



October 2009

Global Polio Eradication Initiative

India

Situation analysis

- All but two of the 35 states and union territories of India have stopped polio transmission. Uttar Pradesh (UP) and Bihar, in the north of the country, account for nearly all of the country's 464 polio cases this year (as of 20 October).
- Eradicating type 1 polio from India is a major strategic objective of the Global Polio Eradication Initiative. Western UP is one of the most intense transmission zones of poliovirus in the world, and historically the epicentre of large outbreaks of type 1 polio. In Bihar, poliovirus transmission continues in access compromised areas along the Kosi river. Following intense use of type 1 monovalent OPV (mOPV1) and measures to scale up operations in Bihar, type 1 polio has fallen substantially and is geographically more restricted than ever before.
- National political commitment in India is very strong: the Prime Minister and his cabinet have allocated US\$ 657 million for polio eradication activities for 2010-2012 and directed the Health Ministry to closely monitor the situation and take effective steps to eradicate the disease. India also benefits from a high-performing eradication programme, with over 95% coverage during vaccination campaigns.
- The India Expert Advisory Group on Polio Eradication (IEAG) has concluded that India is firmly on the right track to complete the job of polio eradication.

KEY FACTS

- India has persistent transmission of type 1 polio in UP and Bihar states and a large outbreak of type 3, mostly in areas of UP and Bihar that have been battling type 1 polio.
- Following the use of type-specific vaccine in intense vaccination campaigns, type 1 is geographically restricted in UP and Bihar and the type 3 outbreak is declining.
- India's national commitment to polio eradication is high, with domestic financing and high-quality campaigns.
- New technical solutions are being assessed, including bOPV and IPV. Bivalent OPV will simplify logistics and hasten the end of both types of wild poliovirus.

Key challenges

- Repeated high quality vaccination campaigns with type-specific vaccines are needed in UP due to a unique combination of a large and dense population, large birth cohort, inadequate sanitation and suboptimal routine immunization and health services.
- A large type 3 outbreak, mostly in western UP and moderate type 3 transmission in Bihar, demands that the programme judiciously use mOPV1 and mOPV3 in order to target both types of virus. The imminent availability of bivalent oral polio vaccine (bOPV – against both types 1 and 3) will greatly accelerate eradication.

- In Bihar, transmission of polio is largely restricted to districts along the Kosi River, an inaccessible area with little infrastructure and services. The recent cases adjacent to the Kosi River area represent spread from the same focus where until recently children were missed in remote, hard to reach farming huts.
- Frequent population movements between Uttar Pradesh and Bihar transport virus back and forth between both states.

Solutions

- A new bOPV, which will confer immunity to both type 1 and type 3 poliovirus, will simplify vaccination campaign logistics considerably.
- The Kosi River Task Force, a strategy to increase access along the river basin, has set in place an array of operational, staffing and administrative changes to make operations smoother in this area. Steps are also being taken to fill any remaining operational gaps in western UP.
- Hard-to-reach groups such as migrants, nomads and vulnerable populations (such as children working in brick kilns) are being targeted with specific operational and social mobilization mechanisms to ensure they are not missed.
- Research on new technical approaches is being used to help address vaccine efficacy. Recent clinical trials – on bOPV, mOPV1 of different titres and whole or fractional doses of inactivated polio vaccine – show very encouraging preliminary results and indicate that bOPV is superior to trivalent vaccine against types 1 and 3, and that the mOPV1, regardless of titre, is highly immunogenic even in the setting of western UP.
- Environmental surveillance is being introduced in Delhi to monitor movement of the virus in a more timely fashion.

The Global Polio Eradication Initiative

- The Global Polio Eradication Initiative is spearheaded by national governments, the World Health Organization (WHO), Rotary International, the US Centers for Disease Control and Prevention (CDC) and UNICEF.
- Since 1988 - the year the Global Polio Eradication Initiative was launched - the incidence of polio has been reduced by more than 99%. At the time, more than 350,000 children were paralysed every year in more than 125 countries. To date in 2009, 1,020 cases have been reported worldwide (as of 22 September 2009). Four countries remain endemic: Nigeria, India, Pakistan and Afghanistan. Outbreaks in previously polio-free areas are ongoing in west Africa, central Africa and the Horn of Africa.
- For more information, please visit www.polioeradication.org.