The Urgent Need to Stop Circulating Vaccine-Derived Poliovirus (cVDPV) Outbreaks



Overview

The Global Polio Eradication Initiative (GPEI) has helped the world reduce polio cases globally by more than 99% since its formation in 1988. Over 20 million children have averted polio paralysis thanks to eradication efforts.

Wild poliovirus (WPV) transmission is at an all-time low, with just six cases recorded in 2021. However, outbreaks of circulating vaccine-derived poliovirus (cVDPV) have grown in recent years and are a major challenge to achieving eradication.

What are cVDPVs?

Wild polio is the virus that occurs in nature while circulating vaccinederived polio (cVDPV) are non-wild variants of the poliovirus that can sometimes emerge in populations where not enough children have been vaccinated.

In these areas of underimmunization, if the weakened form of poliovirus originally contained in oral polio vaccine (OPV) circulates for an extended period, this strain can genetically change from its weakened form to one that can cause paralysis.

OPV does not cause polio. It is safe and effective at protecting children and is responsible for eliminating over 99% of polio cases worldwide since 1988 and eradicating two of the three wild poliovirus strains. The best way to minimize the risk of cVDPV outbreaks is to maintain high rates of vaccination amongst children. cVDPV outbreaks are driven by community-level immunity gaps, where both routine immunization and door-to-door campaigns have failed to reach some children for many years. These could be due to:

- Weak routine immunization programs
- Poor polio campaign quality
- Insecurity and civil conflict
- Vaccine hesitancy due to misinformation
- Issues accessing high-risk groups such as mobile populations

Current Situation

About 90% of cVDPV outbreaks globally are caused by **type 2 cVDPV (cVDPV2)**. Most outbreaks are active in parts of Africa, although there are also cases in Asia, the Middle East and Europe.

In 2020, COVID-19 necessitated the pause of polio campaigns for four months and disrupted routine immunization, resulting in more than 80 million children at increased risk of diseases such as polio. cVDPV outbreaks tripled from 2019 to 2020 and over 1,100 children were paralyzed globally. cVDPV cases declined in 2021 as immunization activities were able to resume in many places. However, the pandemic continues to stretch health and immunization systems, making progress against cVDPVs fragile unless outbreaks are urgently addressed. *See the latest statistics on cVDPVs here.*

Global cVDPV Cases, 2018-2022



Stopping cVDPV outbreaks is a major priority for the polio programme, as outlined in its <u>2022-2026 Strategy</u>. When an outbreak is declared, it is vital that countries respond quickly to stop it spreading any further. The GPEI's 2022-2026 Strategy includes several new tools and tactics to support countries, including:



Working with health workers and community mobilizers to address misinformation and ensure public confidence in the polio vaccine to increase uptake.



Working with local authorities and immunization partners to mobilize support to strengthen essential immunization and primary healthcare (PHC).



Ensuring cross-border coordination between countries affected by outbreaks and their neighbors to reach mobile populations with polio vaccines.



Working with governments to improve the management and operations of vaccination campaigns.



Using a next generation vaccine, the novel oral polio vaccine type 2 (nOPV2), which is designed to stop cVDPV2 outbreaks more sustainably. nOPV2 was launched in March 2021 under the WHO's Emergency Use Listing procedure, and since then more than 300 million doses have been administered in 18 countries (As of 18 May 2022).



Launching new global and regional rapid response teams to address cVDPV2 outbreaks.

To successfully implement these tactics to stop the spread of cVDPVs and all forms of polio, it is vital that the GPEI's Strategy receives the political and financial support it needs.