**Evidence before this study**

We searched the scientific literature for English-language reports published up to September 2016 featuring the term “vaccine-derived poliovirus” in combination with “endgame”, “cessation”, “type 2”, or “outbreak response”. There exists a wealth of case studies investigating historical outbreaks of circulating vaccine-derived polioviruses (cVDPVs); of modeling studies, we found two studies exploring the survival of cVDPVs seeded by mOPV2/tOPV use before the global withdrawal of April 2016, and only two studies addressing the risks following introduction of Sabin 2 in the post-cessation world, under different contexts than that of this study (unintentional use of Type 2, and long-term shedding by immunodeficient shedders).

**Added value of this study**

Of the studies that have addressed the risk of OPV2 use in the post-cessation world, this is the first to model OPV2 use as currently planned for outbreak response, on a population network designed to reflect the real population distribution in a high-risk region, with a migration model calibrated to a past outbreak of poliovirus (WPV1) in the region under study, and exploring a broad space of potential descriptions of the virus and migration. The findings of the study show that the risks of OPV2 use in a post-cessation world are difficult to mitigate under all but the most optimistic of assumptions employed in modeling the virus. This study demonstrates that despite uncertainty about exact immunity and migration conditions globally, there unambiguously exists a timeframe within which population immunity will be so low as to preclude the safe local use of OPV2.

**Implications of all the available evidence**

The outcomes of this study, in addition to the two previous modeling studies, indicate that the growing cohort of non-immune children born after Type 2 cessation will become sufficiently large to support establishment and widespread transmission of Type 2 vaccine-derived polioviruses within a short period, determined primarily by the population immunity and the transmissibility of reverted Sabin 2 poliovirus. This conclusion implies that the use of mOPV2 in outbreak response will soon present the potential consequence of widespread cVDPV2 circulation, and suggests the deployment of all available means of ensuring that the elimination of currently circulating VDPV2s is accomplished during the “honeymoon” period of high immunity.