

Vaccines and Immunization

WHAT YOU SHOULD KNOW

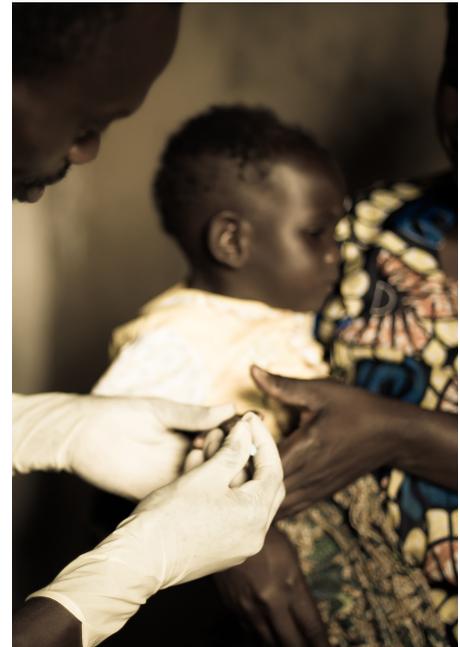
Vaccines are one of the most cost-effective and successful public health solutions available. They save the lives of approximately 2.5 million children each year; for every \$1 invested in immunization, there is a \$16 return across the lifespan of the immunized child, which includes treatment costs and productivity losses.¹

With strong U.S. support, global coverage for a vaccine covering three prevalent diseases (diphtheria, tetanus, and pertussis) – used as an indicator for how well countries provide routine immunization services – grew from 20% in 1980 to 86% by the end of 2014.² However, 19.4 million children still do not receive a complete set of vaccines. This results in 1.5 million deaths per year from preventable diseases.³

U.S. support has also been essential to fast-tracking Ebola and Zika vaccine research efforts, leading us closer to vaccines that could protect against HIV/AIDS, malaria, tuberculosis, and neglected tropical diseases.

Global vaccine programs improve health security by eliminating infectious diseases in low-income countries and the risk of importation, protecting Americans at home and abroad. Immunization systems also respond to emergency outbreaks, providing trained health workers, surveillance strategies, and infrastructure to combat emerging diseases.⁴

Global immunization programs drastically reduce diseases, including rotavirus, pneumococcal disease, whooping cough, diphtheria, Hib, meningitis, polio, measles, rubella, and Japanese encephalitis.⁵



Integrated Health Project in the DRC
Credit: Warren Zelman

RECOMMENDATIONS FOR CONGRESS

Increase funding levels for global immunization programs, such as Gavi, the Vaccine Alliance; the United Nations Children's Fund (UNICEF); and the World Health Organization (WHO); as well as the bilateral efforts of United States Agency for International Development (USAID) and the Centers for Disease Control and Prevention (CDC). Increasing access to vaccines will require a continuation of the United States' commitment to address the WHO's Global Vaccine Action Plan targets, working closely with country partners and other funders to extend the reach of immunization programs. Progress will also require investments to address deficiencies in primary health care systems, critical to ensuring that vaccines and other health interventions act as drivers of national health and productivity.

Continue to support immunization campaigns that target specific diseases and contribute to strengthening routine immunization as a key component of strong and healthy systems. Controlling and eliminating vaccine-preventable infectious and chronic conditions, as well as responding to emergency outbreaks, depends on coordinated efforts to deliver a balance of routine immunization services and supplementary immunization activities.

Allocate resources required by USAID and the CDC to ensure that polio is eradicated without risk of resurgence and that public health gains made as a result of polio eradication are not lost. Congress should also allocate sufficient resources to address remaining barriers to the elimination of measles and rubella.

Sustain research and development investments in vaccines through the National Institutes of Health (NIH), CDC, USAID, Department of Defense (DoD), and Food and Drug Administration (FDA). Continued support will be required to transform promising research into the lifesaving vaccines of the future, ensure that vaccines are developed for vulnerable populations where there is limited commercial interest, and improve manufacturing and delivery techniques to expand the reach of existing vaccines.

WHY THIS INVESTMENT IS IMPORTANT

In the past two decades, immunization has prevented an estimated 20 million deaths globally.⁶ The United States engages in immunization efforts through the CDC, USAID, DoD, NIH, and FDA, as well as multilaterally, through support and investment in Gavi, UNICEF, and the WHO. The United States works alongside other dedicated partners through the Measles & Rubella Initiative, the Global Polio Eradication Initiative, and the Global Action Plan for the Prevention and Control of Pneumonia and Diarrhea.

The CDC's global immunization division provides countries with technical assistance and disease surveillance support, working closely with global partners to meet their primary goals of eradicating polio, reducing measles deaths, and strengthening routine vaccine delivery. USAID has provided technical and commodity assistance to more than 100 countries in support of childhood immunization programs, saving more than 3 million lives every year. This includes strengthening logistics systems, helping countries budget funds to ensure immunization programs are sustainable, and training health workers to target hard-to-reach and underimmunized populations.⁷ Through USAID, the U.S. government invests annually in Gavi, which has supported

the immunization of nearly 580 million children since 2000, preventing approximately 8 million deaths.⁸ Additionally, private-sector companies in the United States have joined these efforts to ensure vaccines reach developing countries through price discounts and expanded manufacturing agreements.⁹

Immunization prevents outbreaks, saving societies from the costs of reacting after an outbreak has occurred. The decline in deaths from measles is a key example of the benefit of vaccines. Between 2000 and 2014, measles deaths have decreased by 79%, accounting for 17.1 million lives saved, and in 2015 the Americas were the first region declared free of rubella.¹⁰ Another example is polio campaigns – in the 1980s, more than 1,000 children were paralyzed each day from the disease,¹¹ but efforts to immunize every child have reduced new polio cases by 99.9%, leaving the world nearly polio free and generating up to \$50 billion in economic benefits.¹² In this decade, we have the opportunity to end the transmission of polio forever.

Resources

WHO Vaccines <http://bit.ly/2hyUGVI>

CDC Global Health-Global Immunizations <http://bit.ly/2hpG0XO>

UNICEF Immunization <http://uni.cf/2gOBwuZ>

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Citations

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12. "Economic Case for Eradicating Polio, Polio Global Eradication Initiative." <http://bit.ly/1TndxLV>.