QUALITY OF IMMUNIZATION SERVICE DELIVERY ASSESSED THROUGH RI MONITORING SYSTEM IN GOALPARA DISTRICT OF ASSAM

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ABSTRACT: Since the launch of UIP in the year 1985, it has passed through various changes, modification and introduction of newer initiatives. All these efforts are initiated with a view to increasing the immunization coverage as well as improving the quality of services. To enhance the coverage of routine immunization, it is crucial that quality of immunization services is monitored, gaps in it are identified and addressed. Hence it is tried to assess the quality of immunization service delivery at session sites and to assess the knowledge of the ANM. This analysis is a part of the routine immunization monitoring process done in Goalpara district of Assam during the period from 2009-2012. Results shown here are from 2010-11 and based on data collected through monitoring of 38 session sites. By analysing these data some strong and some weak areas were identified. Strong domains were maintenance of cold chain system, availability of logistics. Other sub areas where practice was found to be good are use of appropriate AD syringes for vaccination and disposable syringes for reconstitution in all session sites, availability of hub cutter with all ANM, vaccine reconstituted just before immunization, use of correct diluent, reconstituted vaccine used within 4 hr, appropriate use of 0.5ml and 0.1ml syringe and correct selection of sites for vaccination. Weak areas observed under injection safety were not using hub cutter immediately after injection in spite of its availability with the ANM hence recapping the needles and another point is touching the needle with finger. In many sessions time of reconstitution was not written on the vial. Record keeping was another area which needs improvement

KEYWORDS: Immunization, monitoring, supportive supervision, cold chain, logistics, injection process and safety, record keeping and knowledge.

INTRODUCTION: Routine immunization, the provision of primary series of vaccines within 1 year of age is one cornerstone of the Primary Health Care efforts. Over the period, immunization coverage has shown improvement. Along with increasing coverage maintenance of quality of services is equally important. AIIMS - INCLIN injection safety study showed that 73.9% of injections given in immunization clinics were unsafe. The GoI plans to introduce auto disable (AD) syringes in the Universal Immunization Programme (UIP) countrywide in 2005.¹ Since the launch of UIP in the year 1985, it has passed through various changes, modification and introduction of newer initiatives like: preparation of micro plan, provision of AD syringes, supply of hub cutters, and introduction of newer vaccines, utilization of services of ASHA for increasing immunization coverage and mobilization of community, strengthening cold chain and injection safety and finally given emphasis on routine immunization monitoring system. All these efforts are initiated with a view to increasing the immunization coverage as well as improving the quality of services. Again to enhance the coverage of routine immunization, it is crucial that quality of immunization services is monitored, gaps in it are identified and addressed. Hence it emphasises the continuing need of and focus on the quality assessment along with coverage evaluation surveys.

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OBJECTIVE: (1) to assess the quality of immunization service delivery at session sites. (2) To assess the knowledge of the ANM.

METHODOLOGY: Goalpara district has 5 block PHCs Under each of them 2-3 cold chain points are there. The immunization sessions held from the cold chain points were monitored by medical college faculty during the period 2009-2012 through RRC Guwahati as a part of the process of routine immunization monitoring system. Out of the total sessions monitored, here analysed data of 38 sessions are documented. The sessions were selected from different cold chain points under the block PHCs and each session represents one single ANM. Methods employed for data collection were observation and unstructured interview. For collecting data a checklist was used as a tool. Quality of service delivery was assessed in the areas of adherence to micro plan, logistics and cold chain system, injection safety, injection process, record keeping and knowledge of ANM and method of waste collection. Each broad areas were subdivided into some sub areas assigned with score. For each positive aspect of sub areas a score of 1 was assigned.

RESULTS AND OBSERVATIONS: Out of 38, 63% sessions were observed in outreach sessions and rest were observed in S.C. 85.7% of the SC were in Govt. Building. Out of the outreach sessions 70.8 % were held in AWW centers. All the sessions were held according to the micro plan.

Cold chain system: It was assessed through following parameters Vaccine collected on same day, Use of vaccine carrier with 4 icepacks, Use of plastic bag for all vaccines, Conditioned icepack in the vaccine carrier, VVM within usable stage. So total score was 5. It was observed that 36 out of 38 sessions scored 5 and 2 sessions scored 3. None scored below 3. In these two sessions icepack status was not found to be melted in the vaccine carrier.

Logistics: To assess logistics at the session sites following questions were asked about availability of blank immunization cards, BCG and Diluent, DPT, MEASLES and Diluent, TT and OPV. Total score was 6. After assessment it was found that 32 out of 36 sessions scored 6 with sufficiently available logistics while 6 sessions scored 5. Of these 6 sessions in 4 blank immunization cards were not available and in rest 2 sessions OPV was not available.

Injection Safety: Areas of injection safety were Use of AD syringe for vaccination, disposable syringe for reconstitution, Availability of Hub cutter, Use of Hub cutter, Recapping of needle not done and Needle not touched with finger. In all 38 sessions hub cutter was available and AD syringes for vaccination, disposable syringe for reconstitution were used. In 17 sessions score was 6 out of 6, in 10 sessions score was 5 and in 8 sessions score was 4. In rest 3 sessions score could be assigned based on only on first three areas and hence score was 3. This happened due to absence of beneficiaries in these sessions even after a long wait.

Injection Process: To observe this, 6 areas were identified. Again these areas were divided into two sets. One set included questions on Vaccine reconstituted just before immunization, Time of reconstitution written on vial, Use of correct diluent. The other set consists of questions like Reconstituted vaccine used within 4 hr., appropriate use of 0.5ml and 0.1ml syringe and correct selection of sites for vaccination. Previous set of questions were evaluated based on their practice

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only while next set of questions were evaluated based on either knowledge or practice. Observations on first three questions were made in 32 sessions. Here 22 sessions scored 3 and rest 10 sessions scored 2 as in these sessions time of reconstitution was not written on vials. For next set of questions 36 of 38 scored 3.

Record Keeping: It was assessed through the following areas of: New cards and counterfoils filled correctly, completely; Counterfoils from previous session available at session site; Immunization and MCH register available at session site, and Immunization register correctly filled. Of the 38 sessions 22 scored 4, 12 scored 3 and 4 scored 2 only.

Knowledge: Knowledge was assessed based on three questions. These are age up to which measles can be given, BCG can be given and what are the four key messages. None scored 3 as no one could tell the 4 key messages. 27 sessions scored 2, in 9 sessions score was 1 and in 2 sessions it was 0.

DISCUSSION: All the sessions were held according to the micro plan by respective ANM and with the help of ASHA and AWW. Strong domains were maintenance of cold chain system, availability of logistics. Other sub areas where practice was found to be good are use of appropriate AD syringes for vaccination and disposable syringes for reconstitution in all session sites, availability of hub cutter with all ANM, vaccine reconstituted just before immunization, use of correct diluent, reconstituted vaccine used within 4 hr., appropriate use of 0.5ml and 0.1ml syringe and correct selection of sites for vaccination.

Weak areas observed under injection safety were not using hub cutter immediately after injection in spite of its availability with the ANM hence recapping the needles and another point is touching the needle with finger. In many sessions time of reconstitution was not written on the vial. Record keeping was another area which needs improvement mostly regarding availability of counterfoils with correct and immediate filling. Four key messages were not told by the ANMs. Another poor area was method of waste collections. Only in 23 out of 38 sessions colour coded system for waste collection was followed.

Performance Needs Assessment of Basic Health Care Workers in Immunization in India.² done across 8 states covering 40 districts of India has shown that “only 12% of the health workers knew about the Immunization of children not vaccinated as per the schedule. Route and site of administration of vaccines was correctly cited by 37% of the health workers. Correct technique of vaccine administration was a major concern in all states except Andhra Pradesh. Only 45% of the health workers were aware about the elements of a micro-plan.” A/D and disposable syringes were available in 82% of facilities and hub cutter were available in only 19% of all facilities (But in 88% of facilities of AP). Overall only in 42% facilities used sterile syringes and needles. 60% of ANM gave vaccines through correct route with correct dose. But these figures are far better in AP.

In another study conducted in one block of Karnataka district by Rashmi Kundapur, Akash Bang, Vijay Kumar. B, Ashwini Kumar, Sanjeev Badiger, Animesh Jain.³ it was found that 100% of them maintained a cold chain at the level of the vaccine delivery. 81.25% of the female JHWs checked the VVM and the label, but only 68% of them loaded the vaccine without contamination. 100% of the service providers gave information about the next vaccination session and 81% stressed on the measles vaccination, 75% explained the side effects, 87.5% of the health workers had done it

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perfectly right, whereas the rest had not recorded the vaccination on the child's card. The maintenance of a cold chain and the supply was good.

A study conducted by Vikram Assija, Amarjeet Singh and Vijayalakshmi Sharma on Coverage and Quality of Immunization Services in Rural Chandigarh.⁴ reveals that health workers at all the sub-centers checked the vaccine vial marker (VVM) and expiry date of the vaccines before reconstituting or injecting the vaccine. All the ANMs had a clear idea about the right time to discard the reconstituted vaccines. Labels, expiry date and VVMs were found to be correct in all the sub-centers. Eight out of ten ANMs were found to have the correct knowledge about the indications and contraindications of the vaccines.

During the process of monitoring it was observed that this was a great opportunity for explaining and correcting the short comings on site. Due to this type of supportive supervision various aspects of immunization service delivery as discussed above has shown improvements towards later part of monitoring. Hence it is felt that at the district level a strong inbuilt functioning supportive supervision should be developed to improve the quality of services.

REFERENCES:

1. WHO Strategic Plan for Strengthening Routine Immunization in India April 2004 - March 2007, World Health Organization Office of the WHO Representative to India New Delhi.
2. Performance Needs Assessment of Basic Health Care Workers in Immunization in India (14 – 30 October 2005), Government of India Ministry of Health & Family Welfare New Delhi 2005.
3. Rashmi Kundapur, Akash Bang, Vijay Kumar. B, Ashwini Kumar, Sanjeev Badiger, Animesh Jain 2012 ;Quality Assessment of Immunization Programme for Children Under Five in Davangere Taluk of South India; Journal of Clinical and Diagnostic Research. June, Vol-6(5): 828-831.
4. Vikram Assija, Amarjeet Singh and Vijaylakshmi Sharma 2012; Coverage and Quality of Immunization Services in Rural Chandigarh; Indian Pediatrics Volume 49 JULY 16, 2012.

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