Fund (UNICEF), along with stakeholders in the pharmaceutical industry and donors from the foundation community. The Bill & Melinda Gates Foundation alone donated US$750 million to kick-start GAVI’s operations (GAVI 2000).

The day-to-day activities of GAVI are governed by a secretariat, based in Switzerland, and a board composed of representatives from its partner organizations. The board manages the GAVI’s long-term strategy. GAVI also manages the International Finance Facility for Immunization, a fund that acts as GAVI’s financing arm.

Leveraging the unique expertise and convening power of its members, GAVI has created new momentum for immunizations and has played a catalytic role in the creation of innovative financing models that have expanded coverage in the developing world. By pooling demand for vaccines from more than 70 countries in the developing world, prioritizing cost-effective treatments, and using the delivery infrastructure from partners in the field, such as UNICEF, GAVI has helped change the dynamics of the global vaccine market by reducing costs and mobilizing billions of dollars in funding for vaccinations. Since its inception, GAVI’s efforts have resulted in approximately 580 million children being immunized, and it is estimated that 8 million future deaths from preventable diseases have been averted. Moreover, GAVI has helped reduce the introduction times of new vaccines in low-income countries and has played a key role in creating a more competitive and sustainable vaccine market that has reduced prices and expanded access.
in the developing world. Despite its many successes, GAVI faces new challenges in providing sustainable low-cost vaccines for other neglected tropical diseases, such as elephantiasis and schistosomiasis (Hotez et al. 2009), and in reaching patients in remote locations in the world’s poorest countries.

Delivery Challenges

This delivery note analyzes key implementation challenges and examines how they were overcome.

- **Sustainable financing mechanisms.** Creating a sustainable funding model to reduce the price of vaccines was one of GAVI’s greatest challenges in the pursuit of its mandate. Vaccine development and production have high research costs, and manufacturers historically have not seen value in investing in new products for the needs of developing countries. Even existing vaccines for common preventable diseases, such as polio and measles, have been underused in the developing world because of high costs and inefficient distribution channels. Financial aid from donors for improved health care services has often underfunded provisions for specific vaccines, and efforts have often been uncoordinated and overlapping. Moreover, despite raising significant private sector and donor funds for vaccinations, the sheer scale of the problem has undermined the financial sustainability of these efforts. Finally, an increasing reliance on donor funding on the part of poor countries that participate in GAVI has also presented challenges for reliable, long-term provision of immunizations.

- **Stakeholder coordination.** As a public-private alliance representing multiple public sector organizations, donor countries, foundations, and private enterprise, strategic alignment and coordination among all immunization stakeholders were a defining challenge for GAVI. Given the strong immunization agenda of vaccine procurement, delivery, and monitoring by such partners as the WHO and UNICEF, GAVI focused its efforts so as to complement existing programs, rather than replicating them. Likewise, GAVI recognized that the success of vaccination campaigns would be contingent on strong buy-in from and coordination with developing countries. Given the capacity constraints of certain countries, GAVI recognized there were high risks associated with the ownership and successful delivery of programs to expand immunization coverage.

Addressing Delivery Challenges

The following steps were undertaken to mitigate the delivery challenges related to sustainable financing mechanisms:

- One of GAVI’s key innovations was the use of public-private arrangements to create sustainable funding mechanisms. By pooling the demand from developing countries for new vaccines and providing long-term, predictable financing to meet the demand, GAVI helped guarantee a market for vaccine producers. That effort had a crowding in effect for new vaccine manufacturers, many of which were located in developing countries, which increased supply and drove down prices (GAVI 2012). This result was possible thanks to GAVI’s immunization fund, through which donor countries made legally binding 10- to 20-year aid commitments. The fund borrows against those pledges on capital markets to front-load its funding, which is used to purchase vaccines and to enable countries to rapidly ramp up their immunization rates.

- In addition, GAVI incentivized research into previously unprofitable or underused vaccines through bulk purchasing and a program called the Advance Market Commitment, whereby donor funds are used to guarantee a market for drug manufacturers that undertake the development of new vaccines for poor countries over longer periods of time. An example was the development of new pneumococcal vaccines in 2010, whereby GAVI committed to purchasing a percentage of the total vaccines produced by a drug manufacturer (between 12 percent and 15 percent), for a 10-year period, effectively subsidizing their cost and lowering their price (GAVI 2012).

- Moreover, to improve the long-term sustainability of the Advance Market Commitment program, GAVI introduced a cofinancing scheme in 2007 that was aimed at increasing developing countries’ contribution toward vaccine purchases. By 2009, all GAVI countries began cofinancing a portion of their vaccines on the basis of their ability to pay. GAVI’s focus on the world’s poorest countries meant that only nations with a gross national income per capita below US$1,500 were eligible to receive support. As countries “graduate” from the program as a result of economic growth and improved vaccinations, copayments for vaccines grow as a percentage of total payment and eventually cover the full costs without donor support. Many graduated countries (such as Moldova and Mongolia) have expressed interest in remaining in GAVI as funders, helping to subsidize the continued procurement and delivery of vaccines to GAVI’s poorest members.
The following steps were undertaken to mitigate the delivery challenges of stakeholder coordination:

- To achieve successful coordination among immunization stakeholders, GAVI created governing structures that incorporate all partners as equals. A governing board was created to avoid duplication of efforts and to maximize partners’ comparative advantages. The board consists of the WHO, the World Bank, and the Bill & Melinda Gates Foundation, along with rotational seats for the pharmaceutical industry in the developed and developing worlds, nongovernmental organizations, and other foundations. This arrangement helped clarify early on the roles of GAVI’s partners, thus leveraging existing services to deliver on GAVI’s mandate. Initial agreements divided the tasks according to each partner’s strengths. In-country diagnostics and immunization needs were determined by the relevant national health ministries in coordination with the WHO. The procurement of vaccines was completed through UNICEF’s supply division, already the world’s largest buyer of vaccines for developing countries. The World Bank focused on providing advice on capital markets to deliver innovative financing models.

- To address challenges of coordination at the country level, GAVI introduced a novel system of outcome-based grants. Using the number of additional children immunized, countries with lower immunization rates and high numbers of unvaccinated children would receive more resources (GAVI 2014). This arrangement gives governments the autonomy to decide how to allocate funds toward vaccinations but withholds future funding unless specific targets are reached. Failing to reach a target results in discontinued or greatly reduced funding. By tying funds to specific goals, GAVI created financial incentives for countries to improve their vaccination coverage and to maximize their available resources. In addition, incentives are provided to coordinate efforts with a common evaluation framework.

Endnotes

1. See the GAVI mission statement at http://www.gavi.org/about/mission/.

2. See the GAVI website at http://www.gavi.org/about/mission/facts-and-figures/.

3. For information about this commitment, see the GAVI website at http://www.gavi.org/funding/pneumococcal-amc/manufacturers/supply-agreements/.

References


