



WHO National Polio Surveillance Project

Routine Immunization Activity Update

Recap of 2009 Routine Immunization Activities in India

Vol. 1, Issue 1 March 2010

Dear colleagues,

With immense pride we are pleased to present to you the inaugural edition of NPSP's Routine Immunization Activity Update. Established in early 2004, the routine immunization team of WHO-NPSP provides essential technical support to the Ministry of Health and Family Welfare (MoHFW), Government of India (GoI) and state governments on a wide range of immunization activities.

Currently, NPSP has 19 officers dedicated to routine immunization strengthening at the national (7), state (4 – Bihar, Jharkhand, Rajasthan and Uttar Pradesh) and district levels (8 districts of western UP). In addition, there are 4 data management and administrative staff that provide invaluable support to the efficient operations of the team. Given the critical importance of routine immunization to achieving and sustaining polio eradication, the thrust of NPSP activities is focused on areas at high risk for polio.

The technical and strategic support of NPSP to GoI is aligned with and prioritized based on the country's multi-year plan (MYP) for its Universal Immunization Programme (UIP) and the comparative strengths and mandate of WHO. NPSP currently supports GoI and state governments to improve and enhance routine immunization monitoring, plan and prepare for introduction of new vaccines, improve AEFI surveillance, validate maternal and neonatal tetanus elimination, expand systematic surveillance for measles and other vaccine preventable diseases.

For the first edition we have selected updates on the newly developed and robust immunization monitoring strategy, our training and capacity building activities, including assessment of the quality of training, the iterative process followed for the development of India's new national multi-year strategic plan (cMYP) 2010-2017, development of the H1N1 Pandemic vaccine deployment plan, a field assessment of barriers to uptake of the recently introduced Hepatitis B vaccine and the surveillance for AEFI. Although this is not a complete list of NPSP activities, the selected updates will hopefully provide you useful insights into the immunization program in India and the strategic support provided by NPSP.

We hope you will enjoy this update, which we plan to publish quarterly. We look forward to receiving your comments and suggestions on how we might improve and increase the utility of these updates. Thank you,

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Improving routine immunization monitoring in India

Since 2004, WHO-NPSP staff in coordination with the Ministry of Health and Family Welfare (MoHFW) and partners, has monitored routine immunization (RI) sessions in three high risk polio states: Bihar, Jharkhand and Uttar Pradesh (UP). Field support for this activity was carried out through WHO-NPSP's extensive network of field volunteers who, in addition to AFP surveillance and SIA microplanning and monitoring, also monitor routine immunization session sites during non pulse-polio weeks. From January to December 2008, 10,444 sessions were monitored in the Bihar, Jharkhand and UP. Information on the availability of necessary antigens and personnel (vaccinator and social mobilization agent - ASHA) at the vaccination session was collected and feedback shared with Block and District Medical Officers.

Building on this system, the MoHFW initiated efforts with partners in early 2009 to revise the RI monitoring strategy. WHO-NPSP revised existing data collection formats and tools and developed a house-to-house monitoring component. More detailed session site data is therefore collected which better serves the information needs of district and block level decision makers. Coupled with the on-site session monitoring, the household monitoring component aims to determine antigen-specific immunization coverage of children through non-probabilistic convenience samples. The objective of household monitoring is to identify immunity gaps so that programmatic action may be taken as soon as possible, similar to vaccination campaign monitoring activities.

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The revised protocol and draft tools were piloted by WHO-NPSP on behalf of the Government of India (GoI) in 12 districts of the 3 supported states during March-April 2009. The final protocol and tools were shared by GoI with all 35 states and Union Territories in early July 2009. At the request of the MoHFW and state governments, NPSP conducted workshops in Bihar, Jharkhand, UP and Rajasthan to train state and local officials (chief and block medical officers, district immunization officers and data management personnel) in use of the

(Continued on page 2)

Table 1: Expansion of RI monitoring in priority states, October through December, 2009

State	Total districts	Total districts reporting	Total RI sessions monitored	Total number children <24 months surveyed
Bihar	38	38	5 726	46 347
Jharkhand	24	24	1 192	11 814
Uttar Pradesh	71	57	2 930	28 444
Total	133	119	9 848	86 605

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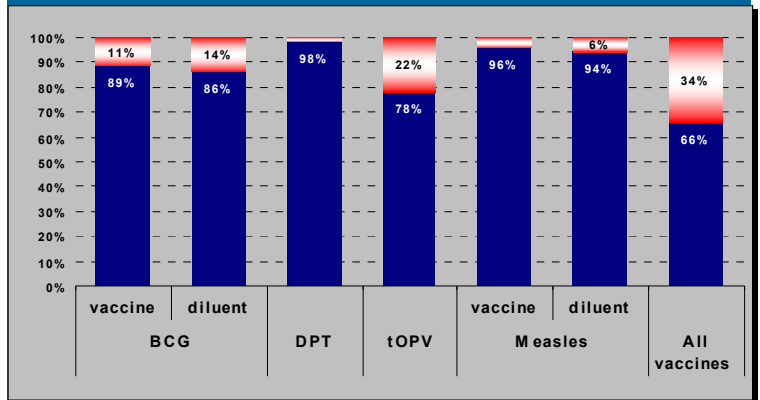
revised tool. In addition, 180 WHO-NPSP field staff (Sub-Regional Team Leaders and Surveillance Officers) were trained to actively monitor RI sessions as well as facilitate the training of NPSP Field Volunteers (FVs) and their government counterparts. By December 31, 2009, WHO-NPSP had organized 4 state and 102 district workshops and trained 2 320 field personnel, including District Immunization Officers (DIOs), Medical Officers (MOs) and FVs.

Monitoring of RI sessions and households using the revised tool started in early September 2009. To date (October through December 2009), Bihar, Jharkhand and UP have monitored 5 726, 1 192 and 2 930 RI sessions, respectively. RI session monitoring now provides data not only on whether scheduled immunization sessions are held and vaccines are available but also on the availability of necessary logistics – diluent, auto-disable (AD) and re-constitution syringes, vaccination cards – as well as injection practices and waste disposal followed at session sites.

The addition of the house-to-house survey provides information of immunity gaps as well as reported reasons for non vaccination, pivotal information to enable decision makers to better understand programme weaknesses and to plan corrective actions. By the end December 2009, 89 777 households have been monitored and immunization data collected from 46 347, 11 814 and 28 444 children less than 24 months for Bihar, Jharkhand and UP (see Table 1, page 1).

Figures 1 and 2 provide examples of the type of information generated by the system and available to programme managers. Figure 1 aggregates data across the state of Uttar Pradesh of the availability of individual vaccines and necessary diluents at 2,591 routine immunization session sites monitored from October through December 2009. Of note, 1 in five monitored RI sessions did not have tOPV and 1 in three sessions did not have all required vaccines – BCG, DPT, tOPV and measles. Figure 2 presents the vaccination status and reported reasons for non vaccination of monitored children from Moradabad district, western Uttar Pradesh. Of 377 children age 12-23 months surveyed, 102 (27%) children had received BCG, 3 doses of DTP, 3 doses of tOPV and measles vaccine. These children are considered fully

Figure 1: Availability of vaccines and diluents at monitored RI session sites (n=2 579), Uttar Pradesh, October-December 2009



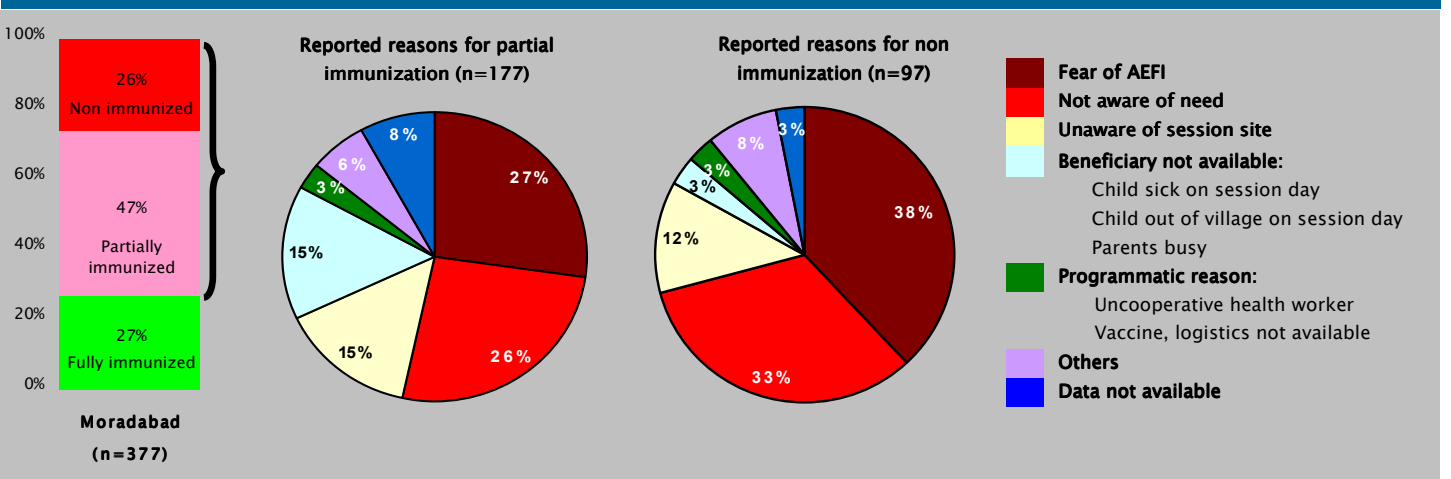
Note: "All vaccines" includes BCG, DPT, tOPV and measles

immunized. However, nearly half of the surveyed children (177 or 47%) did not complete the recommended Universal Immunization Programme (UIP) schedule and 98 (26%) children received no immunizations. The ability to differentiate the reasons for non-vaccination between the "left-out" unvaccinated children and those children who were partially immunized children but lost to follow-up, provides valuable information to programme managers.

Although the majority of data is currently collected in polio priority states where WHO-NPSP has a significant field presence, Rajasthan state officials requested training from NPSP and have since conducted cascade training of DIOs to implement the system throughout the state. The utility and real-time nature of the generated data has sparked interest from other states and Uttarakhand and Delhi are expected to implement the system in the coming months.

To further assist Gol and states, WHO-NPSP is developing an Access-based tool to facilitate the compilation, analysis and use of monitoring data at the district, block and sub-center levels where this information can best be used to improve immunization programme performance and quality. ■

Figure 1: Immunization status of monitored children 12-23 months of age and reasons for non vaccination, Moradabad district, western UP, October-December 2009

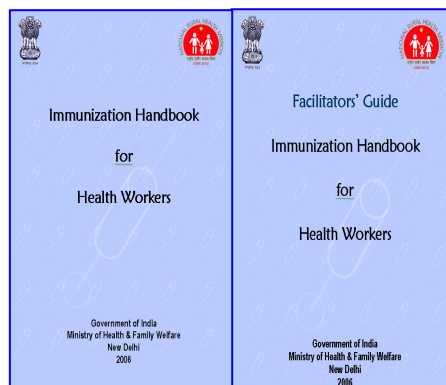


Routine immunization capacity building

Training for routine immunization continues to be a core activity of NPSP. Working in collaboration with Gol and other immunization partners, NPSP developed the Immunization Handbook for Health Workers in 2006 and the Immunization Handbook for Medical Officers in 2008. Using these comprehensive training guides, NPSP staff have facilitated numerous training of trainer workshops at national and state levels. To date, 5,400 trainers, 150,000 health workers and 7,000 medical officers have been trained by states using the Immunization Handbook, facilitator guides and training kits.

In an effort to assess the performance and

quality of health worker training in India, WHO-NPSP in collaboration with National Institute of Health and Family Welfare



(NIHFW), conducted an evaluation of on-the-job performance of trained health workers. The study was conducted in two phases (in June and July 2009) and included 40 districts in 7 states of the country. Data collection teams were comprised of NIHFW and NPSP personnel as well as experienced staff from UNICEF and IMMbasics. Study results were used to make recommendations to Gol with the aim of improving the quality of health worker training and the support health workers receive in the field. The detailed study report and recommendations are expected to be available at the end of March at :

<http://www.whoindia.org/EN/Section6/Section284/Section286.htm> ■

India's revised cMYP, 2010-2017

The landscape of immunization in India has changed since the elaboration of the country's initial Multi Year Strategic Plan (MYP) for its Universal Immunization Programme (2005-10). The National Rural Health Mission (NRHM) continues to grow in significance, new vaccines have been introduced (Hepatitis B and Japanese Encephalitis) and others are proposed for introduction (Haemophilus influenzae type B vaccine containing pentavalent vaccine). Hence, Gol, with the assistance of NPSP and other immunization partners, decided to draft a new comprehensive Multi Year strategic Plan (cMYP) for the period of 2010-17.

The first draft of the strategic document

was prepared by the Immunization Division of the MoHFW and shared with State Directors of Family Welfare and State Immunization Officers in all 35 States and Union Territories of the country for their input. To produce a practical strategic document reflecting the realities in the field, the MoHFW, in collaboration with NPSP and other immunization partners, conducted two consultative workshops in New Delhi and Kolkata in August and September 2009. Participants reviewed the proposed strategic areas, objectives and milestones as laid out in the draft cMYP. Each consultative workshop was attended by senior Gol officials and assembled state and district immunization officials, and block and PHC

medical officers from representative states. Overall, 17 states participated and more than 110 participants provided input to the document through their shared experience and knowledge of Universal Immunization Programme (UIP).

NPSP has continued to support the MoHFW with the final revisions and write-up of the cMYP. An advanced draft exists and the document is expected to be finalized and approved in the coming weeks. The new cMYP – as with the earlier version – will serve as the strategic document through which NPSP's support to the Government of India's UIP is based. ■

Pandemic influenza (H1N1) vaccine deployment planning and EPPR trainings

WHO announced the emergence of a novel influenza A virus in late April 2009 and the pandemic alert was raised to Phase VI on June 11, 2009. The first confirmed case in India of novel influenza A H1N1 followed soon after in mid-June. Since this time, NPSP has supported the WHO Country Office to develop training materials and conduct 9 batches of Epidemic and Pandemic Preparedness and Response (EPPR) training with more than 200 WHO technical field officers (Surveillance Medical Officers, Sub-Regional Team Leaders and Regional Team leaders).

At the request of the Emergency Medical Relief (EMR) Division in the Directorate General of Health Services (DGHS) and the Immunization Division of the MoHFW, NPSP took a lead role in developing India's comprehensive deployment plan of pandemic influenza vaccine.

The Government of India has recently procured liquid non-adjuvanted pandemic flu vaccine. Nearly 4 million health care workers will be targeted for vaccination in the coming months. ■



Hepatitis B vaccine uptake assessment

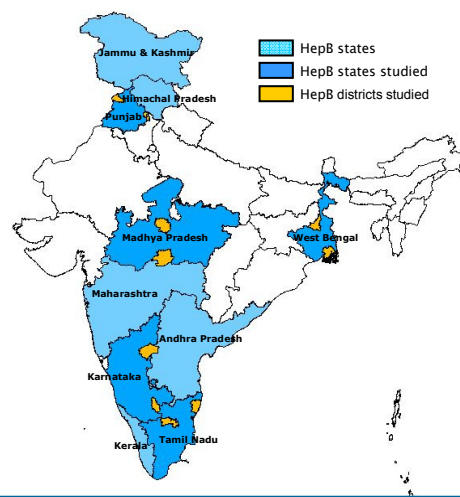
Following the success of a pilot project to introduce hepatitis B vaccine into UIP in 2002 in 33 districts and 14 cities, hepatitis B vaccine was introduced to 10 states in 2007-08 under GAVI Phase II support to the country. The 10 states to have implemented hepatitis B vaccine are: Andhra Pradesh, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Maharashtra, Madhya Pradesh, Punjab, Tamil Nadu and West Bengal.

In July 2009, Gol requested WHO NPSP to conduct an assessment of the uptake of hepatitis B vaccine in UIP post introduction. The request followed a preliminary review of reported data that noted lower hep B vaccine coverage compared to similarly timed DPT vaccine in many of the states. Specifically, Gol sought to assess the operational issues, problems and barriers related to hep B vaccine introduction to improve the programme as well as to derive lessons for future introduction of new vaccines.

The protocol and tools for assessment were developed by NPSU in consultation with Gol and immunization partners. The assessment study was conducted from 14th – 18th December, 2009 in 10 districts of 5 selected hep B states, namely Karnataka, Madhya Pradesh, Punjab, Tamil Nadu, and West Bengal. Overall, 20 study investigators from the Indian Institute of Public Health, Gandhinagar Institute of Liver and Biliary Sciences, USAID/MCHIP, US Centers for Disease Control (US CDC), WHO Geneva and WHO NPSP participated in the assessment. Study teams collected data from offices of state and district immunization officers, primary health centers (PHCs) and immunization session sites.

Preliminary findings indicate wide acceptance of the vaccine by health officials and communities alike. Moreover, state and district health officials stated that the introduction of hepatitis B vaccine into UIP, previously available only through the private

sector, enhanced public perception of the programme. With regard to the use of hep B vaccine at birth, there was however reluctance of some states and districts to initiate hep B birth dose due to concerns of high vaccine wastage and the possible negative effects on UIP of associated AEFIs in newborns. The final report of the study is expected to be available by the end of March. ■

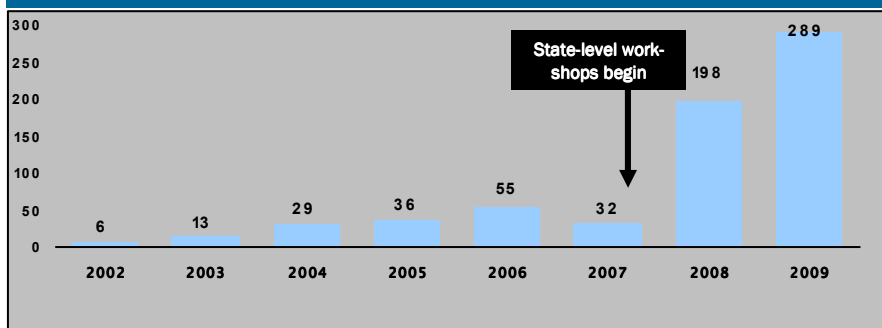


Surveillance of adverse events following immunization in India

Although surveillance of adverse events following immunization (AEFI) was introduced in India with the launch of EPI/UIP programme, it was long recognized that this essential component of UIP needed to be strengthened. Gol took the initiative by establishing a national AEFI Committee to improve central coordination of AEFI surveillance in January 2008. Subsequently, WHO-NPSP has provided technical support to Gol to conduct AEFI sensitization workshops at the national and state level. To date, AEFI committees have been established in all 35 States and UTs and 79% of India's 626 districts.

As training and sensitization of state, district and local health personnel has expanded, the number of reported serious AEFI cases has also increased (see Figure

Figure 3: Reported serious AEFIs, 2002-2009



3). A total of 294 serious AEFI cases in 96 districts of 18 states were reported through the system in 2009. This suggests a broader operationalization of the AEFI reporting system when compared to 2008 when 199 cases from 19 states and 78 districts were reported.

Additional steps are being taken by Gol with the support of immunization partners to institutionalize and improve AEFI surveillance. With NPSP support, Gol has conducted 4 regional and 12 state AEFI sensitization workshops. Overall, these workshops have trained more than 1,100 health officials. In April 2009, India's National

Regulatory Assessment (NRA) review was passed; AEFI surveillance is one of its components. And in August 2009, a national causality assessment workshop was conducted targeting National and select state AEFI committees members. Finally, WHO-NPSP is assisting Gol to revise existing AEFI surveillance guidelines. The updated version is expected to be approved, printed and disseminated to all the states in the coming months. More information on AEFI reporting guidelines and SOPs can be found at: <http://www.whoindia.org/EN/Section6/Section284/Section286.htm> and queries and suggestions may be forwarded to aeifiindia@gmail.com. ■

NOTE:

Serious AEFIs reported through the system are defined as:

- Deaths
- Hospitalized cases
- Cases occurring in cluster
- Cases with potential disability

Upcoming activities:

- **15–19 March:** Evaluation of Tracking Every Newborn (TEN) initiative, western Uttar Pradesh
- **30 March–1 April; 5–7 April; 8–10 April:** Routine Immunization training of NPSP Surveillance Medical Officers in high risk polio areas of Bihar state
- **Mid April (tentative):** AEFI guidelines dissemination workshop
- **21 April:** Health Worker Training Evaluation report dissemination workshop
- **Late April (tentative):** State EPI Officers' review meeting

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