



## Ending Polio

Humanity is close to one of the greatest public health achievements in history – eradicating polio. The Global Polio Eradication Initiative (GPEI) has reduced polio cases by 99.9% since 1988. Ending the virus for good would mean a world in which every child would be safe from the paralysis caused by the virus and that no family would ever have to bear the emotional and financial costs of polio again. With sustained political and financial commitment to protect every last child, we can seize this chance to end the virus forever.

## TODAY, WILD POLIOVIRUS CIRCULATES IN JUST TWO COUNTRIES



### Polio Today

#### Closing in on the Virus

- **Wild polio has been cornered to just a few areas of the world thanks to the tireless efforts of health workers, donors, local governments and global partners.** In 1988, there were 350,000 annual cases of wild poliovirus in 125 countries. In 2019, wild poliovirus continues to circulate in just two countries: Pakistan and Afghanistan.
- **The global eradication effort has successfully wiped out wild polio from four of the six WHO regions, and the fifth – the WHO African region – could be declared wild polio-free in 2020.** The world has not experienced any outbreaks of wild polio outside of just three countries – Afghanistan, Pakistan and Nigeria – since August 2014. Nigeria has not seen a case of wild polio since 2016, making the entire WHO African region eligible to be certified wild polio-free in 2020.
- **The world has eradicated two of the three wild poliovirus strains, leaving only wild poliovirus type 1 (WPV1) still in circulation.** Due to improved disease surveillance and reach with polio vaccines, wild poliovirus type 2 (WPV2) and wild poliovirus type 3 (WPV3) were declared eradicated in 2015 and 2019, respectively. Wiping out these strains shows that tactics to vaccinate every child are working and that eradication of all types of poliovirus is feasible.

#### Programme Achievements

- **Thanks to polio eradication efforts, more than 18 million people are currently walking who otherwise would have been paralysed by the virus.** Ending polio is a critical step toward improving the lives of the world's most vulnerable children.
- **In protecting the hardest-to-reach people, the polio programme has honed approaches to delivering health services to the world's most vulnerable children.** For many remote and resource-poor communities, delivering the polio vaccine is a first point of entry to providing additional health services. By developing innovative strategies to engage communities and overcome physical and social barriers, the polio programme has shown what it takes to deliver equitable health services to everyone.
- **The tools, infrastructure and skilled workers established to eradicate polio have been used to fight other vaccine-preventable diseases like measles and yellow fever, deliver malaria prevention tools and improve disease surveillance worldwide.** Since 1988, polio workers have delivered 1.3 billion doses of Vitamin A that have saved an estimated 1.5 million children's lives, and in 2014, the polio surveillance infrastructure in Nigeria was replicated to detect and respond to Ebola, preventing the disease from establishing a foothold in the country.

## A Unique Partnership to End Polio

The GPEI is a public-private partnership led by national governments with six core partners – the World Health Organization (WHO), Rotary International, the US Centers for Disease Control and Prevention (CDC), UNICEF, the Bill & Melinda Gates Foundation and, most recently, Gavi, the Vaccine Alliance. This coalition unites frontline health workers, governments, donors and global leaders behind the vision of a world where children are forever safe from the threat of polio.

#### Protecting Gains

- **If we don't end polio now, we could see a resurgence of up to 200,000 cases annually within a decade.** The world could also miss out on upwards of US\$14 billion in estimated savings that eradication would generate by 2050 – with these savings primarily concentrated in low- and middle-income countries.
- **To protect global progress, the programme vaccinates more than 450 million children across dozens of countries every year, and conducts disease surveillance in more than 70 countries.** Since 2001, there have been wild polio outbreaks in 41 countries that were previously polio-free. While each outbreak has been stopped, each one is a reminder that as long as polio exists, every country—and every child—is at risk.
- **Through its ongoing surveillance, the programme investigates more than 100,000 suspected cases of polio each year** using a community reporting network. It has also expanded environmental sewage testing to help vaccination campaigns target areas where the virus is circulating even before any child shows symptoms of polio.

## Tackling the Remaining Risks

### Pakistan and Afghanistan: Redoubling Efforts in the Virus's Final Reservoirs

While wild polio is confined to only two countries, the programme faces several obstacles to reaching every child with the polio vaccine. These challenges include low vaccination campaign quality, mobile populations, conflict and insecurity, bans on house-to-house vaccination in parts of Afghanistan and, in some cases, parental refusals due to vaccine misinformation. As a result, more cases of wild polio have been reported in 2019 than in 2018. The GPEI and national governments are working together to overcome these barriers to eradication.

- **In Pakistan**, the government has developed and implemented strategies to reach children with vaccines, including national and regional Emergency Operations Centers, cross-border and transit point teams, and increased numbers of female health workers and community mobilisers. Pakistan also operates the largest environmental surveillance network of its kind in the world, with 59 sites spread across 31 cities. However, the virus still circulates in large parts of the country and the government is leading efforts to reassess the national programme and optimise vaccination efforts. In the most vulnerable areas, the programme is being restructured to improve the quality of campaigns and the government is re-engaging with communities to increase acceptance of the vaccine, including by integrating delivery of the polio vaccine with other essential health services.
- **In Afghanistan**, childhood immunity to the poliovirus is high and most of the country remains polio-free. However, given the ongoing conflict in many parts of the country and a ban on house-to-house vaccination in certain provinces, the programme is implementing a range of interventions to increase access in hard-to-reach areas – including immunising during brief windows of opportunity in conflict areas, collaborating with religious and community leaders, and implementing strategies in coordination with Pakistan to synchronise campaigns and better reach mobile populations. Afghanistan has also continued to expand its environmental surveillance system.

### Stopping Circulating Vaccine-Derived Poliovirus (cVDPV)

- **In rare cases, the live, weakened virus contained in the oral polio vaccine (OPV) can circulate in a community for an extended period and mutate into a form that causes paralysis, known as circulating vaccine-derived poliovirus.** These outbreaks occur primarily in underimmunised communities and are not related to, nor indicative of, a re-emergence of wild poliovirus. To protect against both wild poliovirus and cVDPV, it's critical that immunisation rates are high everywhere.
- **Due to low population immunity, outbreaks of cVDPV continue to emerge and spread in several countries across Asia and Africa.** The GPEI is committed to addressing these outbreaks and is working with regional, country and local partners to implement outbreak response activities and strengthen disease surveillance in affected areas.
- **The GPEI has the experience and the tools to counter the threat of cVDPV:**
  - Working with in-country partners, the polio programme successfully stopped the 2017 cVDPV outbreak in Syria after 18 months of intense vaccination and surveillance efforts. The GPEI's extensive experience operating in areas of conflict and insecurity was instrumental to the response.
  - In response to the 2018 cVDPV outbreak in Papua New Guinea, the GPEI partnered with Gavi, the Vaccine Alliance, to address a root cause of the outbreak – weak routine immunisation – by improving worker training, developing community microplans and bolstering the vaccine supply chain. As of October 2019, the country has gone one year without a reported case.
- **While OPV remains the best tool for stopping cVDPV, GPEI partners are supporting the development of a new oral polio vaccine** that provides the same level of protection as the current oral vaccine but is less likely to result in cases of vaccine-derived polio. Initial results from clinical trials of this vaccine, known as the novel oral polio vaccine (nOPV), are encouraging. If further trials are successful, nOPV could be used as a key tool to address cVDPV outbreaks as early as 2020.

## Committing to Gender Equality

- **Women are at the forefront of polio eradication efforts globally.** In some of Pakistan and Nigeria's highest-risk areas for the virus, more than 90% of vaccinators are women. Female vaccinators build community trust and are crucial to ensuring that vaccines reach every child, as gender norms in some areas prevent men from entering households.
- **Female polio workers help deliver positive health outcomes for women and children beyond ending the disease.** This includes educating new mothers about the benefits of exclusive breastfeeding and better hygiene practices.
- **Ensuring women's equal participation at all levels of the polio programme is a key goal for the GPEI** and contributes to the advancement of the Sustainable Development Goal on women's empowerment and equality.



## A Strategy to Deliver a Polio-Free World

**The GPEI launched the Polio Endgame Strategy 2019-2023 to urgently overcome the final hurdles to eradication, end all forms of poliovirus for good and sustain a polio-free future.**

The 2019-2023 strategy focuses on addressing today's most pressing challenges to eradication and builds on the programme's core strategies to expand access to vaccination and improve disease surveillance around the world. The strategy also offers responsive and innovative solutions tailored to communities' needs. These include:

- **Delivering additional health services** to vulnerable populations alongside the polio vaccine
- **Establishing a regional hub in Jordan** to enhance coordinated support to Afghanistan and Pakistan
- **Strengthening polio surveillance** in inaccessible areas by working with communities to identify any cases of paralysis
- **Leveraging new partnerships** with other public health actors such as Gavi, the Vaccine Alliance, to improve immunisation coverage

To eradicate polio and improve health for generations to come, it is vital that the GPEI's new strategy receives sufficient resources and commitments. **To fully fund the strategy and ensure that 450 million children can be vaccinated every year, the GPEI is seeking an additional US\$3.27 billion.**