VACCINES AND IMMUNIZATION

WHAT YOU SHOULD KNOW

Global immunization programs drastically reduce death and suffering from diseases, including rotavirus, whooping cough (pertussis), diphtheria, polio, measles, rubella, pneumococcal disease, and Japanese encephalitis, as well as Hib and other types of meningitis.¹

Vaccines are one of the most cost-effective and successful public health solutions available. Each year, they save the lives of approximately 2.5 million children. For every $1 invested in immunization, there is a $16 return over the lifespan of the immunized child, which includes saved treatment costs and averted productivity losses.² By taking into account the even broader benefits of people living longer, healthier lives, the return on that same $1 investment rises to $44 per person.

Because of strong U.S. support, a single vaccine protecting against three prevalent diseases — diphtheria, tetanus, and pertussis, which also serve as general indicators of how well countries provide routine immunization services — grew in global coverage from 20% in 1980 to 86% by the end of 2016.³ However, 19.9 million infants did not receive the benefits of full immunization in 2017, which is estimated to result in death from preventable disease for an estimated 1.5 million children annually.⁴

U.S. support has been essential for fast-tracking Ebola and Zika vaccine research efforts, as well as leading progress toward vaccines to protect against HIV/AIDS, malaria, tuberculosis, and neglected tropical diseases. An experimental vaccine was deployed during the 2018 Ebola outbreaks in the Democratic Republic of the Congo (DRC), providing a key tool for responders to control the epidemic’s spread. During the DRC’s ninth outbreak, in part because of this vaccine, cases of the disease were halted at 54, with only 33 deaths.⁵

Global vaccine programs improve health security by eliminating infectious diseases in low-income countries and reducing the risk of importation, helping protect Americans at home and abroad. Immunization systems also help communities respond to emergency outbreaks, providing trained health workers, health surveillance strategies, and related infrastructure to combat emerging diseases.⁶

RECOMMENDATIONS FOR CONGRESS

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

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

Allocate the resources required by USAID and CDC to eradicate polio, without risk of resurgence, so that public health gains made as a result of global polio efforts are not lost. Congress should also dedicate sufficient resources to address remaining barriers in the fight against measles and rubella.

Sustain research and development (R&D) 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 today’s promising research into the lifesaving vaccines of the future, to ensure that vaccines are developed for vulnerable populations where there is limited commercial interest, and to improve manufacturing and delivery techniques to expand the reach of existing vaccines.
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WHY THIS INVESTMENT IS IMPORTANT

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

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 systems. USAID has provided commodities and technical assistance to more than 100 countries in support of childhood immunization programs, helping to save more than 3 million lives every year. This involves strengthening logistics systems, helping countries budget funds to ensure their immunization programs are sustainable, and training health workers to target hard-to-reach and underimmunized populations. Through USAID, the U.S. government invests annually in Gavi, which has supported the immunization of nearly 640 million children since 2000, preventing approximately 9 million deaths. Additionally, private sector companies in the United States have joined these efforts by helping vaccines reach developing countries through price discounts and expanded manufacturing agreements.

Immunization prevents outbreaks, saving human society from their devastating costs. The decline in deaths from measles is a prime example of the benefit of vaccines. Between 2000 and 2015, measles deaths decreased by 79%, accounting for 17.1 million lives saved. In 2015 the Americas were the first region declared free of rubella. Polio campaigns are another example: in the 1980s more than 1,000 children were paralyzed each day from the disease, but subsequent 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 estimated economic benefits. This decade offers the extraordinary opportunity to end the transmission of polio forever.

RESOURCES
CDC Global Immunization Division http://bit.ly/2hpG0XO
UNICEF Immunization Programme http://uni.cf/2gOBwuZ

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CITATIONS