Global efforts to immunise children with the oral polio vaccine (OPV) have reduced wild poliovirus cases by 99.9% since 1988. The vaccine is very safe and interrupts person-to-person spread of polio. However, on rare occasions, in under-immunised populations, the live weakened virus originally contained in OPV can mutate into circulating vaccine-derived poliovirus (cVDPV). As the world gets closer to ending transmission of wild polio altogether, the global polio programme will increasingly focus on eliminating the risk of cVDPV.

FACT SHEET: VACCINE-DERIVED POLIOVIRUS

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Types of Poliovirus

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<th>Types of Poliovirus</th>
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| Wild Poliovirus (WPV) | Infectious virus that invades the nervous system. Can cause paralysis or death. | Low immunisation rates, poor sanitation, high population densities. | Increase immunisation rates with OPV. | Type 1: Caused 100% of 2016 cases  
Type 2: Eradicated in 1999  
Type 3: Last seen in 2012 | 37 |
| Circulating Vaccine-Derived Poliovirus (cVDPV) | Very rare, circulating virus genetically changed from the weakened virus originally contained in OPV, which can emerge under rare and specific conditions. | Low immunisation rates, poor sanitation, high population densities. | Increase immunisation rates with OPV. | Since 2000:  
Type 1: Causes 13% of cVDPV  
Type 2: Causes 86% of cVDPV  
Type 3: Causes 1% of cVDPV | 5 |

Eradicating polio for good requires eliminating both wild and vaccine-derived polio

**Ongoing**

Continue to increase vaccination campaign quality and improve surveillance, the same tactics used to stop WPV.

**Completed**

Switch from trivalent to bivalent OPV. Trivalent OPV contains weakened forms of all three strains of polio, including type 2. Wild poliovirus type 2 was eradicated in 1999. The weakened type 2 strain in trivalent OPV is no longer needed to protect children from wild polio, but causes nearly 90% of all cVDPV. In April 2016, all countries switched to bivalent OPV, which does not contain the type 2 component and will reduce the risk of cVDPV.

**Long-Term**

End all use of OPV after WPV transmission has been stopped. At that point, only IPV will be used to maintain population immunity levels.
OPV and IPV have important but distinct advantages, and both vaccines are necessary to end polio for good. Because OPV protects both the individual and the community, it is essential to stop wild poliovirus transmission. IPV is being introduced as part of preparations for OPV cessation and is vital to end polio once and for all.

As part of the polio eradication endgame, all countries will stop OPV use. At that point, only IPV will be used to maintain population immunity levels to sustain a polio-free world.

**POLIO VACCINES**

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