Achieving Polio Eradication in India

Emergency Preparedness and Response Plan 2011

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The Emergency Preparedness and Response Plan has been developed at the request of the Honorable Minister of Health & Family Welfare to ensure adequate preparedness and response to an event of importation of poliovirus anywhere in India during 2011.

1. Background

India has made remarkable progress towards polio eradication in 2010. Only 42 wild poliovirus (WPV) cases have been detected in the country, compared to 724 cases detected during the same period in 2009. The progress in polio eradication was reviewed during the India Expert Advisory Group (IEAG) meeting held in November 2010. At this meeting the IEAG concluded that *"the epidemiologic, genetic, serologic, operational & technical evidence show that India is on the right path to achieve eradication".* However, the IEAG identified certain risks to the polio eradication programme in India. One of the major risks identified includes continued transmission of poliovirus within the mobile / migrant populations, resulting in re-introduction and spread of the virus in Uttar Pradesh (UP) and Bihar or in areas outside these historically core endemic states that are at high risk of importation and further spread of polio. The IEAG highlighted the fact that as long as virus transmission continues in any part of India or elsewhere in the World, the possibility of virus importation to polio frees areas in India remains.

In view of these risks, the IEAG recommended that while intensive efforts should continue to stop transmission in areas with recent WPV transmission and the traditionally endemic areas of UP and Bihar, the programme in India should:

a. make efforts to protect polio free areas from importation of virus from within or outside India and

b. rapidly respond to any WPV detected anywhere in India during 2011 with an aggressive mop up vaccination campaign to stop any further circulation of the virus.

The IEAG recommended that *"From now, any WPV from any source should be considered a public health emergency and responded to with urgent mop-ups; government & partners must deploy additional, highly experienced human resources to ensure that mop-up rounds are of the highest quality. Mop-ups should target both the area of detection of the virus in a case or in the environment and, if there is a clear genetic link, the area of origin of the virus".* Thus any isolation of WPV requires a rapid high quality mopping up response as an utmost priority to stop circulation and spread.

This document is a strategic plan for protecting the polio free areas of India from WPV and for implementing high quality mopping up operations with the aim of stopping the final chains of WPV transmission.

2. Immediate actions - Preparedness for virus importation and response

2.1 National level Actions

The Government of India will have a "Central Emergency Preparedness and Response Group" to ensure adequate preparedness for a rapid response and manage the actual response to the detection of a wild poliovirus anywhere in India during 2011. The group will be chaired by the Joint Secretary, Health & Family Welfare, Government of India and comprise of senior officials from Ministry of Health and Family Welfare (GoI), and representatives of National Polio Surveillance Project (NPSP) – WHO, UNICEF and Rotary. The key responsibilities of the group will include:

- Identification and Training of Rapid Response Team (RRT) members at the national level. The RRT members will include experienced, government and partner agency staff from the fields of epidemiology, public health, management and communication (including a media specialist).
- Follow up with State Governments to ensure that a Rapid Response Team, headed by an Officer of the rank of a Principal Secretary, is constituted in each state. The state RRT should include at least 2-4 well performing Medical Officers from within the state who have at least 5 years experience in dealing with senior district level officials and a familiarity with the basic principles of mass vaccination campaign implementation. The RRT members will be trained by MoHFW, GoI with assistance from WHO NPSP and UNICEF. In the event of WPV detection, it will be necessary to assign the RRT members full time duty by the state governments to provide support to mop up vaccination campaigns.
- Develop a media response plan to be used in the event of detection of WPV.
- Review the availability of buffer stocks of oral polio vaccines to manage mop up vaccination campaigns.

Summary of the National actions with the proposed timeframe:

- *Constitute the "Central Emergency Preparedness and Response Group" by mid April 2011.*
- *Write to state governments & partners, in the second week of April 2011, for identification of RRT members in each state by the end of April 2011.*
- *Organize a training of the RRT members jointly with NPSP and UNICEF by the second week of May 2011.*
- *Monitor the identification and training status of the RRT members.*
- *Procure sufficient buffer stocks of bOPV, tOPV and mOPVs to manage the mop ups.*
- *Develop a media response plan by end of April 2011 that includes mechanisms of harmonizing messages from Union and State Governments to the detection of any polio cases.*

2.2 State level

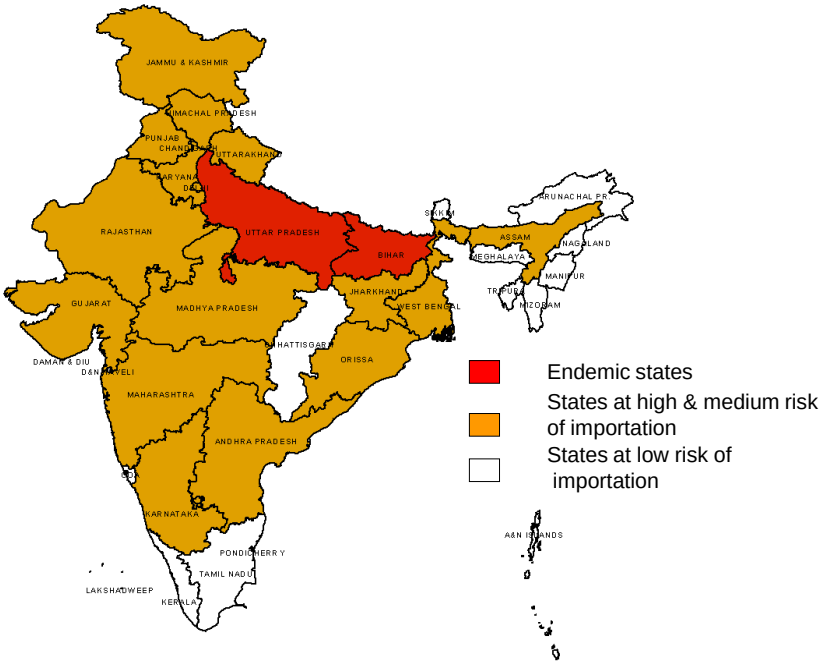
2.2.1 States at risk of importation

The following states have been identified at a high or medium risk of importation based on past epidemiology of polio: Haryana, Delhi, Uttarakhand, Maharashtra, Punjab, Rajasthan, West Bengal, Gujarat, Jharkhand, Madhya Pradesh, Assam, Orissa, Andhra Pradesh, Himachal Pradesh, Jammu & Kashmir and Karnataka.

Risk Categorization of States based on history of polio importations during last 5 years

High risk of Importation: ≥ 8 importations and ≥ 5 years with importations

Medium Risk of Importation: ≥ 5 importations and 3 - 4 years with importations



2.2.2 State Level Actions:

Each state at high or medium risk should undertake the following actions in preparation for the emergency response:

- Constitute a State Emergency Preparedness and Response Group chaired by the Secretary (Health & Family Welfare) and comprised of senior officials from the State Government such as the Director Health Services, State EPI Officer and other nominated senior government officials. State representatives of WHO-NPSP, UNICEF and Rotary should also be a part of the group. This group should monitor the preparedness and implementation of the mop up.
- Undertake a risk analysis, in coordination with WHO- NPSP officials, to identify districts/ blocks/urban areas at high risk of importation and spread of poliovirus.

This analysis should include identification of areas that have had repeated importations of polio viruses during previous years or a recent clustering of polio compatible cases in time and space, or are hard-to-reach areas or have demographic/ environmental factors that would facilitate the spread of wild poliovirus following an introduction (such as high population density, poor sanitation etc). Special focus should be on the identification of areas with low routine immunization coverage and areas with migratory/ mobile populations in each state as per guidelines issued by GOI in 2010. This risk analysis should be completed at the earliest by each state and the lists of all high-risk areas and populations shared with GOI.

- Undertake a communication risk analysis in coordination with UNICEF/ WHO-NPSP and based on the analysis develop a communication plan for issues related to non compliance/ resistance to administration of polio vaccines.
- Develop a media response plan to be used in the event of detection of a virus.
- Develop and implement a plan to increase polio SIA coverage and RI coverage in these high-risk areas/ populations to achieve high immunity against polioviruses in these areas, which in turn will prevent spread and establishment of circulation of any imported wild polioviruses. These areas should be targeted for better planning, training, social mobilization and monitoring efforts during the SIAs in 2011-12. The states should also begin the process of harmonizing the polio microplans with Routine Immunization plans in the high-risk areas.
- Identify and nominate 2-4 experienced medical officers to be a part of the Rapid Response Teams (RRTs).
- Review the surveillance quality in these areas with the district and block officials in coordination with NPSP officials to identify actions to strengthen surveillance sensitivity in these areas, which in turn will assist with early detection and response following any importation.
- Assign Senior State Govt officials to visit high risk districts and blocks to review progress in updating and implementation of microplans for improving immunization coverage and surveillance sensitivity.

Summary of the State actions with the proposed timeframe:

- *Constitute a State Emergency Preparedness and Response group by end of April 2011.*
- *Identify RRT members by end of April 2011.*
- *Identify high-risk districts and high-risk areas within districts by mid May 2011.*
- *Identify and assign senior officials to high-risk districts by third week of May 2011.*
- *The above items should be reported back to the Central Emergency Preparedness and Response Group by the end of May 2011.*

3. Response and actions following the detection of Wild Poliovirus

3.1 Key steps in the planning phase of the mopping up vaccination campaign

3.1.1 National Level Actions:

- The Ministry of Health and Family Welfare will be informed about the detection of the virus without delay.
- The Ministry of Health and Family Welfare will inform the Chief Secretary of the affected state of the detection of the polio case in the state.
- The Central Emergency Preparedness and Response Group will meet within 24 hours of receipt of information. The Group will review and analyze, in detail, the field epidemiological investigation findings pertaining to the polio case. Based on the above findings, the areas and populations at risk of poliovirus circulation will be identified and a SIA response within the broad strategic framework recommended by the IEAG will be decided. The group will make specific recommendations on: -
    - Timing of the response
    - Area(s) to be covered during the response
    - Type of vaccine to be used during the response
    - Number of proposed rounds
    - Additional investigations and analyses to be conducted
- Members from the Central Emergency Preparedness and Response Group will visit the concerned state to meet the state health secretary and other state officials. The members of the National and State Emergency Preparedness and Response groups will subsequently visit the concerned districts accompanied by the state RRT members to review planning for an emergency response.
- The Central Emergency Preparedness and Response Group will meet on a weekly basis to review the planning and implementation of the response and provide recommendations to the immunization division and state authorities to make improvements.
- Vaccine will be mobilized to reach the State/Districts undertaking the mop up at least 3 days before the start of the campaign.
- MoHFW shall seek support from other Govt departments such as Social Welfare, Railways, Panchayati Raj, Urban Development, Education, for the emergency mop up operation.

3.1.2 State level Actions:

- The State Emergency Preparedness and Response Group should be activated within 24 hours of receipt of information to initiative the following actions:
    - Inform the Divisional Commissioners and the District Magistrates of the areas undertaking the mop-up within 24 hours of receipt of information.

- Allocate geographical areas and operational responsibilities to all RRT members ensuring an appropriate distribution of human resource within 72 hours of receipt of information.
- Assign senior state officials to the districts and members of the State Emergency Preparedness and Response Group to visit and mobilize the districts within 72 hours of confirmation of case.

- The currently existing State level Steering/Coordination Committee for polio eradication should be requested to organize a meeting within 5 days of case confirmation to seek support and coordinate activities with other Government departments and NGOs.

3.1.3 District level Actions:

- The district level officials from health and administration should begin mobilizing the block officials to start preparations within 48 hours of identification of importation.
- District Task Force (DTF) meetings should be organized in the district with RRT members, NPSP, UNICEF staff and key government officials to allocate specific responsibilities within the district and ensure participation of all sectors for a successful implementation of the mop up. The first DTF to be conducted within 5 days of confirmation of the case. Subsequently there should be a weekly DTF to take stock of the situation and address requirements of the response activities.
- Divisional Commissioners should review the preparedness through participation in DTFs and field visits.
- Tehsil/ Block Task force meetings should be organized at sub-district level in all urban and rural areas within 7 days of the confirmation of the case.
- All existing micro plans should be reviewed as per operational guide for mop up with special emphasis to ensure no areas are missed, there is high coverage of high risk areas and migratory populations. All micro plans should be reviewed and modified within 10 days of confirmation of the case.
- All vaccinators should be retrained on operational and IPC skills in the week before the start of the mop up.
- The district and block in consultation with UNICEF and other social mobilization partners should plan and initiate IEC and social mobilization measures based on solid data collected through standardized data tools.
- Develop a media response plan to be used in the event of detection of a virus.
- In consultation with government NPSP should develop a monitoring plan for intensive monitoring and mid course corrections during the activity. Additional independent monitors should be deployed by NPSP in addition to the existing NPSP and UNICEF staff present in the district.

3.2 Key actions during the mopping up vaccination campaign

3.2.1 National level Actions

- Members from the Central Emergency Preparedness and Response Group will monitor the activity in the highest risk blocks.
- The Central Emergency Preparedness and Response Group will meet to review the feedback from its members, States, RRTs and provide directions for corrective actions.

3.2.2 State level Actions

- Members of the State Emergency Preparedness and Response Group and the State monitors should visit high risk blocks to monitor the activity and provide feedback to the State Principal Secretary (H & FW)
- The State Emergency Preparedness and Response Group should meet daily to review feedback from the districts and plan corrections.

3.2.3 District/ Sub District level Actions:

- The district should implement the SIA activity under the direct oversight of the District Magistrate (DM) and supervision of the Chief Medical Officer/Civil Surgeon. The DMs should report on the quality of the activity to the State Principal Secy (H & FW).
- Daily monitoring and review of activity to plan for corrective actions over subsequent days
    - Senior District level officials from health and administration (Divisional Commissioner/ DM/ADM/CMO/DPO/Dy CMO/BDOs) should monitor the implementation of the activity and attend evening meetings at the high risk blocks.
    - A daily evening review meeting should be organized at the district under the chairmanship of the District Magistrate.

4. Key Actions at the end of the activity

- The District Magistrate should send a report of the completed activity to the State Emergency Preparedness and Response Group for review and corrective actions.
- The State Emergency Preparedness and Response Group should meet to review this and forward the report to the Central Emergency Preparedness and Response Group
- The Central Emergency Preparedness and Response Group will review the activity and inform the Union Minister who, at his discretion, will inform the Chief Minister of the concerned state about the quality of response activities and ongoing risk assessment.

5. Role of Partners:

Partners should participate in the Central and State Emergency Preparedness and Response Groups. The key role of the partners will be as follows:

- NPSP: provide surveillance data, epidemiologic analysis and strategic planning and other technical support to the group as well as support monitoring of the preparedness and response at the district, State and National levels.
- UNICEF: provide support to the communication/ social mobilization and media strategies and their implementation and monitor their impact
- Rotary International: provide support to the advocacy at the state and district levels and to the communication strategy and social mobilization activities

6. States at low risk of importation of poliovirus

- Undertake a risk analysis, in coordination with WHO- NPSP officials, to identify districts/ blocks/urban areas at higher risk of importation and spread of poliovirus, This analysis should include identification of areas that have had importations of polio viruses during previous years or a recent clustering of compatibles in time and space, or are hard-to-reach areas or have demographic/ environmental factors that would facilitate the spread of wild poliovirus following an introduction (such as low routine immunization coverage, high population density, migrant sites, poor sanitation etc). Special focus should be on the identification of areas with migratory/ mobile populations in each state as per guidelines issued by GOI in 2010. This risk analysis should be completed at the earliest and the lists of all high risk areas and populations shared by each state with GOI.
- The state should assign Senior State Govt officials to visit high risk districts and blocks to review progress in updating and implementation of micro plans prior to the 2011 NIDs for improving immunization coverage and surveillance sensitivity.

7. Strategy for Mop ups

The basic aim of the mop up would be to vaccinate all under 5 children in the mop up area. Each household in the mop up area will be visited by vaccination teams to vaccinate all under 5 children. The duration of the house-to-house (h-t-h) search and vaccination would be decided by the number of available vaccination teams in the area. In principle, there would be a minimum of 2-5-day h-t-h activity in all areas to ensure a rational workload for each vaccination team. Additional 1 to 2 days of h-t-h activity will be undertaken in special areas with lesser number of available teams e.g. in large urban areas. B team activity will continue in UP and Bihar. Transit teams and Mobile teams will be deployed to cover migrant and mobile populations.

In areas that have used booths during the SNID/NID, booths will also be setup on day 1 of the mop up campaign because of their IEC/SM value.

The mop ups shall be implemented as per the Operational Guide for SIAs published by Government of India in 2006.

7.1 General principles for mopping up operations

The following guidelines as recommended by the WHA & IEAG should be followed:

- Speed of response: as early as possible but no later than 2 weeks from confirmation of the case.
- Extent of mop ups: The response should consist of at least 3 large scale, house-to-house rounds of immunization. The World Health Assembly Resolution (59.1) calls for coverage of 2-5 million children in each round. Mop-ups should cover at a minimum the infected district and all districts contiguous with it, across state boundaries if necessary. Where there is a clear genetic link of the virus to the strains in another area, the area of origin should also be included. In the demographic context of India and considering that this is the final stage of polio eradication, the 18th IEAG has recommended the appropriate target population for mop-ups around 5 million children per round.
    - In high risk areas: SNID rounds may constitute one or more of the 3 rounds, but in principle at least one additional round should be carried out in an appropriate area using a short interval approach – *all rounds must be of the highest possible quality!*
    - In non-high risk areas: mop-ups should consist of a minimum of 3 high quality rounds, using a short interval approach (minimum interval of 2 weeks but within 4 weeks) – *all rounds must be of the highest possible quality!*
- Vaccine of choice for mop-ups is mOPV appropriate to the local epidemiology or bOPV; a rolling stockpile of 30 million doses of bOPV and 10 million doses of mOPV1 should be maintained to allow for rapid implementation of mopping up vaccination with the appropriate vaccine.

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