

## Cover Story



## Poliomyelitis – on the verge of eradication

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Poliomyelitis free status was certified in the South East Asia Region in March 2014, in line with the global eradication and endgame strategies for achieving *polio free world by 2018*.

The Polio Eradication and Endgame Strategic Plan 2013-2018 addresses four main objectives as follows:

1. Polio virus detection and interruption: for wild virus interruption and outbreak response
2. Routine immunization strengthening and gradual oral polio vaccine (OPV) withdrawal: introduction of additional dose of inactivated polio vaccine (IPV), switch-over to bivalent OPV (bOPV) from trivalent OPV (tOPV) in PV type 2 withdrawal and gradual OPV withdrawal in phased manner
3. Containment and certification of polio virus, including the Sabin virus which is used for the vaccine production
4. Legacy planning



Sri Lanka has been polio free for more than two decades since the last case detected in 1993. Immunization against poliomyelitis is a success story in Sri Lanka, following the introduction of OPV in 1962 in the country and through the national immunization schedule since 1978. High polio vaccination coverage over 95% for more than a decade for five doses of OPV in the schedule, and supplementary immunization activities and mopping up campaigns from 1995 to 2003 had enhanced the population level immunity in the country, ensuring less risk of transmission within the country, in the event of any imported poliomyelitis case from endemic countries (Afghanistan, Pakistan and Nigeria).

Baseline sero survey in Sri Lanka in 2014 had ensured high population level immunity prior to the OPV schedule change decisions, to go ahead with objective 2 of the Polio Eradication and Endgame Strategic Plan. High serological protection had further ensured the protection from rare occurrence of OPV side-effects of vaccine derived or vaccine associated paralysis. Besides, it assured the country readiness for polio switch-over from tOPV to bOPV, which successfully took place in April 2016, next to the introduction of single IPV dose in 2015 for polio virus type 2 immunity. The procedures for laboratory containment of Sabin 2 virus are underway in the country in destroying all potential polio hazardous material.

The current global IPV scarcity hampered the global strategies for maintenance of PV type 2 immunity after the polio switch-over from tOPV to bOPV. Sri Lanka successfully faced this challenge without interrupting the IPV vaccination by changing over to dose sparing schedules, and was marked as the first country that had successfully implemented the intradermal two dose fractional IPV schedule throughout the country since July 2016, in response to the global scarcity.

Epidemiology Unit of the Ministry of Health is the central coordinating centre for poliomyelitis eradication initiative involved in policy decision, implementation, monitoring and evaluation, cordially working with the virology laboratory in the Medical Research Institute (MRI), clinicians in curative care institutions, field level public health staff, academia, professional colleges and with global partner organizations.

### References

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