Recomendations for Reporting on Poliovirus Outbreaks

A media guide for journalists writing about circulating vaccine-derived polioviruses (cVDPVs) and polio eradication.

OVERVIEW

The media have an important role to play in communicating about one of the most complex challenges facing global polio eradication efforts: the spread of circulating vaccine-derived poliovirus (cVDPV) outbreaks in areas where immunization rates are low. This guide is intended to support media reporting on cVDPVs to ensure coverage does not inadvertently cause vaccine hesitancy, mistrust, or other unintended adverse consequences to public health and use of polio vaccines. Vaccination efforts that achieve and maintain a high level of coverage (85% or higher) within at-risk populations are critical to stopping all forms of polio and finally achieving eradication of the disease.

KEY TERMS AND DEFINITIONS

WPV - Wild Poliovirus

The wild variant of polio, a highly infectious viral disease that can invade the nervous system to cause paralysis. Infections with wild polio still occur only in Pakistan and Afghanistan.

cVDPV - Circulating Vaccine Derived Poliovirus

cVDPVs can emerge if the weakened live virus contained in oral polio vaccine, shed by vaccinated children, is allowed to circulate in under-immunized populations for long enough to genetically revert to a version that causes paralysis.

OPV - Oral Polio Vaccine

A safe and effective vaccine that contains a combination of one, two or three strains of live, weakened poliovirus and is easily delivered via two oral droplets.

mOPV2 - Monovalent Oral Polio Vaccine Type 2

An oral polio vaccine that provides protection against type 2 polio virus, one of the three polio strains.

nOPV2 - Novel Oral Polio Vaccine Type 2

A new, more genetically stable version of mOPV2 that is less likely to seed new cVDPV emergences and could help stop cVDPV2 outbreaks in a more sustainable way.

IPV - Inactivated Polio Vaccine

A safe and effective vaccine that contains inactivated versions of all three poliovirus strains. It protects against paralysis and is devlivered via an injection by a trained health worker.

See "Fiction vs. Fact" on page 2 or GPEI Resource Bank for more definitions.

CVDPVS: ASKED AND ANSWERED

What are cVDPVs? A child cannot get cVDPV infection from receiving a polio vaccine. cVDPVs emerge when not enough children are vaccinated against polio, and the weakened strain of the poliovirus contained in the oral polio vaccine (OPV) circulates among under-immunized populations for a long time in areas with poor sanitary conditions. The weakened strains are shed by vaccinated children into the environment via their digestive systems and can pass from one unvaccinated individual to another, a process exacerbated by poor sanitation systems and the absence of clean drinking water. Over time, genetic changes in the virus can result in reversion to a form that can cause paralysis. cVDPVs are different from wild polioviruses, which now only circulate in Pakistan and Afghanistan. The rise in cVDPV cases, however, pose a risk to children, threaten eradication efforts and, just like wild polio, must be stopped.

What causes cVDPV outbreaks? cVDPVs outbreaks are caused by community-level immunity gaps, where both routine immunization and door-to-door campaigns have failed to reach some children for many years. These gaps could be due to several factors, such as weak routine immunization programs, poor campaign quality, insecurity and civil conflict, vaccine hesitancy due to misinformation,

and issues accessing high-risk groups such as mobile populations. About 90% of cVDPV outbreaks are caused by type 2 cVDPV.

- In 2020, the March-July suspension of polio campaigns to protect communities and staff from COVID-19, coupled with related disruptions to routine immunization, created new immunity gaps that led to new outbreaks of cVDPVs and further increased transmission of cVDPVs globally, as well as wild polio in Afghanistan and Pakistan.

Where are outbreaks happening? Most cVDPV outbreaks are in Africa, although there are also cases in the Middle East and Southeast Asia. For the latest cVDPV case counts, see the **GPEI's cVDPVs page**.

How are outbreaks stopped? As with wild polio, outbreaks of cVDPVs are stopped by ensuring every child is reached with oral polio vaccine through high-quality immunization campaigns to close immunity gaps. Fast, high-quality vaccination campaigns using type 2 monovalent OPV (mOPV2) have stopped cVDPV2 outbreaks previously. The vaccine continues to be a safe, effective tool for outbreak response across the continent. In addition, the **novel oral polio vaccine type 2 (nOPV2)** is now being rolled out in several African countries to help more sustainably stop outbreaks.

FICTION VS. FACT

There are several common misconceptions about cVDPVs, leading to the proliferation of misinformation that can reduce vaccine confidence and contribute to hesitancy and refusals. Journalists who are writing about polio can help to be a part of the solution and address these misconceptions in their stories.

✖ FICTION	✔ FACT
A child can get cVDPV infection or be paralyzed from receiving OPV.	**A child cannot get cVDPV from receiving OPV.** A child can get cVDPV if they are not immunized against polio and live in an area where cVDPV is circulating. Vaccination against polio will protect an individual from cVDPV.
OPV is inferior to IPV (inactivated polio vaccine).	**OPV is a safe, inexpensive, easy to administer and extremely effective vaccine** that can stop person-to-person transmission of poliovirus by providing both individual and community-level protection, making it an important tool for cVDPV outbreak response in low-resource settings. OPV stimulates good gut immunity in the vaccinated child. Additionally, for the first several weeks after receiving OPV, a vaccinated child can excrete the weakened virus from the vaccine in their stool and spread it to their close contacts in areas with poor hygiene and sanitation, resulting in 'passive' immunization of unvaccinated people. However, if the weakened virus circulates unchecked for a long time in an under-immunized population, it can revert to a form that causes paralysis. IPV prevents paralysis but cannot prevent person-to-person transmission of polio and is more difficult to administer in low resource settings, due to both the cost of the vaccine and the need for a trained health worker to deliver it via injection. It may be used in combination with OPV in endemic and high-risk countries but cannot stop outbreaks alone.
Polio has been declared eliminated in many parts of the world, yet new polio cases keep occurring in those regions.	**Certain types of polio have been successfully eradicated and eliminated.** WPV Types 2 and 3 have been eradicated worldwide. Type 1 WPV has been eliminated in 5 of 6 WHO Regions, and transmission remains uninterrupted in only two countries, Pakistan and Afghanistan. No new cases of WPV have been confirmed in places that have been certified WPV free. New polio cases in these areas are cVDPVs.

Children living in certified polio-free areas no longer need to be vaccinated against polio.

Children living in places certified to be wild poliovirus-free must continue to receive vaccination against polio in order to maintain a high level of immunity in the population and prevent importation and spread of wild polio to areas that are certified wild polio-free. High vaccination coverage also works to prevent new cVDPV outbreaks, which occur in under-immunized populations.

EXAMPLES OF COMPREHENSIVE EDITORIAL EXPLANATIONS OF CVDPVS

These examples from published stories clarify that cVDPVs are different from wild polioviruses and can only mutate from the weakened virus used in OPV in under-immunized populations. They also help underline that children cannot contract cVDPV from receiving the vaccine.

"...When they went back to their communities, Dr. Mkanda said, the vaccine went through their digestive systems and out into the environment, and other children, who had not been inoculated, could then pick it up and also become immune...

...Very rarely, however, the vaccine virus can mutate back into something resembling the wild kind. If that vaccine-derived mutation keeps spreading because nearby villages are not fully vaccinated, it can, in a few cases — about one infection in 200 — paralyze people. The name of the polio strain may give the impression that people contract it from vaccinations, but that is not the case."

– Ruth Maclean, The New York Times, August 24, 2020

"...But in a number of countries where too few children had been vaccinated against polio, the type 2 vaccine viruses continued to circulate among susceptible children. When polio vaccine viruses cycle through enough children, they can regain the power to paralyze."

– Helen Branswell, STAT, October 21, 2019

More Resources

- Global Polio Eradication Initiative website
- GPEI Resource Bank
- Africa Kicks Out Wild Polio website
- GPEI Outbreak countries

For the latest updates on polio outbreaks

- cVDPV outbreaks: GPEI cVDPVs
- All outbreaks: GPEI "Polio Now" & GPEI Weekly Reports
- US CDC Mortality & Morbidity Weekly Report
- WHO Disease Outbreak News – Poliomyelitis

For more information on polio vaccines

- OPV
- IPV
- cVDPV2 / nOPV2 roll out fact sheet