

# Ensuring the World's Poorest Children Benefit from Lifesaving Vaccines

“Supporting children’s immunization is undoubtedly the best investment we’ve ever made.” — Bill and Melinda Gates



## Program Area

Global Health

## Our Goal

Prevent needless deaths in the world’s poorest countries by increasing access to basic vaccines and speeding the introduction of new vaccines.

## Our Progress in Brief

The Global Alliance for Vaccines and Immunization (GAVI), which the foundation helped to launch in 1999, has made significant progress. Children’s immunization is no longer a neglected area, and immunization rates are once again on the rise after a decade of stagnation. One of the best indicators of immunization coverage is the percentage of the world’s children who receive DTP (diphtheria, tetanus,

pertussis) vaccine. When GAVI was launched, 71 percent of the world’s children were receiving DTP vaccine. By 2004, the rate had increased to 78 percent.

GAVI has concentrated the greatest percentage of its resources on speeding the introduction of newer, more expensive vaccines, including those for hepatitis B, Haemophilus influenzae B (Hib), and yellow fever. The vaccine for hepatitis B, for example, had been widely used in rich countries for 20 years but was severely underutilized in the developing world because of a lack of political will and the vaccine’s relatively high cost. Today, 90 million children in the developing world have received the vaccine because of the alliance’s efforts. The progress on Hib and yellow fever has been slower—an additional 14 million children have received Hib and yellow fever vaccines.

## The Challenge

Most people in rich nations do not realize how difficult it is simply to survive early childhood in many parts of the world. Every year, more than 10 million children are buried before they reach their fifth birthday. Of these, about 1.4 million die from diseases that existing vaccines can prevent—including measles, pertussis, and tetanus. Another 1.1 million die from diseases for which we will soon have vaccines. Because childhood death is so frequent, parents in some countries in Africa and Asia don’t even name their babies until they reach several months of age.

## A Father’s Grief

Neonosa Muhani is a manioc farmer and community leader in the southern African nation of Mozambique, one of the most beautiful countries on Earth. He lives in a thatched-roof, mud-walled house in the rural village of Metoro, near the country’s border with Tanzania.

Three years ago, health workers affiliated with the innovative nonprofit VillageReach brought polio, BCG, measles, and DTP vaccines to Metoro for the first time.

But that was too late for two of Mr. Muhani's children. In 2000, his 2-year-old son, Maulana, took ill with fever, skin eruptions, red eyes, and diarrhea. Within weeks, he was dead from measles. Two years later, another measles outbreak swept the village and took with it Neonosa's 4-year-old daughter, Marina. Neonosa's grief and suffering are incalculable. The price of the vaccine that could have saved his children is not: The measles vaccine costs pennies a dose. It has been in existence since 1963.

### Vaccine Progress Stalls

In the 1970s and 1980s, the world made dramatic progress in expanding access to basic vaccines, thanks in great measure to the leadership of the World Health Organization and UNICEF. Sadly, the progress ground to a halt in the 1990s.

Child immunization had dropped on the priority list of the world's major donors, and developing countries were left struggling to maintain access for their children. HIV/AIDS was beginning to devastate the world's poorest countries and absorb a large share of health-care dollars. Bureaucratic struggles between international agencies had set in. Wars, civil unrest, and famine in poor countries took their toll on vaccination campaigns. Pharmaceutical companies did not have consistent market incentives that would enable them

to invest more heavily in supplying vaccines to the developing world.

These problems undermined efforts even to provide established, basic vaccines to the world's children. Newer, more expensive, vaccines routinely given to infants in the rich world—such as those for *Haemophilus influenzae* B (Hib) and hepatitis B—were reaching almost no children in the poorest countries.

### The Response

In November 1998, shortly after making their first large financial commitment to children's vaccines, Bill and Melinda Gates hosted a dinner at their home for a dozen leading scientists. Around a single table, they spent two-and-a-half hours discussing immunology and what could be done to overcome the barriers that were preventing nearly 30 million children from receiving basic vaccines every year. Bill and Melinda challenged their guests to come back with proposals for "breakthrough solutions." As the dinner was winding down, Bill said, "Don't be afraid to think big."

### A Timely Hint

By all accounts, Bill and Melinda's challenge came at the right moment. It gave pharmaceutical companies, health ministers, international agencies, and nongovernmental organizations (NGOs) new incentive to restart failed discussions on how these entities could join together in an international alliance to strengthen the system for getting vaccines to where they are needed most.

In July 1999, key players from all these sectors came together for two days at the Port of Seattle and left with a blueprint for the Global Alliance for Vaccines and Immunization (GAVI) and the seeds of an idea for a sister entity that would raise money to support GAVI's work (now known as the GAVI Fund). The goal was to radically improve access to established and underused vaccines and to accelerate the development and introduction of new ones.

### One Excuse Gone

By the end of the year, the foundation pledged \$750 million over five years to fund these efforts. In the words of the GAVI Fund's president, "Lack of money could no longer be the excuse for not getting children vaccinated."

The blueprint for GAVI called not for a large new international bureaucracy but rather for a lean secretariat housed within UNICEF's offices in Geneva, administered by widely respected Norwegian immunologist Tore Godal, and governed by a 12-member board. These 12 members represented all the major partners in the alliance, including developing-world governments, the World Health Organization, UNICEF, the World Bank, pharmaceutical companies, NGOs, research institutes, and the Bill & Melinda Gates Foundation. The strategy was to create an inclusive decision-making body to bring new coordination to a disjointed, inefficient marketplace.

### How GAVI Works

GAVI invites the 75 poorest countries in the world to develop plans and submit proposals for increasing vaccine coverage and use of newer vaccines. An independent committee made up largely of developing-country public health experts then reviews and makes recommendations on the proposals. GAVI's board then meets to review the recommendations. Once the board approves a proposal, it requests that the GAVI Fund release payment.

To increase the efficiency of the market, GAVI looks across all the approved plans to forecast how many doses of each vaccine will be required overall. This demand-forecasting helps guarantee an adequate supply of vaccines. We hope that over the long term it will also reduce unit prices.

### Two Shots in the Arm

In January 2005, the foundation announced a second \$750 million grant to support GAVI's work. This time, the grant will spread out over 10 years, rather than five. In the alliance's first five years, the foundation's funding accounted for half of GAVI's resources. In its next 10 years, we hope our funding will account for less than 20 percent.

One promising approach to bringing in new and more-predictable funding for immunization through GAVI is the International Finance Facility for Immunization (IFFIm), an idea developed by economists and health



experts and championed by Gordon Brown, chancellor of the British treasury. The IFFIm will collect pledges from donor governments, turn these pledges into bonds, sell the bonds in capital markets (just like a standard corporate or government bond), and use the proceeds to provide a large infusion of money for immunization. IFFIm has already collected \$3.5 billion in pledges from eight middle- and high-income countries, including greatly expanded commitments from two countries (the United Kingdom and France) that have already supported GAVI and four countries that have not contributed to GAVI previously.

### Results

- The GAVI Alliance estimates that its work has helped prevent approximately 1.7 million deaths and that it is poised to help prevent well over 5 million deaths during the next 10 years.
- More than 115 million additional children have been reached with new vaccines, including those for hepatitis B, Hib, and yellow fever.
- 15 million additional children have been reached with basic vaccines.
- Since 2000, the funding for immunization in the countries that GAVI focuses on has more than doubled—from \$1.1 billion to \$2.5 billion a year.

## Key Lessons

- **Sometimes you have to be the first dollar in.** When the foundation made its \$750 million contribution to the GAVI Fund in 1999, we were its only funder, and we did not require that the grantee match our commitment (as we often do today). It was a risky bet—and other contributions to GAVI were initially slow to come in. It is now clear, however, that the foundation's early contribution worked to jumpstart worldwide progress on immunization, which proved to be an effective way of bringing other donors to the table.
- **"Five years only" does not work.** One of the key assumptions underlying the business model for GAVI was that the alliance would help a country introduce a new vaccine such as Hib by providing it for free for five years—during which time the price would come down—and then the country and donor governments would be willing and able to step in to sustain the program. GAVI planned to continue to support the immunization needs of each country, but it would refocus its resources to support the introduction of another needed vaccine on the country's priority list. This approach has not worked as planned. Vaccine prices did not decline as anticipated, and in some cases actually went up. Although many countries increased their spending on immunization, they were unable to increase their funding to meet the higher cost of the new and improved immunization program. And some traditional donors that we

hoped would lend support have redirected vaccine funds to other pressing health needs. As a result, GAVI has recently launched a new model we hope will work better. Rather than providing free vaccines, GAVI is now requiring countries to "co-pay" from the start—that is, to assume a small percentage of the cost of the program right away, with the percentage increasing every year.

- **GAVI did not pay enough attention to developing-country priorities.** Driven in large part by the foundation's eagerness (even impatience) for results, GAVI often moved at a pace that made it impossible to get full buy-in from developing countries. For example, in the early years of the alliance, GAVI convinced some countries to introduce a \$3.50-a-dose vaccine that was available right away and protected children against five different diseases. Some countries preferred a vaccine that was not immediately available and protected against only four of these diseases but cost only \$1.25 a dose. Now that the five-year introductory period is up, some of these countries are reluctant to pick up the costs of the \$3.50 vaccine. They rightly say, "It wasn't our idea in the first place."
- **Funding operating expenses is essential.** The foundation was initially reluctant to allow GAVI to use a significant amount of our funding to support grantee operating expenses—as opposed to purchasing vaccines. But we've learned that funding

operating expenses is vital for getting new entities up and running, for attracting donors that have greater funding restraints, and for giving grantees the ability to innovate. For example, our operating support enabled GAVI to work with legal and financial experts to develop the initial conceptual framework for the IFFIm and make it a reality. IFFIm would not have been born without this support.

- **GAVI was too narrowly focused.** From the start, GAVI has recognized that funding vaccine purchases alone would not allow the 75 poorest countries in the world to overcome their infrastructure challenges, so it has provided "immunization system support" to help countries improve their ability to deliver vaccines to a large portion of their children. GAVI has learned that in many cases the ability of the country to reach more children is not related simply to its immunization program. Broader health-system failures are often to blame. So GAVI has now expanded its funding criteria and set aside about half of its resources to help meet broader health-system needs. Under the new criteria, for example, countries can now apply for support for improving the frequency of supervisory visits to remote health clinics or for reforming the system for repairing and maintaining the vehicles used for delivering vaccines and other health supplies to rural areas.

- **Creating an alliance of existing entities was a better strategy than building a new entity.** Global partnerships such as GAVI often run the risk of being slow and bureaucratic, and initially we considered funding a new, independent organization rather than an alliance of existing organizations. But as the old African proverb says, “If you want to go fast, go alone. If you want to go far, go together.” Each of GAVI’s partners has a unique role, and brings essential relationships and insights to the table. For example, WHO and UNICEF have been working on the ground for decades in the world’s poorest countries and have trusted relationships with health ministers in places where no one has ever heard of GAVI.



## Next Steps

The foundation is very proud of GAVI’s progress to date. Bill and Melinda Gates have said, “Supporting children’s immunization is undoubtedly the best investment we’ve ever made.” But we recognize that there are a number of ways, in addition to the ones mentioned above, that the alliance can grow stronger and achieve even greater results over the next 10 years.

We will work closely with GAVI to learn how best we can help speed up the introduction of new vaccines under development. Over the next five years, it is likely that there will be a number of new vaccines appropriate for use in the poorest countries of the world, such as those for rotavirus, pneumococcal disease, meningitis, and Japanese

encephalitis. GAVI is taking innovative steps to cut the amount of time it takes to ensure that the world’s poorest citizens benefit from these vaccines as well.

We will also use our advocacy voice to help GAVI raise awareness of the large funding gap that remains. Immunization programs will need an additional infusion of \$11 billion to \$15 billion for vaccines over the next 10 years. If the international community and developing country governments are able to raise this additional funding, they will be able to save 10 million lives.

## Web Sites

- GAVI Alliance:  
[www.gavialliance.org](http://www.gavialliance.org)
- World Health Organization:  
[www.who.org](http://www.who.org)
- UNICEF:  
[www.unicef.org](http://www.unicef.org)
- The World Bank Group:  
[www.worldbank.org](http://www.worldbank.org)