New monovalent oral polio vaccines (mOPVs) are now used to more rapidly interrupt the final strains of poliovirus transmission around the world. Monovalent OPV1 was first used in India in April 2005 and has subsequently been used in Egypt to interrupt endemic strains of virus. It has also been used in Yemen and Angola to stop outbreaks in these previously polio-free countries, and in Somalia to minimize the risk of an outbreak becoming a widespread epidemic.

Circulation of wild poliovirus type 2 has been interrupted since 1999. In the final stage of polio eradication, only type 1 and type 3 wild polioviruses continue to circulate. The new monovalent vaccines contain only one of the three types of polioviruses in a live-attenuated form. When outbreaks are detected, the type of polio can be determined and authorities can vaccinate children with the specific monovalent vaccine.

The principal weapon used in the Global Polio Eradication Initiative has been the trivalent oral polio vaccine (tOPV), which includes three types of polioviruses in a live-attenuated form that gives protection against all three types of wild poliovirus. However, there is actually competition among the three viruses to cause immunity, which results in protection but not with equal efficiency for each type.

SOURCE: Global Polio Eradication Initiative, Monovalent oral poliovaccines, Fact Sheet (www.polioeradication.org)