

**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**

## **Table Of Contents**

Glossary.....	3
1. Executive summary .....	4
2. Background and context.....	5
3. Performance needs assessment.....	5
4. Overview of the Immunization Programme in India.....	6
5. PNA Methodology in India .....	6
5.1 Identification of expected performance .....	6
5.2 Identification of actual performance .....	7
5.3 Stakeholder review:.....	7
6. Limitations.....	8
7. Findings of PNA.....	8
Section-1 Interview Form .....	8
Section-2 Inventory Form.....	10
Section-3 Observation Form .....	10
Section- 4 General information .....	15
8. Recommendations.....	
Program.....	17
Training .....	18
Annexure 1: List of states and districts visited for the PNA survey .....	19
Annexure 2: Performance Needs Assessment Survey Data Collection Form .....	20

## Glossary

ADS	Auto Disable Syringes
AEFI	Adverse Events Following Immunization
ANM	Auxiliary Nurse Midwife
ANMTC	Auxiliary Nurse Midwife Training Centre
AP	Andhra Pradesh
ASHA	Accredited Social Health Activist
AWW	Anganwadi workers
BHW	Basic Healthcare Workers
CHC	Community Health Centre
EPI	Expanded Program of Immunization
FRU	First Referral Unit
HW	Health Workers
HA(M)	Health Assistant (Male)
HA(F)	Health Assistant (Female)
IPC	Inter-personal Communication
LHV	Lady Health Visitor
MOHFW	Ministry of Health and Family Welfare
MP	Madhya Pradesh
NRHM	National Rural Health Mission
NIHFW	National Institute of Health and Family Welfare
PATH	Program for Appropriate Technology in Health
PHC	Primary Health Centre
PNA	Participatory Needs Assessment
SEAR	South East Asia Region
UIP	Universal Immunization Programme
UNICEF	United Nations Children's Fund
UP	Uttar Pradesh
WHO	World Health Organization

## 1. Executive summary

Performance Needs Assessment (PNA) is a tool which uses various approaches to identify performance gaps in a health system in order to determine the best interventions to improve performance. A PNA was conducted in India across 8 states covering 40 districts during 14 to 30 October 2005. A structured interview and observation schedule was developed for basic healthcare workers (BHWs) which included ANMs/HWs (F) and LHVs/HAs (F). There were 226 interviews including observation of vaccination sessions.

**Objective** of the PNA study was to identify the gaps in performance of basic health care workers in providing immunization services (including the training needs) so as to plan for interventions to improve the performance.

Most important problems cited by the respondents were lack of sufficient personnel, lack of mobility for vaccines, poor vaccine management and need for in-service training on immunization. Regarding the assessment of knowledge level, 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.

The main areas identified for immunization training were:

- preparation of Micro-plans
- vaccine administration techniques
- cold chain maintenance
- recording and reporting
- use of AD syringes
- safe disposal of used syringes and needles
- management of AEFIs
- IPC and Counselling etc.

The participants suggested use of interactive methodologies including demonstrations, practical examples and exercises during the training. The majority of health workers desired to have immunization-specific training closer to their workplace (either at PHC or CHC).

The major Recommendations of the study are as follows:

- Better Vaccine and manpower management
- Improved mobility support for Vaccine distribution
- Improved Training and job definition.
- Improved Vaccine handling and administration.
- Improved injection safety and disposal of immunization waste
- Better client parent education

## **2. Background and context**

The National Universal Immunization Programme (UIP) Review for India was conducted in 2004 in six poorly performing states. Training was identified as one of the key recommendations to strengthen Routine Immunization. The Government of India's Multi Year Strategic Plan for immunization (2005-2010) also includes training of Health workers and Mid Level Managers as one of the important interventions to provide equitable, efficient and safe immunization services to all infants and pregnant women.

As an effort to support the countries in SEAR, an informal consultation on immunization training was held at the WHO Regional Office for the South East Asia Region (SEAR) between 22 and 23 August 2005 in New Delhi. Country representatives from India, Nepal, Bangladesh and Indonesia attended the consultation. The objectives of the consultation were to:

- Establish a current overview of refresher / in-service immunization training for basic healthcare workers in priority SEAR countries
- Identify key areas of support required to strengthen in-service training for immunization health workers in priority SEAR countries
- Draft an action plan in response to country needs and institutional strengthening.

As a follow up of the meeting, GoI established a National Core Committee on immunization training with representatives from the Ministry of Health and Family Welfare (MOHFW), National Institute of Health and Family Welfare (NIHFW), WHO, UNICEF, PATH India, IMMUNIZATIONbasics and CARE India. Members of the Core Committee reviewed the existing training materials on Immunization and decided to conduct a Performance Needs Assessment (PNA) of Health Workers before revision of the existing training material.

## **3. Performance needs assessment**

In general the steps involved in conducting a PNA are as follows:

- 1) Stakeholder agreement - all parties involved in the healthcare delivery system in-country should be involved in setting priorities and agreeing on expected outcomes of the PNA
- 2) Identification of expected performance - background documents, policy papers, textbooks, agreements, etc. should be sought to identify the expected performance of healthcare workers
- 3) Describing actual performance - this step requires careful and detailed data collection, whether original data or currently available data from stakeholders. This is used to identify the actual situation of healthcare worker performance

- 4) Root cause analysis and training needs analysis - focus group discussions and key informant interviews are used to identify the underlying causes of performance gaps observed in healthcare workers
- 5) Stakeholder review and selection of performance improvement interventions - the stakeholders come together again to analyse the findings, the reasons for these and to identify the priorities for a performance improvement project
- 6) Development of an action plan.

#### **4. Overview of the Immunization Programme in India**

Over the last five decades, India has developed vast health care infrastructure and manpower at primary, secondary and tertiary level in government, voluntary and private sectors. However the extent of access to and utilization of health care varies substantially between states, districts and different segments of the society. This, to a large extent, is responsible for substantial differences between states in the health indices of the population.

Health services in India including Immunization services are provided by Health Workers/ANMs posted in sub centres which cater to a population of about 5000 in rural and 3000 in tribal or hilly areas. The services are provided by Health Workers in each village with the help of Anganwadi workers (AWW). Under the National Rural Health Mission (NRHM), the Government of India is involving Accredited Social Health Activists (ASHA), a new cadre of voluntary workers, one for each village. ASHAs will contribute significantly in immunization activities by raising community awareness about the immunization programme and also by mobilizing children for the immunization sessions. Above this level, is one Health Assistant/LHV who supervises work of ANMs in their areas. Primary Health Centers (PHCs) have been established for a population of 30,000 in rural and 20,000 in tribal or hilly areas. PHCs are managed by one Medical Officer and a few paramedical staff. At the block level, Community Health Centers (CHCs) have been established for a population of 80,000 to 1,20,000. CHCs act as First Referral Units (FRU) for 4-5 PHCs. Moreover, urban areas are equipped with Health Posts with ANMs and LHVs.

#### **5. PNA Methodology in India**

The following steps were taken:

##### **5.1 Identification of expected performance**

- Collection of background documents: All available documents describing the expected performance of basic healthcare workers in India were reviewed. Health workers (female) in India are responsible for providing Immunization services to all pregnant women and children according to the National Immunization Schedule

- Stakeholders meeting: A meeting of the National core committee on immunization training was organised. It was decided to conduct a performance needs assessment survey. Due to lack of time, personnel and resources, the PNA was restricted to immunization services.

## **5.2 Identification of actual performance**

Actual performances of Health workers involved in immunization was assessed by direct observation using the PNA survey data collection form (Annex-2). Study sites were selected after discussions with the Core committee members. The six states of Uttar Pradesh, Madhya Pradesh, Bihar, Jharkhand, Rajasthan and Orissa were selected as poor performing states. Uttaranchal was selected as an average performing state and Andhra Pradesh was selected as good performing state. Both rural and urban health facilities were considered for the study.

## **5.3 Stakeholder review:**

A series of review meetings were organised with the various stakeholders for designing and modifying the PNA format. Technical assistance in this regard was taken from WHO-Regional and headquarters office. A meeting was held after the survey to share the findings of the PNA with stakeholders.

## **5.4 Process of conducting survey and data collection:**

- Interviewers were WHO/NPSP-Routine Immunization officers, Training Coordinator; UNICEF Field Staff; Staff of CVP-PATH; Country Representative IMMUNIZATIONbasics; State EPI officers; Tutors of ANMTC and External Monitors. Due to lack of time, all interviewers were briefed by the Training coordinator through telephone, e-mail and also one to one discussions.
- Clear Instructions were followed by all interviewers before conducting the PNA survey. They were asked to frame questions in local Language.
- For selection of the Districts ,Blocks and Sub Centres in the 8 states, the following methodology was used:
  - ❖ 5 most poor performing Districts (based on evaluated coverage, DLHS 2002-04) of the state were selected considering farthest and nearest districts from the state capital. Two from farthest, two from average distance and one from near the state capital.
  - ❖ In a District, 2-5 poor performing Blocks were selected. Among these blocks, 5 sub centres were selected taking into consideration the weak performance and variable distance from the block head quarter. The list of districts in each state where the study was conducted is given at Annex 1.

- Both ANMs and LHVs were included in the study as in most of the states LHV performs the immunization activity in absence of ANM.
- All interviews were conducted on the day of Immunization session to obtain maximum information on performance of the health workers through interview & observation. Open-ended comments of the respondents were also recorded.
- PHC medical officers were also interviewed to get some information In section -1 (Interview form)
- The PNA survey was conducted over a period of 14 days from 14<sup>th</sup> to 30<sup>th</sup> October 2005.

## **6. Limitations**

The Performance Needs Assessment methodology had the following limitations:

- Short time available to prepare a new PNA tool for India
- No opportunity to pilot PNA tool in India and refine
- A workshop for briefing all interviewers could not be organised.
- No checklist for field data collectors to ensure better reliability of data
- To assess the training need, number of years of service was not recorded.
- A more focused question regarding micro plans would have provided more useful data.

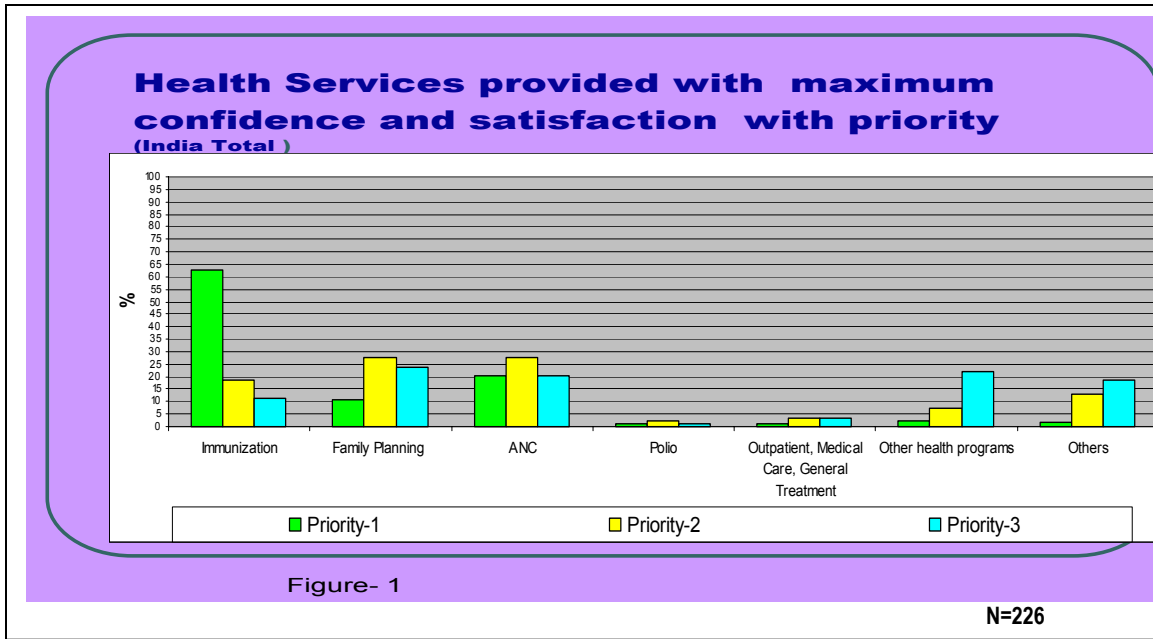
## **7. Findings of PNA**

A total of 226 different healthcare facilities were visited and the same number of basic health workers were interviewed and observed on the day of vaccination.

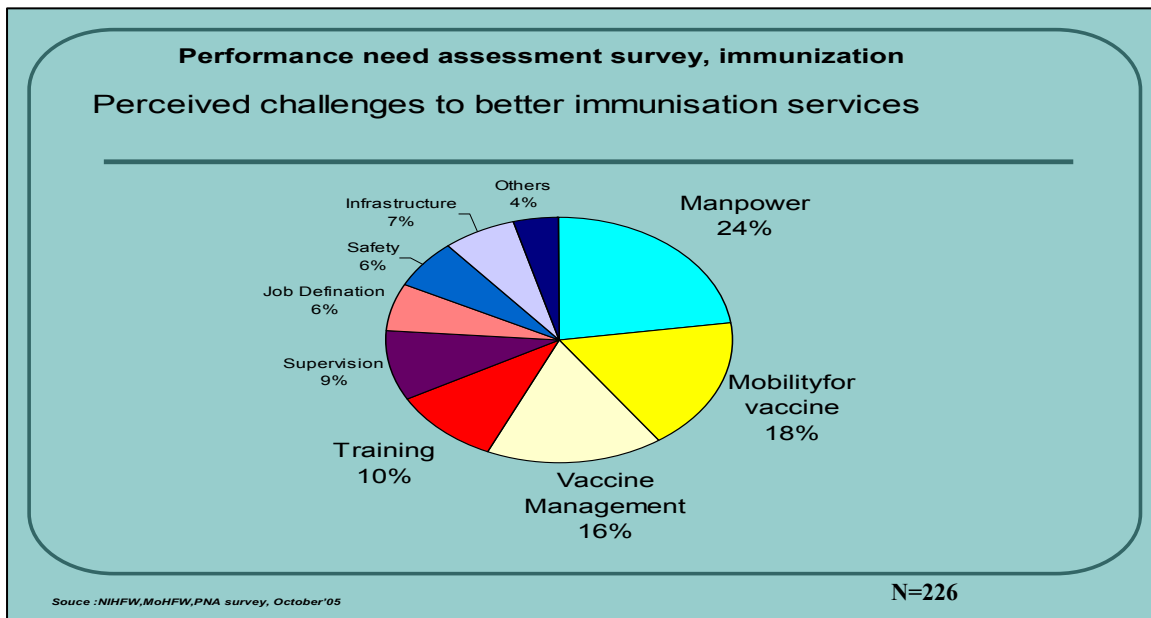
### **Section-1 Interview Form**

- 1) Each interviewee was asked about the type of healthcare services they provide as a team to the community with maximum confidence and satisfaction. Immunization services are provided with maximum confidence and satisfaction, family planning and antenatal care rank second and third respectively. The responses are presented in Figure below.





- 2) The interviewees were asked about the problems that affect proper delivery of immunization services. The most important problems cited were lack of sufficient man power, lack of mobility for vaccines, poor vaccine management and need for in-service training on immunization .



## Section-2 Inventory Form

A question was asked about the availability of equipment and supplies required for providing immunization services at the subcenter. The findings revealed that all facilities had adequate stock of vaccines, vaccination cards, ice packs and other items for delivering immunization services. The availability of equipment and supplies in health facilities of Andhra Pradesh (good performing state) was found to be much better when compared to all the other states as shown in the table below.

Table-1 Items of information	% Facilities with availability of Vaccines and other logistic		
	AP N= 26	Others States N= 200	Total N=226
source of clean water	73	60	67
child vaccination cards	96	94	95
ice packs	100	98	99
Vaccine carrier	100	99	99
DPT	100	94	94
OPV	100	90	90
BCG	100	82	91
Measles	100	86	93
TT	100	92	86
DT	100	77	79
Vit-A	96	88	89
Disposable /AD Syringe	100	79	82
Glass Syringe	52	64	62
Instrument Steriliser	67	44	47
Hub Cutter	88	9	19

## Section-3 Observation Form

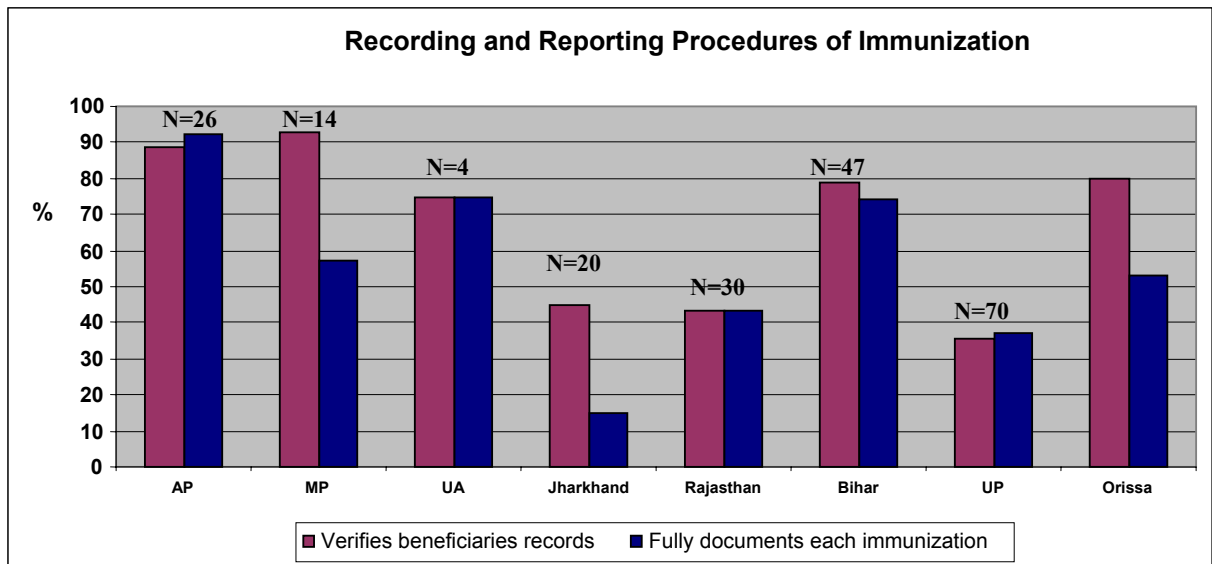
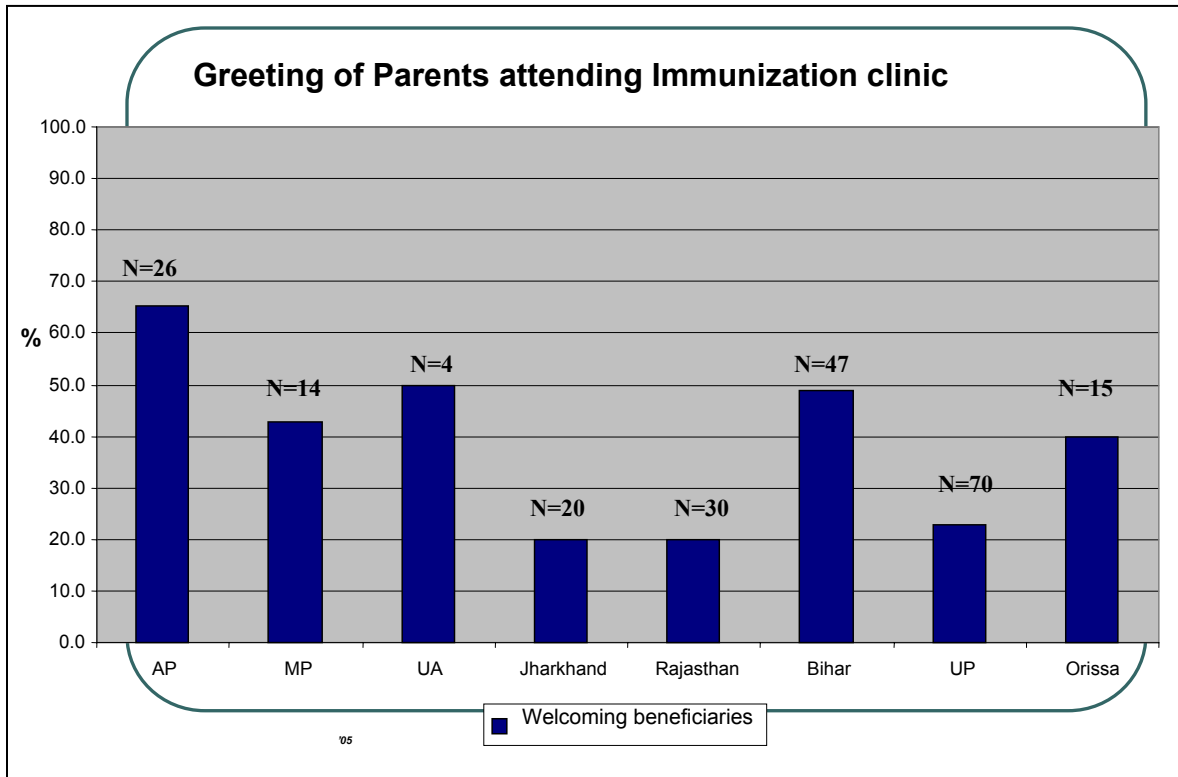
All interviewers observed the provision of vaccines by the health workers during vaccination session. All the steps of vaccine administration were observed and note was made if the steps were being followed or not.

Overall Andhra Pradesh had better performance. Performance of the following components of vaccine administration raised serious concern except in Andhra Pradesh:

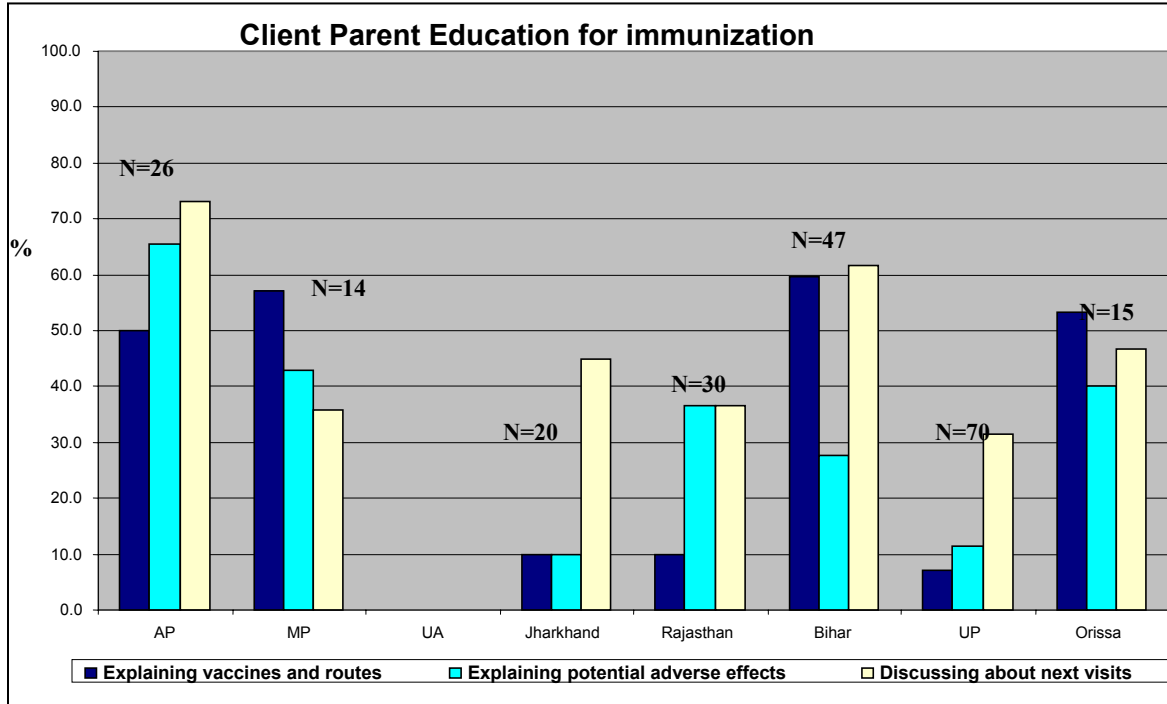
- Maintaining aseptic technique through out (at least before reconstitution of vaccine)
- Washing hands before injections
- Injecting DPT in anterolateral aspect of thigh.
- Explaining potential adverse effects following immunization
- Communicating next vaccination date to the client

Table-2 The health care provider observed during Immunization session	% Correct performance		
	AP N=26	Others N= 200	Total N=226
Welcomed beneficiaries	65	35	37
Verified beneficiaries records	88	64	56
Explained what vaccine(s) will be given and the route	50	28	39
Screened for contra-indications	42	17	30
Checked that it is the correct date for the vaccination	88	58	55
Checked vial expiration date and double checks vial label	81	46	56
Washed hands before injection (uses gloves if policy)	31	6	26
Maintained aseptic technique throughout	85	17	50
Used a sterile syringe and needle	69	60	42
Stired/mixed bottle of T-Series Vaccine before drawing dose	65	60	49
Injected vaccine using correct route for the vaccine (ID, SC, IM)	88	71	60
Injected in anterolateral part of thigh (DPTand HepB)	81	35	58
Injected vaccine using steady pressure	65	59	46
Withdrew needle at angle of insertion	96	67	65
Allowed dose to self-disperse instead of massaging	69	37	51
Applied gentle pressure to injection site with dry cotton wool after injection	65	39	43
Explained potential adverse effects following immunization	65	24	46
ANM discussed with beneficiaries /parents about next visit	73	37	46
Fully documented each immunization in beneficiarie's chart	92	51	59
Disposed of sharps in puncture resistant containers (these could be self-prepared with local material).	69	39	47

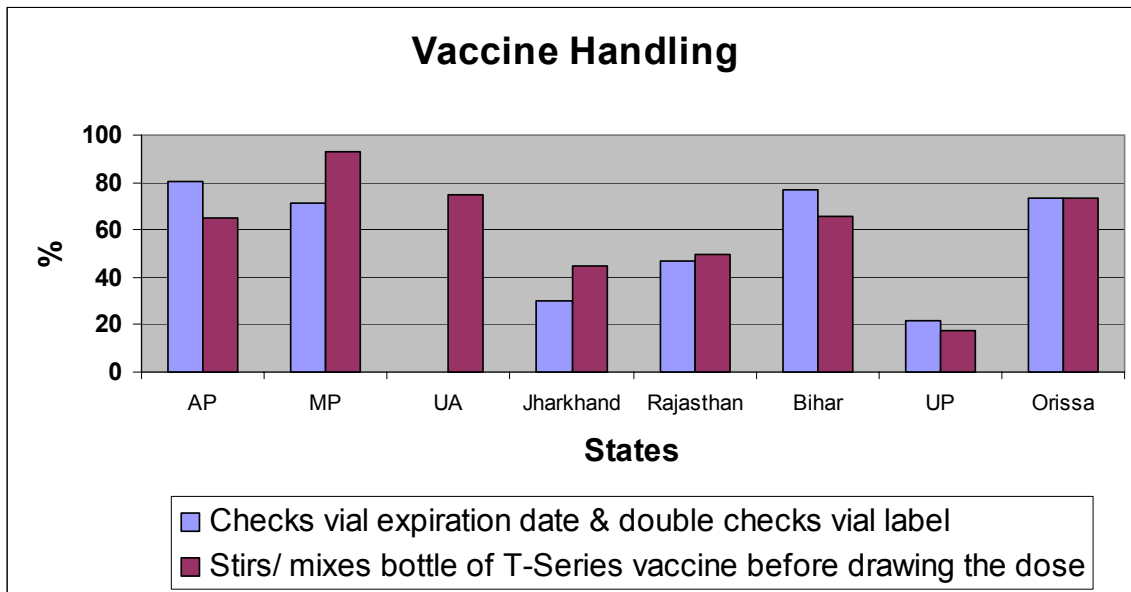
Comparison was also made between different states regarding following of the steps for conducting the vaccination session. It was found that Jharkhand, UP and Rajasthan fared poorly with respect to welcoming beneficiaries, verifying records and documenting.



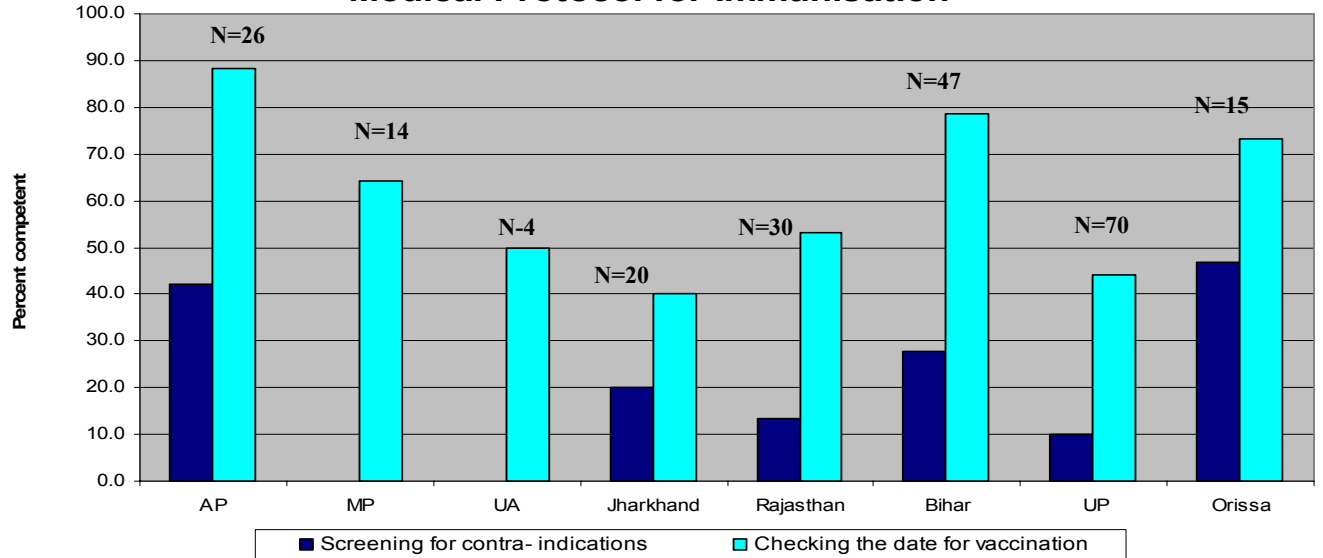
N=15



Client Parent education was also poor in UP, Jharkhand and Rajasthan.

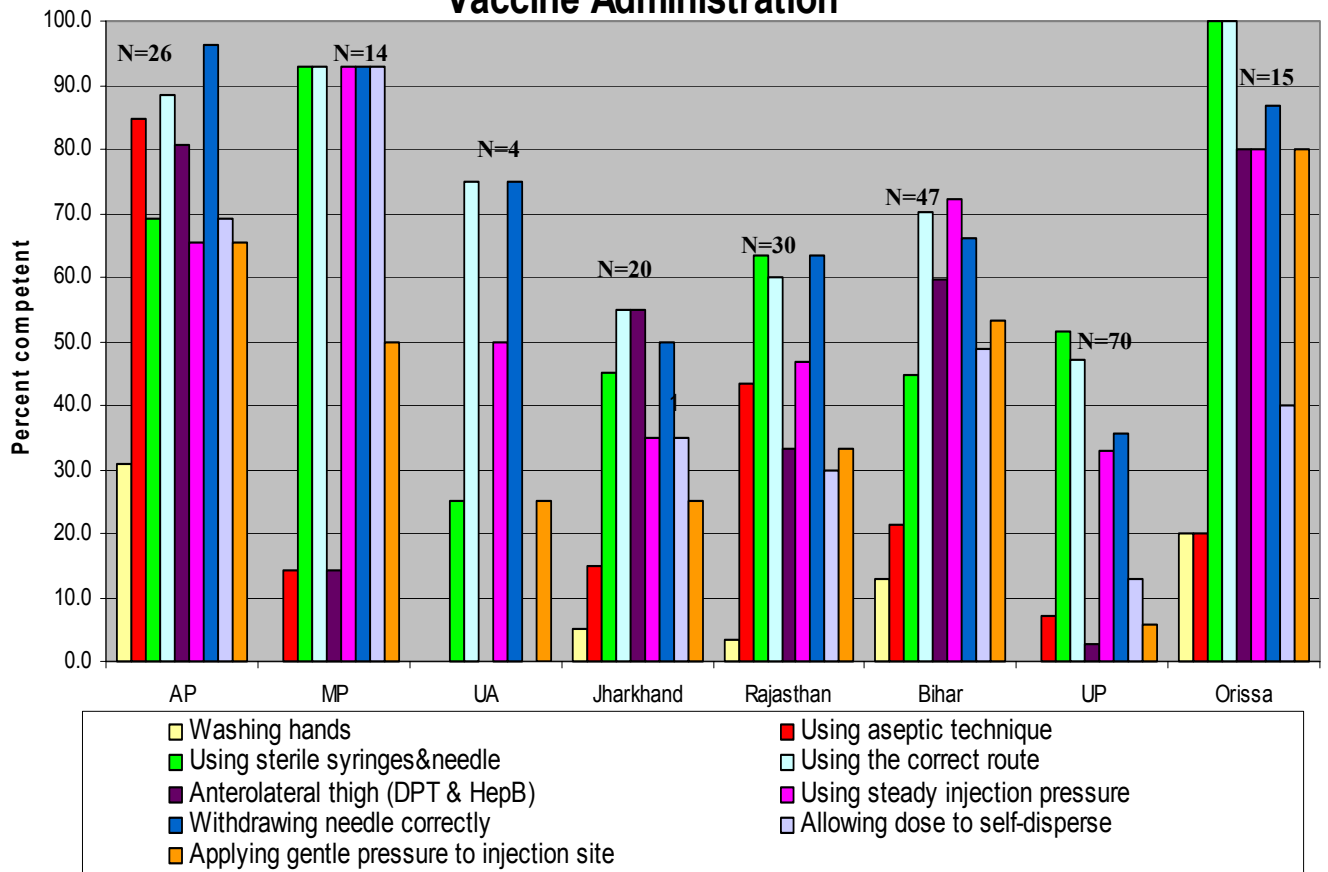


### Medical Protocol for Immunisation



### Performance Need assesment survey ,

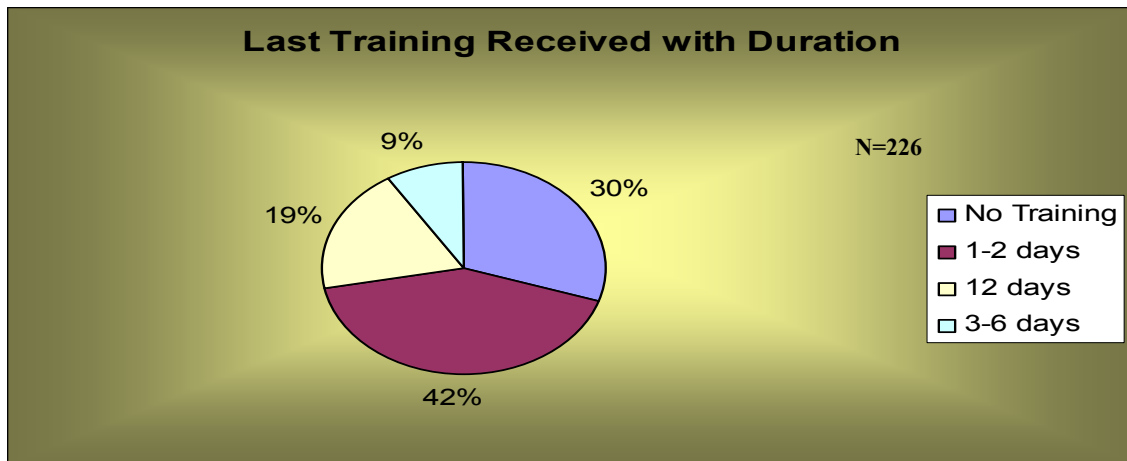
### Vaccine Administration



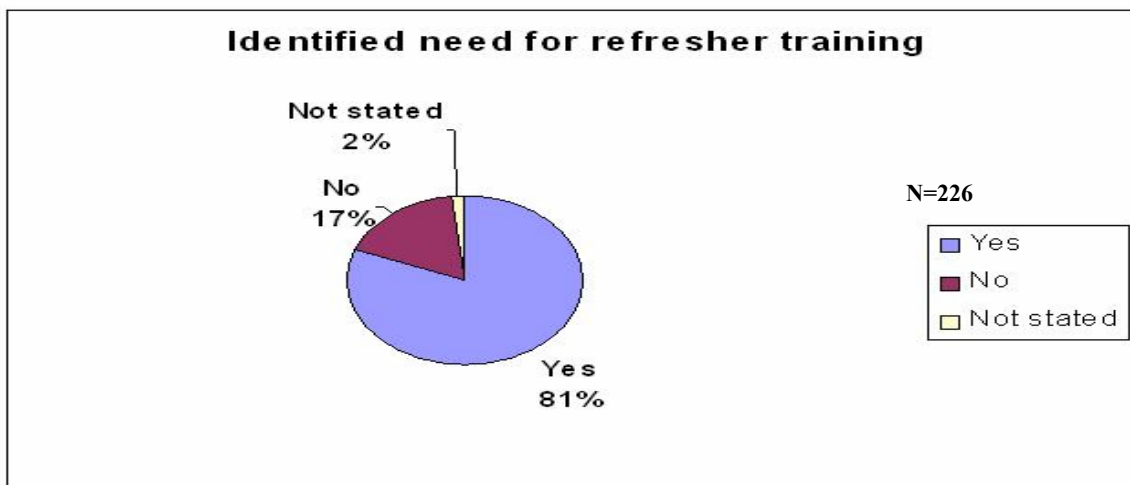
Practice of washing hands before vaccination and using aseptic technique during vaccination were found to be poor in all the states except AP. Very few health workers in UP and MP were giving DPT and Hep. B in the anterolateral aspect of thigh. All aspects of injection technique were found to be poor in UP.

**Section-4 General information**

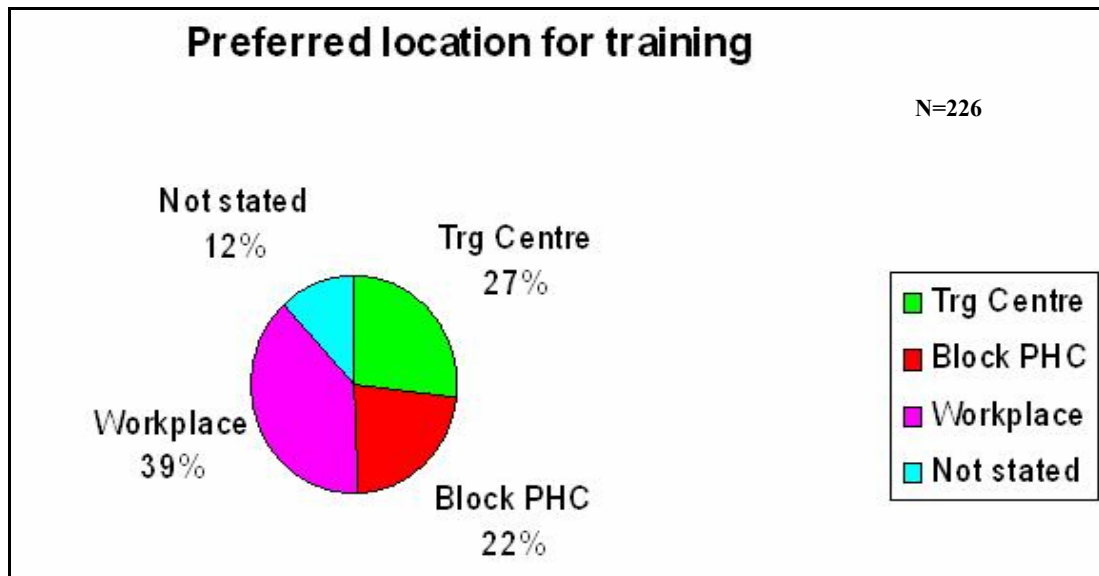
1) **Last training received :** In response to the question regarding last training received in which immunization was the main focus, it was found that about 1/3rd of the respondents had not attended any training while 61% had attended 1-2 days of training either at district or PHC level. This includes 12 days training in RCH which had immunization component for 2days.



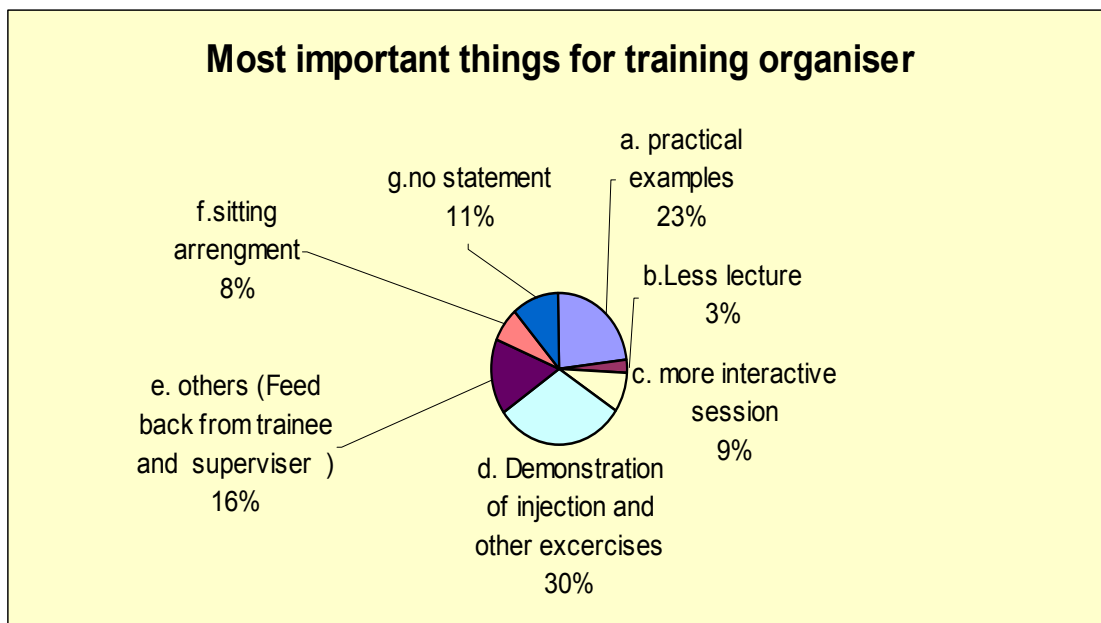
2) **Need for refresher training:** Based on interview of health workers, 81% desired immunization specific training.



- 3) **Main topic areas for training:** Main areas identified for immunization training were preparation of Micro plan; techniques of vaccine administration; cold chain maintenance; recording and reporting; use of AD syringes; disposal of used syringes and needles; management of AEFI; IPC and Counselling etc.
- 4) **Place for refresher training:** 61% of the health workers wanted training closer to their workplace, either at the PHC or CHC.



- 5) **Most important things for a training organizer:** 2/3<sup>rd</sup> of the health workers suggested use of interactive methodologies including demonstrations, practical examples and exercises during the training.

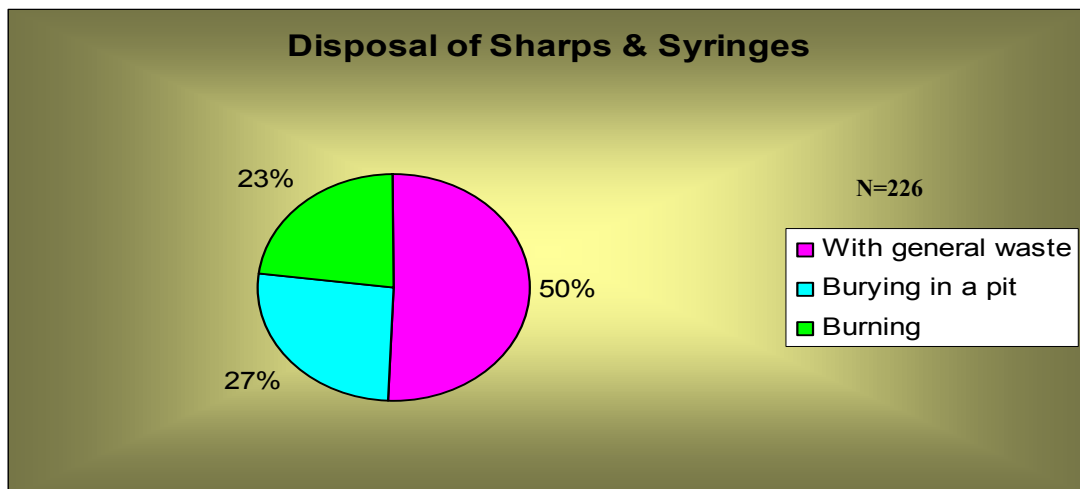


N=226



6) **How to improve immunization coverage:** 42% of the health workers gave the suggestions for greater community participation. Others suggested for involving more human resources, improved mobility, better management of supplies and logistics, more supervision and training.

7) **Method used for disposal of sharps and syringes:** Half of the respondents were disposing the immunization waste along with general waste either in dustbin or in the open.



8) **Assessing knowledge and skills:** Questions were asked about the Immunization schedule, route and site of vaccination. Only 12% of the health workers could correctly tell about the vaccination of children who were not vaccinated as per the schedule. Only 37 % of the health workers could tell about the correct Route and site of administration of vaccines.

When asked about main elements of a micro plan, only 45% of the health workers could reply correctly.

## 8. Recommendations

### Program

- Strengthen Vaccine and personnel management
- Improve mobility support for Vaccine distribution
- Improve Training and job definition.
- Improve Vaccine handling and administration.
- Improve injection safety and disposal of immunization waste
- Improve client parent education

## Training

- A national core committee for training in immunization should continue to oversee and contribute to development of materials and methods for training in immunization.
- Performance indicators and expected performance for basic healthcare workers should be defined.
- Pre-service/in-service training curricula should be re-designed to be relevant to the expected performances of these cadres. This training should be competency-based, hands-on, practical, preferably including coached sessions in the field, before certification.

There is an urgent need to train health workers on:

- Micro planning for routine immunization
  - Injection safety and waste disposal
  - Immunization of children not immunized as per the schedule.
- Refresher training should be designed to meet the performance needs of the basic healthcare workers.
- A team of master trainers should be trained at the national and regional health training centres, who are not only knowledgeable and skilful in the subject matter but also competent in delivering competency-based training. All the available resources (government training centres, public and private schools of health professionals, NGOs, UN organizations, etc.) should be utilized to form such a team.

### Annex 1: List of states and districts visited for the PNA survey

State	Districts	State	Districts
UP N=70	1.Meerut	Bihar N=47	1.East Champaran
	2.Buland Sahar		2.Madhubani
	3.Bareilly		3.Kaimur
	4.Muzaffar nagar	Jharkhand N=20	1.Ranchi
	5.Aligarh		2.Gumla
	6.Rampur		3.Palwar
	7.Badaun		4.Sahibganj
	8.Basti	AP N=26	1.Srikakulum
	9.Sitapur		2.Vejaynagar
	10.Kaushambi		3.Vesaki Pattanam
	11.Ferozabad		4.Mehboob Naghar
	12.Saharanpur		5.Kurmol
	13.Agra		6.Karim Naghar
	14.Gonda		7.Medak
Rajasthan N=30	1.Jaipur	Orissa N=15	1.Puri
	2.Barmer		2.Khurda
	3.Dhalpur		3.Kenjara
	4.Sawi Madhepur	Madhya Pradesh N=14	1.Guna
	5.Jodhpur		2.Sehore
	6.Banswara	Uttaranchal N=4	1. Haridwar

## Annexure 2: Performance Needs Assessment Survey Data Collection Form

Name of State:	Name of District:
Name of the PHC:	Name of the Sub Centre:
Date of the visit:	Name of the Respondent:

### SECTION -1 INTERVIEW FORM

**1. What is the profession and title of the person interviewed?**

Job title:	Profession: <input type="checkbox"/> ANM <input type="checkbox"/> LHV
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**2. Are immunization services provided in this facility? Yes  No**

**3. What are the three areas of health services that you and your team are providing with a great deal of confidence and satisfaction in this facility?**

1.
2.
3.

**4. What are the three most important problems that you face in this health care facility that makes it difficult for you and your team to provide adequate immunization services? (*Attention: Listen to the answer and tick the closest items from the list below. If answer is not included in the list below, write in the spaces provided.*)**

<input type="checkbox"/> lack of an adequately functioning refrigerator <input type="checkbox"/> inadequate procedures to maintain cold chain <input type="checkbox"/> out of stock vaccines <input type="checkbox"/> frequent power cuts <input type="checkbox"/> not enough health personnel <input type="checkbox"/> mobility problems (lack of transportation, etc) <input type="checkbox"/> too large a population in the catchment area <input type="checkbox"/> safety concerns	<input type="checkbox"/> lack of continuous running water <input type="checkbox"/> lack of in-service training <input type="checkbox"/> lack of a clearly-written job definition <input type="checkbox"/> insufficient supervision to improve practice <input type="checkbox"/> insufficient feedback from supervisors <input type="checkbox"/> lack of adequate skills <input type="checkbox"/> inadequacy of existing immunization guidelines
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**Additional Comments :**

**SECTION 2: INVENTORY FORM**

**Attention:** ask the responsible health personnel to guide you in your observation of the facility and tick the appropriate boxes. You may also add brief comments in the adjacent lines

**5. Does this health care facility have the following equipment and materials?**

source of clean water	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
child vaccination cards	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Disposable Syringes/AD syringes/	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
a hub cutter	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
e. glass syringes	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
f. Vaccine carriers	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
g. ice packs	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
h. instrument sterilizer	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
i. sharp safety box	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
j. facility for disinfection of sharps	<input type="checkbox"/> Yes	<input type="checkbox"/> No		

**6. Does this health care facility have the following vaccines & Vitamin A in stock?**

DPT vaccine	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Measles vaccine	<input type="checkbox"/> Yes	<input type="checkbox"/> No
OPV vaccine	<input type="checkbox"/> Yes	<input type="checkbox"/> No	TT vaccine	<input type="checkbox"/> Yes	<input type="checkbox"/> No
BCG vaccine	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Hep B vaccine	<input type="checkbox"/> Yes	<input type="checkbox"/> No
d. DT Vaccine	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Vit A	<input type="checkbox"/> Yes	<input type="checkbox"/> No

ADDITIONAL Comments:

**SECTION 3: OBSERVATION FORM**

**Attention:** Observe the following interactions of health personnel with clients. Tick whether they perform the procedure and if so, tick whether you judge the performance to be competent or needs to be improved.

**7. Observations during vaccination session**

Not observed because:  service not given at all  service not given during data collection

The health care provider,	1 <sup>st</sup> client		2 <sup>nd</sup> client		Assessment	
	Done	Not done	Done	Not done	Competent	Needs to improve
• Welcomes beneficiaries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Verifies beneficiaries records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Explains what vaccine(s) will be given and the route	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Screens for contra-indications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Checks that it is the correct date for the vaccination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Checks vial expiration date and double checks vial label	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Washes hands before injection (uses gloves if policy)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Maintains aseptic technique throughout	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Uses a sterile syringe and needle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Stirs/mixes bottle of T-Series Vaccine before drawing the dose	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Injects vaccine using the correct route for the vaccine e.g. intradermal; sub-cutaneous; intramuscular	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Injects in anterolateral part of thigh (DPT and HepB)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Injects vaccine using steady pressure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Withdraws needle at angle of insertion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Allows dose to self-disperse instead of massaging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Applies gentle pressure to injection site with a dry cotton wool ball after injection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Explains potential adverse effects following immunization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• ANM discuss with beneficiaries /parents about next visit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Fully documents each immunization in beneficiarie's chart	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Disposes of sharps in puncture resistant containers (these could be self-prepared with local material).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Totals:						

**Any additional comments:**

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## SECTION 4: GENERAL INFORMATION

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1. When did you receive your last training in which immunization was the main focus?  
\_\_\_\_\_  
\_\_\_\_\_
2. How long was the training?  
\_\_\_\_\_  
\_\_\_\_\_
3. Where was the training held and who organized it?  
\_\_\_\_\_  
\_\_\_\_\_
4. Do you think you need any refresher training to improve your proficiency in immunization procedures? If no, skip to question 6. If yes, please answer question 5.  
 Yes       No
5. What would be the five main topic areas?
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
  - d. \_\_\_\_\_
  - e. \_\_\_\_\_
6. How do you think the training should be provided e.g. at an institution; in the workplace etc?  
\_\_\_\_\_  
\_\_\_\_\_
7. What are the 3 most important things that training organizers should address while organizing a refresher course?
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
8. How can immunization coverage in your area be improved? What additional support would you need to do it?  
\_\_\_\_\_  
\_\_\_\_\_
9. How many times did a supervisor visit you during an immunization session in last 3 months?  
\_\_\_\_\_  
\_\_\_\_\_
10. How is the vaccine delivered at your site?
11. Are the deliveries regular?  
\_\_\_\_\_  
\_\_\_\_\_

12. Is there ever a vaccine shortage?

\_\_\_\_\_

13. How do you dispose of sharps and syringes?

\_\_\_\_\_

\_\_\_\_\_

### ASSESSING KNOWLEDGE AND SKILLS

1. Please ask which vaccines are given to an infant up to 18 months old (write answer below without any prompts and this will determine whether the ANM /LHV is conversant with the immunization schedule).

2. Ask the ANM the route of administration and injection sites for the following vaccines, insert the answer provided and tick whether correct:

a. BCG: \_\_\_\_\_  Yes  No

b. DPT \_\_\_\_\_  Yes  No

c. Measles \_\_\_\_\_  Yes  No

3. Does the ANM/LHV understand the importance of micro plan for immunization? Provide their answer in brief.

Yes  No

4. Does the ANM/LHV know what should be the main elements in a micro plan? Provide their answer in brief.

Yes  No