

Current major event

cVDPV2 Outbreak in New York, USA

In July 2022, the US Centers for Disease Control and Prevention (CDC) was notified of a case of polio caused by vaccine-derived poliovirus type 2 (VDPV2) in an unvaccinated individual from New York, United States of America. Control measures are being implemented to prevent the spread of poliovirus to unimmunized members of the local community.

Editorial note

In the previous years, circulating vaccine-derived polioviruses (cVDPVs) have emerged as a key challenge in the final stage of polio eradication efforts. cVDPV is a rare condition, where a circulating virus mutated from the weakened virus contained in oral polio vaccine (OPV), which can only emerge in under-immunized populations. The weakened virus can revert to a form that causes illness and paralysis. cVDPV has types 1, 2 and 3, with type 2 currently causing the vast majority of cases globally (*see table*). Circulating VDPVs occur when routine or supplementary polio immunization activities (SIAs) are poorly conducted and a population is left susceptible to poliovirus, whether from vaccine-derived or wild poliovirus. Poor sanitation and high population densities are also likely to contribute to the increased risk for cVDPV.

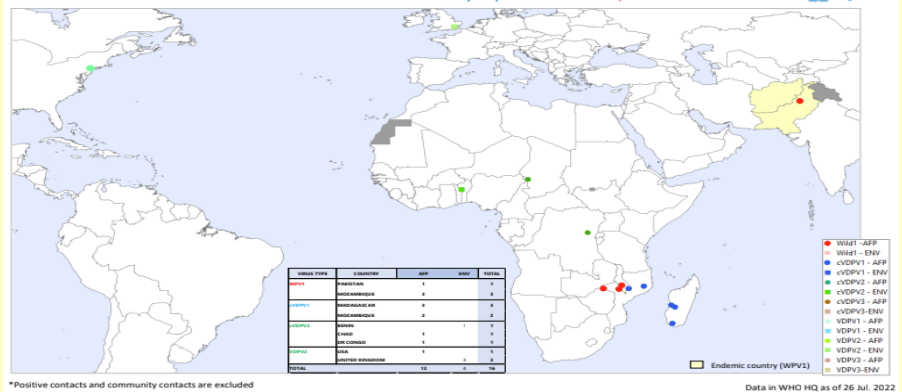
Episodes of cVDPV are rare. Over the past 10 years – a period during which more than 10 billion doses of oral polio vaccine were given worldwide – cVDPV outbreaks resulted in fewer than 3000 cases. In the same period, in the absence of vaccination with OPV, more than 6.5 million children would have been paralyzed by wild poliovirus.

Countries that have stopped indigenous wild poliovirus but are experiencing re-infection either through the importation of wild or VDPV from another country, or the emergence and circulation of vaccine-derived poliovirus are labelled as outbreak countries (*See map*). In 2022, globally a total of 236 cVDPV cases were reported as of 16 August 2022 from outbreak countries. In the Eastern Mediterranean Region, cVDPV cases and positive environmental samples were reported from Afghanistan (43 cases), Pakistan (14 cases), Egypt (16 cases), Somalia (2 cases) and Yemen (82 cases). In 2022, cVDPV cases and positive environmental samples were detected from the United Kingdom and the United States of America. This shows that all countries remain at risk of polio until the disease is eradicated from the world.

cVDPV outbreaks can be stopped by strengthening polio surveillance systems and ensuring high vaccination coverage in the

Global cVDPV cases, 26 July 2022

Overview of new viruses* officially reported week 30, 2022



Global human cases of cVDPV , 2016 – 16 August 2022

Year	cVDPV1	cVDPV2	cVDPV3
2016	3	2	0
2017	0	96	0
2018	27	71	7
2019	12	366	0
2020	35	1081	0
2021	16	682	0
2022	16	219	1

local communities. Moreover, environmental surveillance, where sewage is sampled for polioviruses, should be conducted in a number of countries, to track the virus transmission through human populations. This will address polio outbreaks quickly and target campaigns accurately.

The Global Polio Eradication Initiative (GPEI) has developed a comprehensive new strategy to stop the spread of type 2 circulating vaccine-derived poliovirus (cVDPV2) outbreaks. The strategy includes targeted country advocacy to ensure urgency and boost political will, the establishment of emergency response teams and infrastructure, enhanced disease surveillance, strengthened community engagement and integration of polio services with other health initiatives, and improving outbreak response speed and quality, with a focus on reaching under-immunized and vulnerable populations. This strategy continues to prioritize early case detection and timely outbreak response. The program will phase out use of OPV after wild poliovirus transmission has been stopped. At that point, the inactivated polio vaccine (IPV) will be used to maintain population immunity levels. Additionally, an innovative new tool, the novel oral polio vaccine (or nOPV), could potentially be used to address cVDPV outbreaks. nOPV is designed to provide children with the same protection as the current oral vaccine while having less risk of mutating and causing paralysis.

Update on outbreaks

in the Eastern Mediterranean Region

COVID-19 in 22 EMR countries

Current public health events of concern

[cumulative N° of cases (deaths), CFR %]

Coronavirus disease 2019 (COVID-19): 2019-2022

Afghanistan	[192 556 (7777), 4%]
Bahrain	[670 854 (1513), 0.2%]
Djibouti	[15 690 (189), 1.2%]
Egypt	[515 308 (24 794), 4.8%]
Iran (Islamic Republic of)	[7 521 969 (143 684) 1.9%]
Iraq	[2 457 871 (25 346), 1%]
Jordan	[1 735 495 (14 110), 0.8%]
Kuwait	[657 395 (2563), 0.4%]
Lebanon	[1 207 873 (10 619), 0.9%]
Libya	[506 751 (6436), 1.3%]
Morocco	[1 264 286 (16 271), 1.3%]
occupied Palestinian territory (oPt)	[701 739 (5700), 0.8%]
Oman	[397 846 (4628), 1.2%]
Pakistan	[1 568 453 (30 574), 1.9%]
Qatar	[427 001 (681), 0.2%]
Saudi Arabia	[813 107 (9289) 1.1%]
Somalia	[27 020 (1361), 5%]
Sudan	[63 228 (4961), 7.8%]
Syrian Arab Republic	[56 973 (3163), 5.6%]
Tunisia	[1 143 167 (29 233), 2.6%]
United Arab Emirates	[1 013 331 (2341), 0.2%]
Yemen	[11 925 (2155), 18.1%]