

EXECUTIVE SUMMARY

In order to deal with the issues concerning the health of children several programs have been launched from time to time in our country. The basic aim of these programmes has been to bring improvement in their health status threatened by killer diseases in the early stage of life. Taking cognizance of the vulnerability of children, Govt. of India, in the early decades after independence has taken initiatives to protect vast population of its young citizens from life threatening diseases and diseases causing disability for the rest of life. The success of smallpox eradication in the mid-1970s had the spurring effect and drew attention of the Govt. towards the immunization programme in India.

Consequently, Expanded Programme on Immunization (EPI) was initiated by the Government of India in 1978 with the objective of reducing morbidity, mortality and disability from six of the major Vaccine Preventable Diseases (VPD) by making vaccination services available to all eligible children free of cost through the public health sector. EPI continued to grow with introduction of Polio, BCG and Measles vaccines in later years till the formulation and launch of Universal Immunization Programme (UIP) in 1985-86. In 1986, UIP was given the status of National Technology Mission. UIP became part of CSSM programme in 1992 and later the RCH programme in 1997 under which a specific immunization strengthening project was initiated to run from 2000-2003. Second Phase of RCH commenced in 2005 with three main objectives to bring about a change in mainly three critical health indicators i.e. reducing total fertility rate, infant mortality rate and maternal mortality ratio.

As part of national health policy, UIP is being implemented in the state of Uttar Pradesh and the state Govt. is fully committed for the complete immunization of children as programme has been given further impetus after the launch of NRHM in the state. Several initiatives have been taken to augment and streamline the programme in the state. Studies have shown there has been steady improvement in percentage of fully immunized children in the state. Proportion of fully immunized children age 12-23 months has increased from 25.8 (DLHS-2 (2002-04) to 30.3 (DLHS-3 (2007-08). Further, according to CES-2009 the proportion of fully immunized children has reached to 40.9. IMR has also declined to 61 percent per 1000 live births over the years.

But continuous low proportion of fully immunized children against six killer diseases and still high IMR as compared to other states is a cause of concern for the policy makers and programme managers in the state. Questions have been raised as to what were those factors both at the services delivery and community level that act as barriers in the noticeable progress in coverage of children under the immunization in spite of considerable efforts put into the routine immunization programme. CREATE; a Lucknow based research agency was commissioned by SIFPSA to conduct the study. Study was conducted in 18 districts of the state. In all, 150 villages and 54 urban slum areas were covered under the study.

Both quantitative and qualitative techniques were used in the study to gather data. In all, 4334 mothers (Urban slum-1149; Rural-3185) who have delivered during April 01, 2012 and March 31, 2013 were interviewed using structured schedules. The other stakeholders who were interviewed included 150 ASHAs and 150 ANMs. Discussions were held with CMOs/District Immunization Officers (36) and MOICs at PHCs/CHCs (54) using semi-structured questionnaires and qualitative guidelines. The report has been prepared based on the interviews of mothers and various stakeholders.

Background characteristics of Eligible women: Slightly above three-fourth of mothers were Hindus whereas remaining were Muslims. OBC accounted for 58 percent while about 30 percent belonged to SC/ST groups. Forty five percent women were illiterate with proportion of illiterates being 47 percent in rural and 37 percent in urban. Twenty three percent women had completed middle and high school (8-11th grade). Ninety six percent of women were housewives. Forty-two percent were from 20-24 age groups while around 30 percent in 25-49 age groups. Mean number of children ever born was estimated at 2.7 while mean number surviving was 2.5.

Antenatal care: More than nine in every ten mothers were registered for any ANC services. Ninety six percent mothers with single parity were registered for ANC, while 83 percent did so having 4+. Less than half were registered during 1st trimester. Seventy-three percent mothers had undergone checkup in urban slum as compared to 57 percent in rural areas. Eighty six percent mothers having 12+ grade literacy received checkup as against only 43 percent illiterate mothers. Around 45 percent of mothers have had 3 or more checkups (urban slum-53 percent; rural-41 percent). Among those registered, 55 percent reported abdominal checkups (urban slum-70 percent; rural-49 percent) while 46 percent reported blood test (urban slum-63 percent; rural-40 percent). Other three checkups reported varied between 39 and 41 percent.

Sixty-two percent received IFA tablets/syrup while little above one-tenth consumed the 100 IFA tablets. Ninety one percent mothers had received TT injection. Among them 94 percent received 2 TT injections

Place of delivery: A little more than 70 percent deliveries were conducted in Govt. and private institutions. Govt. institutions accounted for half of deliveries taking place in rural areas (51 percent) as against about two-fifth in urban areas. Seven in ten deliveries in both rural and urban slum took place in Govt. and Pvt. Institutions. Home deliveries had declined with increase in education of mothers (Illiterate-38 percent; 12+ Grades-13 percent). Ninety one percent of deliveries were normal. Sixty four percent deliveries were assisted by ANM/Nurse/LHV.

BCG and Polio 0 dose: Sixty percent newborns had received BCG dose before being discharged from a Govt. health facility (urban-75 percent; rural-53 percent). A little above 60 percent received Polio 0 dose as well with urban-rural proportions being almost identical as in case of BCG. One-third was given Hepatitis birth dose (urban slum-50 percent; rural-29 percent).

Awareness among mothers about vaccination of child < 1 year: Ninety four percent of mothers were aware about BCG while 89 percent each mentioned about DPT and Polio. Only 81 percent were aware about Measles. Awareness about various vaccines was high among young and educated women. 75-89 percent illiterate mothers knew about various vaccines, corresponding figure was 95-100 percent among mothers having completed 12+ grades. Again, 96 percent educated mothers (12+) considered child vaccination as important 'to a great extent' as against 86 percent of illiterates. Eighty six percent Hindus as compared to 78 percent Muslims thought so about child vaccination.

Source of Information of child vaccination: ASHAs (87 percent) in rural and AWW (56 percent) in urban slum were main sources of information about child vaccination followed by Nurse /ANM both in urban slum and rural areas (30-31 percent). Ninety two percent mothers in rural said they were informed before the session as against 69 percent in urban slum. Among them, 96 percent in rural were informed by ASHA, while 80 percent in urban slum by AWW.

A little more than one-tenth told that ANMs visit at 'Home' too for vaccination of the children under one year of age.

Childhood vaccination by 12 months of age: Around 62 percent of the children aged 12-23 months were fully vaccinated. Interestingly, comparatively higher proportions of children in rural areas were fully immunized (63 percent) as compared to children living in urban slums (59 percent). Ninety percent children received dose of BCG vaccine while only 67 percent that of Measles. Eighty three percent received first doses of DPT and Polio but almost 13 percent less went on to complete the 3rd dose of both vaccines. Proportion of non-vaccinated children was somewhat higher in urban slum (11 percent) in comparison to rural areas (8 percent). Again, education of mothers made the significant difference as the proportion of fully immunized children increased with increase in qualification of mothers. (Illiterate-51 percent; 12+ Grades-86 percent). Percent of fully immunized children had increased (62 percent) as compared to CES-2009 (UNICEF) (40.9 percent).

Place where child aged 0-35 received most vaccines: In rural areas, most children received vaccination in places like 'someone's home (25 percent), Primary school (21 percent) and Anganwadi centre (20 percent). Fifteen percent reported about sub-center. As for urban slums, Anganwadi centre (24 percent), 'Someone's home (17 percent), District Hospital (15 percent) and Private clinic (11 percent) were main places for vaccination.

Reasons for Non-Vaccination of children age 12-35 months: The major reasons cited for non-vaccination were 'not aware about place and time of vaccination (29 percent), Fear of side effects (21 percent), did not feel the need for vaccination (15 percent) and family problem (10 percent).

Messages and supplementary food given during RI sessions: Forty seven percent of mothers were given message about 'next vaccination', while a little above two-fifth (41 percent) was told about 'benefits of immunization'. 'Time of RI session' was told to one-third of mothers while almost similar proportions were informed about the 'age of child for different vaccines'. Fifty three percent mothers reported distribution of supplementary food during RI session.

ANM enquiring about health of child before vaccination was reported by 63 percent of mothers. Eighty nine percent reported use of 'New syringe', while 10 percent said 'Don't know.

Less than one-tenth (7 percent) mothers stated child faced problem after vaccination and 93 percent among them had told that child 'developed high fever'. Nearly half told child was taken to 'Pvt. Clinic for treatment while 18 percent opted for 'Home treatment'.

Frequency of ANM's visit and place of vaccination: Sixty-three percent mothers told that ANM visits 2-3 times in a month for vaccination while 18 percent said they were not aware. Overall, 37 percent reported anganwadi centre as place of vaccination. Almost one-fifth mentioned 'Primary school' and 'Somones' house'. Seventy seven percent mothers told that vaccination was held at the 'same place'.

IEC activities on routine immunization: Around one-tenth mothers reported IEC activities were organized in their village/area. Most mentioned about 'display of poster/banner and Rally etc.

Monitoring and Supervision of RI programme: AD (UIP) and JD (EPI) were the key persons at the state level responsible for monitoring of the programme. GM (RI) in SPMU was also involved in the monitoring besides other responsibilities of budget allocation and release of funds. Assistance to state authorities was also provided by UNICEF and NPSP representatives. Monitoring was done on the basis of MPRs and data uploaded on HMIS and field visits. At district monitoring RI was the responsibility of DIOs who undertake field visits to observe RI sessions and review progress in montly meetings. MOIC reviews RI in weekly and monthly

meetings, goes for observations of RI sessions. 78 percent MOIC visited 10+ times in last 3 months to see RI sessions. Monitoring visits by MOICs, district officials and others were also affirmed by ASHAs and ANMs.

Training of Cold Chain handlers and ANMs: Training of cold chain handlers and RI training of ANMs was reported to have completed in all districts. **Constitution of AEFI committees** was reported in all districts and in all PHCs/CHCs covered under the study.

Logistics support for cold chain maintenance: Study did not reveal any noticeable problem related to logistics support for cold chain maintenance. Districts officials confirmed adequate number of ILRs and Deep Freezers available in working order except in case of JP Nagar. Seventy percent PHCs/CHCs had 2 or more ILRs and 95 percent had 2 or more Deep Freezers in working status. Minor problems were handled by Cold chain mechanic/cold chain handler while serious one by Cold chain mechanic at Division level. DIOs reported having additional equipment if need arises for replacement. Shortage of vaccine carriers was reported at PHCs/CHCs in many districts. Power backup was adequate at almost all PHCs/CHCs barring a couple.

Transportation of Vaccines for RI sessions: Forty five percent ANMs and 41 percent MOs said vaccine transporter delivered vaccines for RI sessions. Thirty nine percent ANMs carried the vaccines themselves. ANMs who themselves collected vaccines, 85 percent stated it took <2 hours between collection of vaccines and start of session.

Adequate supply of vaccines: 15 percent ANMs reported shortage of BCG and 21 percent of JE vaccines. Five percent each mentioned shortage of DPT and OPV and 7 percent of Measles.

Preparation of Micro Plan and due list: All MOICs had confirmed the preparation of Micro plan of their PHCs/CHCs. 69 percent ANMs reported receiving computerized copy of Micro plan. Ninety four percent MOICs confirmed preparation of due list of all SCs. Ninety percent ASHAs also affirmed the preparation of due list by them. 78 percent ANMs said all ASHAs prepare due list while 10 percent stated most of ASHAs. 76 percent ASHAs and 69 percent ANMs reported matching of their due list with one prepared by AWW. Ninety four percent ANMs reported updation by ASHAs; among them 70 percent said they were updating it every 15 days.

Conduct of RI sessions: All MOICs had affirmed that RI sessions were conducted as per micro plan as no deviation was allowed. Almost all MOICs, ANMs and ASHAs had averred, place of immunization remains same as per Micro plan. Ninety seven percent ANMs reported presence of ASHA during session, while 89 percent said so in case of AWW.

Number of sessions organized and usual duration: Median value of number of sessions organized per sub-center in a month was estimated at 8. Mean duration as reported by ANMs was worked out at 6 hours.

Important messages given by ANMs included 'time of next vaccination' (91 percent) and 'some adverse reaction like fever after administering this vaccine (76 percent). Ninety percent ANMs reported asking mother to stay for half an hour after vaccination.

Disposal of medical waste during RI sessions: Sixty nine percent ANMs had hub cutter and 65 percent among them were reported using the same. Methods adopted for waste disposal comprised of 'bury in the pit' (41 percent) and 'burn in a pit' (29 percent).

Time taken to deposit open vials in PHC: Ninety percent said they deposit open vials in PHC. 47 percent took < 2 hours while 44 percent 2-4 hours in reaching the PHC/CHC.

Method adopted to vaccinate children left from due list as reported by ANMs was 'call them in next RI session' (57 percent) and 'vaccinate at home' (43 percent). Those not given BCG after delivery in the hospital were called in 'next RI session' by 88 percent ANMs.

Barriers for not getting full vaccination and non-vaccination: Almost six in every ten ANMs and ASHAs mentioned 'people don't understand the importance of full vaccination'. While half of ASHAs pointed out that they remained engaged in daily household chores'. Lack of education particularly among women was yet another factor that was cited by most of the people from district level officials to block and grassroots functionaries. Cultural and religious outlook among some sections were also some of the demand side barriers. On the provider side, some of the district officials had also pointed out about the shortage of ANMs, ageing of ANMs and attrition among ASHAs as some other barriers.

Promotional activities were restricted to display of banners/posters and wall writings. It was ASHA who undertook house to house visits and motivate and inform women on benefits of immunization, time of immunization and other issue related to vaccination. Paucity of funds for IEC activities was reported by districts as reason for lack of IEC activities.

Status of financial disbursement to ASHA: Around two-fifth of ASHAs reported receiving JSY incentive in 1-2 months while 36 percent stated 'no definite period'. Seventy two percent of ASHAs had received their full amount of last financial year. As for mode of payment, 97 percent received payment through E-transfer. Sixty seven percent told that they did not face problem related to payment of complete immunization.

Emerging Issues and Recommendations:

1. Several initiatives have been taken to increase coverage under immunization and almost 90 percent children have received dose of BCG. There was need to develop strategies to check the dropout from BCG to Measles which stood at 23 percent as importance of full vaccination was not understood by people due to lack of education and ignorance.
2. Study revealed that IEC activities were restricted to only display of posters and banners, occasional rallies and wall writings etc. A clear cut IEC strategy was the need of the hour to take care of demand side issues among all sections particularly for those who are illiterate, lacked in understanding the importance of vaccination or full vaccination and sections that were inimical to concept of immunization.
3. Role of Panchayati Raj Institutions and their representatives was found to be non-existent. It was essential to involve these groups in promotion of immunization services in their respective areas.
4. Although AEFI committees reported to have been formed, study revealed that there was need to streamline and strengthen their working for better results.
5. ASHA was also a key factor to ensure success of the immunization programme it was essential that all problems related to her payment and incentives must be resolved at the earliest for their whole-hearted participation in the programme.
6. Coordination with the Anganwadi workers needs to be streamlined as it was very important to achieve complete convergence to maximize the achievement.
7. Vacant positions of ANMs and ASHAs needs to be filled at the earliest possible as both were important for the success of the immunization programme.