

# Why Immunization and Immunization Financing Matter

## KEY POINTS

- \* Vaccines can save millions of lives and bring many other benefits, including healthier children, increased school attendance, and increased productivity. Immunization services are also a cornerstone of primary health care and can serve as a foundation for other vital health services.
- \* Immunization is an exceptionally good value, returning many dollars in economic benefits for every dollar spent.
- \* Immunization must be sustained indefinitely and is therefore a long-term investment that requires stable, long-term financing.
- \* Governments have an opportunity to introduce a number of vaccines of great public health importance, but many face financing challenges. Gavi-supported countries must plan to fully fund their programs from domestic sources after Gavi support ends, and countries that are not Gavi-eligible must contend with uncertain vaccine prices.

VACCINES ARE AMONG the most powerful public health tools ever developed. Immunization made possible the complete eradication of smallpox—perhaps the greatest public health triumph in history—and has played a central role in the dramatic reduction in child deaths over recent decades. Immunization now saves an estimated 2 million lives every year; with higher coverage, it could save up to twice as many.

The scope of immunization continues to grow as new vaccines are developed against persistent and emerging diseases. The first malaria vaccine was approved by regulators in 2015, a dengue vaccine has been licensed in several countries, and a vaccine against Ebola showed promise in a trial during the recent epidemic in West Africa. Vaccines against other diseases, including Zika, are under development.

Immunization services are a cornerstone of primary health care and, with their already broad reach, can serve as a foundation for other vital services.

## THE VALUE OF IMMUNIZATION

Immunization ranks among the most cost-effective health interventions, delivering a high ratio of health benefits—lives saved and illness prevented—to cost, especially where disease burden is high. This means immunization is one of the best uses of limited public funds for health. When the benefits of vaccines are translated into economic terms—

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*A recent analysis found that every dollar spent on expanding access to a portfolio of vaccines in low- and middle-income countries between 2011 and 2020 would return \$16 in economic benefits.*

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by adding up savings in treatment costs, productivity lost to illness and caretaking, and years of earnings lost to premature death and disability—it becomes clear that immunization is an exceptionally good investment. A recent analysis found that every dollar spent on expanding access to a portfolio of vaccines in low- and middle-income countries between 2011 and 2020 would return \$16 in economic benefits.

## Brief 1

This kind of analysis may well underestimate the value of immunization because it does not account for herd immunity (the protection that high levels of immunization in a population can provide even to unvaccinated people) or the long-term development dividend from healthier children and increased school attendance.

An underappreciated virtue of immunization is that its benefits reach the poor to a greater extent than most other health interventions. Poor people bear a disproportionate burden of the diseases addressed by immunization. And although in most countries the poorest children are immunized at lower rates than better-off children, the disparity is typically much less pronounced than for other health interventions in developing countries—and girls are immunized at the same rates as boys in almost all countries. Given the heightened focus on equity, including in the 2015–2030 UN Sustainable Development Goals, this provides yet another argument for investment in immunization.

Not all vaccines are appropriate in all settings, of course, and in deciding whether to introduce a new vaccine governments must consider factors including local disease burden, vaccine safety and effectiveness, and the costs of the vaccine and its delivery. Moreover, they must weigh the potential benefits of the vaccine against those of other uses of scarce resources. (See Brief 4.)

### THE NEED FOR LONG-TERM FINANCING

Although the benefits of vaccines—and their cost-effectiveness—are well established, immunization programs demand considerable resources and

governments must plan carefully to ensure adequate and sustainable financing for these programs. Two features of immunization make long-term planning of immunization financing particularly important. First, immunization is, to a greater extent than almost any other health service, a public responsibility. In most countries, immunization is offered free of charge to all children through government health services or with public funding and oversight. Even where private providers play an important role, the ultimate responsibility for ensuring access to vaccines of public health importance remains with the government. Not only is access to immunization, along with other basic health services, broadly seen as a right, but the control of infectious diseases and the population-level protection that high rates of immunization provide are a classic example of a “public good” whose social benefit exceeds the value that individuals or households can be expected to place on it. Ensuring the provision of immunization services is thus a natural responsibility of governments.

Second, except in exceptional cases where a disease can be completely eradicated, immunization must be continued indefinitely, even when the diseases that vaccines prevent have greatly diminished (and faded from public consciousness). This is because these diseases would in most cases return rapidly if immunization were stopped, just as malaria has often rebounded when control measures have been eased and just as falling rates of measles immunization have led to outbreaks in many countries. Immunization is therefore a long-term commitment, and when governments introduce a new vaccine, they must consider how it will be paid for over the long term.

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Immunization programs have, in fact, proven remarkably sustainable: while some health programs are neglected when donors or governments lose interest or other priorities take precedence, vaccines are almost never discontinued once they are introduced at the national level.

Strong immunization program performance depends not only on adequate financing of immunization-specific activities at the national level, including vaccine procurement and supply chains, but also on financing of the primary care facilities and staff that deliver routine immunization as part of a broader program of health services.

### OPPORTUNITIES AND CHALLENGES

In planning the financing of immunization programs, governments face both big opportunities and important challenges. On the one hand, the portfolio of available vaccines continues to expand. As of mid-2016, Gavi supported 10 vaccines, up from just three when Gavi was founded in 2000. These include new vaccines, such as a meningitis A vaccine developed for Africa and a new vaccine against Japanese encephalitis, as well as vaccines that have been widely adopted in many high-income countries but were too expensive for the poorest countries without Gavi assistance, such as those against pneumococcus, rotavirus, and human papillomavirus (HPV). Middle-income countries that are not eligible for Gavi support are also adopting many of these vaccines.

On the other hand, Gavi-eligible countries, especially those that have introduced many vaccines, must plan to assume responsibility for financing these programs. This is most urgent for countries that have

entered the accelerated phase of transition, when they must rapidly scale up domestic financing for vaccines as Gavi support is withdrawn. But countries whose per capita income has not yet exceeded Gavi's eligibility threshold must also plan to pay for a growing share of vaccine costs in the form of co-financing. (See Brief 9.) Gavi-supported countries must ensure that secure financing will be available not only to purchase vaccines but also to deliver them and to sustain and extend coverage.

Middle-income countries that are not eligible for Gavi support face a more complicated immunization financing environment. Although prices for some important vaccines have fallen for some non-Gavi countries, the prices that these countries pay vary considerably, making planning more difficult, and cost remains an important obstacle for many countries. In some cases, these countries also face the withdrawal of donor funding for other health priorities, and all countries must find predictable sources of funding for immunization in an unpredictable global economic environment. The share of health resources devoted to immunization remains small in most countries, however, and with sufficient political will it should be possible to find the necessary funding to sustain and expand this vital public health service.

### SOURCES AND FURTHER READING

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