

**Definitions: wild poliovirus as well as wild poliovirus infectious materials resp. potentially infectious materials<sup>1</sup>**

**Poliovirus, wild:**

- Wild polioviruses are naturally occurring isolates known or believed to have circulated persistently in the community.
- Vaccine-derived polioviruses (VDPV) are classified with wild polioviruses and usually demonstrate 1–15%<sup>2</sup> sequence differences from the parental oral polio vaccine (OPV) strain; they may have circulated in the community (cVDPV) or have replicated for prolonged periods in immunodeficient subjects (iVDPV) or be ambiguous and of unknown origin (aVDPV).
- Attenuated strains not licensed for use as live vaccines (Cox/Lederle and Koprowski/Wistar series) are classified with wild polioviruses as their clinical properties are unproven.

Wild poliovirus materials may be (a) infectious or (b) potentially infectious.

**(a) Poliovirus infectious materials, wild:** These include:

- clinical materials from confirmed wild poliovirus (including VDPV) infections;
- environmental sewage or water samples that have tested positive for the presence of wild polioviruses;
- cell culture isolates and reference strains of wild poliovirus;
- seed stocks and infectious materials from IPV production;
- infected animals or samples from such animals, including human poliovirus receptor transgenic mice;
- derivatives produced in the laboratory that have capsid sequences from wild polioviruses, unless demonstrably proven to be safer than Sabin strains. The safety of new derivatives containing wild poliovirus capsid sequences will be assessed by an expert panel, on the basis of comparison to reference Sabin strains for (i) degree and stability of attenuation; (ii) potential for person-to-person transmission; and (iii) neurovirulence in animal models;
- full-length RNA or cDNA that includes capsid sequences derived from wild poliovirus, unless viruses derived from them are demonstrably proven to be safer than Sabin strains. The safety of full-length RNA or cDNA containing wild poliovirus capsid sequences will be assessed by an expert panel convened by WHO, on the basis of comparison to reference Sabin strains for (i) degree and stability of attenuation; (ii) potential for person-to-person transmission; and (iii) neurovirulence in animal models;
- cells persistently infected with poliovirus strains whose capsid sequences are derived from wild poliovirus.

**(b) Poliovirus potentially infectious materials, wild:** These include:

- faecal or respiratory secretion samples collected for any purpose in a time and geographic area of wild poliovirus (including VDPV) circulation;
- products of such materials from poliovirus permissive cells or animals;
- uncharacterized enterovirus-like cell culture isolates from countries known or suspected to have circulating wild poliovirus or VDPV at the time of collection;
- respiratory and enteric virus stocks handled under conditions where poliovirus contamination or replication is possible.

<sup>1</sup> WHO global action plan to minimize poliovirus facility-associated risk, Annex 1, Definitions

<sup>2</sup> Some isolates display >15% sequence diversity but are phylogenetically related to parental Sabin strains