

Special Article

A Polio Free India – Achievements, Risks and Way Forward

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27 March 2014 is a red letter day in the public health history of India, when India, along with 10 other countries in South East Asian region of WHO was declared polio free. By that time over three years had passed after the last wild polio virus was identified in the country, on 13 January 2011 in Panchla block of Howrah district of West Bengal.

This achievement has dumbbed many international and national critics who had commented that India would be the last country in the world to clear polio and also criticized the polio eradication strategy adopted by India.

What made this so called “unbelievable” possible ?

The very important were the highest level of political commitment at national and state level, excellent support by major partners – WHO, UNICEF, Rotary International and CDC Atlanta, high quality of laboratory and field based researches towards development of new vaccines and immunization strategies.

But the most important factor was the dedicated work of millions of vaccinators from health and non health sectors who had literally knocked at every door from Kashmir to Kanyakumari, from Kutch (Gujarat) to Lohit (Arunachal), multiple times a year to ensure two drops of oral polio vaccine to each and every child in the country. Extremes of weather, floods, landslides, poor law and order, could not prevent these dedicated missionaries from carrying out their mission.

But in the light of ongoing wild polio virus circulation in two of the three endemic countries, Pakistan and Afghanistan, our achievement is at high risk. In the recent past middle eastern countries like Syria, Iraq and before that China have been affected with wild polio virus importation from Pakistan. Wild polio virus from Pakistan has travelled even to Israel, via Gaza strip.

Our top priority today and till the world is declared polio free, is to maintain a very high level of immunity against polio in our child population. This can only be achieved

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through sustained high level of routine immunization with polio vaccine and time to time national / sub national immunization days ; ensuring that no pocket is left poorly immunized both in routine program and in campaign.

Globally, out of 3 types of wild polio virus, type 2 virus was last detected in 1999. No type 3 wild polio virus could be detected after November 2012. It is only the type 1 polio virus that is currently circulating.

With sharp decline in cases with wild polio virus globally, focus is now on cases due to circulating vaccine derived polio virus or cVDPV. Since 2011, 257 cVDPV cases were detected across the world and 97% of these cases were due to cVDPV2.

So, while type 2 wild polio virus is absent for over 15 years and in view of the fact that type 2 virus in the vaccine is leading to substantial number of cVDPV cases ; use of type 2 virus in the polio vaccination programme was a matter of serious concern.

Experts have now decided to withdraw type 2 virus from the oral polio vaccine – thus replacing tOPV with bOPV across the world. This global “tOPV – bOPV switch” is going to happen sometimes in 2016. Change from tOPV to bOPV in routine immunization will not only minimize the risk of circulating VDPV2, but will also enhance development of immunity against polio virus types 1 and 3.

Further, on this line, before the tOPV – bOPV switch, National Immunization schedule in India is going to introduce one dose of inactivated polio vaccine (IPV) along with 3rd dose of OPV and pentavalent vaccine.

Simultaneously, we will have to maintain a highly sensitive surveillance system for AFP (Acute flaccid paralysis) to identify any importation of wild polio virus or emergence of VDPV (Vaccine derived polio virus).

We have crossed one hurdle – made the country and region polio free. We will have to run with greater zeal and enthusiasm to complete the race and reach the finishing line – a polio free world!