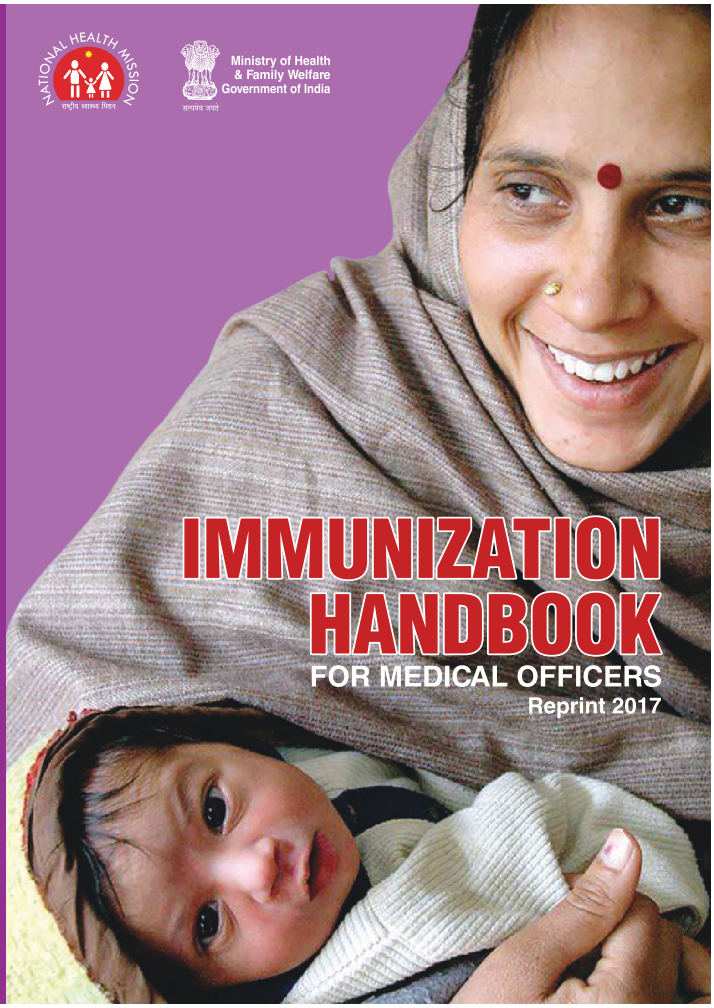


World Health Organization
COUNTRY OFFICE FOR India

Developed for Ministry of Health & Family Welfare by WHO Country Office for India

IMMUNIZATION HANDBOOK

FOR MEDICAL OFFICERS

Reprint 2017

Ministry of Health & Family Welfare
Government of India

UNIT-3

Routine Immunization Microplanning

Learning objectives

- *List the steps involved in developing RI microplans*
- *Describe the utility of formats in RI microplanning*
- *Guide HWs to prepare SC/urban health centre (UHC) microplans including maps*
- *Prepare microplan for block/PHC/urban planning unit*
- *Review and update the RI microplans to ensure that all HRAs are included.*

Key Contents

Microplanning for immunization services

3

RI microplanning is the basis for the delivery of RI services to a community. The availability of updated and complete microplans at a planning unit (urban/rural) demonstrates preparedness of a unit and directly affects the quality of services provided. Microplans are prepared for a one year period but must be reviewed every quarter.

Common RI microplan issues found in the field

- NO microplan available, RI sessions conducted unplanned
- Not aware of the need for mapping and microplanning
- Formats / guidelines not received from district/state
- Microplans prepared by ANMs/health workers not reviewed
- Not aware about method of estimation of beneficiaries
- Logistics calculation was not based on due beneficiaries
- Available at the PHC but not in use.
- Vaccine distribution done on last minute estimation.
- Available but not updated with information on HRA sites
- Recently settled nomadic population not updated in RI microplan
- Not taking into consideration vacant SC
- One microplan is in the computer and a different microplan is used during RI days.

Improving the RI microplan helps to:

- Define the area and population covered by each SC
- Prevents/reduces dropouts
- Prevents left outs
- IdentifiesHRAs/HRGs including nomadic populations
- Increases the RI coverage
- Strengthens capacity to use data for action.

Levels of RI microplanning

The levels of the health system from the Sub Centre (SC) to the state level is shown in Fig. 3.1. Microplans begin at the SC level and cascade to the district level through the Primary Health Centre (PHC). A sub centre microplan must incorporate all the villages and areas under its administrative area. The PHC microplan incorporates the SC information which is essential for planning and logistics management . Information from PHCs is to be consolidated at the next level which may be the taluk in some states and then to the district or directly to the district in others. Fig 3.2 shows the RI microplanning from SC to district level.

Fig. 3.1. Levels of the health system

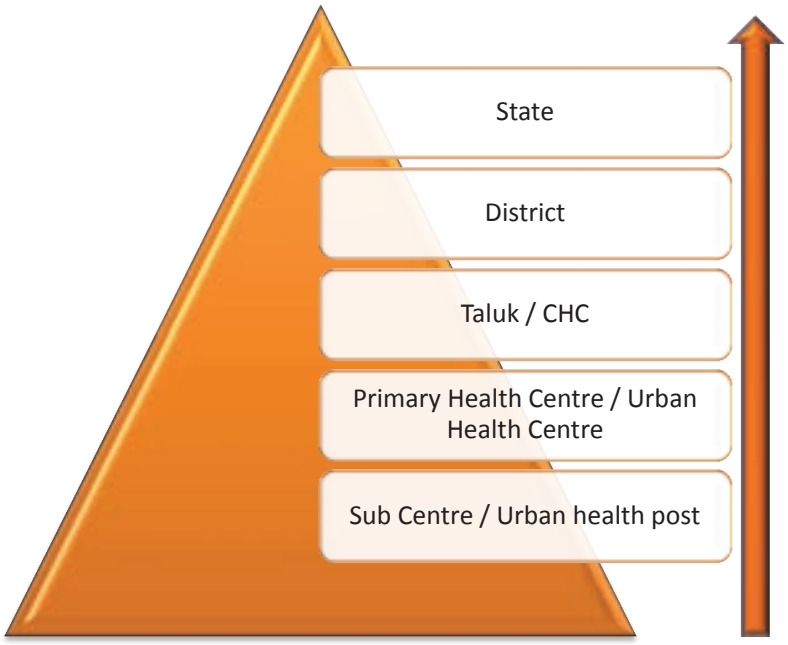


Fig. 3.2. RI microplanning from SC to district

Components of an RI microplan

An RI microplan is an integrated set of components to:

- enlist and map all villages/wards/tolas/HRAs
- identifiy all beneficiaries for RI services through surveys
- estimate and plan the vaccine and logistic requirements including modes of delivery
- preparation of plans for a strong RI service delivery.

An RI microplan consists of a number of formats and documents at various levels. Availability of all the components at the relevant levels will facilitate effective implementation. Table 3.1 lists the components for microplanning in RI at each level.

Table 3.1.List of components for microplanning in RI at each level

Level	Components of RI microplan
SC/Urban Health Centre 5,000 population in rural and 10,000 – 12,000 population in urban areas (ANM to coordinate activities with ASHA & AWW at least 2 days before session) ***Responsible person :*** ANM	a) Map of area under SC with names of villages, urban areas including all hamlets (tola), sub-villages, sub-wards, sector, mohalla, hard to reach areas, etc.) b) Demarcation map – allocate areas for each ANM if more than 2 ANMs are present in a SC. It can also show the exact boundaries and areas for ASHAs and AWWs c) Master list of the area– this list includes all villages/tolas/HRAs/wards/mohalls d) An estimation of beneficiaries e) An estimation of vaccines and logistics f) ANM work plan including mobilization plan
PHC/Urban Planning unit ***Responsible person :*** Medical officer in-charge / RI nodal MO	a) Map of PHC showing the SC area demarcation b) RI microplans from all SC c) Alternate Vaccine Delivery (AVD) plan and route chart d) Supervision plan e) Cold chain contingency plan f) Immunization waste disposal plan g) IEC and social mobilization h) Training plan (if applicable) i) Budget

District Review PHC plans including utilization of funds ***Responsible person :*** District Immunization Officer (DIO)	a) Map of district showing all the blocks and PHCs b) RI microplans from all PHCs – compiled forms c) Supervision plan of district officials d) Latest Penta 3 coverage chart for the district e) Distribution and maintenance of vaccines, cold chain and logistics including contingency plan f) District-specific activities for intensification of RI g) IEC and social mobilization plan h) Training plan i) Budget
State ***Responsible person :*** State Expanded Programme on Immunization Officer (SEPIO)	a) Map showing the districts b) Compiled district plans c) State specific activities d) Budget

An updated microplan ensures:

- All boundaries of the catchment area are identified
- Complete maps are in place to ensure that all personnel are aware of their areas and that no villages or high-risk population pockets have been left out
- All beneficiaries have been identified and information is available on who has to be vaccinated and with which antigen.

Process of microplanning

The RI microplan is a dynamic tool that requires regular conduction of reviews and surveys in order to be effective. These activities provide opportunities for planning units, districts and the state to modify RI microplans based on real-time manpower availability, movement of beneficiaries and also respond to important coverage and monitoring indicators. Table 3.2 gives the frequency of major RI activities.

Frequency of major RI activities

Table 3.2. Frequency of major RI activities

Frequency	Activity
Annually	Preparing and generating new RI microplans
Half yearly	House to house survey and head counting
Quarterly	RI microplan review
Monthly	Session due list review at sub centre
Weekly	Session due list update after every session

Annually: Preparing and generating new RI microplans including house to house survey and head counting

- Ensures that all areas are included into the list; confirm the master list of villages and HRAs.
- Provides actual population and beneficiary counts through house to house survey and head counting,
- Generates needed information for planning sessions, vaccine and logistic calculations.

This activity is large scale and needs to be synchronized with district.

Half yearly: Only conduct the house to house survey and head counting. This activity will:

- Help to identify any new sites for inclusion / mobilization
- Update the beneficiary due lists for effective mobilization

This activity needs to be supervised and planned in coordination with ICDS and partners

Quarterly: RI microplan review, helps to :

- Update the plans to incorporate information on sub centres where staff is on leave or if it has become vacant.
- Respond to changes in vaccine delivery and inclusion of new areas - nomads / HRAs and other issues based on monitoring results.

This activity takes time and requires planning.

Monthly: At Sub centre ANM should

- Review due lists of all the sessions held in the previous month.
- Update coverage monitoring chart to quantify left outs and dropouts.

ANM should share the salient points with the sector medical officer. MO can make plans to visit Sub centre during this activity.

Weekly:

After every RI session ANM and ASHA/AWW workers should review the session due list, identify drop-out / left-out beneficiaries and enter their names into the next session's due list for follow-up and mobilization.

The medical officer should try to attend a full RI session at least once in two weeks. This is an opportunity to provide solutions to practical problems in the field.

Microplanning process overview

Microplans should be prepared annually based on head count/survey and be reviewed every quarter. The steps in the process of developing RI microplans are shown in Figs. 3.3 while Fig. 3.4 gives an overview of the major activities to be conducted. The process to prepare new microplans should be initiated when the state/district task force for immunization decides to conduct this activity. Refer Gantt chart in Fig 3.5 for suggested timelines.

Fig. 3.3. Steps for developing RI microplans

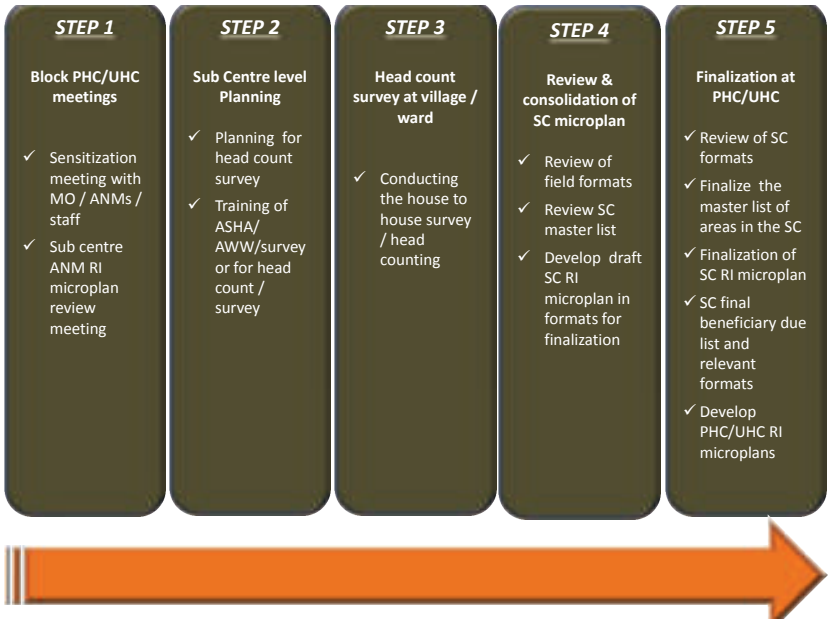
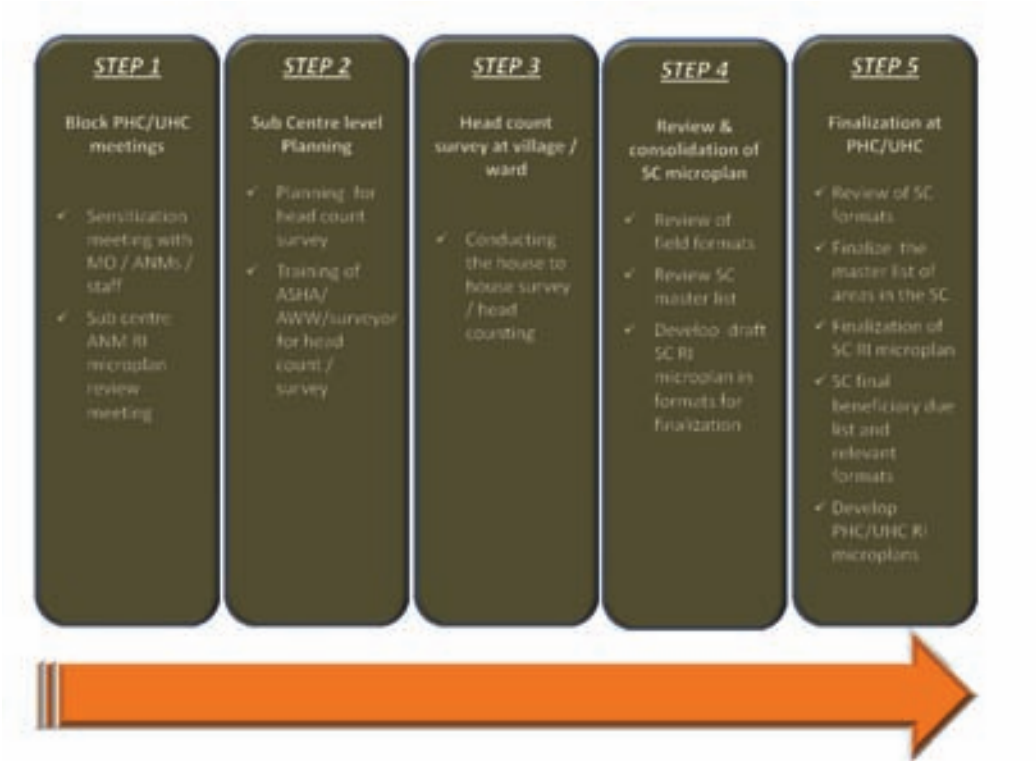


Fig 3.4. Overview of major activities in RI microplan development process



Detailed list of activities at RI microplan development

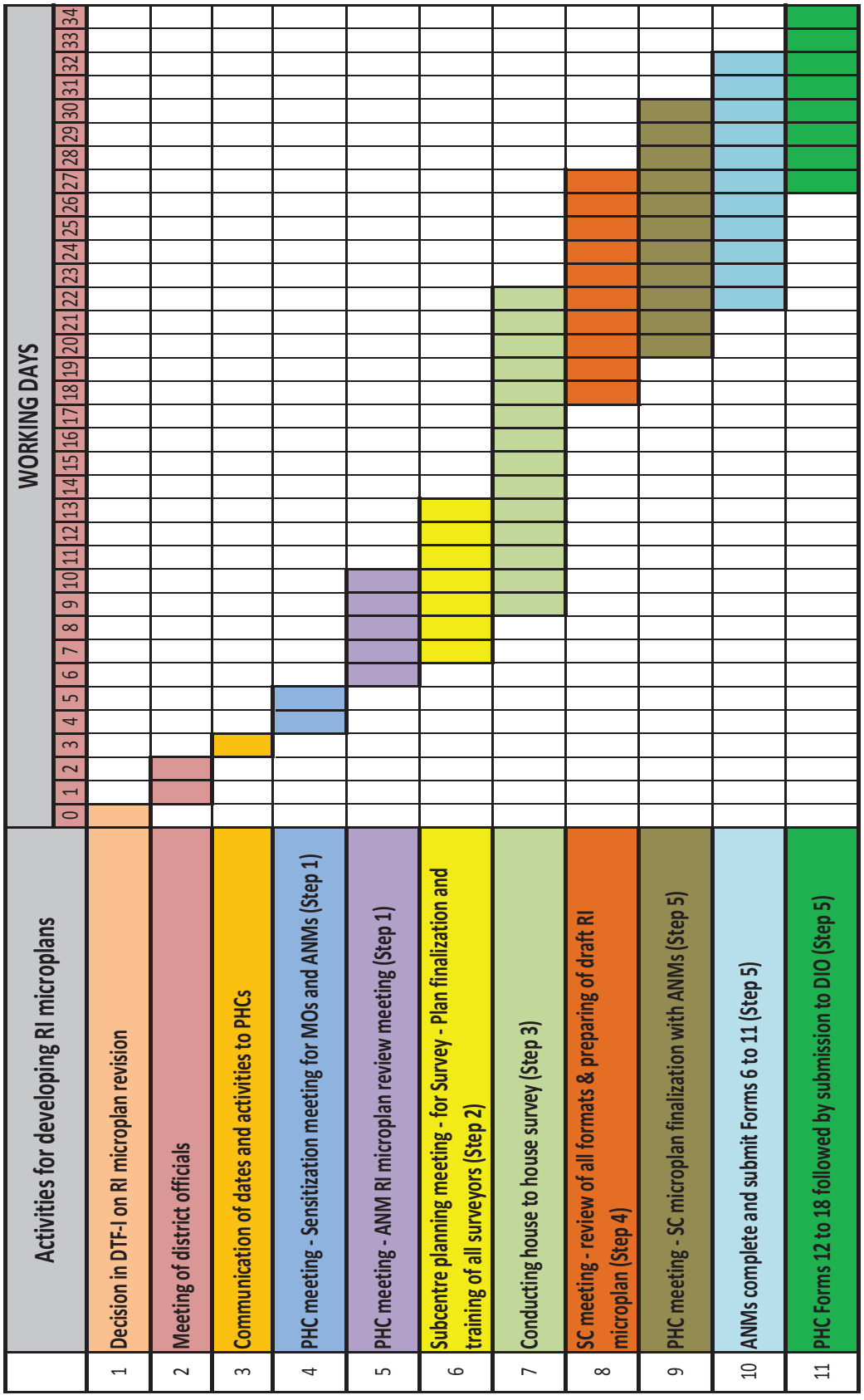
To simplify the process of developing RI microplans, Table 3.3 below enlists in detail the activities at each step. This table can also be used as a checklist to review the process and guide the actions of medical officers and ANMs.

Table 3.3. Steps and activities for RI microplanning

Steps	Activities
STEP 1 **Block PHC/UHC meeting–** ➢ Orientation meeting ➢ ANM RI review meeting- review of existing microplans & inclusion of all areas	• Confirm area demarcation of subcentres • Confirm area demarcation among ANMs, especially in subcentres where more than one ANM is posted. • Generate a master list of villages/areas, Include ALL areas in RI microplan • Record sub centre wise information • Use data on SC performance • Conduct training of ANMs for area survey • Prepare SC plan for head count / survey
STEP 2 **Planning for SC level head count survey and training of ASHA/AWW/ Link worker/Surveyor**	**MO to decide venue of meeting– at each SC or if at PHC then conduct with only 2 to 3 SC combined at a time** • Confirm area demarcation between ASHA, AWW /LW/ surveyor • Create working maps for each area • Conduct training to undertake head count & generate beneficiary list • Plan to walk through areas to ensure clear area demarcation/ HRA identification
STEP 3 **House to house survey** village/ward level -ASHA/AWW/Surveyor	• As per the plan, the ASHA/AWW/LW/Surveyor with assistance from mobilizers will conduct the area survey. This is NOT to be done on RI days. • During the survey ▪ Maximum of 25 to 30 houses should be covered per day. ▪ Collect information of pregnant women, infants and children. ▪ Survey to be completed in 7 to 10 days • Generate beneficiary list for the village/ward • Ensure monitoring of the process by ANM , ICDS supervisors, Sector Medical Officer, any other

STEP 4 **Review & consolidation of the Sub centre microplan**	**Conduct review meeting at SC – involving AWW /ASHA / Link worker / surveyor. Sector MO oversight will be beneficial.** **ANM to:** • Review completeness of all formats of the area • Review the master list of areas in the SC • Review the area of demarcation • Review the number of HRA in the SC • Review lists of identified beneficiaries • Develop SC RI microplan for finalization • Develop community mobilization plan for each session site and sub centre area
STEP 5 **Review and finalization of SC plans and development of final block PHC plan**	• Finalization of area demarcation of ANMs • Finalization of areas and HRAs in all SC microplans • Review of all SC formats and approval of microplans • ANM to complete filling of all SC formats and submit • Develop the session due list for RI sessions • Ensure availability of beneficiary due listing for all sessions • SC Maps availability • Development of PHC RI microplan

Fig. 3.5. Timeline of activities in RI microplanning



This Gantt chart is indicative of average times needed for the major activities in developing the RI microplan. Variations are a reality and reasonable timelines specific to your area can be decided in discussion with district/colleagues.

Step 1

- **Block PHC/UHC meeting** – Sensitization and Review of existing microplans

Step 1 of the process for developing/updating the RI microplans involves 2 meetings:

1. A sensitisation meeting of all MOs, ANMs and other staff
2. ANM RI microplan review meeting

1. Sensitization meeting at PHC/Urban health center:

Call for a meeting at your PHC/ UHC to bring the focus on routine immunization and the process.

This meeting will:

- Sensitize all the staff on the process and their roles in RI microplanning
- Delegate activities to specific personnel with timelines
- Encourage discussion on issues
- Train ANMs on use of formats and conduction of head count / survey
- Finalize dates and schedule for the meeting with ANMs at PHC

In setups with multiple medical officers (Block/PHC/UHC): Conduct a meeting of all the MOs and ANMs to inform them of the plan for improving / updating the RI Microplan. Demarcate area of the PHC into sectors and allot each to a MO for supervision and follow-up. Sensitize them of the need for this activity and the process. Define roles; give specific responsibilities with reasonable timelines. Give specific responsibilities with focus on “what has to be done” “by whom” and “when”.

In setups with single Medical Officer (PHC/Additional PHC/UHC): Call for a meeting of all staff and inform them of the plan for improving / updating the RI Microplan. Sensitize them of the need, describe the contents of RI microplan forms and address any queries. Give specific responsibilities with focus on “what has to be done” “by whom” and “when”.

During this sensitization meeting:

For ANMs -

- Distribute at least 2 blank Form 1 sheets to all ANMs. Using the SOP for RI form 1 (page 39) discuss the format with them and ensure they are clear on how to use it.
- In Form 1 explain that a key element is to confirm areas under each subcentre and this form will become the master list. Ensure inclusion of:
    - All villages and their hamlets, tolas
    - Urban/peri-urban areas and their wards/sub wards/mohalla
    - Migratory and non migratory high risk settlements (slums, constructions sites, nomads, brick kilns)
- Record each HRA/Brick Kiln etc. in a separate row in the master list of areas
- Train ANMs on the proccess of conducting headcount survey (refer SOP for RI form 3).
- Instruct them to come prepared for the ANM RI review meeting with any RI microplan documentation available with them
- Finalize a schedule for meeting the ANMs.

2. ANM RI microplan review meeting - as per decided schedule:

This meeting should be conducted in small batches over 2 or 3 days to ensure that each ANM gets enough time to discuss and bring out issues in the planning process for RI.

The agenda points for discussion with each ANM must include -

a. Clear area demarcation for each sub center and ANM area
b. Review of Form 1 – master list
c. Proposing plan for missed areas, vacant sub centers including plans for areas without ANMs
d. Prepare maps (this will require a realistic timeline) also refer Unit 12
e. Assess adequacy of RI sessions
f. Proposing a communication plan
g. Any other issues related to RI microplanning

This step should not be completed in a SINGLE meeting – 2 to 3 days will be required, which need not be consecutive days. Plan these days taking into consideration all other activities and develop a schedule so ANMs can plan well.

Participants :

- Sector MO, Health supervisors, LHV, ANMs, key persons assisting MO/IC, Block program manager-National Health Mission, CDPO, ICDS supervisors etc.
- Immunization Field Monitor / WHO-Field monitor/SMNet partners where applicable

Preparations for the ANM RI microplan review :

The data manager of the PHC should generate the needed data for the PHC and each SC.

Data to be used: Review monitoring and coverage reports to identify issues in provision of immunization services with special emphasis on HRAs. Some suggestions are given below:

a) Vacant sub-centre areas
b) Areas with no sessions planned
c) Areas with no mobilizer assigned
d) Sessions with poor mobilization
e) Where planned sessions were not held
f) Areas with low coverage
g) Status of due-list updating, especially for migrants and new-borns
h) Inadequate supply of vaccines and logistics
i) Any serious AEFI
j) Staff position of ANM, AWW, ASHA, Supervisor etc.
k) Status of AVD/transportation (vehicle breakdown etc.)

Calculation of drop-out figures for each subcenter will help in identification of issues. However, this may not reflect specifically to each RI session site or village. Few suggested differences to be calculated per subcentre are between BCG and MCV1; Penta1 and Penta 3; MCV1 and MCV2; Penta 1 and OPV1 and Penta 3 and OPV3. **Refer Unit 7 for details.**

Table 3.4 below provides some of the data sources that can be used to help in planning the RI microplan . However, this is not an exhaustive list and if other data sources are available, they may also be used to compare information.

Table 3.4 - Sources of information for listing of areas and beneficiaries

Information / Data required	MOIC	ANM	ICDS Super-visor
Geographic	List & map of villages including hamlets / urban areas/wards	List & map of villages including hamlets /urban areas/wards (SC catchment area)	List & map of villages including hamlets / urban areas/ wards
Demographic	Total & beneficiary population (Census/ revenue records)	Total & beneficiary population (service records), migrants	0 -6 years registers, eligible couple register, etc.
Programmatic	Existing RI microplans, Polio microplans, monitoring feedback, Mission Indradhanush microplans (where applicable) List of HRAs	Existing sub centre RI microplans, Polio microplans, monitoring feedback, Mission Indradhanush microplans (where applicable) List of HRAs, VHND microplans	VHND microplans
Administrative	Staff vacancy to identify vacant SC	ASHA/ Mobilisers list to identify villages for focus	AWW/ helper list
Epidemiologic	VPD outbreaks	VPD data	
Social mapping	NGOs, Practitioners, Community centres, schools	Influencers, Possible session sites	

Suggested questions during ANM RI review meeting:

- Are all areas identified and included in the SC plan?
- Where are the unreached populations?
  - Areas with highest number of unimmunized children
  - Areas with mobile/migrant populations
- Where are the hard-to-reach populations?
  - Low coverage areas
  - Accessibility compromised areas

- Where is the population?
  - Are there areas/villages with large population?
  - Border/peri-urban areas?
- Are there problems with access to immunization services?
  - Catchment areas with Penta or other antigen <80%
- Where is utilization of services low?
  - Areas with high drop-outs

Outputs expected from this meeting:

- Master list of all areas for each sub centre in Form 1
- Plan for conducting house to house survey for each Sub centre
- Timeline for conducting the house to house survey / head counting

Roles and responsibilities:

Personnel	Activities to perform	Follow up by
MO/Ic	• Preparing for and conducting first meeting at PHC • Conduct SC RI review with few ANMs per day	DIO
Sector MO	• Actively participate in first meeting at PHC • Review progress of SC areas in allotted sector	Medical Officer in charge
ANM	Generate village list for each SC in coordination with frontline workers for the meeting	Sector MO / LHV / designated ANM
CDPO	Sharing of village list and AWW centre details	BPO
ICDS supervisors	Provide information on any areas / populations that may be overlooked	CDPO

DIO – District Immunization Officer; BDO – block development officer; LHV – lady health visitor

Each of the steps in the following pages includes detailed explanation of the RI microplanning formats to be used for each activity

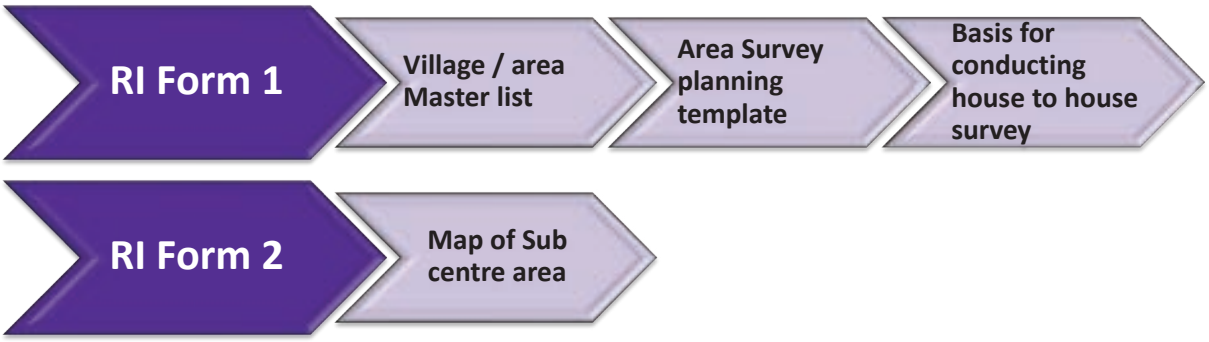
Overview and utility of the RI formats

A set of formats have been developed to collect and collate data to prepare RI microplans for an area . The table 3.5 below enlists these formats and the information they collect.

Table 3.5. RI microplanning formats and utility

Level of use	RI Form	Utility
PLANNING FORMS to be filled by ANM	1	• Master list of all the villages in sub centre area • Plan for conduction of survey
	2	Sub centre map
SURVEY FORMS Used In the Survey by ASHA / assessor area	3	Enlists all houses and occupants with focus on pregnant women and children in the age group of 0 to 2 years
	4	Enlists details of identified pregnant women
	5	Enlists details of infants / children identified
SUB CENTRE FORMS To be filled by ANM	6	RI Session beneficiary due list (to be made after SC microplan is approved by MO)
	7	RI session plan
	8	RI Session injection load and vaccine distribution plan
	9	Per session estimation of vaccines & logistics
	10	ANM work plan / roster
	11	Communication plan for SC
PHC FORMS	12	SC workload and Sessions plan
	13	PHC vaccine delivery plan including alternate vaccine delivery plan
	14	PHC vaccine and logistics per sub centre
	15	PHC – RI session supervision plan
	16	Emergency plan for vaccine storage
	17	Bio-medical waste management plan
	18	Communication plan for PHC/UHC

Overview of RI Forms 1 and 2



RI Microplan Form 1 – Sub-centre area survey planning form & Master List

SUB CENTRE AREA MASTER LIST and SURVEY PLANNING FORM

RI Form 1

Sub centre name:________________

ANM Name/Ph No.:____________________ PHC Name: ______________________ District:_________

s.no	Name of Villages / Hamlets / Tolas / HRA #	Total number of households in this area?	High Risk Area #	Name of ASHA designated for this area?	Name and contact number of person doing survey	Designation (encircle applicable)	Dates of Survey - From / To	FILL AFTER Survey - FOR ANM USE ONLY				
								Total Population	Total Pregnant Women	Number of new born (0 to 1 month) of age	Number of of Infants(1 month to 1 yr of age)	Number of children (1to 2 yr of age)
A	B	C	D	E	F	G	H	I				
			Y / N			ASHA/AWW/Other						
			Y / N			ASHA/AWW/Other						
			Y / N			ASHA/AWW/Other						
			Y / N			ASHA/AWW/Other						
			Y / N			ASHA/AWW/Other						
			Y / N			ASHA/AWW/Other						
			Y / N			ASHA/AWW/Other						
			Y / N			ASHA/AWW/Other						
			Y / N			ASHA/AWW/Other						
			Y / N			ASHA/AWW/Other						
			Y / N			ASHA/AWW/Other						
			Y / N			ASHA/AWW/Other						
	TOTAL						TOTAL					

Signature of ANM______________________ Signature of Medical Officer:__________________

 # 1- Slums with migration; 2 - Nomads; 3 - Brick Kiln; 4 - Construction Site; 5 - Others (fisherman villages, riverine areas with shifting populations, etc.); 6 - Non migratory (settled population), hard to reach areas

SOPs for using RI Form 1

This format is to be used by the ANM of a sub centre area. Each ANM should list the areas in her sub centre including HRAs/nomadic sites in separate rows.

Column A - Serial numbers are to be allotted to each area. Numbers are not to be repeated and must be in serial for one sub-centre area. If the areas per sub-centre need to be entered on more than one sheet, the numbering will continue until the last area for that sub-centre.

Column B- Ensure all the Villages / Hamlets / Tolas / High Risk Areas (HRAs) details are entered. The classification of the HRAs is given as footer and the relevant number to be entered in brackets along with the name of HRA.

- For HRAs, (including brick kilns or nomadic/construction sites) ***each site must be entered into a separate row.*** Refer to existing polio microplans, census lists, maps, high risk area lists, and interactions with ASHA / AWW or Panchayat Raj Institution (PRI) members to ensure the inclusion of all areas in the sub centre area. This will form the **master list** for each sub centre. ***This is a critical activity***. Update this format as information is received or every quarter. (Refer Unit 12 for details on high risk areas)

Column C – enter the number of houses as per information available. If information is not available an approximate number can be entered. For areas such as nomadic sites and brick kilns household numbers are important or approximations must be entered.

Column D, if the entered area is an HRA then encircle “yes”.

Column E, Enter the name of the ASHA responsible for the area.

Column F, the name and contact number of the person who will conduct the survey should be entered.If the area does not have an ASHA or the position is vacant then, name of the person who will be delegated to conduct the area assessment should be entered.

Column G, The survey can be done by the local AWW / link worker / others in consultation with the Medical Officer (MO) **ONLY** after undergoing training. Enter the relevant designation.

Column H, The area survey is to be completed in seven to 10 days (See Fig 3.5). The dates for conducting this activity and the persons who will conduct the survey will be decided by the ANM in consultation with the MO. The **From** and **To** dates are to be entered here.

Columns I, The last shaded columns are for use **AFTER** the survey.

RI Form 2– Sub-centre map

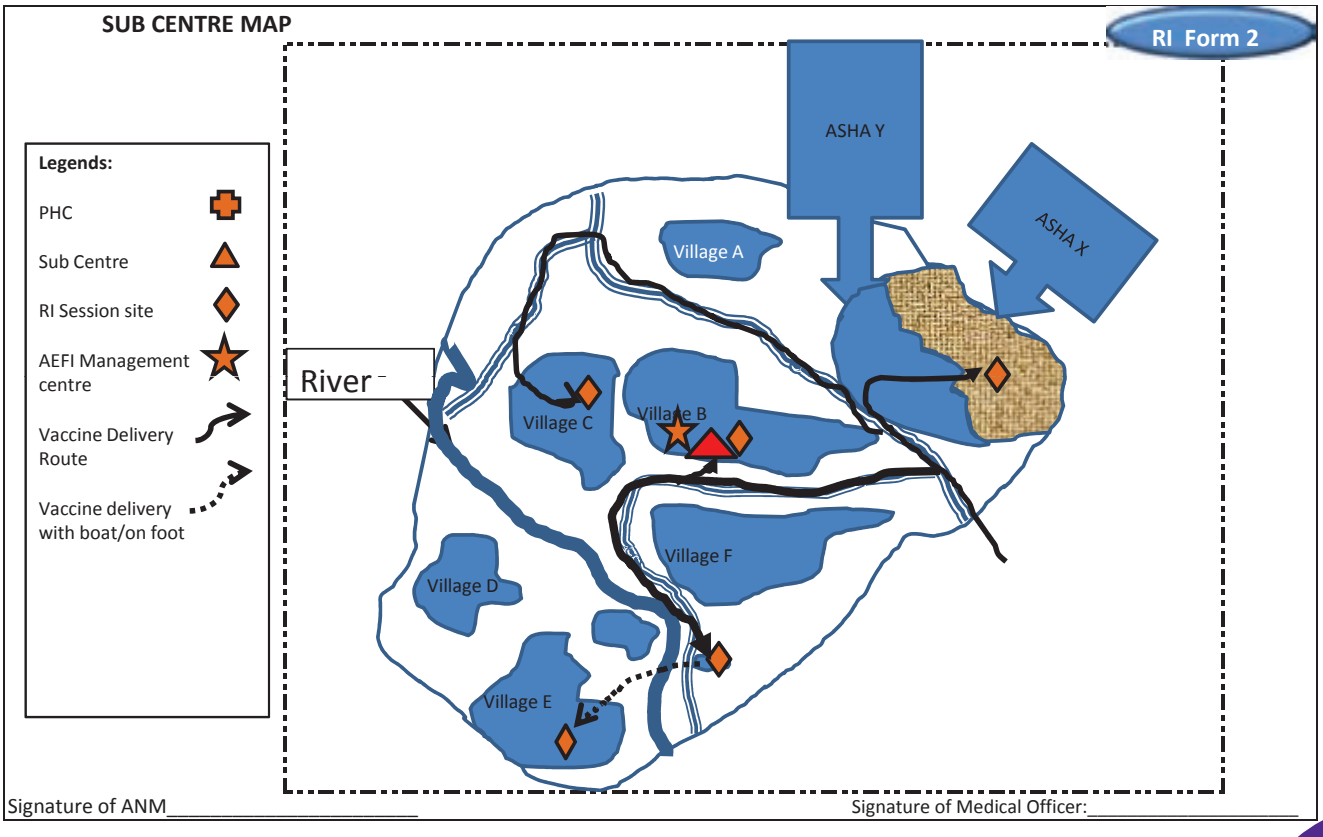
This form provides space for drawing a map of the SC area. A sample map is also given and health workers are encouraged to put forward simple drawings (see Figs 3.6, 3.7 and 3.8). The maps should be able to show at least the following:

- All the villages in the SC area, with names
- Shading of parts of a village to demonstrate the ASHA demarcation areas
- Location of the SC
- Location of all RI session sites
- Major roads
- Rivers streams.
- AEFI management centres

Each SC should have a map which helps to clearly demarcate the villages and areas to ensure that the frontline workers have clarity in operations, and avoid overlap or loss of services to the beneficiaries.

Encourage ANMs and ASHA to draw simple line diagrams of the areas; it is not necessary to have elaborate maps. (see next section)

Form 2 – Sub centre area map (Sample)



Making maps: updating maps made simple

Maps help to identify borders and areas of administration. They also help to identify areas that are in dispute or where workers have confusion.

In RI, simple maps are required (see Figs 3.6/3.7/3.8). The capacity to draw varies from person to person. Encourage your ANMs by showing printouts of the maps given as examples in this unit or demonstrate how simple line drawings can help them to be more sure and confident of their areas. Convey this message also to the respective ASHAs and AWWs of the area in subsequent meetings.

A good start for making maps begins with already existing maps. You should access the following sources:

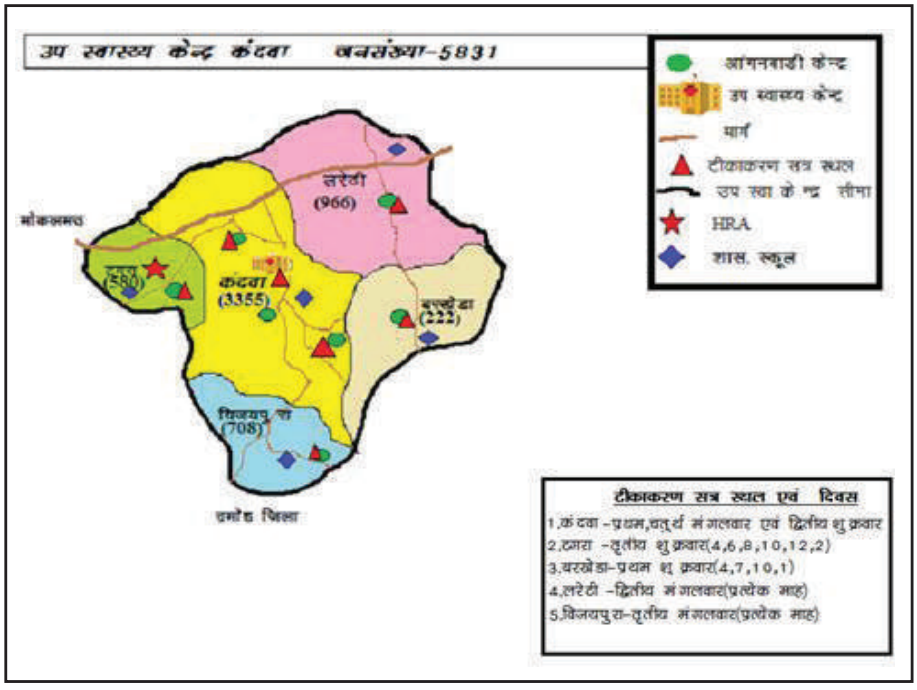
- Polio maps
- Maps from local administration, e.g. municipal corporation, land department, election section, local panchayat
- Local area maps from other sources.

(Refer Unit 12 for map utilization)

Ask the HWs to come to PHC with all the required data and guide them to prepare the SC/UHC microplans including maps.

Prepare a **map** of the block/PHC/Urban Planning Unit area, i.e. map showing the boundaries of SC/UHC, session sites, HRAs and demarcation of areas by each supervisor.

Fig. 3.6. Sample map showing area demarcation 1



Update the map of SC/urban health centre showing:

- the SC, villages, areas, hamlets and HRAs
- all Anganwadi centres, session sites and session days
- distance from the ILR point and the mode of transport
- landmarks such as panchayat bhavan, schools, roads,etc.

Fig. 3.7. Sample map showing area demarcation 2

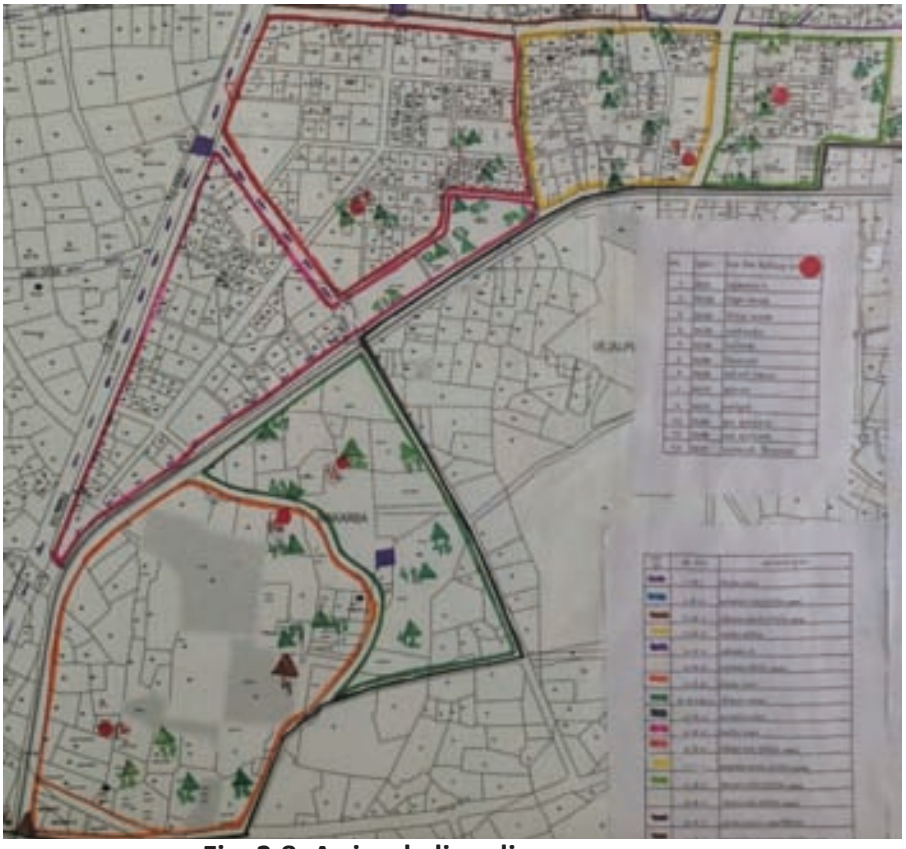
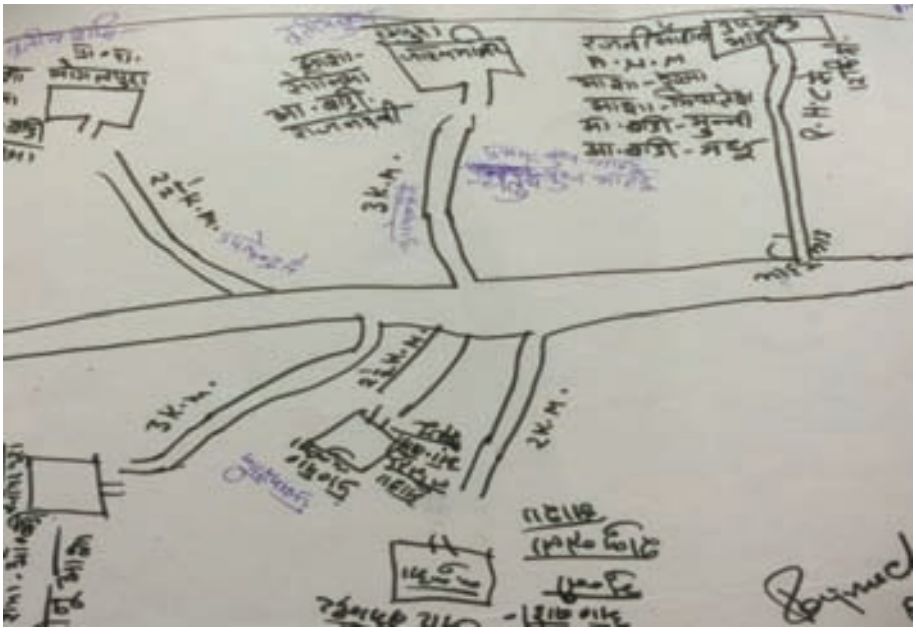


Fig. 3.8. A simple line diagram map

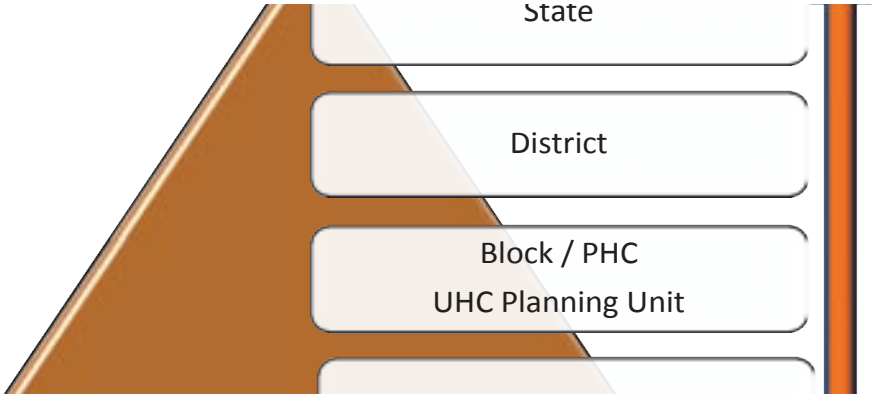


Step 2

- **Sub Centre level Planning** for head count survey and **training** of ASHA/AWW/Link worker/surveyor

The finalization of the head count survey plan and the training of the ASHAs/AWWs/Link workers/surveyors is the second step in the process for developing RI microplans. The role of the ANM is to guide the ASHAs and AWWs of the area in order to conduct the survey effectively and to use of their close ties with the community to identify all beneficiaries.

Fig. 3.9. Sub centre survey planning meeting– personnel and activities



Key components this activity should include:

- Review of area demarcation between ASHA, AWW & surveyors as per Form 1
- Sharing dates of survey and finalize with ASHAs/AWWs/link workers
- Creating working maps for each area
- Training ASHAs/AWWs/link workers to undertake head count & generate beneficiary list
- If required, plan to walk through areas to ensure clear area demarcation/HRA identification.

Medical Officer to decide on the venue for holding this meeting:

- At PHC for 2 to 3 Sub centres at a time– about 15 to 20 ASHA/AWW/Link workers in each batch, OR
- At Additional PHC, OR
- At the Sub centre.

Participants for this meeting : Sector Medical Officers, sub centre ANM, ICDS- lady supervisor, all ASHAs,AWWs,Link Workers, Mobilizers as well as ASHA facillitator of the villages in the sub centre.

Preparations

On meeting day

- Share the information and requirements for the meeting with respective ASHAs/ AWWs/link workers at **least a week in advance**. Encourage them to identify any new areas that may not have been included or any new nomadic or construction sites in their areas.
- Each ASHA and AWW should prepare a list of villages/areas as per the available information. This list should also include the HRAs and any other identified populations that require special services. Cross check and make corrections in the master list, if any.
- Discuss and plan logistics for the survey – adequate number of formats (Forms 3,4,5) ; chalk for house marking;

The MO/ANM need to share the status of RI in their area and explain the importance of the RI microplanning. Aspects that should be covered during the discussions are listed below.

Area demarcation between ASHA, AWW, link worker and mobilizer: Ask each ASHA/link worker to readout the list of villages/urban areas she visits/has been allocated. The AWWs of these areas can refer to the list they have prepared and add to or clarify the list of the ASHA. In some urban areas where AWW workers are not available, other key local persons can be approached for listing of areas.

Identify areas in each SC requiring a walk-through to verify demarcation and that all HRAs are included in the list of areas.

Using Form1 distributed during the PHC planing meeting, finalize the personnel who will conduct the headcounting and the approximate dates for completing the survey (if not already done). Allow for corrections of the master list at all times. Any information is important and will benefit the area.

Training of ASHA/AWW to undertake head count and generate due beneficiary list: Distribute copies of Forms 3, 4 and 5 to each ASHA/AWW. Explain the process (use SOPs of each form) for conducting the house to house survey of the areas, the information they will collect and the process for filling up these forms.

Develop a practical timeline considering that a maximum of 25 to 30 houses are to be covered in one day. This will ensure quality and allow the workers to collect detailed information on each family. **Rushing this process will lead to a compromise in quality.**

Creating working maps for each area: Working maps are simple maps (Figs 3.6/3.7/3.8) which need not be to scale, but provide an overview of the areas with clear lines of demarcations if there are more than one HW. These maps should be developed before going out into the area. Finer details may be added to this map during or in the next part of the process. Refer section on "Making maps" in this unit and also Unit 12.

Walk through of areas to ensure clear area demarcation/HRA identification: Once the training is completed the MO/ANM along with the ICDS LS should visit some areas. Priority should be given to those areas where confusion of demarcation exists and HRA areas. A walk through will bring an agreement on the lines of demarcation and will verify all HRAs are included in the list of areas. If there are a large number of areas, or the identified areas are accessibility compromised, the field visit can be covered as per a practical timeline over a few days.

Before closing the meeting, confirm the dates for the area survey by each person as per Form 1 and clarifi any doubts of the participants. Coordinate with ICDS supervisors to ensure monitoring and oversight. Working maps generated can be strengthened with additional information during the survey. Any changes should be intimated to the concerned ANM and ICDS supervisors.

Outputs expected

- Confirmed plan for area survey with timelines and names mentioned in Form 1.
- Refined master list of all areas in the SC
- Simple area maps for each ASHA area

Roles and responsibilities

Personnel	Activities to be performed	Supervisor
MO/Sector MO	• Will support the SC personnel to finalize plan for area survey • Supervise the survey with field visits	MOIC
ANM	• Area demarcation for ASHAs/AWWs • Develop a reasonable timeline for survey • Will support the ASHA/AWW for survey • Supervise the survey with field visits	Sector MO/LHV/ designated ANM
ASHA	• Contribute to finalizing the master list • Conduct the house-to-house survey	SC ANM/ASHA facilitator
AWW	• Conduct/assist in the house to house survey • Identify beneficiaries/HRAs/missed areas/ dropouts/left-outs	SC ANM/LS

Step 3 • **Conducting** head count survey at village /ward

The head count survey or house-to-house survey is the third step of the RI microplanning process. The survey will ensure enrolment of all beneficiaries in an area. It is to be conducted by the ASHA/AWW/Link worker/surveyor (after training) as specified in Form 1. No person will conduct this activity without having undergone the training as mentioned in Step 2. Each ANM will have a list of the SC areas and the dates for conducting the visits. This is to be shared with the LHV/Ladies Supervisor (LS) of ICDS to enable field visits and monitoring.

Key activities to be conducted:

- ASHA/AWW/LW/surveyor will conduct the survey as per the plan in Form 1. Support may be sought from local residents while conducting the survey. This survey is NOT to be done on RI days.
- During the survey
  - A maximum of 25 to 30 houses should be covered per day.
  - Information of ALL households to be entered in Form 3.
  - On identifying a pregnant woman in a household, enter her information into Form 4
  - On identifying infants and children up to 2 years of age, enter information in Form 5.
  - Process to be completed in 7 to 10 days per area.
- Monitoring of the process by ANM/LHV/LS/Sector Medical Officer/Medical Officer In-charge/DIO.
- Involve other departments (e.g. education, PRI, etc.) and block/district administration in supervision of this activity.

The minimum activities to be conducted are as follows:

Participants

Designated ANM, ASHA, AWW, LW or identified person for conducting the survey, Sector MO, ASHA supervisor, LS, others.

Preparations

The ANM should review the available lists and maps from Step 2 before beginning Step 3. During the period of survey, ANM and LS (ICDS) will make coordinated visits to ensure that the ASHAs/AWWs/LW/surveyors conduct the activity as per the training given.

ANM/ASHA facilitator/LS should verify at least 5 households. Adequate numbers of formats need to be made available for this activity to make maximum use of the resources in the field. All queries need to be addressed at the earliest. Upon completion of the activity and after verification the ANM should sign the Forms 3, 4 and 5.

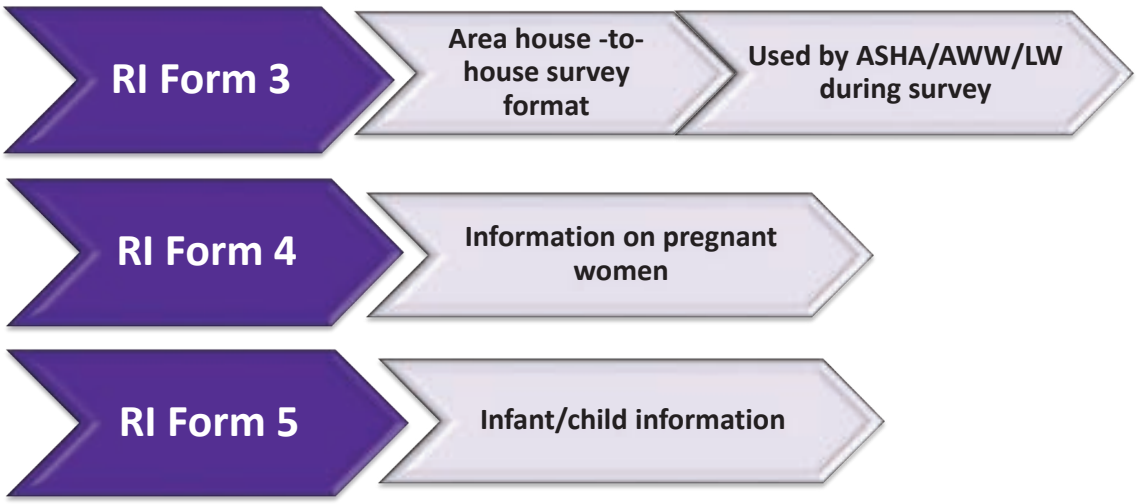
Use of local mobilizers

It is essential that the ANM interacts with the mobilizers and encourages other influencers in the village to participate in the survey activity.

Supervision

Sector MOs will visit the areas and provide oversight during this important phase of the microplanning exercise. An overview of Forms 3, 4 and 5 is given in Fig. 3.10.

Fig. 3.10. Overview of RI Forms 3 to 5



Outputs expected

- ASHA/AWW/LW/surveyor conducting the survey as per training
- Completion of house-to-house survey
- Forms 3 ,4 and 5 identifying all beneficiaries for each area.

Roles and responsibilities

Personnel	Activities to be performed	Supervisor
Sector MO	Supervise with field visits	MOIC
ANM	Supervise with field visits	Sector MO/LHV/designated ANM
ASHA	Conduct survey and fill Forms 3,4,5	SC ANM/ASHA facilitator
AWW	Conduct survey and fill Forms 3,4 and 5/ assist in survey	SC ANM/LS

RI Microplan Form 3 – Area survey/house to house survey form

RI Form 3

House to House Survey form

ASHA/AWW-Assessor Name/Ph No.: ________
ASHA/AWW-Facilitator Name/Ph No.:______________________

Sub-Centre name:________ Name of ANM: ____________

Area Name and No as per Form 1: ________

Date of Visit : dd/mm/yy

First house visited today - House No. :_________
Name: Address with landmark:

Last house visited today - House No. :________
Name: Address with landmark:

Family Details				Pregnant Woman	Children 0 to 2 years - (if YES , go to form 5)		
House number (as per chullah)	Name of head of family	Fathers name	How many family members are living in this house? (Include All adults & children including new borns)	Is there any woman pregnant in the family ? (If YES, go to form 4)	Is there any Newborn/child aged less than 1 month in the family (if YES , go to form 5)	Is there any child aged between 1 month and 1 year in the family (if YES , go to form 5)	Is there any child aged between 1 to 2 Years in the family (if YES , go to form 5)
A	B	C	D	E	F	G	H
				Yes / No	Yes / No	Yes / No	Yes / No
				Yes / No	Yes / No	Yes / No	Yes / No
				Yes / No	Yes / No	Yes / No	Yes / No
				Yes / No	Yes / No	Yes / No	Yes / No
				Yes / No	Yes / No	Yes / No	Yes / No
				Yes / No	Yes / No	Yes / No	Yes / No
				Yes / No	Yes / No	Yes / No	Yes / No
				Yes / No	Yes / No	Yes / No	Yes / No
				Yes / No	Yes / No	Yes / No	Yes / No
				Yes / No	Yes / No	Yes / No	Yes / No
				Yes / No	Yes / No	Yes / No	Yes / No
				Yes / No	Yes / No	Yes / No	Yes / No
Total		TOTAL		Total Yes	Total Yes	Total Yes	Total Yes

Signature of ASHA/assessor:______________________ Verified by ASHA Facilitator (Signature):____________________ Verified by ANM (Signature):________________

SHEET NUMBER :________

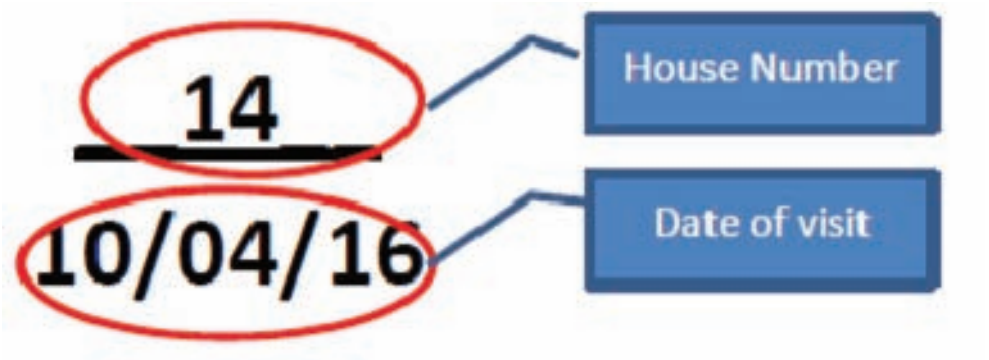
SOPs for using RI Form 3

- Form 3 is to be used when conducting the house to house survey.
- Each sheet must have the area name and number as given in Form 1. The ANM must instruct the surveyor to enter this.
- This assessment is not to be done on RI days.
- A household is defined based on "Kitchen" or "Chullah"
- Each sheet has information for 15 households. Multiple sheets for each area will be required and must be made available.
- A maximum of 25 to 30 houses should be covered per day. Calculations for the number of days will depend on the timeline as per DTF-I decisions.

Details of the first house visited and the last house on each sheet must be entered in the space provided. When multiple sheets are used in an area, each sheet must be numbered in the space provided at the bottom right of the form. The working map of the area prepared will help in identifying the roads and location of houses. Changes to this map can be made during the survey.

All houses in the area must be visited and information entered into the form. Each household is to be identified by a number (Column A). **This is the household identification number.** The numbering of households is to be continuous until the area is completed. The assessment of the area may take more than one day but the **numbering of the houses will be in serial order for the entire area.** Restart of numbering will be done when a new area is being assessed by the same person. House marking should be done with chalk/geru indicating the serial No of the household and date of survey, as shown in Fig. 3.11.

Fig. 3.11. House marking during house-to-house survey for RI



Interview each household and gather information on the head of household (Column B) and the total number of members in each household (Column C). This must include all newborn children.

Next, enquire if there is any currently pregnant woman in this household. This does not depend on if she is a resident / visitor to the area. Include all pregnant women as each is a beneficiary. If yes, then encircle yes (Column D) and collect information on the pregnant woman and enter in Form 4.

Similarly for Columns F, G and H enquire if there is:

- A newborn child
- A child up to 1 month of age
- A child between 1 month and 1 year of age
- A child between 1 and 2 years of age.

If a child is identified in any of these columns, encircle "Yes" and enter information on the newborn/infant/child in Form 5.

VILLAGE/ AREA - Pregnant Women Survey Listing

RI Form 4

Name of ASHA/AWW/ assessor: _____ Area Name and No as IN Form 3: _____

Name of ANM:_____

House No as in Form 3	Name of the pregnant woman	Age in years	Husbands name	Mobile / Telephone Number	Is MCP card available: Yes / No	Expected date of delivery/ LMP	Tetanus Toxoid Vaccination			Ante Natal Check Up				FOR ANM ONLY	
							TT-1	TT-2	TT-Booster (If 2 doses of TT have been given within 3 years of the current pregnancy)	1st ANC	2nd ANC	3rd ANC	4th ANC	TT due Y/N	ANC due - Y/N
A	B	C	D	E	F	G	H			I				J	
							Date/Y/N/DNK	Date/Y/N/DNK	Date/Y/N/DNK	Date	Date	Date	Date		
					Y / N										
					Y / N										
					Y / N										
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					Y / N										
					Y / N										
					Y / N										
					Y / N										
					Y / N	TOTALS									

Signature of ASHA_____ Verified by ASHA Facilitator (Signature):_____ Verified by ANM (Signature):_____

SOPs for using RI Form 4

Form 4 has to be filled when a pregnant woman is identified in Form 3 Column E.

The number in Column A must be the same as that used to identify the household in Form 3.

This number is a unique number that will link the pregnant woman to the house details.

Columns B, C, D and E are for information which identifies the pregnant woman.

Column F. Enquire from the woman if she has been issued a mother and child protection (MCP) card and accordingly encircle Yes or No. If she does not have a card, then information should be shared with the ANM of the area to ensure that a card is issued to her during the next visit.

Column G. Determine the expected date of delivery (EDD) of the child. This can be sourced from the RI/MCP card if available or from the mother herself. If she is unaware, then determine the EDD as best as possible by assessing her date of last menstrual period (LMP). **(Surveyor can consult ANM who can refer to the EDD ready reckoner from RCH register/ training manual).**

The administration of TT vaccine to PW as per the UIP schedule prevents maternal and neonatal tetanus; details of the same are to be entered in the three H Columns.

Antenatal check-ups help to identify a high-risk pregnancy and reduce chances of any complications. Details of these checks are to be entered in the four (I Columns).

Column J. this is for the ANM to enter if the woman is due for any ANC or TT vaccination. These two columns make it easier for the ANM to extract the information and develop the beneficiary due list for each RI session.

The dates of administration of TT injections and ANC check-ups should ideally be obtained from the RI/MCP card.

RI Form 5– list and details of infants / children identified

SOPs for using RI Form 5

This form collates all the information of infants/children identified during the house to house survey.

When filled correctly, this form provides information needed to develop the beneficiary list of infants/children of the area. **Accurate information on the number of children and the vaccines that they are due for will help to identify which vaccines a child is to receive, and when.**

Name of ASHA/AWW/ assessor: _____ Area Name and No as per Form 1: _____ Infants

House No as in Form 2	Name of the child	Age in yrs and months	Sex M/ F	Name of the father and mobile number	Is MCP card available: Yes / No	Vaccines at birth			Vaccines at 6 weeks				
						Hepatitis B birth dose (Witin 24 hours of birth)	OPV-Zero dose (within 15 days of birth)	BCG (At birth or upto 1 year of age and as early as possible)	OPV-1	Penta-1	RVV-1	fIPV-1	PCV
A	B	C	D	E	F	G			H				
						Date/Y/N	Date/Y/N	Date/Y/N	Date/Y/N	Date/Y/N	Date/Y/N	Date/Y/N	Date/
					Yes /No								
					Yes /No								
					Yes /No								
					Yes /No								
					Yes /No								
					Yes /No								
					Yes /No								
					Yes /No								

Signature of ASHA/AWW/ Assessor_____

Column A. The number in Column A must be the same as that used to identify the household in Form 3. **If there is more than one child in a house, the same number will have to be entered for each of these children.**

Columns B, C, D and E. These columns are used to collect identification information of each child. Attempt to collect the latest mobile number from the parent/household.

Column F - Enquire if the infant/child has been issued an RI/MCP card. If not, information should be shared with the ANM of the area to ensure that a card is issued at the earliest.

Column G. This records detail of vaccines administered at birth. Dates are to be entered of when BCG, OPV birth dose and Hepatitis B (within 24 h) were administered.

Column H. Dates of administration of Penta 1, Rotavirus 1 (where applicable), PCV 1 (where applicable), fIPV 1 and OPV 1

Column I. Dates of administration of Penta 2, Rotavirus 2 (where applicable) and OPV 2

Column J. Dates of administration of Penta 3, Rotavirus 3 (where applicable), PCV 2 (where applicable), fIPV 2, and OPV3

Column K. Enter the dates of administration of vaccines due between the age of 9 months and 1 year – MR first dose, Vitamin A, PCV Booster (where applicable) and JE (where applicable) vaccines

RI Form 5

ants / children survey listing Name of ANM: _____

	Vaccines at 10 weeks			Vaccines at 14 weeks					Vaccines at 9 to 12 months					Booster and 2nd doses of Vaccines at 16 to 24 months of age					
PCV-1	OPV-2	Penta -2	RVV-2	OPV-3	Penta -3	RVV-3	fIPV-2	PCV-2	Measles / Rubella 1st dose	JE 1st dose	PCV Booster	Vitamin A 1st dose	For Fully Immunized (FI) child - has incentive been given to ASHA	OPV Booster	DPT Booster	Vitamin A	Measles / Rubella 2nd dose	JE 2nd dose	For Completely Immunized (CI) child - has incentive been given to ASHA
	I			J					K				L	M					N
Date/Y/N	Date/Y/N	Date/Y/N	Date/Y/N	Date/Y/N	Date/Y/N	Date/Y/N	Date/Y/N	Date/Y/N	Date/Y/N	Date/Y/N	Date/Y/N	Date/Y/N	Date/Y/N	Date/Y/N	Date/Y/N	Date/Y/N	Date/Y/N	Date/Y/N	
													Yes /No						Yes /No
													Yes /No						Yes /No
													Yes /No						Yes /No
													Yes /No						Yes /No
													Yes /No						Yes /No
													Yes /No						Yes /No
													Yes /No						Yes /No
													Yes /No						Yes /No
																			TOTAL

Verified by ASHA/AWW Facilitator (Signature):_____

Column L. Record whether the ASHA has received the incentive for the child who is fully immunized – encircle "Yes" or "No". A child is to be considered as **fully immunized** if s/he has received all the due vaccines up to 1 year of age.

Column M. Dates of administration of vaccines due for a child between the ages of 1 and 2 years are to be entered in column M. This includes MR second dose, OPV booster dose and JE vaccine (where applicable).

Column N. Has ASHA has received the incentive for the child who is completely immunized– encircle "Yes" or "No". A child is to be considered as **completely immunized** if s/he has received all the due vaccines up to 2 years of age.

Step 4 • **Review** of all survey forms & **consolidation** of Sub Centre microplans

Each ASHA/AWW/LW/surveyor submits Forms 3, 4 and 5 to the ANM after completing the area survey. Step 4 is to review and collate this information.

ANM should plan for this meeting and inform all participants of the venue, date and time at least 2–3 days in advance so that they attend the meeting with completed survey forms.

Facilitator: ANM/Sector MO
Participants: ASHA/AWW/surveyor with ASHA facilitator, LHV/LS to attend if possible
Key activities to be conducted:

- Area demarcation to be finalized on map
- Review and refine RI plans as per actual head counts & identification of any missed (migratory/ settled) pocket in sub centre area
- Ensure functional tagging – areas tagged to existing RI sites should be practical
- Consolidation of Routine Immunization Microplan at sub centre – Form 6,7,8 & 9
- Develop mobilization plans
- Update the map of sub-centre/urban health centre showing:
    - All HRAs, villages with hamlets, urban areas with wards, sub wards & mohallas
    - All session sites and session days including Anganwadi centres
    - Distance from the ILR point and the mode of transport.
    - Landmarks as Panchayat Bhavan, school, roads etc.
    - Demarcate ASHA/mobilizer wise areas for social mobilization on map

Preparations

The Sector MO must review the plan of the ANM; timely oversight will ensure the development of effective RI microplans. MO should guide the ANM and extend support with visits and reviews.

During the meeting

ANM will review the information collected during the house to house survey in Forms 3, 4 and 5 with the ASHA/AWW/link workers/surveyor. A simple map of the SC can then be made from the information and experiences of the workers who have completed the survey. This map need not be to scale, but should include area demarcation for ASHA/AWW/mobilizers and other information as mentioned above.

As the actual head counts and areas are now available, review and refine the RI session plans to address the following issues:

- Are the number of sessions presently sufficient?
- Are all the areas covered?
- Are the migrants/HRAs identified? If so, are RI sessions being conducted for these mobile populations?

Session due list (Form6) –With the information gathered in Form 4 and Form 5, it is now possible to correctly quantify the number of beneficiaries.

The role of the ANM is crucial in this meeting. The focus must be on three points – beneficiary list, area finalization and mapping. The ANM Should remember that these tasks require investment in time and this meeting may take more than one day. RI Form 6 is the session due list and is best to be filled in Step 5 after finalization of the SC micorplans. A draft may be prepared but in discussion with MO Planning by the Sectoral MO should take this into consideration to enable him to attend if possible.

Outputs expected

- Number of new areas identified
- Number of beneficiaries
- Consensus on listing of areas and HRA
- Consensus on demarcation of areas
- Formats collected after cross check and attestation
- Availability of maps.

List of documents after conduct of the SC meeting:

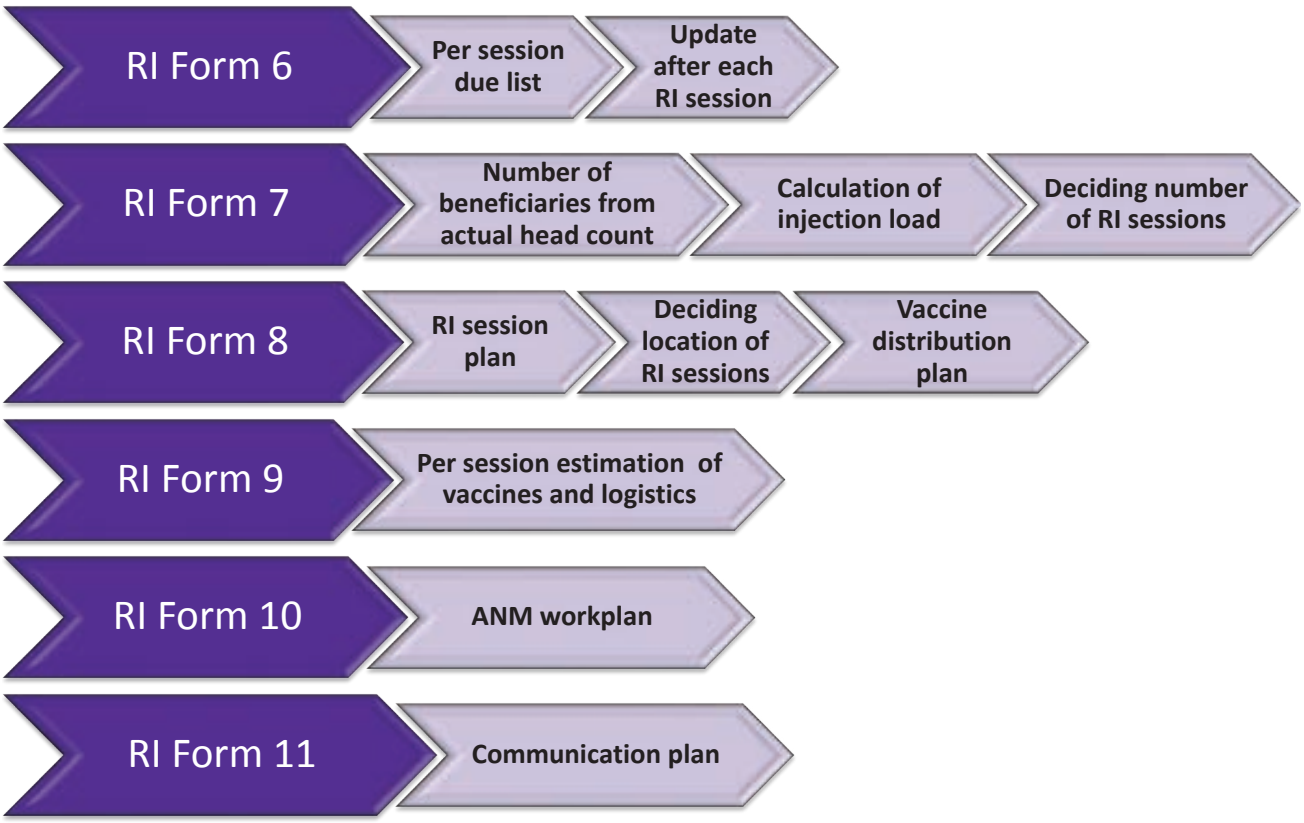
1. Completed RI Form 3 for each area
2. Completed RI Forms 4 and 5 –Beneficiary list – as per ASHA/areas identified
3. RI Form 7– proposed sessions planning for SC
4. Map of the SC – Form 2 showing demarcation of areas for ANMs (if applicable), ASHAs and AWWs

An overview of RI Forms 6 to 11 used in the SC RI microplan is given in Fig. 3.12.

Roles and responsibilities

Personnel	Activities to be performed	Supervisor
Sector MO	Monitor surveys, review forms in the field Oversee the meeting at SC where possible	MOIC , DIO
ANM	Conduct the meeting at SC Finalize area listing and draft of plan for conducting RI sessions in the areas	MOIC ,Sector MO
ASHA	Contribute to final forms	SC ANM/ASHA facilitator
AWW	Contribute to final forms	SC ANM/LS

Fig. 3.12. Overview of Sub Centre RI Microplan – Forms 6 to 11



RI Microplan Form 6 – Session beneficiary due list

RI SESSION DUE LIST **PHC:** _____

Name of Sub-Centre : _____ **Block :** _____

Name Session Site : _____

Name & No of ANM : _____ Name & No of ASHA : _____ Name & No of AWW : _____

RI Form 6

										After the RI session		
	Details of Pregnant Women / Children due for vaccination for RI session											
Sl. No.	MCTS Registration No.	Name of Child / Pregnant Woman	Date Of Birth / Expected date of Delivery	Age	Sex M / F	Name of Father/Husband	Vaccines due in this session	Did the pregnant woman / child arrive today? (Yes/No)	Vaccines which were administered to pregnant woman / child (If not given mention reason)	*Incentive money Rs. 100 will be payable to ASHA under Part C.S.A. for Full Immunization	**Incentive money Rs. 50 will be payable to ASHA under Part C.S.B. for Complete Immunization
A	B	C	D	E	F	G	H	I	J	K	L
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											

Total amount received

Number of beneficiaries who did not attend	Out of Village	Sick	Refused	Vaccinated outside	Other
Have these beneficiaries been included in the next session?	Y/N	Y/N	Y/N	Y/N	Y/N

Total Number of Pregnant women as per the due list	
Total women vaccinated	
Total number of children as per due list	
Total children vaccinated	

Signature of ANM *Signature of ASHA* *Signature of AWW*

This form is to be filled after finalization of SC microplans with medical officer

SOPs for using RI Form 6

This form is the session due list. **It identifies the number of beneficiaries per session and the vaccines for which they are eligible during the RI session.** This is also the record of payment of ASHA incentives.

This format is to be prepared by the ANM with support of the ASHA/AWW/LW after the proposed microplan is approved by the medical officer.

This session due list will help the ASHA in mobilizing beneficiaries to the session/s. Use a calendar and share the dates of upcoming sessions with ASHA/AWW/LW in advance to allow for mobilization.

Form 6 – Note

- This is a session due list and incentive recording sheet
- To be filled after finalization of microplan with medical officer
- ANM to compile the session beneficiary due list from the information
- Where possible, the MCTS number of PW is to be entered

Column A: The serial number for each beneficiary is to be entered here.

Column B: MCTS registration number is to be entered where available. ANM can provide this information from her RCH register. This unique number will help track the beneficiaries for complete immunization.

Column C: Name of the child/pregnant woman identified for services during this session is entered here.

Column D: For children enter the date of birth and for PW the expected date of delivery, if known.

Column E: Enter the age of the child in months or age of pregnant woman in years and months.

Column F: Enter the sex of the child.

Column G: Enter the name of the father or husband for easy identification at the village level.

Column H: Enlist all the vaccines that the beneficiary is due for in the upcoming session.

The following columns are to be filled at the end of the RI session:

Column I: After the completion of the RI session, cross check that all beneficiaries had arrived, answer as Yes or No

Column J: Enter all the vaccines were received by the beneficiary during this session. If not received,mention reasons.

Columns K and L: These are to be filled as and when ASHA receives her payments.

Presentation of this form

This format is not to be used singly. Each sheet to be in triplicate (different colours) and numbered. ANMs should use carbon sheets while filling the form. It is recommended that a booklet containing enough sheets for one year be printed to enable continuous use of the information and developing of a realistic RI session due list.

Maintaining the session due list after every RI session

- Who are the children who were due for vaccination today but did not turn up?
- Why did they not turn up?
- Who are the children we did not list for today's session?

It is essential that the left-out and drop-out children be identified. These children are at maximum risk as their immunization cover will not be complete and makes them susceptible to VPDs. Incomplete immunization contributes to child deaths under the age of 2 years.

Therefore, after each session the ANM, ASHA and AWW must review the children who have not come to the session. The reasons for not coming, once identified, must be addressed by the team. Seek support from local influencers/key persons to identify any children or beneficiaries before leaving the session site.

Enlist all children **who had not come** in for the session conducted, irrespective of the reason. After these names, enter the names of children **who will be due** for any vaccine in the next session. Share this list with the ASHA/AWW/LW so as to give them sufficient time to visit these houses and use all possible methods to convince the parents or ensure that the children are vaccinated at the fixed site at the PHC or in the next session.

As per the SC RI microplan, the ANM should remind the ASHA/AWW/LW on the next session date before leaving the session site.

Subcenter / UHC - RI Sessions plan

RI Form 7

District: _____ Block/PHC/Urban Planning Unit: _____ **SC/UHC: _____**

Name of IO / ICC: _____ Mobile no.: _____ Name of Medical Officer I/C: _____ Mobile no.: _____

Name of ANM: _____ Mobile no.: _____ Name & Designation of Supervisor: _____ Mobile no.: _____

S.No	Name of Villages / Hamlets / Tolas / HRA #	Total Population of Area (Totals of form 3 Column D)	Beneficiary Targets				Monthly Injection Load	Number of Sessions	Name and location of the Session site / sites	Name of the mobilizer	Type of area / terrain - plain / hilly / riverine	Type of Session - Fixed / outreach/ mobile / tagged
			Annual Target (PW = Actual Head count X2 , Infants =Actual Head count)		Monthly Target							
			PW	Infants	PW	Infants						
A	B	C	D	E	F	G	H	I	J	K	L	M
					D/12	E/12						

 # 1- Slums with migration; 2 - Nomads; 3 - Brick Kiln; 4 - Construction Site; 5 - Others (fisherman villages, riverine areas with shifting populations, etc.); 6 - Non migratory (settled population), hard to reach areas

Less than 25 injections: One session every alternate month**; 26-50 injections:** one session per month**; more than 50 injections:** two sessions per month as per need**; For hard to reach areas or less than 1000 population, where not tagged,** plan for sessions every quarter for a minimum of 4 sessions a year **; for a busy PHC/CHC/RH: plan daily sessions.**

SOPs for using RI Form 7

Enter the serial number and name of the villages in **Columns A and B**, keeping the same order as in Form 1. **New areas /identified missed areas should be entered towards the end with clear marking that this is a new area, using an asterisk (*).**

Using Form 3 Column D, the individual areas actual population (from the survey) should be entered into **Column C.**

The information for Column D is of the annual target of PW in each area.

Annual target of PW = Number of PW identified in the area survey X 2

The information for **Column E**

Annual target of infants = actual number of infants identified during the area assessment.

Calculating annual and monthly target population

Beneficiaries in the UIP are the PW and the children of an area who are eligible for any vaccinations. The cardinal numbers of these beneficiaries is obtained by conducting the area and house to house survey. Once the survey is completed, these figures will be available from Form 3.

However, for calculation of the yearly and monthly number of beneficiaries it is necessary to do the following:

- **For pregnant women:**

  The survey will give the number of PW identified in an area at the time of conducting the survey.

  The annual target of PW = actual number of PW as per head count X2

- **For children:**

  The house to house survey also identifies child beneficiaries. For the calculation of the annual target the actual number identified is considered.

  The annual target of children = actual number of children as per headcount

For columns F and G

Monthly target of PW = Annual target divided by 12

Monthly target of children = Annual target divided by 12

In column H

Enter the monthly **injection load for each area.**

Calculating injection load (only for determining the number of sessions)

This calculation is to be used only as a planning tool and ***not for estimation of vaccines or logistics.***

Firstly, determine the total number of injections needed per beneficiary.

This gives a multiplying factor of **15 injections.**

- BCG – 1 injection
- DPT – 2 booster injection
- HiB containing Pentavalent – 3 injections
- fIPV – 2 injections
- MR Vaccine – 2 injections
- PCV – 3 injections (where applicable)
- TT– 2 injections (for pregnant women)

For districts where JE is included in the schedule **add 2** to the above number, giving the multiplying factor of **17 injections.**

Injection load = Monthly target of children from **Column G** multiplied by the above factor

Column I

Based on the monthly injection load the number of RI sessions to be conducted for each village/area is to be entered as per the guideline below.

Frequency of RI sessions depending on injection load –

- 1 to 25 injections – 1 session every alternate month
- 26 to 50 injections – 1 session every month
- 51 to 100 injections - 2 sessions every month

For hard to reach areas or less than 1000 population, where not tagged, plan for sessions every quarter for a minimum of 4 sessions a year

Column J describes the location of the vaccination site. It is important that the exact location be entered, preferably with a landmark. This helps to collate the information and makes it easier to develop the overall plan for RI sessions under the SC area.

Mobilizers play an important role in mobilizing beneficiaries to the RI session site. The name of the mobilizer is to be entered into **Column K.**

Column L. Describes the type of terrain as this is a factor that contributes to determining

the number of sessions in the area and the method of vaccine delivery. The areas may be as follows:

- Plain – flat and accessible with no compromise in accessibility
- Hilly – hilly area
- Riverine – area divided by a river or rivulets making access difficult
- Inaccessible – hard to reach due to absence of roads or is approachable only by foot.

Column M. Describes the type of session. Sessions can be:

- **Fixed.** These sessions are held where vaccine storage is possible because of availability of ILR and deep freezer (DF), i.e. the sessions conducted at PHC/CHC
- **Outreach.** All sessions conducted where vaccine has to be taken by vaccine carrier
- **Mobile.** Sessions conducted using a vehicle which moves from site to site along with the immunization team and vaccine
- **Tagged.** Site/area which does not have a session but is linked to the nearest session site.

Ensuring “Same day, Same site, Same time”policy will help to increase community acceptance and in turn the utilization of services provided.

Sub Centre/ UHC: Per Session Injection load and vaccine distribution plan

RI Form 8

District: _____ Block/PHC/Urban Planning Unit: _____ SC/UHC: _____

Name of Medical Officer I/C: _____ Mobile no.: _____ Name of IO / ICC: _____ Mobile no.: _____

Name of ANM: _____ Mobile no.: _____ Name of Supervisor: _____ Designation:_____ Mobile no.: _____

S.No	Name and location of Session Site (Exact location) **If >1 session sites in big villages mention each separately**	Name/s of village/sub village area /hamlet/ urban ward/ mohalla/ tola covered by the site with its sl no. from Format 1 **(all areas in one cell separated by comma)**	**Frequency of Sessions** (Once a quarter / once in 2 months / number)	**Target for the session** (add if multiple areas / tolas are clubbed or divide in case of big village)		**Per Session doses required for each vaccine & vitamin A**											**Injection Load for the session** (TT+BCG+DPT +Hep B +Penta +MR+JE+PCV)	THESE COLUMNS TO BE FILLED AFTER APPROVAL OF PROPOSED PLAN BY MEDICAL OFFICER					
				PW	**Infants**	TT	BCG	DPT	OPV	Penta	RVV	fIPV	MR	JE	Vit A	PCV		**Month 1** ____	**Month 2** ____	**Month 3** ____	**Vaccine Distribution**		
																					Mode of Transport	**Name of person responsible**	**Contact number**
						EX2	FX1	FX2	FX5	FX3	FX3	FX2	FX2	FX2	FX9	FX3		**Day (Wed 1-5 or Sat 1-5)**					
A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**Q**	**R**	**S**	**T**	**U**	**V**		
1																							
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							
13																							
14																							
15																							

 # 1- Slums with migration; 2 - Nomads; 3 - Brick Kiln; 4 - Construction Site; 5 - Others (fisherman villages, riverine areas with shifting populations, etc.); 6 - Non migratory (settled population), hard to reach areas

The form contains detailed information on each RI session site in the SC. It also contains details on frequency of sessions, the villages/areas covered or tagged with each site, the injection loads per antigen and the vaccine distribution plan for each session.

SOPs for using RI Form 8

In **Column A,** enter the serial number.

In **Column B,** this is the name of the RI session site.

Enter each RI session site in a separate row. It is important that the exact site location be entered. **This will give the exact planning of sessions for the SC on a single page**. If the site is located in an Anganwadi centre, also include the centre number and location. If the site is located in private premises, the house owner's name should also be entered. Include a landmark where possible.

Column C. This contains the names of areas to which a RI session site provides services. Enter the names of the village/s or areas as per Form 1. For multiple areas, write the names separated by commas into this column.

E.g – Village XYZ

The frequency of sessions at this RI site is to be entered in Column D. It may be entered as:

- once in a quarter, i.e. once in three months
- once in two months
- twice a month
- daily.

Column E and F. The target of PW and infants per session is determined for each site.This is obtained from monthly targets in Form 7 Columns F and G. If the site caters to more than one area, add the targets. If there are two RI sites in a large village, then the monthly target is to be divided by 2.

Example – monthly target for each area from Form 7 columns F and G

Village XYZ has 3 PW & 5 infants and tola XYZ has 1 PW & 2 infants for RI site no 1.

Thus for RI site 1 monthly target will be 4 PW & 7 infants.

Village XYZ has 8 PW & 12 infants with two RI sites 2 and 3

Thus for RI site 2 monthly target will be 4 PW & 6 infants and for RI site 3 also is 4 PW & 6 infants

Note: **For fixed site use daily average of PW and children vaccinated (number vaccinated per month/30)**

Columns G to Q. Injection load for each antigen is to be entered in Columns G to Q. Using the target from **Columns E and F** the individual antigen dose requirement can be calculated using the formula in the boxes.

Column R. The **total** injection load for each site is now available to enter into Column R. This is calculated by adding the number of beneficiaries in **Columns G, H, I, K, L, M, N, O, P and Q.** (Note that OPV, Rotavirus vaccine (where applicable) and Vit A should not be considered as injections.)

Columns S, T and U. These columns show the exact time of RI site functioning for the next 3 months.

Each column is for a month. The day is to be entered as follows:

– Days – Mon, Tue, Wed, Thu, Fri, Sat
– Weeks – 1 to 5

Columns Q, R and S. Columns Q, R and S show the exact time of RI site functioning in the next 3 months.

Each column is for a month. The day is to be entered as follows:

E.g. If the session is held in Month 2 on the fourth Wednesday, the entry will be "Wed 4" in Column S.

Each state can customise this format for their own RI days and immunization schedule.

Method of vaccine distribution to each site is to be entered in the three **Columns V.**

- Information on the mode of transport – two wheeler/three wheeler/four wheeler with its registration number, if possible
- Name of the person transporting the vaccine and his contact number are to be entered.

RI Form 9

Sub Centre area: Per Session Estimation of Vaccines & logistics

TO BE USED WITH FORMAT 8

District: _____ Block/PHC/Urban Planning Unit: _____ SC/UHC: _____

Name of Medical Officer I/C: _____ Mobile no.: _____ Name of IO / ICC:_____ Mobile No._____

Name of ANM: _____ Mobile no.: _____ Name of Supervisor:_____ Mobile No._____

S.No	Location of session site	Estimation of vaccine vials and logistics for each session (At least one vial of each vaccine in each session) This should be filled with the help of Format 8																		
		TT	BCG	DPT	OPV	Penta	RVV	fIPV	MR	JE	Vitamin A	PCV	ADS 0.1 ml	ADS 5 ml	Reconstitution syringes	Paracetamol tablet/syrup	IFA tablets	Zinc tablet / syrup	ORS packet	RI / MCP card	Family welfare materials
Calculations with help of columns in Format 8		G x1.11 /10	H x 2 /10	I x1.11 /10	J x1.11 /20	K x 1.11 /10	L x 1.33 / 10	M x 1.11 /50	N x1.33 /5	O x1.33 /5	(Px 1ml) + {(f x 8) x 2ml)} x 1.11	Q x 1.11 /4	(H+M) x 1.11	(Total of DPT/Penta/ MR /PCV/ JE inj) x 1.11	no. of BCG, Measles & JE vials x 1.11						
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1																					
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
	TOTAL																				

Signature of ANM_____ Verified by Medical Officer (Signature):_____

SOPs for using RI Form 9

This format collates the exact requirement of vaccines and logistics (considering wastage) for each session site. This information is calculated using data **from Form 8.**

Columns A and B should be in the same order as in **Form 8.**

Columns C through M, These columns, provide the number of vials/units of vaccine required for each session site. For the calculations, use the information from columns mentioned from Form 8 for each session site. (Number of doses **x** WMF) ÷ no. of doses per vial.

Columns N, O and P - Calculates the requirement of syringes including reconstitution syringes. Calculation is based on number of vials from **Columns C to M of this format.** Remember – only calculate reconstitution syringes for **BCG, MR and JE.**

In the format wastage factors are given in the row below the names of antigens.

Columns Q to V are to indicate the requirement of other logistics for each session site.

Wastage multiplication factor (WMF)–

This is for use in estimation of vaccine and logistics. It is calculated using the following equation:

100 divided by [100 – (wastage %)]

E.g. if wastage is 15 %,

100/ [100-15]

100/85 = 1.18

Permissible wastage percentage

	Number of doses	Permissible wastage %	WMF
Hep B	1	10	1.11
BCG	1	50	2
DPT	2 booster	10	1.11
OPV	3+2 booster	10	1.11
Rotavirus	3	25	1.33
IPV	1	10	1.11
Pentavalent	3	10	1.11
MR	2	25	1.33
PCV	3	10	1.11
TT	2	10	1.11
JE	2	25	1.33
Syringes	As per requirement	10	1.11

RIMP – Form 10 - ANM work plan

This form is used by each ANM to plan her movement for the next 3 months.

The day columns may be customized for each state or district.

Entry of the name of the site and time is to be made against each month.

RI Form 10

Sub Centre - ANM's Workplan

District: _____ Block/PHC/Urban Planning Unit: _____ SC: _____

Name & Mobile no. of Medical Officer I/C: _____ Name & Mobile no. of IO / ICC: _____

Name & Mobile no. of ANM: _____ Name & Mobile no. of Sector Medical Officer: _____

Month	Week	Location of RI sessions with timing					
		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1						
	2						
	3						
	4						
	5						
	1						
	2						
	3						
	4						
	5						
	1						
	2						
	3						
	4						
	5						

Signature of ANM _____ Verified by Medical Officer (Signature): _____

RI Form 11 - Sub Centre Communication Plan

Sub centre communication plan for RI	Quarter- 1 / 2 / 3 / 4					RI Form 11
Name of Block:_____	Name of ANM:_____			Name of Subcentre:_____		
Name of Village						
Nane of Session site	1-	2-	3-	4-	5-	6-
Activities						
Miking / drum beating- Name and contact number						
Mosque announcement - Contact person and number - announcement time						
Meetings (Mothers meeting,AWW meeting,etc - Contact person and number - Monthly / weekly)						
VHSC meeting - contact person and number - location - attended by ANM Monthly / weekly -						
School Rallies - school name and contact person with number (once a month in villages on						
Celebrations / Special Days (eg Mothers day, health day etc) - contact person and number						
Wall paintings - locations						
Banners - identify 4 key *locations* - *Ensure* display at least one day before RI day						
P**ainting competition / Exihibition** - (once a quarter -school name and contact person with number						
Posters - identify 5 key locations (other than Panchayat ghar, Ration store, AWWcentre, Sub centre, Bus stand) - ensure display at least 2 days before RI day						
Pamphlets / Leaflets - available with - contact person name and number - distribute before RI session day						
Counselling aids / job aids (flip books etc.,) - available with - contact person name and number						
Other						
Manpower involvement - with contact number						
Name of ASHA						
Name of AWW						
Name of Mobilizer / CMC						
Name of community influencer						
Name of PRI member						

Date:_____ Sign of ANM:_____ Sign of MO:_____

SOPs for using RI Form 11

Form 11 is the communication plan for a SC.

Information to be filled for up to 6 session sites under a SC. Multiple formats may be used if needed.

A number of activities have been identified; the medical officer should guide the ANM to identify the activities that can be conducted in her areas. It is important to firstly identify the contact person who will coordinate the activity such as a school principal or community leader. Meetings such as **VHSC, Mothers meetings, AWW meetings** are generally held regularly and the tentative dates should be entered in the columns. Follow up on the dates by ANM and if possible the medical officer can support the visits or include them in MO plan.

With IEC material (Posters / banners) the common issue remains who and where the IEC is to be displayed. When reviewing the SC RI microplan discuss the locations appropriateness with ANM and enter the locations in the columns. MO can suggest changes when visiting the area or during subsequent meetings.

Painting competitions / exhibitions require some planning but have a positive impact on the community. Encourage the conduction of such activities.

Pamphlets / leaflets / counseling aids are material that can be placed at the AWC or other locations and used during RI sessions / other meetings.

Having the **names and contact numbers** of frontline workers of each centre will help the ANM to contact them in advance of RI session days. PRI / Community influencers can play a key role in RI and it is essential to identify them in a village or ward area.

Step 5

- **Finalization** of Sub Centre plans and **development** of **final block PHC plan**

The final step in the RI microplanning exercise at the PHC comprises of two components:

- **Component 1** - Review and finalization of the newly updated/ proposed SC RI microplans and finalization of formats and session due lists
- **Component 2** - Development of the final block PHC/UHC RI microplan.

First component: Review of the updated / proposed RI plans

This meeting is to be conducted on the same lines as the first meeting as demonstrated in step 1. The outputs are now focused on the finalization of SC microplans and the development of the PHC microplan. Each ANM should present her sub centre microplans focusing on the following points:

1. Total number of areas identified – any increase or decrease? Form 1
2. Total number of HRAs identified – any increase or decrease? Form 1
3. Demarcation of areas – who will be looking after which area? Form 1 and 2
4. Number of RI sessions planned? Form 7 and 8
5. Are the maps updated? RI Form 2
6. Is sub centre RI microplan now complete?

Each ANM after finalization of the information, plans and forms should compile the information for her SC. Sector medical officers should review the information for their respective areas. After review the MO should approve the ANMs microplans including the number of sessions and the sites.

The ANM can now develop the RI session due lists (Form 6) as per the RI sessions.

Plans from all sub centre are required including those which are vacant and those where ANM is on leave. It is advisable to review 2 to 3 ANMs per day to allow for other activities and maintain quality.

The second component - development of the PHC plan comprises of forms 12 to 18 as enlisted in figure 3.13. Form 12 is made by collating information from individual sub centre plans (RI form 7 and 8). Remember to include the fixed site session at PHC/Block.

Facilitator: MOIC

Participants: Sector MO,ANM, LHV, Health supervisors

Minimum activities at the final PHC meeting

- Review and finalization of SC plans for
  - inclusion of all HRAs
  - special plans for difficult areas
  - adequate deployment of mobilizers
  - adequate session planning
- Compile plans from all SCs to develop block plan
- Prepare vaccine delivery and supervision plan
- Recalculate vaccine and logistics requirement.

Remember

- Every 6 months– Update the available list of all the HRAs in the block/urban area
- During visits to RI sessions – review existing beneficiary and mobilization lists
- Prioritize block/s having large number of HRAs
- Review monitoring reports and data to identify issues
- Facilitate block level review and revision under guidance of DIO in priority blocks
- Follow-up the progress during weekly and monthly PHC meetings

Outputs expected

Availability of the following documents after Step 5:

- Forms 6, 7, 8, 9 ,10 and 11 for each SC
- Forms 12 to 18 for the PHC

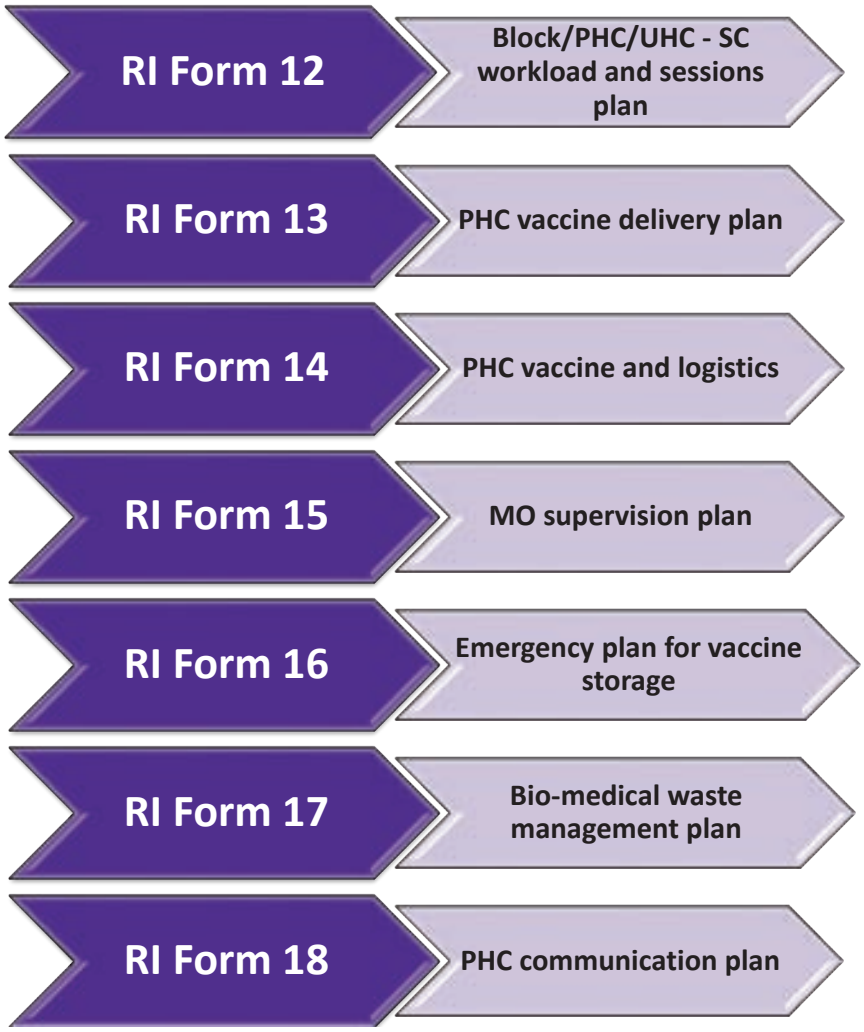
Roles and responsibilities

Personnel	Activities to be performed	Supervisor
MOIC	Coordination of the activity/reviewing each SC plan	DIO
Sector MO	Oversee/review the microplans submitted by ANMs	MOIC
Data manager	Clarify and finalize the names of villages. Data entry for generation of RIMP	MOIC
ANM	Generate SC forms and suggest changes to the reviewing officer	Sector MO

Preparation of a block/PHC/urban planning format

At a PHC or UHC, Seven formats provide overview of a PHC's RI session planning.

Fig. 3.13. Overview of PHC RI Microplan – Forms 12 to 18



RI form 12 – Block workload and sessions plan per Sub Centre

This format is a one page listing of the SCs and the details of the number of beneficiaries, injection load, number of sessions and HRAs. This information is a collation of totals of **Form 8** of each SC. It gives the workload per SC and the details of number of sessions for the PHC.

For fixed sites – at PHC/CHC/UHC – Remember to include as a separate row entry. To determine injection load of the fixed session, use monthly average from tally sheets / register. In very busy centres daily sessions may be held. In form 12 write "Not Applicable"in the columns for information that is not relevant for fixed site.

BLOCK / PHC - Population and injection load

RIMP - FORM 10

BLOCK / PHC / UHC - Subcentre workload and Sessions plan

RI Form 12

District: _____ **Block/PHC/Urban Planning Unit:** _____

Name of IO / ICC: _____ Mobile no.: _____ Name of Medical Officer I/C: _____ Mobile no.: _____

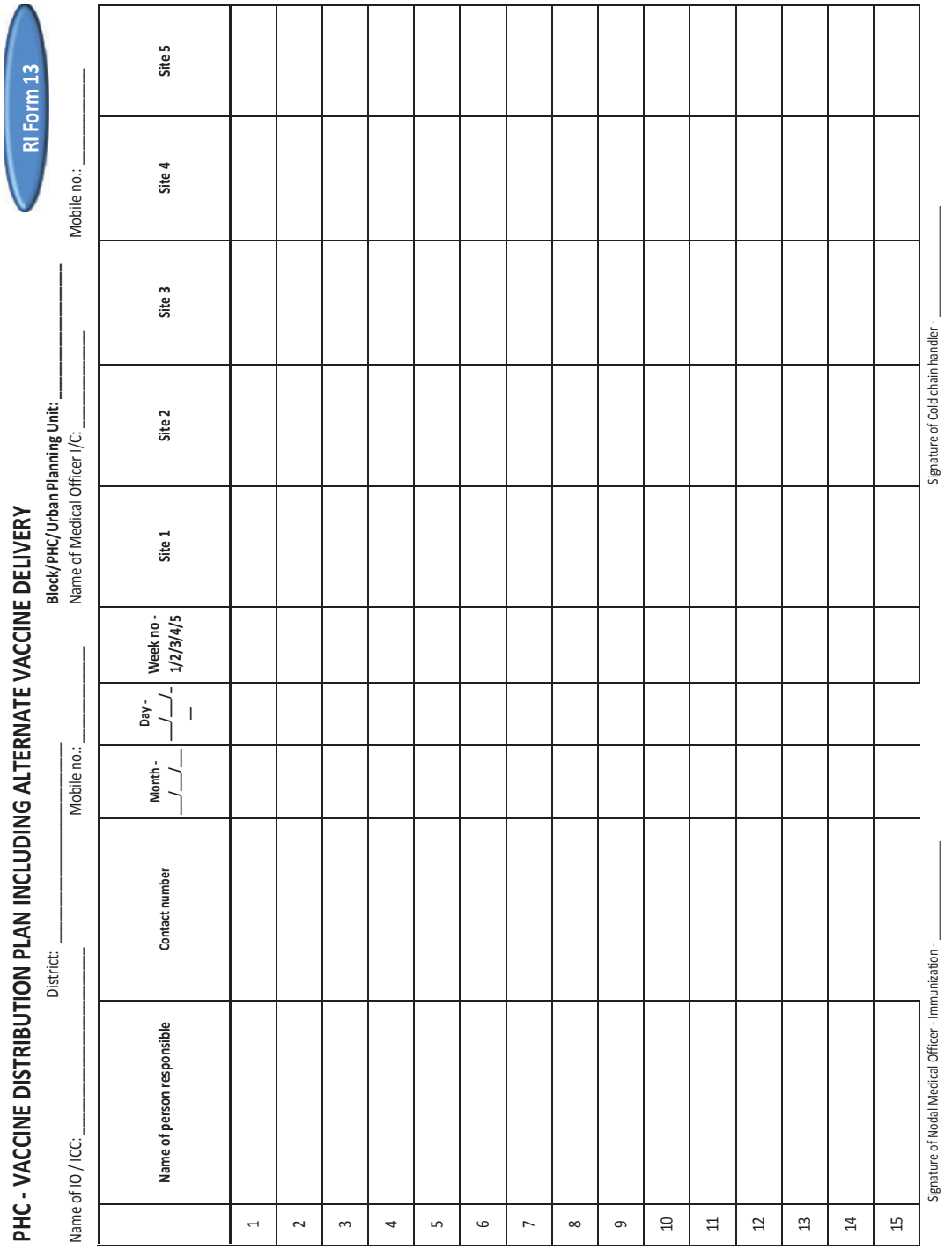
S.No	Name of Sub Centre	Total Population	Estimation of beneficiaries				Monthly Injection Load	Number of Session Sites	Number of sessions per month	Number of polio HRAs	Name of ANM	Contact No
			Annual Target (Based on actual headcount) by ASHA / AWW / ANM etc.		Monthly Target							
			PW	Infants	PW	Infants						
			A	B	C	D	E	F	G	H	I	J
					a/12	b/12						
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
	TOTAL											

Signature of Nodal Medical Officer - Immunization - _____

Signature of Medical Officer I/c- _____

RI Form 13 - Vaccine Delivery Plan including Alternate Delivery.

Vaccine Delivery System refers to the independent person who delivers the vaccine carrier from the PHC to the session site. The ANM has to directly reach the session site in order to maximize the use of her time. It helps to start the session on time, and the HW does not have to come to PHC to collect or return vaccine and other logistics to the PHC at the end of the session. Prepare the AVD plan and route chart for alternate vaccine (and logistics) delivery (AVD) to the session sites from the nearest cold chain storage point for each session day.



RI Form 13

PHC - VACCINE DISTRIBUTION PLAN INCLUDING ALTERNATE VACCINE DELIVERY

Name of IO / ICC: _____ District: _____ Block/PHC/Urban Planning Unit: _____

Mobile no.: _____ Name of Medical Officer I/C: _____ Mobile no.: _____

	Name of person responsible	Contact number	Month - __/__/__	Day - __/__/__	Week no - 1/2/3/4/5	Site 1	Site 2	Site 3	Site 4	Site 5
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										

Signature of Nodal Medical Officer - Immunization - _____ Signature of Cold chain handler - _____

RI Form 14 - Block / PHC Monthly requirement of vaccines and logistics

This format provides a single sheet to view the requirement of vaccines and logistics for the entire PHC.

RI Form 14

Block / PHC / UHC Monthly requirement of Vaccines & logistics

District: _____ Block/PHC/Urban Planning Unit: _____

Name of Medical Officer I/C: _____ Mobile no.: _____ Name of IO / ICC: _____ Mobile No._____

S.No	Name of Subcenter	Estimation of vaccine vials and logistics for each Subcenter																					
		TT	BCG	DPT	OPV	Hepatitis B	Penta	RVV	IPV	Measles	JE	Vitamin A	PCV	ADS 0.1 ml	ADS 0.5 ml	Reconstitution syringes	Paracetamol tablet/syrup	IFA tablets	Zinc tablet / syrup	ORS packet	RI / MCP card	Family welfare materials
	Source figures from column totals from FORM 9 of each sub centre																					
1																						
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
	TOTAL PHC requirement																					

Signature of ANM _____ Verified by Medical Officer (Signature): _____

RI Form 15 - Block medical officer supervision plan

Prepare the supervision plan for a quarter at the Block/PHC/Urban planning unit level.

RI Form 15

Health Centre MO Supervision plan

District: _____ Block/PHC/Urban Planning Unit: _____

Name & Mobile no. of Medical Officer I/C: _____ Name & Mobile no. of IO / ICC: _____

Month	Week	RI session sites and Medical Officers assigned for supervisory visits					
		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1						
	2						
	3						
	4						
	5						
	1						
	2						
	3						
	4						
	5						
	1						
	2						
	3						
	4						
	5						

Signature of Medical Officer _____ Verified by Medical Officer (Signature): _____

RI Form 16 - Emergency plan for vaccine storage

At your PHC/Urban Planning Unit, prepare a plan for safely storing vaccines during equipment breakdown or electricity failure and display in the cold chain room.

EMERGENCY PLAN FOR VACCINE STORAGE				
PHC / UHC:_____		Date: __/__/____	RI Form 16	
When to act: ILR/Deep Freezer breaks down OR Electricty failure for more than 18 hours				
Who will act: : Name and number of Cold Chain Handler/s:_____				
What to do (Recommended actions)				
ILR	1-Shift vaccines in cold boxes with conditioned icepacks. Place thermometer inside the cold box. 2- Arrange shifting of vaccines to nearby PHC or other vaccine storage facility. 3-Contact DISTRTICT FOCAL POINT for arranging cold chain space and arrange shifting.			
Deep Freezer	1- Shift ice-packs into cold boxes, if extra cold box is available after shifting of vaccines from the ILR. 2- Contact ice-factory:_____ , Mr _____ to freeze ice-packs.			
In case of ILR /DF breakdown, IMMEDIATELY INFORM:				
Designation	**Name**	**Contact no**	**E-mail**	**Alternate contact no**
Medical Officer :				
DIO:				
Discrict CC mechanic:				
State Cold chain Officer				
Company direct:				
Record details of breakdown in inventory register , UIP monthly PHC performance report, NCCMIS				
Signature of Medical Officer			Signature of Cold Chain Handler	

BIO-MEDICAL WASTE MANAGEMENT PLAN						
PHC / UHC:_____		Date: __/__/____	RI Form 17			
Name of the outsourcing agency : _____						
Name and contact number of agency supervisor:_____						
Name and contact number of agency waste collection person:						
At PHC/Urban planning unit:						
Name and contact number of nodal medical officer :_____						
Name and contact number of coordination personnel:_____						
Name and contact number of ANM coordinator :_____						
BMW mechanisms at unit						
		Location				
Identified RI session sharps recovery point	Y/N					
identified Disinfection corner/point	Y/N					
Sharps pit location	Y/N					
	Y/N					
Availability of IEC material on BMW :						
Location						
@ OPD	Y/N	**EMERGENCY Contact:**				
@ Injection Room	Y/N	**1**				
@ OT (Minor / Major / Labour)	Y/N	**2**				
@ lab (Liquid waste management)	Y/N	**3**				
@	Y/N					
@	Y/N					
Signature MO/IC :_____		**Signature Nodal Officer :**_____				

RI Form 18 – Communication plan for PHC/UHC

PHC/UHC Block level communication plan for RI		RI Form 18
Name of Block:_____	**Quarter- 1 / 2 / 3 / 4**	
Activities		
Meetings with Block Panchayat / BDO		
Local Press agency / journalist- Names and contact numbers		
Meetings with NGO/Community groups/institutions		
Other		
IEC material and display plan		**dispatched for display**
Banners -	Received on: __/__/____ Quantity: ____	on:__/__/____ to:
Posters -	Received on: __/__/____ Quantity: ____	on:__/__/____ to:
Pamphlets / Leaflets	Received on: __/__/____ Quantity: ____	on:__/__/____ to:
Counselling aids / job aids (flip books etc.,) - available with - contact person name and number	Received on: __/__/____ Quantity: ____	on:__/__/____ to:
Other	Received on: __/__/____ Quantity: ____	
Name & contact number of PRI Chairman		
Name & contact number of BDO		
Name & contact number of BEO		

Date:_____ Signature of MO:_____

SOPs for using RI Form 18

This communication plan has been designed with the objective of collating the information necessary at a PHC level to give an overview of the opportunities available to the MO and staff to enhance immunization coverage. The plan can be made for each quarter with tentative dates. At times it may not be possible to give exact dates however it may be possible to identify a person or time when the dates could be confirmed.

Activities: the sub headings are indicative and medical officers are encouraged to identify any other meetings that could be utilized for vaccination advocacy or enhance community support for RI.

Meetings with Block Panchayat/BDO – the PRI is an important part of RI strengthening and their meetings are held regularly. Interactions with the BDO are essential as they are involved in community development and directly interact with community leaders.

Local press agency / journalist – this list will be useful to disseminate information through channels of mass media. They can also be of help during emergencies or any AEFI. Discuss with the CMO/DHO/DIO to ensure clear messages.

Meetings with NGO/community groups/institutions - wherever possible engage with organizations working with communities or NGOs or institutions such as colleges , medical colleges, industries in the area for support for RI.

Other – any other organizations or meetings

IEC material and display plan

Hoardings – identify points for display of hoardings and or banners – list main areas such as bus stops , market places or prominent locations.

Banners – enter the number and date of receipt of any banners and who will be responsible to ensure timely display. If banners are distributed to SC ensure entry of the same in Form 11 of each ANM.

Posters – enter the number and date of receipt of any banners and who will be responsible to ensure timely display.

Pamphlets / leaflets – same as above

Counselling aids / job aids etc. Enter the number and date of receipt and ensure distribution at the earliest.

Other – refers to other IEC material such as polio posters or other campaign posters.

Contact numbers of PRI Chairman, BDO and BEO - ensure numbers are up to date.

Table 3.7 Checklist for RI microplan components – all levels

Level	Components of Routine Immunization Microplan	Available	
		Yes	No
Sub-centre	Map of area -with name of village, urban area including all hamlets (tola), sub-villages, sub-wards, sector, mohallas, hard to reach areas, etc.)		
	Demarcation Map - This map allocates areas for each ANM if more than 2 ANMs are present in a SC. It can also show the exact boundaries and areas for ASHA and AWW.		
	Master list which includes all villages/areas/HRAs		
	Estimation of beneficiaries and injection load per area		
	Estimation of beneficiaries and injection load per HRA		
	Estimation of beneficiaries, injection load and mobilizers per RI session site		
	Estimation of vaccines and logistics		
	ANM work plan including mobilization plan		
	General information sheet		
	Beneficiary list - PW and children aged 0-2 years		
	Session due list		
	Vaccine coverage chart		
PHC/ Urban planning unit plan	Map of PHC showing SCs area demarcation		
	Master list of all areas		
	RI microplans from each SC		
	Vaccine delivery plan and route chart		
	Vaccine and logistics estimation per SC		
	Vaccine and logistics for entire PHC		
	MO Supervision plan		
	Cold chain contingency plan		
	Bio Medical Waste management plan		
	IEC and social mobilization plan		
	Training plan (if applicable)		
	Latest coverage chart		
District plan	Map of district showing blocks/PHCs in district		
	Compiled RI microplans from all PHCs		
	Supervision plan of district officials		
	Latest coverage chart for district		
	Vaccine and logistics estimation per block		
	Timeline for RI microplan update/beneficiary estimation		
	IEC and social mobilization plan		
	Training plan		

UNIT-6

Adverse events following immunization

Learning objectives

- *Define AEFI and describe the types of AEFIs. List the responsibilities of MOs and other health service providers in managing AEFIs.*
- *Recognise and treat cases of anaphylaxis.*

Key Contents

Adverse events following immunization

6

Adverse event following immunization (AEFI) is defined as any untoward medical occurrence which follows immunization and which does not necessarily have a causal relationship with the usage of the vaccine.

The adverse event may be any unfavourable or unintended sign, abnormal laboratory finding, symptom or disease.

Reported adverse events can either be true adverse events, i.e. actually a result of the vaccine or immunization process, or coincidental events that are not due to the vaccine or immunization process, but are temporally associated with immunization.

In 2015, revised classification relevant to cause-specific categorization of AEFIs has been introduced (Table 6.1).

Table 6.1. Cause-specific categorization of AEFIs

	Cause-specific type of AEFI	Definition
1	Vaccine product-related reaction	An AEFI that is caused or precipitated by a vaccine due to one or more of the inherent properties of the vaccine product
2	Vaccine quality defect-related reaction (Both 1 & 2 were earlier categorised in Vaccine Reaction)	An AEFI that is caused or precipitated by a vaccine that is due to one or more quality defects of the vaccine product, including its administration device as provided by the manufacturer
3	Immunization error-related reaction (formerly “programme error”)	An AEFI that is caused by inappropriate vaccine handling, prescribing or administration and thus by its nature is preventable
4	Immunization anxiety-related reaction (formerly “injection reaction”)	An AEFI arising from anxiety about the immunization
5	Coincidental event	An AEFI that is caused by something other than the vaccine product, immunization error or immunization anxiety

Vaccine reactions

There are two types of possible vaccine reactions. **First** - a vaccine product-related reaction; this is a reaction (an individual's response) to the inherent properties of the vaccine, even when the vaccine has been prepared, handled and administered correctly. **Second** - vaccine quality defect-related reaction; this is a defect in a vaccine that occurred during the manufacturing process. Due to introduction of improved good manufacturing practices (GMP), such defects are now extremely rare.

Vaccine reactions may be classified into common, minor reactions; severe reactions; or serious reactions. Most vaccine reactions are minor and settle on their own. More severe and serious reactions are very rare and in general do not result in long-term problems.

Common, minor vaccine reactions

A vaccine induces immunity by causing the recipient's immune system to react to the vaccine. Therefore, local reaction, fever and systemic symptoms can result as part of the immune response. In addition, some of the vaccine's components (e.g. aluminium adjuvant, stabilizers or preservatives) can lead to reactions. The proportion of reaction occurrences likely to be observed with the UIP vaccines are listed in Table 6.2.

Table 6.2. Common, minor vaccine reactions and treatment

Vaccine	Local adverse events (pain, swelling, redness)	Fever (> 38°C)	Irritability, malaise and systemic symptoms
BCG	90-95%	-	-
OPV	None	Less than 1%	Less than 1%
Hepatitis B	Adults: up to 15% Children: up to 5%	1-6%	-
Hib	5-15%	2-10%	-
Pertussis (DwPT)	up to 50%	up to 50%	up to 55%
Tetanus	~ 10%	~ 10%	~ 25%
Measles/MR/MMR	~10%	5-15%	5% (Rash)
JE live-attenuated	<1%	-	-

Local reactions include pain, swelling and/or redness at the injection site and can be expected in about 10% of vaccinees, except for those injected with DwPT (whole cell DPT), or tetanus boosters, where up to 50% can be affected. BCG causes a specific local reaction that starts as a papule (lump) two or more weeks after immunization, which becomes ulcerated and heals after several months, leaving a scar.

Systemic reactions include fever and occur in about 10% or less of vaccinees, except for DwPT where the reactions are about half. Other common systemic reactions such as irritability, malaise, "off-colour" and loss of appetite can also occur after DwPT. For Live Attenuated Vaccines (LAV) such as measles/MR and OPV, the systemic reactions arise from vaccine virus infection. Measles/MR vaccine causes fever, rash and/or conjunctivitis, and affects 5–15% of vaccinees. It is very mild compared to "wild" measles.

Paracetamol, at a dose of up to 15mg/kg every 6–8 hours with a maximum of four doses in 24 hours is useful for the common minor reactions. It eases pain and reduces fever. However, it is important to advise not to overuse paracetamol as overdosing may harm the vaccinee. A feverish child can be cooled with a tepid sponge or bath, and by wearing cool clothing. Extra fluids need to be given to feverish children. For a local reaction, a cold cloth applied to the site may ease the pain.

Serious and severe vaccine reactions

An AEFI will be considered serious if it results in death, requires hospitalization, results in persistent or significant disability/incapacity or a cluster (two or more cases) of AEFIs occur in a geographical area.

AEFIs that are not minor but do not result in death, hospitalization or disability are categorized as severe. Examples include non-hospitalized cases of seizures, hypotonic hyporesponsive episodes (HHEs), persistent screaming, anaphylaxis, severe local reaction, injection site abscesses, intussusception, etc. Table 6.3 details these rare vaccine reactions. Most of the rare and more serious vaccine reactions such as seizures, thrombocytopenia, HHEs and persistent inconsolable screaming do not lead to long-term problems. Anaphylaxis, while potentially fatal, is treatable without leaving any long-term effects. Although encephalopathy is included as a rare reaction to measles or DPT vaccine, it is not certain that these vaccines in fact cause encephalopathy.

Table 6.3. Rare vaccine reactions, onset interval and rates

Vaccine	Reaction	Onset interval	Rate/doses
BCG	Suppurative lymphadenitis BCG osteitis Disseminated BCG infection	2-6 months 1-12 months 1-12 months	1 to 10 /10,000 1 to 700/1,000,000 0.19 to 1.56/1,000,000
Oral poliomyelitis	VAPP†	4-30 days	2 to 4 /1,000,000†
Hepatitis B	Anaphylaxis	0-1 hour	1.1/1,000,000
Hib	None		

Pertussis (DwPT)/ Pentavalent vaccine	Persistent (>3 hours) inconsolable screaming	0-24 hours	<1 /100
	Seizures††	0-3 days	<1 /100
	Hypotonic, hypo responsive episode(HHE)	0-48 hours	1 to 2 /1000
	Anaphylaxis	0-1 hour	20/1,000,000
	Encephalopathy§	0-2 days	0 to 1 /1,000,000
Tetanus toxoid	Brachial neuritis	2-28 days	5 to 10 /1,000,000
	Anaphylaxis	0-1 hour	1 to 6 /1,000,000
Measles/MMR/ MR*	Febrile seizures	6-12 days	3 /1000
	Thrombocytopenia	15-35 days	3 /10,000
	Anaphylaxis	0-1 hour	~1 /1,000,000
	Encephalopathy §	6-12 days	< 1 /1,000,000
Rotavirus	Intussusception	3-14 days	1 to 2/100,000

Notes:

† VAPP Risk is higher following the first dose (1 in 750 000 compared to 1 in 5.1 million for subsequent doses), and for adults and immunocompromised.

†† Seizures are mostly febrile and the risk depends on age, with much lower risk in infants under the age of four months.

* Reactions (except anaphylaxis) do not occur if already immune (~90% of those receiving a second dose are immune): children over six years unlikely to have febrile seizures.

§ Although encephalopathy is included as a rare possible reaction to measles or DPT vaccines, it is not certain that these vaccines in fact cause encephalopathy. Hence, further scientific evaluation is necessary.

Though vaccines are very rarely contraindicated, it is important to check for contraindications to avoid serious reactions. For example, vaccines are contraindicated if there is a possibility of serious allergy to a vaccine or its components. Live vaccines should not be given to immune deficient children.

Advice on managing the common reactions should be given to parents, in addition to instructions to return if there are more serious symptoms. Such action will help to reassure parents about immunization and prepare them for common reactions.

It is recommended that facilities be available at all clinic settings to provide initial emergency care. All immunization providers need to have these skills and competence to manage anaphylaxis. Availability of adrenaline (within expiry date) and other basic items in the emergency tray (AEFI kit) is vital.

Administration of one dose of Intra Muscular (IM) adrenaline by ANM as first line management in the field - See annex on Page 294.

Immunization error-related reactions (formerly "programme error")

An adverse event can occur as a result of inappropriate handling, prescribing or administration of a vaccine. It is very important to identify and correct these errors as they are preventable (Table 6.4); otherwise they may derail the benefits of the immunization programme.

An immunization error-related reaction may lead to a cluster of events associated with immunization. These clusters are usually associated with a particular provider, health facility, or even a single vial of vaccine that has been inappropriately prepared or contaminated. Immunization error-related reactions can also affect many vials. For example, freezing vaccine during transport may lead to an increase in local reactions.

Table 6.4. Immunization error-related reactions

Immunization error	Examples	Related reaction
Error in vaccine (and diluent) handling	Exposure to excess heat or cold (using hard frozen ice packs in RI) as a result of inappropriate transport, storage or handling of the vaccine (and its diluent) where applicable. Use of a product after the expiry date.	Systemic or local reactions due to changes in the physical nature of the vaccine, such as agglutination of aluminium-based excipients in freeze-sensitive vaccines. Failure to vaccinate as a result of loss of potency or non-viability of an attenuated product.
Error in vaccine prescribing or non-adherence to recommen-dations for use	Failure to adhere to a contraindication. Failure to adhere to vaccine indications or prescription (dose or schedule).	Anaphylaxis, disseminated infection with an attenuated live vaccine. Systemic and/or local reactions, neurological, muscular, vascular or bony injury due to incorrect injection site, equipment or technique.
Error in adminis-tration	Use of an incorrect diluent or injection of a product other than the intended vaccine. Incorrect sterile technique or inappropriate procedure with a multidose vial.	Failure to vaccinate due to incorrect diluent. Reaction due to the inherent properties of whatever was administered other than the intended vaccine or diluent. Infection at the site of injection/ beyond the site of injection.

With the introduction of AD syringes, infections due to non-sterile injections have reduced significantly. Such an infection could manifest as a local reaction (e.g. suppuration, abscess), systemic effect (e.g. sepsis or toxic shock syndrome), or blood borne-virus infection (e.g. HIV, Hep B or Hep C).

Use of reconstituted vaccine beyond the recommended period can lead to contamination of the vaccine (usually with bacterium *Staphylococcus aureus*). Within a few hours after administration, there may be local tenderness and tissue infiltration, vomiting, diarrhoea, cyanosis, high temperature leading to dehydration and death if not managed in time.

Inadequate shaking of the vaccine before use, superficial injection and use of frozen vaccine increases the risk of sterile abscesses which are rare (~1 per 100 000 doses) and local reactions from aluminium containing vaccines, especially DPT. Contamination of vaccine or injection equipment can also lead to a bacterial abscess. For BCG vaccine, injection abscess can arise from improper injection (subcutaneous rather than intradermal injection).

Immunization anxiety-related reactions (formerly “injection reactions”)

Immunization anxiety-related reactions are common in children over 5 years of age, resulting from fear or pain of injection rather than the vaccine. Vaccinated children or adults can react in anticipation to, and as a result of, an injection of any kind. This reaction is unrelated to the content of the vaccine.

These are common in mass vaccination campaigns. Examples include fainting, light-headedness, and dizziness, tingling around the mouth and in the hands. Younger children may react with vomiting, breath-holding, which in some cases can lead to a brief period of unconsciousness and convulsions.

Minimize overcrowding by proper planning of the immunization sessions to reduce waiting time. Prepare vaccine out of recipient’s view and ensure privacy during the procedure to prevent anxiety.

Coincidental events

Coincidental events have only a temporal association, i.e. event happening after immunization, and are not causally related.

Vaccines are normally scheduled early in life when infections and other illnesses are common, including manifestations of an underlying congenital or neurological condition. It is, therefore, possible to encounter many events, including deaths, to be falsely attributed to vaccine through chance association.

A coincidental event is more likely if the same or similar events also affected others in the same age group around the same time but who did not receive the suspect vaccine(s). There may also be evidence showing that the event is not related to immunization.

Immediate investigation is critical as a response to the community's concern about vaccine safety and to maintain public confidence in immunization.

Ensure appropriate follow-up communication with the affected group or community to avoid misunderstanding or negative rumours.

Responsibilities of health service providers in preventing, managing and reporting AEFIs

Community level

Anganwadi and ASHA/volunteers/frontline workers

- Follow up with beneficiaries to identify AEFIs after the vaccination session, using the beneficiaries list provided by the ANM.
- Inform the adverse event immediately by telephone to concerned ANM, MO, etc.
- Assist in referral of any suspected cases
- Assist the team investigating the event
- Support in building community confidence.

Sub Centre level

ANM

- Follow best immunization practices. Prior to starting vaccination at the RI site, the ANM must note down (in vaccinator's logistics diary) the following particulars. This will help mitigate AEFIs at session site level:
    - manufacturer's name
    - expiry date
    - batch number
    - VVM status (for new and partially used vaccines)
    - Date on the label of partially used vaccine (in case of OVP)
    - In case of reconstituted vaccines, date and time of opening on the label.

- Ensure that vaccine vial septum has not been submerged in water or contaminated in any way.
- Provide a list of children vaccinated during the session to the AWW/ASHA and request them to be alert, follow up and report AEFIs (if any) to her and the concerned MO.
- Ensure reasons for dropouts are entered in the immunization card counterfoils.
- Treat minor/non-serious AEFIs (mild symptoms like fever, pain,etc.) symptomatically.
- For all other cases (serious/severe) provide immediate first aid and refer AEFI to MO(PHC) or to appropriate health facility for prompt treatment and report. Inform the MO(PHC) at the health centre immediately by the fastest means possible.
- Share details of all AEFIs (serious/severe and minor) with the MOIC in the weekly block level meeting. Ensure details of all serious/severe and minor cases are entered in the AEFI case register maintained at the block PHC (see Annexure 1 for suggested format for AEFI Case Register).
- Assist in investigation of AEFIs and take corrective action in response to the guidance from the MO (PHC).

Health supervisors (HSs)

- Supervise and provide hands-on training to the ANMs/vaccinators in the field. This includes provision of information on referral transport and concerned officials in case of crisis.
- Monitor the community for adverse events during supervisory visits to immunization sites or SCs. Also monitor and ensure follow-up of beneficiaries by HWs. Ensure reasons for dropouts are entered in the counterfoils.
- Encourage the HWs to report AEFIs. Serious/severe AEFIs should be notified immediately by the fastest means possible.
- Analyze the reported AEFIs in the SC monthly reports and keep track of HWs who have not reported any AEFI over a period of time.
- Assist the investigation team in conducting the investigation.

Block PHC/CHC/corporation/ward/urban health post

MO In-Charge

Detection of AEFIs

- Train staff in detecting, managing and reporting of AEFIs and differentiating between minor and serious/severe events. Encourage the staff to report AEFIs.
- During case visits, enquire about any recent outbreak of disease/illness or any death in the community which may or may not have been related to vaccination.

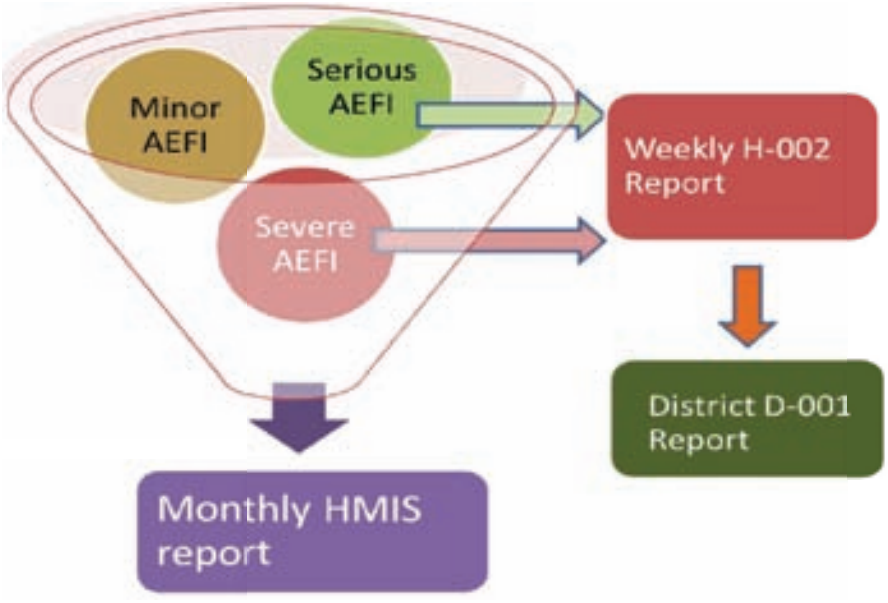
Management of AEFIs

- Ensure clinical case management of AEFIs and referral to the next level if required.
- Ensure availability of emergency drugs and medical equipment to deal with an adverse event. Regularly check the emergency kits (functional status of equipment and expiry of drugs)
- Ensure ANM is familiar with and that the anaphylaxis kit is certified every quarter.

Reporting of AEFIs (Fig. 6.1)

- Ensure timely notification of AEFIs from SC to PHC. Besides immediately informing all serious/severe AEFIs by telephone / in person, ensure that ANMs provide details of all AEFIs in their area on a weekly basis. A weekly NIL report from ANM gets submitted only after an effort has been made to look for these events in the children recently vaccinated.
- Detailed information of all serious, severe and minor AEFIs notified by HWs should be recorded in the block AEFI register.
- Ensure weekly submission of information of the number of serious/severe AEFI cases to the district in the VPD H-002 form. Assessment of Minor AEFI at the BLOCK PHC/PHC level - see page no 168.
- Conduct timely visits when cases are notified. Completely fill up Section A of CRF (Annexure 2) and submit the same to the DIO within 24 hours of case notification.
- Maintain quality (e.g. good clinical history, pre- and post-vaccination health status, community investigation, etc.) during interview and documentation.

Fig. 6.1. Reporting of AEFIs



- Ensure followup and collection of all relevant records including hospital records, laboratory records, other reports for all AEFI hospitalization cases which have been reported and investigated and submit the same to DIO.
- In AEFI death cases where postmortem has been conducted, track and collect postmortem, histo-pathological, toxicology and final cause of death reports and submit them to the DIO.
- Ensure adequate supervision and monitoring in the field.
- Communicate and share the results of investigation with HWs and the community wherever warranted.
- For any query from the media, refer the media person/s to the district authorities and abstain from giving any statements

(Please refer to the AEFI Surveillance and Response Operational Guidelines 2015 for further details and the activities to be conduced at district, state and national level)

The line list of serious, severe and minor AEFI should be maintained at the Block PHC/CHC in the block AEFI register. Number of serious and severe AEFI should be submitted to DIO as part of weekly reporting in the H002 form.

Recognition and treatment of anaphylaxis

Anaphylaxis is a very rare but severe and potentially fatal allergic reaction. Train HWs to distinguish anaphylaxis from fainting (vasovagal syncope), anxiety and breath-holding spells, which are common benign reactions (Table 6.5).

Table 6.5. Distinguish anaphylaxis from fainting (vasovagal reaction)

	Fainting	Anaphylaxis
Onset	Usually at the time or soon after the injection	Usually some delay, between 5 to 30 mins, after injection
Systemic		
Skin	Pale, sweaty, cold and clammy	Red, raised and itchy rash; swollen eyes, face, generalized rash
Respiratory	Normal to deep breaths	Noisy breathing from airways obstruction (wheeze or stridor)
Cardiovascular	Bradycardia, transient hypotension	Tachycardia, hypotension
Gastrointestinal	Nausea, vomiting	Abdominal cramps
Neurological	Transient loss of consciousness, relieved by supine posture	Loss of consciousness, not relieved by supine posture

Before immunization, check for contraindications to immunization by asking about known allergies and previous adverse reactions to vaccines.

Recognition of anaphylaxis

Signs and symptoms of anaphylaxis are given in Table 6.6. In general, the more severe the reaction, the more rapid is the onset. Most life-threatening reactions begin within 10 mins of immunization. **That is why it is advised that the beneficiary be kept under observation for at least 30 mins after the injection.**

Unconsciousness is rarely the sole manifestation of anaphylaxis – it only occurs as a late event in severe cases. A strong central pulse (e.g. carotid) is maintained during a faint, but not in anaphylaxis. Anaphylaxis usually involves multiple body systems. However, symptoms limited to only one body system (e.g. skin itching) can occur, leading to delay in diagnosis. Occasional reports have described reactions where symptoms recur 8 to 12 hours after onset of the original attack and prolonged attacks lasting up to 48 hours.

Table 6.6. Signs and symptoms of anaphylaxis

Clinical progression	Progression of signs and symptoms of anaphylaxis
Mild, early warning signs	Itching of the skin, rash and swelling around injection site. Dizziness, general feeling of warmth. Painless swellings in parts of the body e.g. face or mouth. Flushed, itching skin, nasal congestion, sneezing, tears. Hoarseness, nausea, vomiting Swelling in the throat, difficult breathing, abdominal pain.
Late, life-threatening symptoms	Wheezing, noisy and difficult breathing, collapse, low blood pressure, irregular weak pulse.

Treatment of anaphylaxis

Once the diagnosis is made, consider the patient as being in a potentially fatal condition, regardless of the severity of the current symptoms. Begin treatment immediately; and at the same time, make plans to transfer the patient immediately to the hospital (if not already in a hospital setting).

Role of adrenaline

Adrenaline (epinephrine) stimulates the heart, reverses the spasm in the lung passages and reduces edema and urticaria, thus countering the anaphylaxis. But this very potent agent can cause irregular heartbeat, heart failure, severe hypertension and tissue necrosis if used in inappropriate doses.

Every health facility should have health staff trained in treatment of anaphylaxis and should have rapid access to an emergency kit with adrenaline. They should be familiar with its dosage and administration. **The expiry date of the adrenaline should be written on the outside of the emergency kit and the whole kit should be checked three or four times a year**. Adrenaline that has a brown tinge must be discarded. Adrenaline has a short expiry life, so monitor the expiry date on a regular basis.

Steps in initial management

- If already unconscious, place the patient in the recovery position (pronate) and ensure that the airway is clear.
- Assess heart rate and respiratory rate (if the patient has a strong carotid pulse, he/she is probably not suffering from anaphylaxis).
- If appropriate, begin cardiopulmonary resuscitation (CPR).
- **Give adrenaline 1:1000 (See Table 6.7 for correct dose for age) by deep intramuscular injection into the opposite limb to that in which the vaccine was given.** Subcutaneous administration is acceptable in mild cases. Also, give an additional half dose around the injection site (deep intramuscular injection) to delay antigen absorption.

- If the patient is conscious after the adrenaline is given, place his/her head lower than the feet and keep the patient warm.
- Give Inj. Hydrocortisone IM or slow IV as per dosage chart below (Table 6.8).
- Give oxygen by facemask, if available.
- Call for professional assistance but **never leave the patient alone.** Call an ambulance (or arrange other means of transport, after the first injection of adrenaline, or sooner if there are sufficient people available to help you).
- If there is no improvement in the patient's condition within 10–20 mins of the first injection, repeat the dose of adrenaline up to a maximum of three doses in total. Recovery from anaphylactic shock is usually rapid after adrenaline.
- Record, or get someone to record, vital signs (pulse rate, respiratory rate and blood pressure), as well as time and exact dose of any medication given. **Make sure the medical and treatment details accompany the patient** when s/he is transferred.
- **Mark the immunization card clearly** so that the individual never gets a repeat dose of the offending vaccine. At a suitable moment, explain to parents or relatives the importance of avoiding the vaccine in future.
- Report the occurrence of anaphylaxis to the appropriate officer by phone followed by the reporting form.

Adrenaline dosage: 1:1000 adrenaline (epinephrine) at a dose of **0.01ml/kg up to a maximum of 0.5 ml injected intramuscularly** (or subcutaneously in very mild cases). If the weight of the patient is unknown an approximate guide is given in Table 6.7.

Table 6.7. Injection adrenaline (1:1000 solution) dosage chart IM

Age group (in years)	One inch needle gauge	Dosage (in mL) using 1 mL tuberculin syringe	Dosage (in units) using 40 units insulin syringe
0-1	24G/ 25G	0.05	2
1-6		0.1	4
6-12		0.2	8
12-18		0.3	12
Adults		0.5	20

Table 6.8. Injection hydrocortisone (IM or slow IV): dosage chart

Age	Dosage
Less than 6 months	25 mg
6 months to 6 years	50 mg
6–12 years	100 mg
>12 years	200 mg

AEFI management centres

Each health facility staffed with a MO in the government as well as the private sector should be designated as an AEFI management centre. Each block should prepare a list of such centres dispersed geographically so that in the event of an AEFI, the beneficiary can be quickly managed. The RI microplan of each HW should include the name, address and phone number of the MO of the AEFI management centre. All the MOs of the designated AEFI management centres should be trained in standard AEFI management and reporting procedures. All AEFI management centres should be provided with AEFI treatment kits (Fig.6.2, Table 6.9) and standard AEFI reporting forms. Treatment protocol for anaphylaxis is given in Fig 6.3.

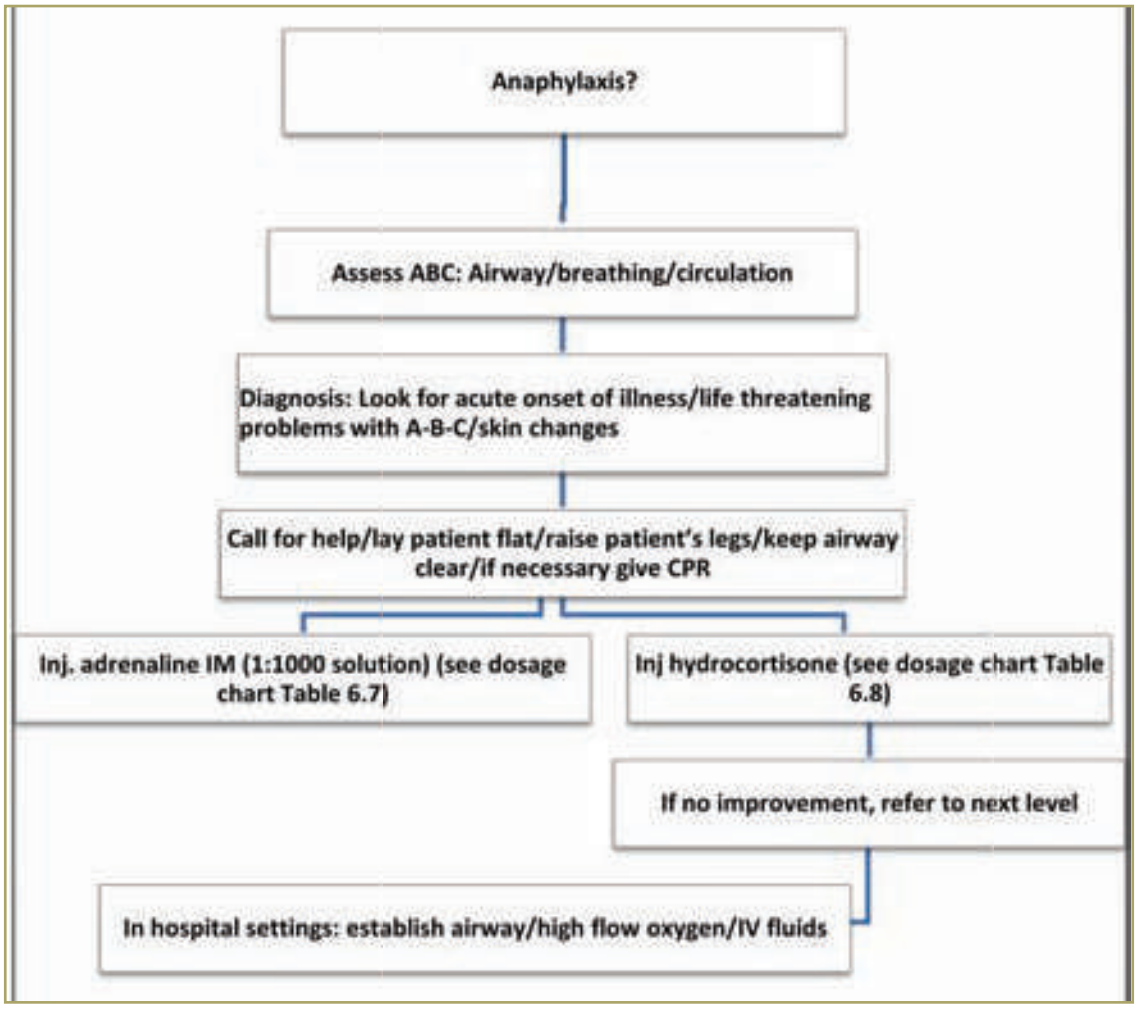
Fig. 6.2.Contents of AEFI kit

Table 6.9.Contents of an AEFI treatment kit

1. Injection adrenalin (1:1000) solution – 2 ampoules	8. IV fluids (5% dextrose): 1 unit in plastic bottle
2. Injection hydrocortisone (100 mg) – 1 vial	9. IV drip set: 1 set
3. Disposable syringe - Tuberculin syringes (1mL) OR insulin syringe (without fixed needle of 40 units) 3 Nos	10. Cotton wool, adhesive tape – 1 each
	11. AEFI Case Reporting Form (CRF)
	12. Label showing date of inspection, expiry date of Inj. adrenaline and shortest expiry date of any of the components
4. Disposable syringe (5 ml) and 24/25G IM needle – 2 sets	13. Drug dosage tables for Inj.adrenaline and hydrocortisone
5. Scalp vein set – 2 sets	14. In hospital settings, oxygen support and airway intubation facility should be available
6. Tab paracetamol (500 mg) – 10 tabs	
7. IV fluids (Ringer lactate/normal saline): 1 unit in plastic bottle	

IV – intravenous

Fig. 6.3. Treatment protocol for anaphylaxis



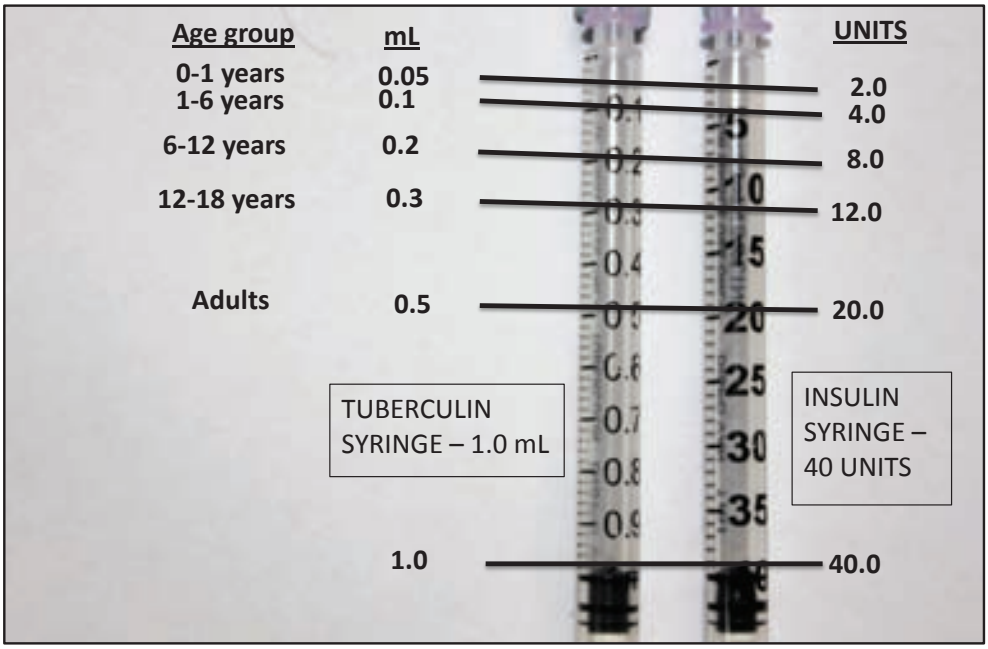
Anaphylaxis kit for ANM

1. Job aid for recognizing anaphylaxis; dose chart for adrenaline as per age
2. 1 ml ampoule of adrenaline (1:1000 aqueous solution) - 3 nos. (adrenaline ampoules may also labeled as epinephrine)
3. Tuberculin syringes (1ml) or insulin syringe (without fixed needle of 40 units)-3 nos.
4. 24G/25G needles (1 inch) - 3 Nos.
5. Swabs - 3 nos.
6. Updated contact information of DIO, Medical Officer(s) of PHC/CHC, referral centre and local ambulance services.
7. Adrenaline administration record slips.

Difference between AEFI kit and Anaphylaxis kit

	AEFI kit	Anaphylaxis kit
Location	**At health facilities with Medical Officer**	**Outreach session**
For use by	**Medical Officer**	**ANM**
Contents		
Equipment for intubation and resuscitation	Yes	No
Ringer lactate, normal saline, 5% dextrose, IV drip set, scalp vein sets(2)	Yes	No
Inj. Hydrocortisone and Tab. Hydrocortisone	Yes	No
Cotton wool	Yes	Yes
Inj. Adrenaline ampoules	Yes	Yes
24G/25G needles 1 inch length	Yes	Yes
Tuberculin syringes (1ml) or Insulin syringes (40 units, without fixed needles)	Yes	Yes

Fig. 6.4



Role of Medical Officer in Anaphylaxis management

Detection of AEFIs

- Encourage staff to insist on caregivers waiting for at least half hour following vaccination
- Train staff in suspecting, detecting and reporting of AEFIs
- Encourage staff to report AEFIs

Management of AEFI

- AEFI management centres in health facilities to be identified in microplans
- Ensure availability of emergency drugs and medical equipment to deal with an adverse event
- Regularly check to emergency tray (Functional status of equipment and expiry of drugs) and AEFI kits
- Provide apporpriate treatment to AEFI cases and refer if needed

Quarterly certification of ANM anaphylaxis kit by Medical Officer

- Medical officer will ensure availability of anaphylaxis kit with all ANMs at session sites/ sub centre during field visits.
- He will examine contents of the anaphylaxis kit at least once a quarter
- He will ensure injection adrenaline and other logistics do not have expiry dates within the next three months of the visit
- If the expiry date of any logistics is within three months of visit, this will be replaced during the next visit of the ANM to the PHC and signed by the Medical Officer in the following format which will be part of the kit

Name of subcenter:		**Name of ANM:**		**Name and contact number of MO**	
Date of Check-ing	**Contents**	**Expiry date of contents**	**Signature of MO**	**Action required (replace am-poule /syringe)**	**Action taken, signature of MO, date**
	1 ml ampoule of adrenaline (1:1000 aqueous solution)-3 Nos.				
	1 ml syringes-3 nos.				
	1 ml ampoule of adrenaline (1:1000 aqueous solution)-3 Nos.				
	1 ml syringes-3 nos.				
	1 ml ampoule of adrenaline (1:1000 aqueous solution)-3 Nos.				
	1 ml syringes-3 nos.				

Annexure 1 – Format for block AEFI register

Week No	Name of sub-centre	Name of vaccinee	Father's name	Age	Date of vaccination	Name of vaccines given	**Batch number of vaccines given**	AEFI noted (symptoms)	**Category (serious/ severe/ minor)**	Case seen by MOIC (Yes/ No)	Entered in case reporting form (Yes/No)

1. Kindly follow the AFP Surveillance Calendar to identify week no.
2. Information on serious and severe AEFI should be shared weekly with the district along with the H-002 form
3. The details of Minor AEFI are to be maintained at Block Level and monthly cumulative data to be entered in HMIS report

Annexure 2 – AEFI Case Reporting Form

AEFI CASE REPORTING FORM (CRF)

AEFI reporting ID: IND (AEFI) /__ST_/DIS_/_YR _/_NUM_ (to be allotted by DIO)

Section A (To be submitted by MO within 24 hours of case notification to DIO)

State	**District**
Block/ward	**Village/urban area**

Name of reporting MO (person filling this form):	Today's date:
Posted at: Designation:	Time of preparing this form: a.m./p.m.
Contact phone number: email:	Date case visited and examined/interviewed: __ __/__ __/__ __ __ __
Notified by (name): Date notified to MO: __ __/__ __/__ __ __ __	Designation (please circle): health worker/government doctor/private practitioner/community/media/others (specify) _____ _____

Patient's name																				

Date of birth DD/MM/YYYY	**Age** (in months): _____ months	**Sex**	Male / Female

Mother's name																				
Father's name																				

Complete address of the case with landmarks *(street name, house number, village, block, tehsil, pin no., telephone no.)*

P	**i**	**n**	-							**P**	**h**	**o**	**n**	**e**	-											

Date of vaccination: __ __/__ __/__ __ __ __ Time of vaccination: __ __: __ __a.m./p.m.	Address of session site:
Session: Routine (including SIW)* **Campaign** (SIA)-IPPI/MR/JE/others (specify):_____ Other _____	**Place of vaccination:** govt health facility/outreach/private health facility/others ____

Names of vaccines received (write vaccine & diluent details in separate rows)	Dose no. (zero/first/second/etc. as applicable)	Name of manufacturer	Batch/lot No.	Expiry date	Date of opening of vial	Time of opening the vial (for reconstituted vaccine)	No. of OTHER beneficiaries who received vaccine from the SAME vial in this session

Date of first symptom	D	D	M	M	Y	Y	Y	Y	Time of first symptom	H	H	M	M	a.m.	p.m.
Hospitalization: No/yes – (Date)	D	D	M	M	Y	Y	Y	Y	Time of hospitalization	H	H	M	M	a.m.	p.m.

Name and address of hospital (if hospitalized):

*Special immunization week

Current status (encircle)	Death/still hospitalized/recovered & discharged with sequelae/recovered completely and discharged/left against medical advice (LAMA)/not hospitalized																	
If died, date of death	D	D	M	M	Y	Y	Y	Y	Time of death	H	H	M	M	a.m.		p.m		
Post mortem done? Yes/no/unknown If yes, then write date post mortem done	D	D	M	M	Y	Y	Y	Y	If not done, but planned, write date planned	H	H	M	M	Y	Y	Y	Y	

Describe AEFI (signs and symptoms):

Suspected adverse event(s) (tick at least one):

☐ Severe local reaction ☐ Seizures
- ○ *>3 days*
- ○ *beyond nearest joint*
- ○ *febrile*
- ○ *afebrile*

☐ Abscess ☐ Sepsis ☐ Encephalopathy ☐ Toxic shock syndrome ☐ Thrombocytopenia ☐ Anaphylaxis ☐ Intussusception

☐ Fever≥39 °C (102 °F) ☐ Hypotonic hyporesponsive episode (HHE) ☐ Acute flaccid paralysis ☐ Sudden unexplained death syndrome

☐ Death due to any reason other than above – specify……

☐ Hospitalization due to any reason other than above – specify…… ☐ Disability

☐ Cluster – is this case part of a cluster? Yes/no/unknown

If Yes, no of other cases in the cluster _____ (use separate form for each case in a cluster)

Signature and name of reporting medical officer:

Section B: District immunization office to complete and forward to state and national level within 24 hours of receiving the above information

Date case reporting form received at the district: __ __/__ __/__ __ __ __

Proposed date of preliminary investigation: __ __/__ __/__ __ __ __

Remarks:

DIO/district nodal person *(officer forwarding this report)*

Name …… Date……Designation……Mobile No……

Landline (with STD code)…… Fax No. ……

email id…… Complete office address (with Pin code)……

……

……Signature/seal

To be sent to: State Immunization Officer & Deputy Commissioner (UIP),
Immunization Division of Govt of India, MoHFW,
Nirman Bhawan, New Delhi – 110108.
Fax: 011-23062728 **email**: aefiindia@gmail.com

Date report received at state level – __ __/__ __/__ __ __ __

Remarks:

Section C: National level to complete

Date report received at national level – __ __/__ __/__ __ __ __

Remarks:

Annexure 3 – AEFI case definitions and treatment

Adverse event	Case definition	Treatment	Vaccines
Acute flaccid paralysis (AFP)	• Acute onset of flaccid paralysis within 4 to 30 days of receipt of OPV, or within 4 to 75 days after contact with a vaccine recipient • Neurological deficits remaining 60 days after onset • Death	No specific treatment available; supportive care	Oral polio vaccine (OPV)
Anaphylactic reaction (acute hypersensitivity reaction)	• Exaggerated acute allergic reaction occurring within 2 hours after immunization, characterized by one or more the following: • wheezing and shortness of breath due to bronchospasm • one or more skin manifestations, e.g. hives, facial oedema, or generalized oedema. Less severe allergic reactions do not need to be reported • laryngospasm, laryngeal oedema	Self-limiting; anti-histamines may be helpful	All
Anaphylaxis	• Severe and immediate allergic reaction (within 1 hour) leading to circulatory failure with or without bronchospasm and/or laryngospasm/laryngeal oedema	Adrenaline injection	All
Arthralgia	• Joint pain, usually including the small peripheral joints. Persistent if lasting longer than 10 days; transient if lasting up to 10 days	Self-limiting; analgesics	Rubella; MMR
Brachial neuritis	• Dysfunction of nerves supplying the arm/shoulder without any other involvement of the nervous system • A deep, steady, often severe aching pain in the shoulder and upper arm, followed in days or weeks by weakness and wasting in arm/shoulder muscles • Sensory loss may be present, but is less prominent. May present on the same or the opposite side to the injections and sometimes affects both arms	Symptomatic only; analgesics	Tetanus
Disseminated BCG infections	• Widespread infections occurring within 1 to 12 months after BCG vaccination and confirmed by isolation of mycobacterium bovis BCG strain. Usually in immunocompromised individuals	Should be treated with anti-tuberculous regimens including isoniazid and rifampicin	BCG

Encephalopathy	• Acute onset of major illness characterized by any two of the following three conditions: • Seizures • Severe alteration in level of consciousness lasting for one day or more • Distinct change in behaviour lasting 1 day or more • Needs to occur within 48 hours of DTP vaccine or from 7 to 12 days after measles or MMR vaccine to be related to immunization	No specific treatment available; supportive care	Measles, pertussis
Fever	• The fever can be classified (based on rectal temperature) as: • Mild: 100.4°F to 102°F (38 to 38.9°C), • High: >102°F to 104.7°F (39 to 40.4°C) and • Extreme: 104.8°F or higher (40.5°C or higher). • High/extreme fever should be reported.	Symptomatic; paracetamol	All
Hypotonic hyporesponsive episode (HHE) or shock-collapse	• Event of sudden onset occurring within 48 (usually less than 12 hours) of vaccination and lasting from 1 min to several hours, in children younger than 10 years of age. All of the following must be present: • Limpness (hypotonic) • Reduced responsiveness (hyporesponsive) • Pallor or cyanosis, or failure to observe/ recall	The episode is transient and self-limiting, and does not require specific treatment. It is not a contraindication to further doses of the vaccine	Mainly DTP, rarely others
Injection site abscess	• Fluctuant or draining fluid-filled lesion at the site of injection • If evidence of infection (purulent, inflammatory signs, fever, culture) then consider as bacterial if not consider as sterile abscess	Incise and drain; antibiotics if bacterial	All
Lymphadenitis (includes suppurative lymphadenitis)	• At least one lymph node enlarged to >1.5 cm in size (one adult finger width), or a draining sinus over a lymph node • Almost exclusively caused by BCG and occurring within 2 to 6 months after receipt of BCG vaccine, on the same side as inoculation (mostly axillary)	Heals spontaneously (over months) and best not to treat unless lesion is sticking to the skin. If so, or if already draining, surgical drainage and local instillation of anti-tuberculosis drug. Systemic treatment with anti-tuberculosis drugs is ineffective	BCG

Osteitis/ osteomyelitis	• Inflammation of the bone with isolation of mycobacterium bovis, BCG strain	Should be treated with anti-tuberculosis regimens including isoniazid and rifampicin	BCG
Persistent inconsolable screaming	• Inconsolable continuous crying lasting 3 hours or longer accompanied by high-pitched screaming	Settles within a day or so; analgesics may help	DTP, pertussis
Seizures	• Occurrence of generalized convulsions that are n**ot accompanied by focal neurological signs or symptoms. Febrile seizures if temperature elevated >10**0.4°F (rectal); afebrile seizures if temperature normal	Self-limiting; supportive care; paracetamol and cooling if febrile; rarely anticonvulsants	All, especially pertussis, measles
Sepsis	• Acute onset of severe generalized illness due to bacterial infection and confirmed (if possible) by positive blood culture. Needs to be reported as possible indicator of immunization error	Critical to recognize and treat early. Urgent transfer to hospital for parenteral antibiotics and fluids	All
Severe local reaction	• Redness and/or swelling centered at the site of injection and one or more of the following: • Swelling beyond the nearest joint • Pain, redness, and swelling of more than 3 days duration • Requires hospitalization • Local reactions of lesser intensity occur commonly; these are trivial and do not need to be reported	Settles spontaneously within a few days to a week. Symptomatic treatment with analgesics. Antibiotics are inappropriate	All
Thrombocy-topaenia	• Serum platelet count of less than 50 000/ml leading to bruising and/or bleeding	Usually mild and self-limiting; occasionally, may need steroid or platelets	MMR
Toxic shock syndrome (TSS)	• Abrupt onset of fever, vomiting and watery diarrhoea within a few hours of immunization. Often leading to death within 24 to 48 hours. Needs to be reported as possible indicator of immunization error.	Critical to recognize and treat early. Urgent transfer to hospital for parenteral antibiotics and fluids	All

Note: Brighton Collaboration has developed case definitions for many vaccines reactions that are available at www.brightoncollaboration.org.

For further details refer to the AEFI Surveillance and Response Operational Guidelines 2015.

Assessment of Minor AEFI at the BLOCK PHC/PHC level

(Format to be shared in the first week of every month to DIO)

To be filled by inchrge Block Medical officer

Month **Year:**

Name of the BLOCK PHC/PHC in charge: Phone Number:	Block Name: District:	Date:
Following table need to be filled up after reviewing block AEFI register of respective month. Tabulate the data for minor AEFIs listed in respective month.		

Name of PHC /SubCenter	Distribution of Minor AEFIs line listed in block AEFI register as per their clinical presentation							
	Fever <39 degree	Local Swelling	Localised Pain	Localised Redness	Irritability	Malaise	Systemic symptoms (ex. Fatigue etc)	Any other unusual MINOR events
Total								

Any Aggregation or Clustering (Tick on appropriate)	Possible reason	Action proposed
A) Antigenwise and Batch wise If antigenwise , does it exceed expected reaction rate. Refer Table No. 1 (Yes /No)		
B) Subcenterwise/Vaccinator wise		
C) Dose wise (First, Second, Booster Etc.)		
D) Any other (ex. Unusual minor event)		

Name of Incharge Medical officer- **Signature-**

UNIT-8

Supervision and monitoring

Learning objectives

- *To describe the importance of supervision and monitoring*
- *To list the steps for conducting supportive supervision*
- *To explain the steps for conducting effective review meetings*
- *To list common issues observed during monitoring and supervision of the immunization programme*
- *To analyse the data from routine and monitoring reports to develop an action plan for improving immunization coverage*
- *To describe various tracking tools available for tracking "missed children".*

Key Contents

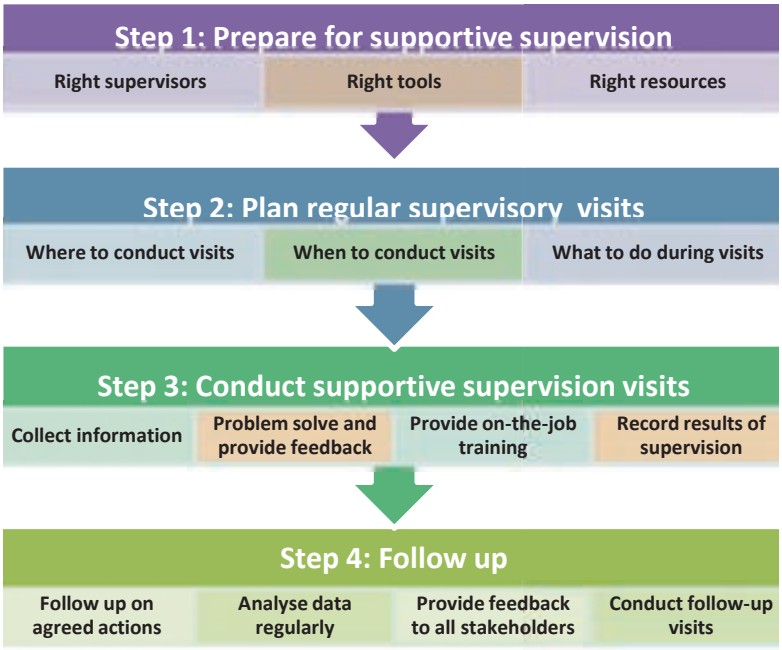
Supervision and monitoring

8

Supportive supervision is a process of guiding and assisting staff to continuously improve their own work performance. It is carried out in a respectful and non-authoritarian way with a focus on using supervisory visits as an opportunity to improve the knowledge and skills of health staff. Supervision encourages open, two-way communication and builds team approaches that facilitate problem solving.

Monitoring involves regular collection and analysis of data on various aspects of programme activities. Monitoring can be done through desk review of reports, providing feedback on phone or by e-mail/letter during the review meetings as well as during supervisory visits.

Fig. 8.1.Supervision matrix



Supervision must involve interaction with staff and usually also has an element of monitoring. During the supervisory visit, the supervisor can monitor the quality of service delivery, find out the reasons for unimmunized and under-immunized children and plan interventions to reach and sustain them. It can be done at session site and house-to-house (community) using the monitoring formats at the end of this Unit.

Steps for conducting supportive supervision

Step 1: Prepare for effective supportive supervision

Ensure the following three main "**Rights**" as follows:

- **Right supervisors**

Identify and prepare a pool from the available staff, i.e. MOs (including AYUSH), health supervisors, ICDS supervisors, block programme managers, immunization field volunteers, etc. Train them on the immunization schedule, the process and the information to be collected.

- **Right tools**

Use monitoring formats and SOPs for session, house-to-house and block (for recording observations) , also use training materials and job aids (to update skills of HWs during the visits).

- **Right resources**

Ensure that sufficient mobility and time is allocated for the visits and followup.

Step 2: Plan regular supervisory visits

Plan regular supervisory visits as per the microplan, considering three "**W**s":

- **Where** to conduct visits (priority areas)
- **When** to conduct visits (on immunization session days after informing the HWs)
- **What** to do during visits (review data and previous supervision and monitoring reports)

Prioritization of areas

An updated RI microplan is a prerequisite for monitoring, as it helps to prioritize the areas for monitoring visits. The priority should be to visit:

- listed HRAs in the microplan
- areas missed in the microplans
- villages with vacant SCs
- peri-urban underserved areas
- ANM with large catchment population
- area with reported measles outbreak, wild polio virus (WPV) or vaccine derived polio virus (VDPV)
- migrant and mobile populations
- areas with low RI coverage/resistance.

Step 3: Conduct supportive supervision visits

Session site visit

After deciding the area to be visited, plan to visit the nearest session site catering to that area. Visit the session site on the scheduled day and time and collect information using the session monitoring format. If the session is held, do the following:

- observe the ongoing session, e.g. who is mobilizing the children, how the HW is vaccinating each child, messages provided by HWs, etc.
- interview the HWs for additional information, e.g. supervisor visits made, Measles/ MR2 dose, RCH register, ASHA incentives, etc.
- interview any three caregivers to know who has mobilized them.

House-to-house visit

- If the session is not being held, (find out the reason for the same) proceed for house-to-house monitoring. House-to-house monitoring helps in rapid assessment of RI coverage in the community. Visit 10 households with children aged 0–35 months (<3 years) and collect data on the house-to-house monitoring format through RI/MCP card and interviews of caregivers.

Before leaving the field

- Provide feedback to the health staff concerned. Start with positive feedback followed by the specific weaknesses
- Identify problems, discuss the causes of the problem with health staff and plan the solutions
- When required, provide on the job training as an immediate solution. First explain and demonstrate the skill, then allow the HWs to practice the skill, providing feedback till they learn.

Step 4: Followup

After the supervisory visit, you should:

- followup on the agreed actions in the implementation plan;
- discuss with other block officials (MOIC, etc.) the issues of RI implementation in the block , if related to their department – e.g. departments of education, women and child development (ICDS), power supply , etc.
- provide a feedback to higher levels for support in problem solving;
- conduct follow-up visits to see if the recommendations are being implemented and if there is improvement in the performance of the HWs.
- Record results of supervision and prepare the report.

Common issues observed during monitoring and supervision of the immunization programme

The following issues have been identified during regular monitoring in the field. This is not an all inclusive list but helps to categorize issues to enable corrective actions.

Human resource issues

- Vacant SCs
- Inadequate hiring of alternate vaccinators for vacant urban and rural areas
- Irrational distribution of the workload/areas among the HWs within a block
- Absenteeism of HWs
- Lack of designated cold chain handlers at cold chain points
- Lack of regular capacity building of knowledge and skills of health staff.

Microplanning issues

- Microplan not prepared or incomplete with only roster of the HW
- Missed areas and population groups, e.g. migratory and mobile population, urban slums, hamlets and geographically distant population not included
- Microplans not based on head count survey
- Map of the SC and PHC not prepared/displayed
- Area demarcation of SC with two ANMs is not done to clarify their individual roles
- Microplans are not reviewed at regular intervals.

Operational issues

- List of due beneficiaries for the sessions is not prepared
- All the planned sessions are not held by ANM due to leave, post being vacant, ANM not going to the site
- Poor attendance at outreach sessions due to poor mobilization by ASHA and AWW
- Late start of session and early closing of session site
- Non-availability of all vaccines and logistics at the session site
- Incorrect route/site/technique used for vaccine administration
- Date and time not recorded on reconstituted vaccine vials
- 4 key messages not conveyed to the beneficiary/caregiver
- Coverage monitoring chart and tracking bags not available at PHC or SC

Cold chain and logistics management issues

- No dedicated trained person in charge of cold chain at PHC level
- Job aids for cold chain maintenance not displayed at cold chain point
- Guidelines for correct storage of vaccines and diluents in ILR not followed
- Temperature not recorded twice a day; recording by cold chain handler not monitored
- Contingency plan for emergencies not prepared/followed
- Preventive maintenance of cold chain equipment not in place
- Presence of snake anti venom/other drugs/eatables in ILR along with vaccines
- Stock registers not updated and supervised for record of issue and balance of vaccines and other logistics
- Timely indenting of vaccines and logistics not done resulting in stock-outs being reported.

Recording and reporting system issues

- RCH/MCTS register not updated regularly and not used in preparation of beneficiary due list.
- Careless recording in immunization/MCP card; counterfoils not maintained
- Due list-cum-tally sheets not used for session-wise recording
- No system for identification and tracking of dropouts and left outs
- Monthly reports – incomplete and not analyzed for feedback and action
- AEFI and VPD cases not being reported or being underreported
- Block AEFI registers not being used.

Injection safety and waste disposal issues

- Hub cutter not available/not being used immediately after vaccination/ reconstitution
- Red and black bags not available/not being used
- Disinfection of immunization waste not practiced before disposal
- Sharps pits for needles not constructed/functional at PHCs.

Monitoring and supervision issues

- Supervisory visits not planned/conducted by health and ICDS supervisors in priority areas
- Review meetings not used for providing feedback of monitoring and use of data for action.

Issues in community involvement and communication

- Weak coordination with other related agencies and sectors such as private and NGO sectors
- Lack of information, education and communication (IEC) and social mobilization activities contributing to poor utilization of services
- Four key messages not being given to beneficiaries at sessions.

Steps for conducting effective RI review meetings

Meetings are regular event at a PHC, use each meeting as an opportunity to identify, solve issues with service delivery.

Prepare for the meeting

- Determine the objectives of the meeting based on review of the minutes of previous meetings, monitoring reports and any new guidelines/topics to be discussed
- Prepare the agenda including objectives, list of topics to be covered, name of the facilitator for each topic and the time duration
- Assign logistic arrangements to the members of the team
- Assign talks on specific technical topics to concerned supervisors and colleagues
- Inform the date, time and place of the meeting to all participants.

Conduct the meeting

- Start the meeting on time
- Enquire if participants are comfortable. Make changes if needed.
- Follow the agenda closely during the meeting to ensure that set objectives are met
- Ensure that the meeting is focused and participatory
- Keep listening and summarizing the key points raised at regular intervals
- Ensure that minutes are taken with actionable points and timelines
- Summarize the action points, including persons responsible and deadlines
- Agree upon date of next meeting
- Thank participants.

Followup

- Forward unresolved issues to the district level for necessary action
- Examine the meeting process. Assess and make a plan to improve the next meeting
- Followup in writing to document key action points.

A sample agenda for a PHC review meeting of ANMs is given in Table 8.1.

Table 8.1: Sample agenda for PHC review meeting of ANMs

Time	Activities	Facilitators
10:00–10:15	Welcome & objectives of the meeting	MOIC
10:15–11:15	Feedback on supervisory visits and monitoring data	MO/health supervisor/ partner
11:15–11:45	Feedback on data analysis from the monthly reports for left-outs and dropouts	health supervisor
11:45–12:30	Review of microplans, immunization records/ reports, any other issues such as ASHA/AWWs involvement in mobilization of beneficiaries	MOIC
12:30 –13:00	Action plan to improve coverage and track missed children	MOIC/health supervisor
13:00–13:15	Summary and conclusion	MOIC

Quarterly review meetings

Under National Health Mission, there is a provision to conducting quarterly review meetings for RI at block level under part C, FMR code c.1.f (refer Unit 13) for ASHAs. As per norms, Rs. 50/ per person as honorarium for ASHA (Travel) and Rs. 25/person at the disposal of MO-IC for meeting expenses (refreshment, stationary and misc. expenses) is available for conducting review meeting four times in a year.

These funds should be utilized for improved planning and supervision of front line health workers for Routine Immunization activities.

Tracking tools to track 'dropouts'

Various tracking tools are as follows:

- MCP Card with counterfoil
- Tracking bag
- Immunization/RCH/MCTS Registers
- Name-based list of due beneficiaries (refer SOP RI form 6 - Unit 3)

Mother and Child Protection (MCP) card with counterfoil

The MCP Card is a tool for families to learn, understand and follow positive practices for achieving good health of pregnant women, young mothers and children.

The card gives information on the immunization schedule and the doses of Vitamin A to be given to the child during the first five years. Boxes in the chart indicate each type of vaccine, date to be given, date when it was given and age.

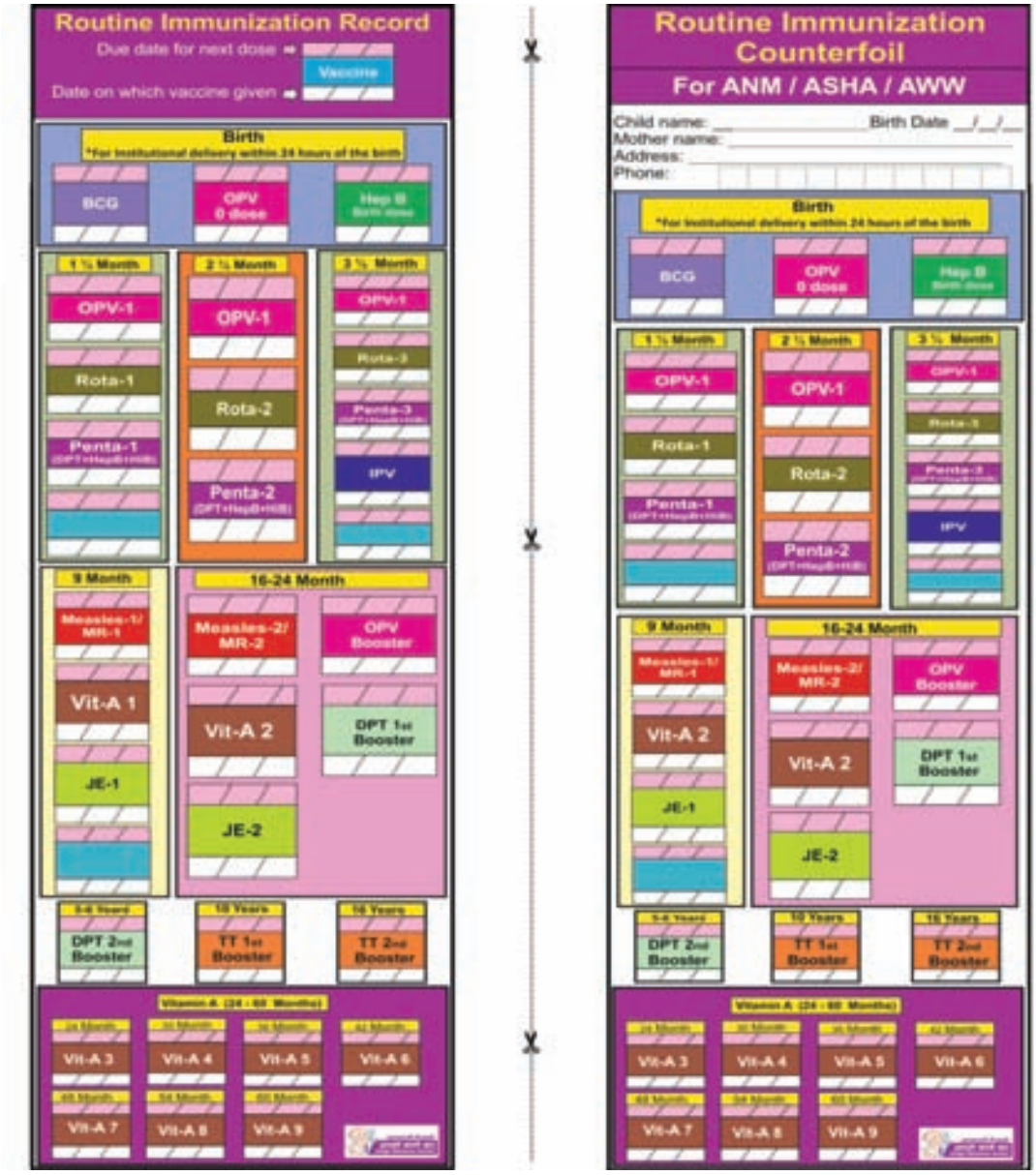
Details that would be available from MCP Card are:

- the date in the pink box when the child is expected to come for next immunization
- the date in the white box when the child came for immunization.

How to use the card

- During the first visit, fill the information on the cover page on "Family Identification and Birth Record".
- Record the date, month and year of all entries clearly.
- Explain the section on immunization by explaining which vaccines have been given and which vaccines are due, with dates.
- Do not leave any cells or columns blank.
- After filling up all the columns, retain the smaller portion of the card (counterfoil).
- Give the rest of the filled-in card to the parent of the child after immunization and ask her to bring the same card during her subsequent visits to the health centre.
- Advise families to keep the card in a safe place to prevent it from damage.
- Advise families to bring the card along when they visit the Anganwadi Centre (AWC), SC, health centre, private doctor or a hospital.
- At the end of each session, the counterfoils should be placed in the appropriate pocket of the tracking bag.
- Each month, look at the counterfoils in the tracking bag and make sure those children come for immunization. If they miss the session, ask the ASHA/AWW to follow up with those families and ensure that they attend the next session.

Fig 8.2 – Infant RI card and counterfoil



Tracking bag

Keeping counterfoils in tracking bag helps in:

- preparing a session-wise name-based list of due beneficiaries for sharing with the ASHA/AWW/mobilizer
- estimating the vaccine requirement for the next session
- tracking the dropouts
- providing information, if the beneficiary/parent has lost the immunization card.

The counterfoils need to be filed separately for each session site. A cloth tracking bag with 15 pockets is a simple, easy to use tool for filing the counterfoils (Fig. 8.3 and 8.4). The first 12 pockets indicate each of the 12 months of the year. The thirteenth pocket is for those who left/died during the period, the fourteenth pocket is for fully immunized children and the fifteenth pocket is to store blank MCP cards.

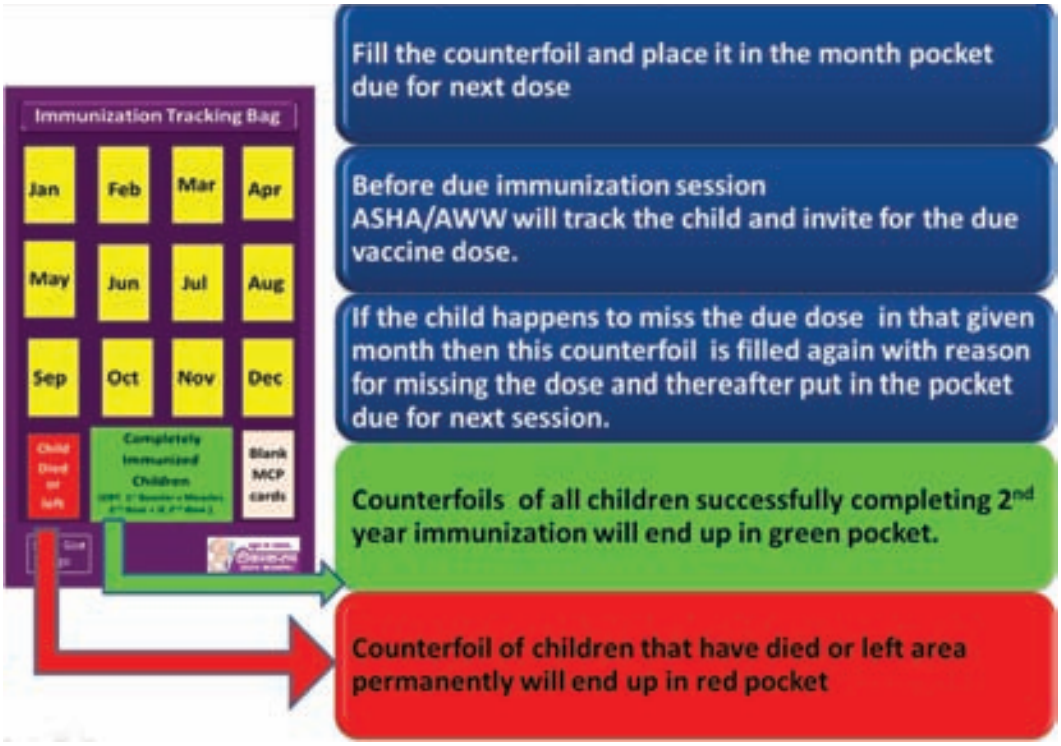
Figure 8.3: Immunization tracking

Once a beneficiary is immunized, the counterfoil would be placed in the month (pocket) due for the next dose (see Fig 8.4). For example, if a child comes for Penta 1 in January, Penta 2 is due in February. Update and place the counterfoil in the February pocket.

When the Penta 2 dose is given in February, update the counterfoil and move to the pocket for March. When the Penta 3 dose is given in March, then update and place the counterfoil in the September/October pocket since the child has to return for measles/MR vaccine.

- If some cards are left in the pocket at the end of the month, it indicates that the beneficiaries are the dropouts.
- Move these cards to the next month's pocket and track them.

Fig 8.4 How to use tracking bag



In case no tracking bag is available, counterfoils for each month can be separately tied with different rubber bands and labelled. File counterfoils for each session site separately and do not forget to carry them to the session.

Immunization/RCH/MCTS Registers

Immunization / RCH / MCTS registers help to record and track each pregnancy and immunization. It should be:

- updated to include new pregnancies and births from the records of AWWs and ASHAs before each immunization session;
- updated after each session on the basis of counterfoils filled during the session;
- if the beneficiary is from outside the catchment area, the HW should issue a new card and give appropriate vaccination. Record should be entered in the non-resident column of the register;
- if the beneficiary receives vaccination from a private practitioner, the HW should record the same in the MCH register and the immunization card and write "P" after the date.

Conducting an effective RI session

For an RI session to be effective, there are some points that need to be addressed. These are enlisted below:

- Appropriateness of location
- Setting up the site for safe injections:
  - Basic furnishings and spacing
  - IEC display
- Advance information to community
- Information on arrival.

Field Tip: "SAME DAY, SAME SITE, SAME TIME"

Ensuring the RI session is conducted on the same day, at the same site and at the same time builds community confidence and faith in the system and health worker.

Appropriateness of location

The RI session site should be:

- easily accessible and identifiable – using the IEC posters/banners at a visible point;
- located in the same place each and every time;
- in a clean area, out of the sun and rain – avoid open-air sites;
- having space either within the premises or near a sheltered/shaded area where those needing vaccination can wait;
- large enough to provide space to have separate stations for—registration and assessment; immunization and record keeping; and screening/education on other health issues;
- quiet enough for HWs to be able to explain what they are doing and to give advice.

All these parameters may not be possible at all places. However, in many instances it is possible with community support to ensure the best resources in the available circumstances. The MOs must visit all the RI session sites over the course of a few months and ascertain their appropriateness.

All communities are very proactive and supportive towards immunization services if they are involved in the planning process. It is necessary at times to reach out to the community through key influencers and local leaders in areas where ground realities make it difficult to identify or locate the site.

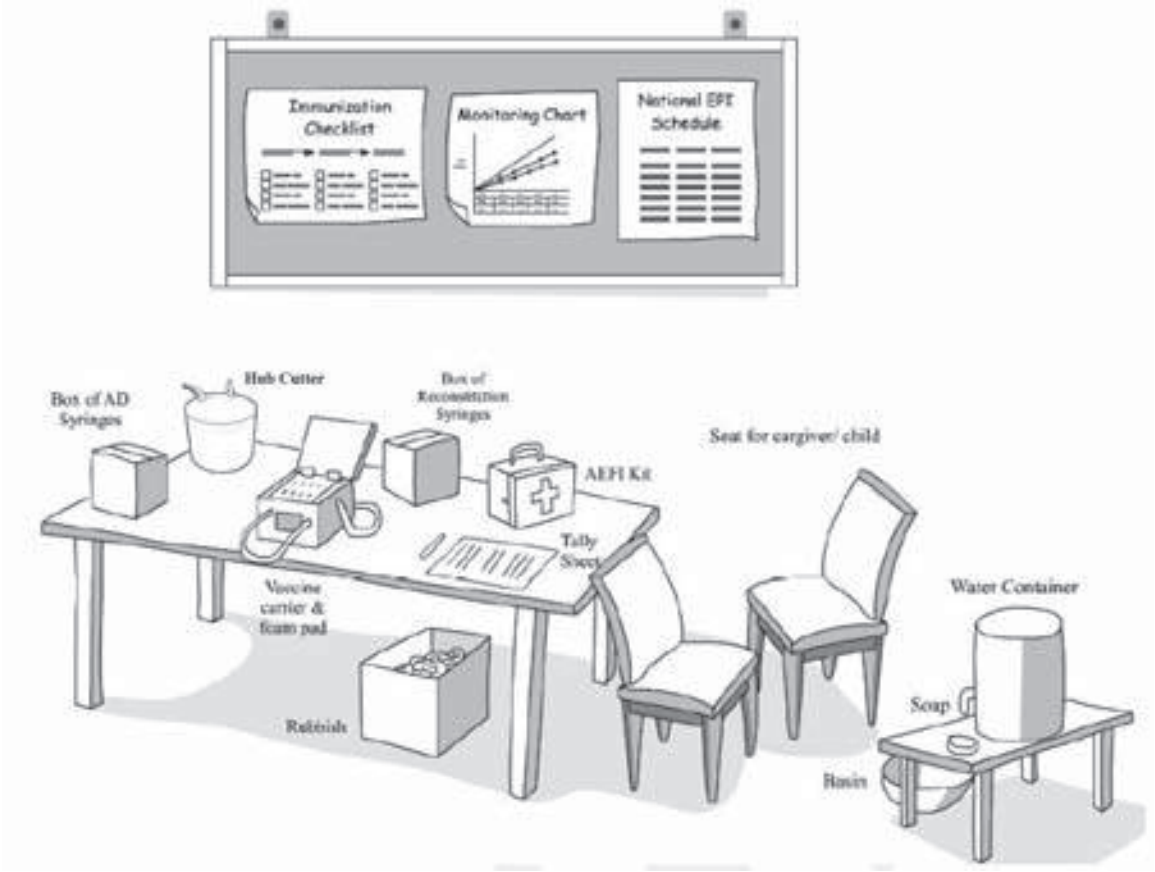
An ideal set-up for an RI session is shown in Fig. 8.5.

Setting up the site

Displaying IEC material, i.e. either the poster or banner or even both outside the session site informs the community of the arrival of the ANM and that the RI session site is now functional. The IEC display should be visible from the approach road and clearly identify the session site. The ANM should spend time after arriving at the session site to arrange the site to make it as convenient as possible for her and her supporting ASHA/AWW and also for the community that comes for services.

Sourcing furniture or requesting support from the community reflects the rapport of HWs and community involvement. In places where there is less support, it is necessary to address the issue with the community leaders at the earliest. Though this may seem an unimportant or minor issue, lack of community involvement is a factor that has a negative impact on RI coverage and mobilization of beneficiaries. A well setup RI session helps to build community confidence and also contributes to providing a quality experience for the HWs and beneficiaries.

Fig. 8.5. Ideal.Set-up for an RI session



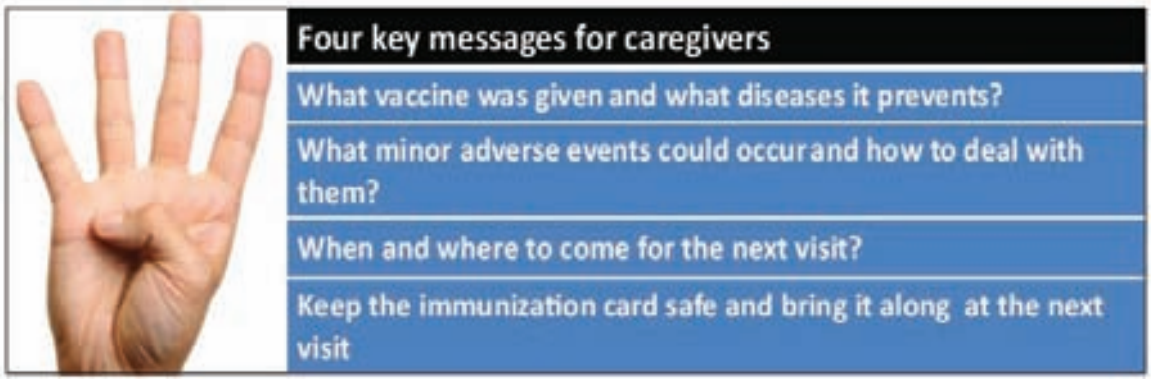
Advance information to the community

Providing advance information of the upcoming RI session in an area has many advantages. Various examples exist across the country, e.g. issuing invitation cards to beneficiaries, house-to-house visits by ASHA/AWW workers 2 days before the session, using mothers' meetings to announce the upcoming date and the beneficiaries. These are some of the innovative ways of informing beneficiaries. Explore what could work in your area.

Information on arrival of ANM

While the ASHA/AWW/mobilizer will visit the beneficiaries to come for immunization, word of the arrival of the ANM can also be spread through using any public address system at a religious or community centre. With support from local leaders, information can also be passed through students or local shopkeepers. The intention is to announce the starting of the session and any other local methodologies should be explored and encouraged.

The four key messages the HW should give to the caregiver are:



Using RI monitoring formats

Monitoring in routine immunization is an essential tool for a medical officer. It provides an opportunity to:

- observe service delivery and practices
- identify issues and provide solutions at field level
- identify training needs of staff
- interact directly with the community
- interact and motivate frontline health care workers at field level
- build confidence in health workers and community
- increase understanding of the RI delivery mechanism

Two types of formats are in use – RI session site and House to house monitoring formats.

1. The RI session format focuses on the following: Microplanning, session due list & its quality, safe injection practices, vaccine availability at session site, implementation of open vial policy, logistics, IEC and ASHA incentives.
2. The house to house format focuses on collecting information from at least 10 children below the age of 35 months in an area. Information on the child's vaccination status including the dates of administration is to be collected, the source of information being the MCP card. However in the absence of the card, parent recall by identifying the sites of injection may be utilized. The rear of the format has a ready reckoner to easily identify if a child has received due vaccine as per age. When a child is found unimmunized or partially immunized information on the reason should also be collected.

Session Site Monitoring Format for Routine Immunization

Encircle appropriate options. For (*) marked questions, multiple responses may be applicable.

_)_ _ / _ _ _ / _ _ _ _ / _ / _ _ _ _
(Not to be filled by monitor)

State/UT: _____ District: _____ Name of Block / Urban: _____ Setting: Rural / Urban Date: _ _ / _ _ / _ _
Planning Unit: _____ Village/Mohalla/Ward: _____ At least 1 session was held in last 3 months: Y / N / Unknown
Sub center/Urban Health Post: _____ Name of session site: _____ CMC area: Yes / No / Not applicable
Name of ANM: _____ Monitoring time: _ _ : _ _ to _ _ : _ _
Name of Monitor: _____ Organization: WHO /Govt/UNICEF /IPE-FM / IPE-SMNet / IFV / UNDP / Others: _____ Designation: _____

Session details	1*	Reason for monitoring	a)Polio High Risk Area/Group- (HRA/HRG) b)Measles outbreak in last 1 yearc) Other VPD outbreak in last 1 year d) Session planned in a vacant sub centre (alternate arrangement)e)Others: ..... (Skip Q-2 if session is not in "Polio HRA/HRG")	
	2*	If polio HRA, type of HRA/HRG:	a)Slum with migration b) Nomads c) Brick kilns d) Construction site e) Other migratory high risk area f) Non migratory (settled high risk area)	
	3	Location of the session as per micropian	a) District Hospital b) CHC c) PHC d) UPHC e) Sub Centre f) Urban Health Post g) ICDS Centre h) HRG site (fixed) i) HRG site (by mobile team) j) Others	
	4	Is the session being held? Yes / No*	If "Yes" Is the session being held at same location as per micro plan?	Yes / No
			* If "No" select reason(s)	a) Early closure b) ANM absent c) Vaccine / logistics not available d) Others:
	If session is not held, skip Q5 to Q34, do house-to-house monitoring in the catchment area & answer Q35-36as applicable at the end of monitoring as per plan for the day in evening. Visit health facility / vaccine storage point and answer Q37 to Q39 in ONLY one of the session monitoring formats under the same vaccine storage point.			
	5	Vaccines / logistics delivered by?	a) Alternate Vaccine Delivery b)ANM c)Others :_____	
	6*	Mobilizers as per micro plan	a) ASHA b) AWW c) Link workers d) CMC e) Others :	f) none
	7*	Mobilizers working today:	a) ASHA b) AWW c) Link workers d) CMC e) Others :	f) none
Headcount Survey / Duelist	8	Headcount survey conducted for children under 2 years and pregnant women for session catchment area within last six months?	If conducted, is the list of beneficiaries available?	Yes / No / In process / NA-(not conducted)
			If not conducted*	a) Not planned b) Planned but not yet conducted c)ASHA/mobilizernot available d)Not aware e)Others
	9*	Due list of beneficiaries for this session is available with	a) ANM b) ASHA c) AWW d) Other mobilizer e) Not available with anyone of them	
	10*	Beneficiaries included in due list? (quality & updation)	a) New born for this session b) beneficiaries missed in last session c) beneficiaries due for next dose d) recent pregnant women	

Vaccine / Diluents	BCG	Yes / No	IPV	Yes / No / Not applicable	TT	Yes / No
	BCG Diluent	Yes / No	Pentavalent	Yes / No	JE*	Yes / No / Not applicable
	tOPV	Yes / No	DPT	Yes / No	JE Diluent	Yes / No / Not applicable
	bOPV	Yes / No	Measles/MR	Yes / No	Pneumococcal (PCV)	Yes / No / Not applicable
	Rotavirus (RVV)	Yes / No / Not applicable	Diluent-Measles/MR	Yes / No		

Open vial policy	12*	Partially used vaccine vials which were issued to this session?	a) OPV b) Pentavalent c) DPT d) IPV e) TT f) None	
	13*	Reconstituted vial of BCG, Measles, JE & partially used RVV supplied to the session site? *Yes / No	if "Yes" encircle : a) BCG b) Measles c) JE d) Rotavirus e) None	

Logistics other than Vaccine & diluents	14	AD (0.1 ml) Syringes	Adequate / Inadequate / Not available	Vitamin A Solution	Available / Not available	Amoxycillin Tab / Syrup	Available / Not available
		AD (0.5 ml) Syringes	Adequate / Inadequate / Not available	Spoon for Vitamin A	Available / Not available	Zinc Tablet / Syrup	Available / Not available
		5ml Reconstitution Syringe	Adequate / Inadequate / Not available	ORS Packet	Available / Not available	Red and Black Bags	Available / Not available
		Paracetamol Tab / Syrup	Available / Not available	IFA Tablet/ syrup	Available / Not available	Tracking Bag	Available / Not available

15	*Any leakage/locking issues in syringes reported by ANM at session?	Yes / No	If Yes, encircle : a) AD (0.1 ml) Syringes b) AD (0.5 ml) Syringes c) 5ml Reconstitution Syringe
16	Blank RI / MCP card available to provide to caregiver / beneficiaries?	Yes / No (If "No" encircle "not applicable" in Q-16).	
17	Does the MCP/ RI card have counterfoil for ANM for tracking missed doses?	Yes / No / Not applicable	
18*	Encircle "New vaccines" included in blank RI/MCP card	a) Pentavalent b) IPV c) Rotavirus d) MR e) PCV f) Not applicable	
19	Status of hub cutter availability	a)Functional b) Non – functional c) Hub cutter not available	

ANMs knowledge and injection practices	20*	Has ANM marked date & time on all opened vaccine vials and Vitamin A?	Yes / No*	If No, encircle unmarked: BCG / OPV / RVV / IPV / Penta / DPT / Hepatitis-B / Measles / MR / JE / TT / PCV / Vitamin A		
	21	Is ANM administering rotavirus vaccine with OPV to eligible children as per guidelines?				Yes / No / Not observed / Not applicable
	22	Is ANM administering 5 drops of Rotavirus vaccine to eligible child?				Yes / No / Not observed / Not applicable
	23*	Encircle ANMs awareness on IPV administration as applicable in the state?	a) age of eligible child b)schedule for IPV c)dose of vaccine d) site of vaccine e) route			
	24	Is ANM administering IPV injection as per guideline for state/UT in National Immunization schedule			Yes / No / Not observed	
	25	Is ANM aware of vaccine administration sequence to a child under one year of age?(OPV →RVV → IPV → Penta)			Yes / No	
	26*	Any vial of BCG, Measles, JE (after reconstitution) and Rotavirus vaccine (after opening) in use beyond 4 hours			a) BCG b) Measles c) JEd) Rotavirus vaccinee) None	
	27*	Observe ANMs injection practices and encircle the responses	a).not cutting syringe immediately after use b).touching needle before administration c) putting thumb/finger post injection at the site d).applying cotton at the injection site following vaccinatione).not observed			
	28	Is ANM asking caregivers to wait for 30 minutes following vaccination?			Yes / No / Not observed	
	29	*Is ANM aware of any serious AEFI within the last three months?*	Yes / No	Whether notified to MOIC? Yes / No / NA	Give details:	

Four key messages	30*	ANM delivering four key messages to all caregivers? (If observed – encircle Yes or No, else select "not observed and skip response on Yes / No)	Message 1. What vaccine was given and what disease it prevents?	Observed / Not observed	Yes / No
			Message 2. What are the minor side effects and how to deal with them?		Yes / No
			Message 3. When to come for the next visit?		Yes / No
			Message 4. Keep immunization card safe and bring it along in the next visit		Yes / No

IEC and mobilization	31	Interview three caregivers separately to assess who mobilized them to the session site (Select "NA" if monitor could not interview).		
		Caregiver – 1	Caregiver – 2	Caregiver –3
		ASHA / AWW / ANM / CMC / link worker / Others / None / NA	ASHA / AWW / ANM / CMC / link worker / Others / None / NA	ASHA / AWW / ANM / CMC / link worker / Others / None / NA
	32	Any display of RI specific IEC material at session site?	a) No display b) Displayed with RI logo (Be Wise, Get your child Fully Immunized) c)S*ome other logo/tagline on immunization*	

Supervision & ASHA Incentive	33*	Has any supervisor visited the session today	a) Health Supervisor b) Medical Officer c) Others (specify):	d) None
	34	Is ASHA aware of her incentives in immunization?	a) Line listing of households (headcount survey) at the beginning of the year and updated after six months@ Rs 100 (maximum)	Yes / No / Not applicable
			b) Preparation of due list of children for immunization to be updated on monthly basis @ Rs 100 every month	Yes / No / Not applicable
			c) Mobilization of children @ Rs 150 / session	Yes / No / Not applicable
			d) Full Immunization @ Rs 100/= per child that has received all due doses up to first year.	Yes / No / Not applicable
			e) For Complete Immunization (CI) @ Rs 50/= per child that has received all doses due up to the second year.	Yes / No / Not applicable
	35	When did ASHA last receive any incentive?	a) Within three months b) Three to six months back c) Six to twelve months back d) Not received for more than a year e) not aware	

Any other important observations :

At Block/Urban Planning unit / Vaccine storage point	Meet MO in charge to ascertain reasons for monitored session not held. Skip Q-36 and/or 37 as applicable.			
	36	Why ANM was not available at session site?	a) On leave b) Vacant post c) Assigned other work e) Started late f) Others (specify) :	
	37	Reason for non-availability of vaccines / logistics?	a) Not issued b) Not picked up c) Picked up but not delivered d) Others (specify) :	
	Visit vaccine storage point to assess the following. Encircle "already answered" if Q-38-39 answered in another session format under the same vaccine storage point today.			
	38	Vaccine distribution register available at the PHC / Urban planning unit / vaccine storage point	Yes / No / already answered	
	39	a) No. of sessions planned as per micro plan today: _____ b) No. of sessions for which vaccines issued today: _____ c) already answered		
	40	Is there a mechanism for segregating partially used returned vials in ILR as per revised open vial policy (OVP) guidelines	Vaccine vials on which OVP is applicable	Yes / No
			Vaccine vials on which OVP is not applicable	Yes / No

House to House Monitoring Format for Routine Immunization

( ) __ / __ / __ / __ / __

Encircle appropriate options. For (*) marked questions multiple responses are allowed; *(not to be filled by monitor)*

Name of Monitor: _____ Organization: WHO/ Govt/ UNICEF/ IPE-FM/ IPE-SMNet/ IFV/ UNDP/ Others. Designation: _____ Date: __ / __ / __ Time: ___ : __ to __ : __

State: _____ District: _____ Name of Block / Urban area: _____ Planning Unit: _____ Setting: Rural / Urban

Village/Mohalla/Ward: _____ Sub center/Urban Health Post: _____ At least 1 session was held in last 3 months: Y / N / Unknown

*Reason for monitoring: 1: Polio HRA 2: Measles Outbreak in last 1 year. 3: Other VPD outbreak in last 1 year. 4: Area under vacant sub-centre 5: Other: (Low coverage area / non HRA not monitored for >=3 months / Follow up) monitoring) *If Polio HRA, type: 1: Slum with migration 2: Nomadic site 3: Brick kiln 4: Construction site 5: Other migratory high risk area 6: non migratory (settled population) high risk area. CMC area: Yes / No / Not applicable

Particulars of the Child including age specific vaccination status		House-1	House-2	House-3	House-4	House-5	House-6	House-7	House-8	House-9	House-10
1	Name of the youngest child (0-35 months) in this household										
2	Name of the mother / father of the selected child										
3	Religion (H=Hindu / M=Muslim / O=Others)	H / M / O	H / M / O	H / M / O	H / M / O	H / M / O	H / M / O	H / M / O	H / M / O	H / M / O	H / M / O
4	Is RI/Mother & Child Protection (MCP) card available with family?	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
5	Sex of the selected child: M=Male / F=Female	M / F	M / F	M / F	M / F	M / F	M / F	M / F	M / F	M / F	M / F
6	Place of delivery: G) Govt - Hospital P) Private Hospital H) Home	G / P / H	G / P / H	G / P / H	G / P / H	G / P / H	G / P / H	G / P / H	G / P / H	G / P / H	G / P / H
7	Date of Birth (In dd/mm/yy format. if not known, write NA)										
8	Age in completed months (Even if Date of Birth is known)										
Use ready-reckoner to ascertain age appropriate vaccination status. If RI/MCP card is available, monitor must write date (dd/mm/yy) for vaccines received and "No" for missed vaccines. If card/date not available, monitor must write "Yes" for received & "No" for missed vaccines. Monitor MUST mention either "date (dd/mm/yy) / Yes / No" against each age appropriate vaccine. Monitor must write "NA" against vaccine not due for age or not introduced in UIP.											
9	Hep B Birth dose										
	OPV-0 dose										
10	BCG										
	OPV-1										
	Rotavirus-1										
	IPV (intradermal wherever applicable)										
	Pentavalent-1										
	Hepatitis B-1										
	DPT-1										
	OPV-2										
	Rotavirus- 2										
	Pentavalent-2										
	Hepatitis B-2										
	DPT-2										
	OPV-3										
	Rotavirus-3										
	IPV (IM / intradermal - as applicable)										
	Pentavalent-3										
	Hepatitis B-3										
	DPT-3										
	Measles / MR-1										
	JE-1 (where applicable)										
	OPV Booster										
	DPT Booster-1										
	Measles / MR 2nd dose										
	JE-2 (where applicable)										
11	Monitors assessment of status of age specific vaccinations received without considering Hepatitis-B birth dose & OPV-0 (Only from Q-10)	All / Partial / None	All / Partial / None	All / Partial / None	All / Partial / None	All / Partial / None	All / Partial / None	All / Partial / None	All / Partial / None	All / Partial / None	All / Partial / None
12*	Ascertain reason(s) why the child missed one/all age specific vaccine(s) as per caregiver and mention codes in boxes (max of 4):										

12* 1) Not aware of need for immunization; 2) Did not know where / when to go for immunization 3) Has no time / no one to take child 4) Concern for loss of work or wages 5) Session inconvenient for time / location / long waiting time; 6) unaware of missed dose 7) Unfriendly vaccinator 8) Session not held 9) Vaccine was not available 10) Child was away from home 11) Sick child - care-giver did not opt vaccination 12) Sick child – HW did not vaccinate; 13) Caregiver did not opt for multiple injections 14) HW did not give multiple injections 15) Experienced minor illness: fever, pain, swelling 16) Experienced severe illness: hospitalization, death, disability 17) Fear of AEFI on hearsay; 18) Adverse media reports, 19) Family is resistant 20) Family has no definite reason 99) Others

Ready reckoner to ascertain age specific due vaccines of a child

(Monitor to assess vaccination status of the child without considering reasons for no or delayed vaccination)

Age (Completed months)	Ideally a child should have received age specific vaccines as per National Immunization Schedule									
	BCG	OPV	Hep-B	*Rotavirus (RVV)	**IPV	DPT + Hepatitis-B / ***Pentavalent	Measles / MR	****JE	DPT Booster-1	OPV Booster
0	BCG	OPV-0 (up to 15 days)	Birth dose (Within 24 hours)	NA	NA	NA	NA	NA	NA	NA
1	BCG	OPV-0 (up to 15 days)	Birth dose (Within 24 hours)	NA	NA	NA	NA	NA	NA	NA
2	BCG	OPV-0,1	Birth dose (Within 24 hours)	RVV-1	NA- IM in 28 States/UT IPV-1 Intradermal dose in select states	(DPT-1+Hepatitis-B-1) / Pentavalent-1	NA	NA	NA	NA
3	BCG	OPV-0,1,2	Birth dose (Within 24 hours)	RVV -1,2	NA- IM in 28 States/UT IPV-1 Intradermal dose in select states	(DPT-1,2 + Hepatitis-B-1,2) / Pentavalent-1,2	NA	NA	NA	NA
4 to 8	BCG	OPV-0,1,2,3	Birth dose (Within 24 hours)	RVV -1,2,3	IM dose in 28 States/UT IPV-1 Intradermal dose in select states	(DPT-1,2,3 + Hepatitis-B-1,2,3) / Pentavalent-1,2,3	NA	NA	NA	NA
9 to 15	BCG	OPV-0,1,2,3	Birth dose (Within 24 hours)	RVV -1,2,3	IM dose in 28 States/UT IPV-1 Intradermal dose in select states	(DPT-1,2,3 + Hepatitis-B-1,2,3) / Pentavalent-1,2,3	Measles -1	JE - 1	NA	NA
16 to 35	BCG	OPV-0,1,2,3	Birth dose (Within 24 hours)	RVV -1,2,3	IM dose in 28 States/UT IPV-1 Intradermal dose in select states	(DPT-1,2,3 + Hepatitis-B-1,2,3) / Pentavalent-1,2,3	Measles - 1,2	JE - 1,2	DPT Booster -1	OPV Booster

- *If the child received the due vaccine(s), write date (dd/mm/yy) as per immunization card. If date is not known (card not available/date not mentioned in card) but the child has received due vaccine as revealed from the parents-caregiver, write **"Yes"** and if the child did not receive due vaccine (missed dose), write **"No"** in the format. If the child is not due for vaccine or vaccine not yet introduced in the district or vaccine phased out, write **"NA".***

If immunization card is not available, interact with parents-caregiver with the simple questionnaires to ascertain vaccines the child has received for his/her age.

- ***BCG:** Enquire whether any vaccination was given into the skin on the left upper arm, which may have formed a pustule after vaccination. BCG is given only up to one year of age and not beyond.*
- ***Hepatitis B birth dose:** Enquire for intramuscular (IM) injection of any vaccine in the thigh at birth/within 24 hours. (Parents may say/direct towards buttock occasionally).*
- ***OPV-0:** Enquire whether polio drops were given at birth or within 15 days from birth.*
- ***OPV:** Enquire if 2 drops of polio vaccine were given orally at 1.5 / 2.5 / 3.5 months of age along with injections in the thigh.*
- ***Rotavirus vaccine:** Enquire if 5 drops of vaccine were administered after giving 2 drops of polio vaccine.*
- ***IPV:** Enquire if an injection is given in the right thigh along with 3rd dose of OPV when the child aged within 3.5 months to one year of age **OR** given in right arm at 1.5 and 3.5 months similar to BCG vaccine.*
- ***Pentavalent vaccine:** Enquire if the child received only one injection in the thigh (left), any time at/after 1.5 months repeated at monthly interval two times (total of 3). The child might have developed fever. Pentavalent vaccine is never started after one year of age.*
- ***Hepatitis B:** 3 doses of Hepatitis B along with DPT is given in left thigh. DPT + Hepatitis is given in a child who has started with DPT series when Pentavalent vaccine was introduced. Hepatitis B is never initiated after one year of age.*
- ***DPT:** Similar with Hepatitis B. However DPT is a painful injection causing fever, induration similar to DPT containing pentavalent vaccine.*
- ***Measles/MR** vaccine: Enquire if any injection was given on the right upper arm after 9 months of age (1st dose) and after 16-24 months of age (2nd dose).*
- ***JE vaccine:** This vaccine wherever introduced (in select endemic districts) is given in two doses in left upper arm at the same time as measles/MR vaccine.*
- ***OPV booster:** Enquire whether 2 polio drops given between after 16 months of age to a child who has already received three doses of OPV.*
- ***DPT booster-1:** Enquire if IM injection was given in left thigh after 16 months of age. This indicates DPT first booster if the child has already received three doses of DPT or pentavalent vaccine.*

****Rotavirus** vaccine will be given along with OPV at 6, 10 &14 weeks and will not be given if child has already started with OPV before or is older than 1 year of age.*
*** **IPV** is never started after 1 year. IPV is given IM at 14 weeks along with OPV3; however given in fractional dose (intradermal) in right arm at 6 and 14 weeks along with OPV1 and 3.*
******Pentavalent** vaccine will be administered to birth cohort (within 1 year of age) who has not started with DPT & Hepatitis-B and will replace primary series of DPT & Hepatitis-B.*
*******JE** vaccine is given at 9 -12 months (1st dose) and at 16-24 months of age (2nd dose) in selected endemic districts (list is updated every year).*