

**The Thirteenth Meeting of the India Expert Advisory Group
for Polio Eradication
New Delhi, India
3 - 4 May 2005**

Conclusions and Recommendations

The thirteenth meeting of the India Expert Advisory Group (IEAG) was convened on 3 - 4 May 2005 in Delhi, with the following objectives:

1. To review progress on polio eradication since the last meeting of the IEAG, held in December 2004;
2. To make recommendations on accelerated strategies to ensure the interruption of wild poliovirus transmission in India.

Dr. R. N. Basu served as Chairperson, with Dr Steve Cochi as Rapporteur. Dr T Jacob John, Dr. Lalit Kant, Dr Jagadish Deshpande, Dr. R. N. Srivastava, Prof. N.K. Ganguly, Mr Carl Tinstman, Dr. Naveen Thacker, Dr. Raju C. Shah, Dr. Maritel Costales, Dr. Olen Kew, Dr. Bruce Aylward, and Mr Chris Maher were the other members comprising the IEAG. Dr. Subhash Salunke was unable to attend. Dr David Heymann, the Special Representative of the Director-General of WHO for Polio Eradication, participated in the proceedings. Participants also included representatives from Government of India, the States of Bihar, Uttar Pradesh (UP), Delhi, Uttaranchal and Maharashtra, CORE, donor agencies i.e. DFID, KfW, EU, the Italian Embassy, Embassy of Japan and the World Bank, and from partner agencies, i.e. Rotary International, UNICEF, WHO, CDC and USAID. The IEAG reported to the Union Secretary for Health and Family Welfare Shri Prasanna Hota subsequent to the meeting.

The IEAG particularly noted the specific contributions to the proceedings of the meeting by state delegations from Bihar, Uttar Pradesh, and Maharashtra, and their reports of progress and future plans.

After a thorough review of the epidemiologic and programmatic data, the IEAG concluded that **India has made its most important progress to date during 2004 and early 2005 as evidenced by the following:**

- Polio cases are now highly focal and at very low levels in western UP and Bihar in the 2004 high season and early 2005 and no virus has been detected since January in Mumbai despite extensive environmental sampling,
- Type 3 is almost eliminated, with just one remaining lineage and the most recent case in December 2004. This has allowed the use of monovalent OPV1 type1 (mOPV1) in the key reservoir areas during the 2005 low season,
- The High Risk Areas (HRAs) are being effectively vaccinated with just 5.6%, 3.6% and 2.8% 'missed children' during the April campaign in western UP, Bihar and Mumbai/Thane, respectively.
- High risk minority population groups (young children and Muslims) are now highly immunized.

Polio can be interrupted completely in 2005 by sustaining and improving the innovative approaches now being taken to reach every child, including the 'underserved' and 'transit site' strategies.

Findings and conclusions:

The period since the December 2004 meeting of the IEAG has seen some of the most important progress yet made in eradicating polio from India. Transmission throughout the high season of 2004 and early 2005 has been extremely focal, and genetically restricted, because of the significant progress that has been made in reaching more children with immunization, particularly in the highest risk areas.

As at 3 May 2005 a total of 14 confirmed polio cases with onset in 2005 have been reported in India, 7 from Bihar, 4 from UP, and one each from Jharkhand, Delhi, and Uttaranchal. All 14 cases are due to type 1 poliovirus; the last type 3 case in India was 24 December 2004 in Rampur district of UP. The latest date of onset in Bihar is 22 February in Siwan district and in UP is 12 January in Aligarh district. The Greater Mumbai area, which at the time of the December meeting was known to have sustained local transmission of wild poliovirus throughout 2004, has not detected a positive environmental sample since 17 January 2005. Genetic data indicates that 2 clusters of type 1 remain active in 2005, down from 10 in 2003 and 4 in 2004, cluster B1b with just one representative found in Nalanda, Bihar and cluster B2d found in all 13 of the other cases.

Particular elements of the progress made in the programme were specifically noted by the IEAG.

- High AFP detection rates achieved from the middle of 2004 have been well sustained, in particular in the highest risk states of UP and Bihar. **For the first quarter of 2005, three times as many AFP cases have been detected and investigated in India compared with the same period in 2004.** Stool specimen collection rates have continued to improve in Bihar, where rates were previously sub-optimal. The laboratory network has continued to deal with the massively increased workload with no loss of timeliness or deterioration in quality. **The sensitivity of the surveillance system in India is better than it has ever been at any time during the eradication period.**
- National and state government ownership has remained very high, particularly in the endemic states, with heightened levels of engagement particularly in Bihar and Maharashtra following the Ministers' Meeting in Geneva in January 2005. In Uttar Pradesh high levels of government engagement through to the district level have been maintained.
- Through close cooperation between the government, the manufacturer, and partner agencies, mOPV1 has been developed, licensed, and successfully used in Bihar, Mumbai/Thane/Raigad, and the 13 high risk districts in western UP during the April 2005 NID round.
- The strategy of reaching moving populations by targeting transit points has successfully expanded, such that in the three endemic states approximately 5 million children were covered by transit teams during the April NID round.
- The Underserved Strategy in high risk districts in western UP is being implemented, and although not all designated high risk areas are covered with all interventions, over 80% of teams in these areas have a female, Muslim vaccinator, and three-quarters of teams have a local influencer.
- The improvements in government ownership at state and district level, and the operational and communications measures taken to improve access to and coverage of children, have led to the net result that **children in India in 2005 are**

better immunized against polio than ever before; the major improvements in immunization status that have occurred have been in high risk districts in UP and Bihar, among children less than two years, and in underserved Muslim minority children in western UP.

India can, and must, stop transmission of polio in 2005. The IEAG is confident that the strategies being followed continue to be correct, appropriate, and effective. In previous meetings the IEAG called on the Union Government, State Governments, and their international and national partners to maintain focus and momentum. **The key actions in the coming months must be to sustain and fully implement the current strategies** of concentrating on high risk districts and communities, continuing heightened surveillance activities, making special efforts to reach underserved communities, reaching children in transit during immunization rounds, and protecting the wider population through supplementary immunization activities and routine OPV immunization.

The IEAG considers that there is currently very restricted transmission of wild poliovirus, and that there will likely be very low confirmed case numbers in the coming months, in the lead up to the high season. **However, the partnership must plan for the expectation that wild poliovirus will be detected in the high season. Maximum vigilance and capacity for response must be maintained to ensure that transmission is stopped in 2005.**

IEAG Recommendations

Supplementary Immunization Schedule and Vaccine

- The IEAG endorses the proposed use of mOPV1 in Bihar, UP and neighbouring districts of Uttaranchal, Delhi, and Mumbai/Thane/Raigad during the May 2005 NID.
- For the period June to December 2005, the IEAG reaffirms its recommendation that four rounds of SNIDs be conducted, with the following provisions (Refer Table 1. below):
 - The SNIDs in June and August should cover Bihar, UP and neighbouring districts of Uttaranchal, Delhi, and Mumbai/Thane/Raigad.
 - Given the high probability of ongoing low level type 1 poliovirus transmission, and the risk of further spread of this virus with the onset of the rainy season in June, the IEAG recommends that mOPV1 be used in a further round in the full SNID area (Bihar, Uttar Pradesh and neighbouring districts of Uttaranchal, Delhi, and Mumbai/Thane/Raigad). If sufficient mOPV1 cannot be procured to cover all of these areas in June, the order of priority for use should be first, Bihar, second, the high risk districts of western UP, third Mumbai/Thane/Raigad, and fourth, other target areas. In those areas for which mOPV1 is not available in June, trivalent OPV (tOPV) should be used. Any areas not covered with mOPV1 in the June SNID should use mOPV1 in the August SNID.
 - Trivalent OPV should be used for the SNIDs during the three remaining SNIDs rounds in 2005 (August, October and November), except in areas where wild poliovirus type 1 persists, in which case mOPV1 should be used in appropriate districts for two sequential rounds.

- The SNIDs in September and November should plan to cover UP, Bihar, Delhi, Mumbai/Thane/Raigad, and selected districts of Uttaranchal, Jharkhand and West Bengal. The final extent of these rounds should be reviewed in August based on the surveillance and immunization status data available at that time.
- The geographic extent of the four SNIDs should be expanded to include any additional area or state in which a wild poliovirus is isolated. If wild poliovirus type 1 is isolated, mOPV1 should be used for at least two rounds in these areas.
- If wild poliovirus type 3 is found in any area, tOPV should be used in an appropriate area (at minimum several districts) for two sequential rounds.

Table 1. Schedule of SNIDs in India with geographical extent and vaccine to be used June to November 2005

	June*	August*	September*	November*
Geographical extent	Bihar, UP and neighbouring districts of Uttaranchal, Delhi, Mumbai, Thane, Raigad	Bihar, UP and neighbouring districts of Uttaranchal, Delhi, Mumbai, Thane, Raigad	Bihar, UP, Delhi, Mumbai, Thane, Raigad selected districts of Uttaranchal, Jharkhand and West Bengal	Bihar, UP, Delhi, Mumbai, Thane, Raigad selected districts of Uttaranchal, Jharkhand and West Bengal
Scenario 1: Sufficient mOPV1 available for June round	mOPV1 in all areas	tOPV in all areas	tOPV in all areas	tOPV in all areas
Scenario 2: Sufficient mOPV1 not available for June round	mOPV1 in order of priority: 1. Bihar 2. High risk districts of West UP 3. Mumbai, Thane, Raigad 4. other target areas tOPV in other areas	mOPV1 in areas where tOPV was used in June tOPV in other areas	tOPV in all areas	tOPV in all areas

Note:

1. If wild poliovirus type 1 gets isolated in any area where tOPV is planned to be used (as per table above), or in an additional polio free area or state, mOPV1 should be used instead of tOPV for two sequential rounds in an appropriate area.
2. If wild poliovirus type 3 is isolated in any area, tOPV should be used for two sequential rounds in an appropriate area.
3. * Include in the SNID round any additional area or state in which wild poliovirus type 1 is isolated.

- An additional 100 million doses of mOPV1 should be procured for the June SNID and to provide a reserve for use during the June and subsequent SNIDs in areas where wild poliovirus type 1 is detected.
- For 2006, the IEAG recommends the Government of India should plan for two rounds of NIDs to be conducted in the period January-February 2006, followed by four SNIDs (50% population coverage for planning purposes). Two of the SNID

rounds should be planned for the period March-May and two for September-November.

- For 2007 the IEAG recommends that two rounds of NIDs be conducted in the period January-March followed by two SNIDs. The SNID rounds should be planned for the period October-November.
- Trivalent OPV should be used for these SIAs in 2006-2007 unless wild poliovirus is isolated, in which case mOPV should be used for at least two sequential rounds in an appropriate area.
- The IEAG supports the intention to investigate the immunogenicity of mOPV1 compared to tOPV, and encourages appropriate institutions in India to participate.

Enhancing the impact of supplementary immunisation activities

As noted above, the IEAG believes the actions being taken to improve the impact of supplementary immunization activities are appropriate and are having a major effect on the capacity of the programme to reach the children at highest risk for sustaining wild poliovirus transmission.

- The actions initiated in recent months (the focus on high risk districts, the transit strategy, and the underserved strategy), to improve access to children in highest risk districts in the endemic states, and to specifically reach underserved children in western UP, must continue and be fully implemented.
- As part of the underserved strategy, further efforts should be made to enable as many high risk areas as possible to be covered by community mobilizers, based on the high risk area selection developed jointly by the partners.
- The Secretary, Health and Family Welfare should consider approaching his Railways counterpart directly to ensure that the Railway Plan is fully agreed and implemented as soon as possible.
- In all high priority areas, particularly in Bihar, additional efforts should be made to engage local partners including the IAP, IMA, and non-governmental groups, to obtain their support.
- As previously recommended, in all high priority districts, specific plans should be made to promote inter-sectoral social welfare benefits to polio victims, in order to enhance the credibility and community acceptance of polio eradication activities.
- The IEAG notes the expansion of the communications human resource infrastructure to Bihar, and requests partners to continue to support the communications and social mobilization network.

Maintaining sensitive surveillance

The efforts made from mid-2004 to raise surveillance quality have resulted in significant improvements. The surveillance system is now operating at a high level of sensitivity.

- The IEAG strongly endorses the approach being taken to enhance AFP surveillance sensitivity, and the action being taken to extend improvements in surveillance to all states.
- Surveillance at sub-state level should continue to be closely monitored, and any problem areas immediately addressed, to ensure that quality is uniformly good.

- Detailed epidemiological and demographic/community investigations should be carried out for all confirmed cases in 2005, consistent with the recently established investigation protocol, taking into account the genetic relationships of the detected viruses, with the objective of identifying any factors that will allow improved targeting of efforts to improve SIA activities.

Routine immunisation

The IEAG notes the considerable work done to establish national policies and plans for immunization services, under the guidance of the National Technical Advisory Group for Immunization. The IEAG is pleased to note that the Field Operational Guidelines are close to being finalized and released, auto-disable syringes are to be distributed by mid-2005, AEFI guidelines are being distributed during 2nd quarter 2005, and routine immunization monitoring software (RIMS) has been developed and field tested and is scheduled to be implemented within the next six months. However, more work needs to be done to strengthen routine immunization to protect the progress made in eradicating polio.

- IEAG recommends that more work must be conducted under the guidance of the NTAG to:
 - o Demonstrate impact through expanded routine immunisation outreach sessions, with monitoring to document increases in coverage levels.
 - o Engage key partners in Interagency Coordination Committee (ICC) meetings on routine immunisation convened at least quarterly.
 - o Develop complementary polio eradication and routine immunisation communication messages.
 - o Ensure that routine immunisation activities are strengthened side by side with polio eradication activities, and that the experience developed through polio eradication is used in improving routine immunisation and surveillance for vaccine preventable diseases.
- High priority districts for polio eradication in UP and Bihar should continue to be targeted for intensive efforts to improve routine immunization and reports on progress provided to the NTAG and IEAG.
- Key states at risk of importation of wild poliovirus, and with lower immunization status (including West Bengal, Jharkhand, and Karnataka) should concentrate on improving routine immunization coverage of infants.
- NPSP, UNICEF, and other partners should support development of routine immunization services through monitoring of service delivery, vaccine supply at peripheral levels, safe vaccine storage, and surveillance for vaccine preventable diseases.