

# CDC's Work to Eradicate Polio

## What is polio?

Polio is a crippling and potentially deadly infectious disease caused by a virus that spreads from person to person invading the brain and spinal cord and causing paralysis. Because polio has no cure, **vaccination is the best protection and the only way to stop the disease from spreading.**

## Polio anywhere poses a risk to people everywhere

Four regions of the world are certified polio free—the Americas, Europe, South East Asia and the Western Pacific – this means that 80% of the world's people now live in areas that have eliminated the threat of polio.

Only three countries have never interrupted the transmission of wild poliovirus—Afghanistan, Nigeria, and Pakistan. But all countries will be at risk of importation of polio until it is eradicated completely from the globe.

## Through partnership, more can be accomplished

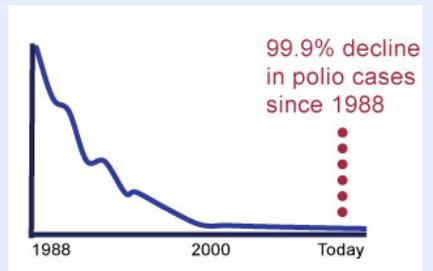
In 1988, the World Health Assembly adopted a resolution for the worldwide eradication of polio. It marked the launch of the **Global Polio Eradication Initiative (GPEI)**, spearheaded by national governments, the U.S. Centers for Disease Control and Prevention (CDC), Rotary International, World Health Organization (WHO), and United Nations Children's Fund (UNICEF), with substantial support from the Bill & Melinda Gates Foundation.

## CDC's role in the Global Polio Eradication Initiative

Through the Global Polio Eradication Initiative, CDC:

- Works jointly with WHO and national Ministries of Health to plan and monitor polio's spread and immunization activities in multiple countries worldwide
- Evaluates risk and conducts assessments with GPEI partners for the Independent Monitoring Board, which meets quarterly to review performance of at-risk countries towards achieving polio eradication milestones
- Promotes innovation and conducts research to improve immunization against polio and means to detect polio cases
- Supports all 145 member labs in the Global Polio Laboratory Network with critical diagnostic services and genomic sequencing of polioviruses to help guide disease control efforts in many countries
- Performs applied research for supplemental immunization activities
- Deploys personnel and resources to support country eradication efforts
- Trains and deploys international consultants to WHO and UNICEF through the Stop Transmission of Polio (STOP) Program

## Quick Facts



13 MILLION

Since 1988 polio vaccine has prevented more than 13 million cases of paralysis.



650,000+ deaths prevented

Since 1988 more than 650,000 deaths from polio have been prevented.

\$40-50 BILLION

The economic benefits of eradicating polio by 2018 are \$40-50 billion through the year 2035.



200,000 per year

If current vaccination efforts were stopped, polio would quickly spread worldwide, paralyzing an estimated 200,000 children every year.



## The Stop Transmission of Polio (STOP) Program

Since 1999, more than 2000 STOP team members have participated in 3 and 5-month assignments in 66 countries, providing 100-300 person-years of support at the national and sub-national levels. In 2013 alone, the STOP program assigned 342 professionals to 66 countries to improve surveillance for acute flaccid paralysis (an early sign of possible polio) and to help plan, implement, and evaluate vaccination campaigns in partnership with Ministries of Health, WHO and UNICEF.

## Global Polio Laboratory Network

Since the inception of the global initiative in 1988, the CDC Polio Laboratory has helped WHO build the Global Polio Laboratory Network (GPLN) – a three-tier system of 145 laboratories worldwide – and serves as a WHO Global Specialized Reference laboratory.

CDC's labs provide critical diagnostic services and genomic sequencing of polioviruses to help guide disease control efforts in many countries. In 2014, this included support for implementation of improved laboratory procedures that have increased sensitivity to detect and confirm new polio infection.

Other new laboratory procedures are helping countries overcome specific operational challenges, enable more rapid detection of wild poliovirus (WPV), and allow for faster response to importations or spread of virus. Additional efforts include technical assistance to laboratories implementing sewage testing for polio detection.

## The time to eradicate polio is now

The World Health Assembly declared the completion of polio eradication a programmatic emergency for global public health. According to Dr. Margaret Chan, WHO Director-General, "Failure is not an option. There is no escalation beyond the declaration of an emergency. *It is now or never.*"

Polio eradication is within our reach.

- **It will save lives.**
- **It will save money.**
- **It will prevent disability.**

## Post-eradication

CDC is working to determine what we can suggest to donors to do with resources designated for polio once polio is eradicated. There are three principal aspects of this polio "legacy" work:

1. Mainstreaming essential polio eradication functions, such as immunization, surveillance, communication, response, and containment, into other ongoing public health programs
2. Ensuring that the knowledge generated and lessons learned during 25 years of polio eradication activities are shared with other health initiatives
3. Where feasible, desirable, and appropriate, transitioning the capacities, processes and assets that the GPEI has created to support other health priorities

