Measles Catch-up
Immunization Campaign

Handbook for field level workers

Ministry of Health and Family Welfare
Government of India
July, 2011
Introduction

This handbook is meant for use by vaccinators and supervisors involved in the measles catch-up campaign. The primary target group includes ANMs/HW-F, HW-M and first line supervisors as LHV's and HAs (M).

Vaccinators and supervisors will be trained for 4 hours on strengthening their skills in safe injection practices and preparing a detailed micro-plan for their area. This training will be conducted at the Block / PHC level at least 6 weeks before the start of the campaign.

Support staff, like the local ASHA, AWW and volunteers will be trained along with vaccinators for two hours on communication, social mobilization and their respective roles at measles session sites in a separate orientation. This orientation will be conducted at the Block / PHC level 2 weeks before the start of the campaign. Booklets on “Khasra Rakshak Abhiyaan” containing the tasks of the vaccinators, ASHA, AWW and volunteers with Frequently Asked Questions on measles will be distributed during this orientation.

These training and orientation programs will be facilitated by Block/PHC level trainers trained at district level. One district level trainer will also be present during the training of vaccinators and supervisors.

The participants in the training will use this handbook as a reference as well as workbook. They should write freely, taking notes in the margins and complete the answers in the relevant exercise boxes. They should always carry it with them and refer to it when in doubt.
Learning Objectives of the Training

At the end of the training the vaccinators and supervisors will be able to:

1. Describe the plan for introduction of second dose of measles vaccine in the district.
2. Reconstitute and administer measles vaccine safely.
3. Dispose off all injection wastes safely per CPCB norms.
4. Prepare the micro-plans for their sub-centre areas.

Plan for training in Injection skill & Micro-planning

Duration of training: 4 hours                                       Batch size: up to 30 participants

<table>
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<tr>
<th>Session</th>
<th>Topic</th>
<th>Method</th>
<th>Time</th>
<th>Teaching Aids</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction to measles catch-up campaign</td>
<td>Lecture-discussion</td>
<td>15 min</td>
<td>Flip charts, Chalk board, Marker pens</td>
</tr>
<tr>
<td>2</td>
<td>Safe injection practices including safe disposal of injection waste; cold chain maintenance and AEFIs</td>
<td>Lecture – demonstration and discussion</td>
<td>30 min</td>
<td>Injection equipment and demo vials, Equipment needed for safe disposal of injection waste</td>
</tr>
<tr>
<td>3</td>
<td>Practice safe injection including safe disposal of injection waste</td>
<td>Individual practice</td>
<td>45 min</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Session-site micro-plan formats, due-list, invitation card, tally sheet and vaccination card</td>
<td>Discussion and Demonstration</td>
<td>30 min</td>
<td>Blank copy of formats</td>
</tr>
<tr>
<td>5</td>
<td>Preparation of micro-plans for each sub-centre area by the ANMs</td>
<td>Interactive</td>
<td>2 hours</td>
<td>Formats for Baseline information, session site plan at school, outreach and high risk sites</td>
</tr>
</tbody>
</table>
Conducting the training sessions

REGISTRATION
All participants are registered. If the absent vaccinators/or supervisors are more than 5 (five), MO I/C should conduct special training for the left out vaccinators.

GETTING STARTED
Trainer greets the participants and introduces self and asks the participants to introduce themselves.

SESSION-1: INTRODUCTION TO MEASLES CATCH-UP CAMPAIGN

<table>
<thead>
<tr>
<th>Learning Objective</th>
<th>To describe the plan for introduction of second dose of measles vaccine in the district</th>
</tr>
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<tbody>
<tr>
<td>Time</td>
<td>15 minutes</td>
</tr>
<tr>
<td>Training Method</td>
<td>Lecture-discussion</td>
</tr>
<tr>
<td>Training Materials</td>
<td>Flip charts, Chalk board, marker pens</td>
</tr>
</tbody>
</table>
| Steps to conduct the session | 1. Ask the participants their knowledge about measles disease, its complications and the vaccine.  
|                     | 2. Discuss the points mentioned below regarding the measles catch-up campaign, who should and who should not be vaccinated and where to vaccinate.  
|                     | 3. Discuss the FAQs mentioned.                                                    
|                     | 4. Ask each participant to fill in the answers to the exercise questions given at the end of the session. |
SESSION-1: CONTENTS

Measles (local name_______) is a highly infectious disease. It is caused by a virus. The clinical features are

- Fever and rash, plus cough or running nose or redness of eyes
- Occurs usually in un-immunized children
- Disease spreads from person to person through cough, sneezing etc.
- A measles case is infectious from 4 days before to 4 days after the rash

Measles can cause complications like

- Diarrhoea
- Pneumonia or Chest infection
- Ear Infection
- Damage to eyes – child may become blind
- Brain infection (encephalitis – rare)

Measles can cause death through these complications

- Death can occur within 30 days after onset of rash. Rash may not be present at time of death.

Measles kills nearly 100,000 children every year in India.

Measles can be prevented by measles vaccine. The first dose should be given at completed 9 months of age along with vitamin A syrup. All children between 9 months and 10 years of age will be immunized with measles vaccine during the catch up campaign.

Measles vaccine gives long term immunity which is probably life-long.

The dose is 0.5 ml. It is given by the subcutaneous route. We will discuss this in detail in a later session.

Govt. of India has decided to introduce a second dose of measles vaccine in the national immunization programme.

States where 1st dose of measles vaccine coverage is below 80% will have catch-up campaigns for the second dose of measles. The state of ___________ is one of them because the coverage of measles 1st dose is _________.

What is a measles catch-up campaign? A measles catch-up campaign is a special campaign to vaccinate all children in a wide age group in a state or a district with one dose of measles vaccine. The catch-up campaign dose is given to all children, both immunized and un-immunized, who belong to the target age group. The goal of a catch-up campaign is to quickly make the population immune from measles and reduce deaths from measles. A catch-up campaign must immunize nearly 100% of target age group children.
Who should be vaccinated? All children who have completed 9 months of age and are below 10 years of age (completed nine months since birth but have not reached tenth birthday). This is usually 20-25% or one-fifth to one quarter of the total population.

- A child in the target age group should always get the campaign dose of measles vaccine even if the child was immunized earlier.
- A child with a history of having measles in the past should also be vaccinated if the child is in the target age-group.

Where shall we immunize the children? We shall immunize all children from fixed posts only. There will be no house to house immunization. Since many children in the target age group would be studying in schools, the campaign will cover the school-children in the first week and then immunize the non-school going and left out children in the next two weeks.

Who should not be vaccinated? Do not vaccinate if the child has

- High fever or serious disease (example: unconscious, convulsions etc.).
- History of severe allergic reaction to measles vaccine.
- Severe HIV infection or AIDS disease.

Malnutrition: Malnourished children should be immunized on priority. Malnourished children have a higher risk of complications and death if they get measles. So they should always be immunized. There is no added risk of side effects of measles vaccine if a child is malnourished.

Minor illness: Children with minor illnesses like mild respiratory infection, diarrhoea, and low grade fever for less than 3 days, should always be immunized.

FREQUENTLY ASKED QUESTIONS

- A 2 year old child received one dose of measles vaccine through routine immunization when she was 9 months old. Her mother now wants to know if the child should get campaign dose of measles vaccine.
  - Yes this child should get the campaign dose.

- An 11 month old child received one dose of measles vaccine in RI one week before start of campaign. Should she get the campaign dose now?
  - Yes, this child should be immunized with the campaign dose also. There is no added risk of side effects because of the second dose.

- A 10 month old child has not received any measles vaccine dose in RI. His parents come to get the child immunized against measles for the first time during the campaign. You immunize the child with measles vaccine. How would you record this dose? And what advise would you give the parents for subsequent measles vaccine doses?
  - Record this dose as the campaign dose.
  - Advise parents to bring the child to get the scheduled dose of measles through routine immunization 4 weeks after the campaign dose.
Let us answer the following questions now

1. Clinical features of measles are __________________________________________________________.

2. Common complications of measles are ____________________________________________________.

3. Target age-group for measles catch-up campaign is ____________________________________________.

4. Children in the target age-group who have got one dose of measles vaccine in RI should/should not get campaign dose of measles vaccine. [Encircle the correct answer]

5. Malnourished children in the target age-group who have got one dose of measles vaccine in RI should/should not get campaign dose of measles vaccine. [Encircle the correct answer]

6. An under-five child who has got the campaign dose, but has missed the routine dose of measles should/should not get the due routine dose 4 weeks after the campaign dose. [Encircle the correct answer]
SESSION-2: SAFE INJECTION PRACTICES INCLUDING SAFE DISPOSAL OF INJECTION WASTE; COLD CHAIN MAINTENANCE AND AEFIS

| Learning Objective | To reconstitute and administer measles vaccine safely.  
| To dispose off all injection wastes safely per CPCB norms.  
| To manage Adverse Events Following Immunization.  
| To maintain the cold chain at the session site.  |
| Time | 30 minutes |
| Training Method | Lecture- demonstration and discussion |
| Training Materials | Vaccine carrier and ice packs  
| Measles vaccine vials, AD syringes and mixing syringes  
| Hub cutters, black and red disposal bags |

Steps to conduct the session

1. Demonstrate each step of the measles vaccine administration before, during and after reconstitution, correct use of AD Syringes and steps after injection as given below.
2. Demonstrate the correct maintenance of cold chain at the session site.
3. Discuss from the AEFIs after measles vaccine and how to manage them.
4. Ask each participant to fill in the answers to the exercise questions given at the end of the session.

SESSION-3: PRACTICE SAFE INJECTION INCLUDING SAFE DISPOSAL OF INJECTION WASTE

| Learning Objective | To reconstitute and administer measles vaccine safely.  
| To dispose of all injection wastes safely per CPCB norms |
| Time | 45 minutes |
| Training Method | Individual practice |
| Training Materials | Vaccine carrier and ice packs  
| Measles vaccine vials, AD syringes and mixing syringes  
| Hub cutters, black and red disposal bags |

Steps to conduct the session

Divide the participants into 3 groups, each with a facilitator.

1. Pass AD Syringes, mixing syringes, vaccine vials and diluents for each participant to get familiarized.
2. Allow each participant to practice correct use of AD Syringe, hub cutter and red and black disposal bags.
3. Ask each participant to summarize different steps of the measles administration before, during and after reconstitution, correct use of AD Syringes and steps after injection as well as the steps of cold chain maintenance at the session site.
ADMINISTERING MEASLES VACCINE SAFELY

Measles vaccine is available as dry powder which has to be reconstituted using only the diluent provided by the manufacturer. The dry powder in one vaccine vial must be dissolved using the entire amount of diluent in one ampoule. Each vial contains 5 doses. Follow the steps given below while administering the measles vaccine:

Before reconstitution

- Check expiry date on label. Don’t use if vaccine has expired or label is not there or soiled.
- Check VVM on seal of vaccine vial. Do not use if VVM has been removed from the cap or VVM is not in usable stage.
- Check expiry date on diluent ampoule. Do not use if diluent has expired.
- Check that both diluent and vaccine are from same manufacturer and the label on diluent vial states that the diluent is for measles vaccine.
- Check that both diluent and vaccine vials are free from visible dirt outside and that no extraneous particles are visible inside either vaccine or diluent vials. Check for any visible cracks in the vaccine vial or diluent. If you find any, then use a fresh vial / diluent.
- Check that cold chain has been maintained for both vaccine and diluent and both are at the same temperature.

During reconstitution

- Reconstitute only one vial at a time.
- Use a new reconstitution syringe (5 ml) to reconstitute each vial of vaccine maintaining full aseptic precautions. Do not use the same syringe to reconstitute vaccine in another vial.
- Dispose of needle cap and outer packaging in black plastic bag
- Use entire amount of diluent in the vial to reconstitute measles vaccine.
- Do not touch needle or rubber cap during reconstitution.
After reconstitution, the vial should **not** be rolled between the palms. The vial should be shaken gently upside down few times, holding the neck for mixing appropriately.

- Cut the hub of reconstitution syringe with hub-cutter.
- Dispose off plastic part of reconstitution syringe in red plastic bag.
- **Record time of reconstitution on measles vaccine vial label.**
- Use only AD syringe to administer vaccine to every child.
- Do not withdraw vaccine from vial to pre-fill AD syringes.

**After reconstitution**

- Always keep reconstituted vaccine in the hole in the ice pack to maintain temperature at +2 to +8°C. **Keep the reconstituted vaccine in shade.**
- **NEVER USE RECONSTITUTED MEASLES VACCINE BEYOND 4 HOURS AFTER RECONSTITUTION.** Using measles vaccine beyond 4 hours after reconstitution may result in Toxic Shock Syndrome (TSS) leading to death.
- **NEVER CARRY AND USE RECONSTITUTED VACCINE FROM ONE SESSION SITE TO ANOTHER.**
- **Injecting measles vaccine:**
  - Use only AD syringes to inject vaccine.
  - Dose is 0.5 ml for all ages.

**After injecting measles vaccine**

- DO NOT attempt to re-cap/bend needle.
- Cut the hub of AD syringe in hub-cutter. The cut needles should remain in hub-cutter until disposed off at designated site.
- Dispose off the plastic part of cut AD syringe in red plastic bag.
- Mark left little finger of child.
- Mark tally sheet.
- Give vaccination card to child.
- Child should wait at least 30 minutes after injection at session site.
- Remind about scheduled routine immunization doses, as appropriate and inform about the nearest place and day of RI session in the village.
Remember: Reconstituted vaccine must be discarded immediately if:

- There is visible evidence of contamination, such as change in appearance and floating particles, and cold chain obviously broken.
- There is any suspicion that the opened vial has been contaminated, the vial dropped on the ground, accidentally touching the rubber cap, and contact with water.
- If the cold chain has not been maintained at any point after reconstitution and prior to administering the vaccine to the child.

MAINTAINING COLD CHAIN AT THE SESSION SITE DURING ACTIVITY

- Only standard vaccine carriers with four icepacks should be used by vaccination teams during measles campaign. Ensure that vaccines and diluents are kept cool during the whole day; replace completely melted icepacks immediately. Each ANM will use two vaccine carriers for each day of activity.
- One vaccine carrier can be packed with 100-125 vaccine doses (20-25 vials) with matching diluents. If only 100 doses with diluents can be packed in one vaccine carrier, the other vaccine carrier will be stocked with balance vaccine doses (20-25) and diluents required at the session site. This vaccine carrier will also be used as a back-up for ice packs.
- During packing a vaccine carrier put the diluents with paper packing box or original blister packs at the centre of the vaccine carrier and vaccine vials around. This is to avoid diluent ampoules from freezing by coming in direct contact with frozen icepacks.
- Take out one ice pack from the second vaccine carrier (with smaller stock) to keep one vial of reconstituted vaccine in the hole of the ice pack. Once the ice pack is fully melted, replace it with fresh frozen ice pack from the same vaccine carrier. Supervisor will arrange to send another set of ice packs to each ANM by mid-day.
- Once the reconstituted vial is finished, take out the next vial from the vaccine carrier for reconstitution only after arrival of another child in the vaccination session site or if another child is waiting for vaccination.
- At the end of the session, send back all vaccine carriers with all icepacks, unopened vaccine vials and diluents inside, to the vaccine distribution centre.

Maintaining Cold Chain during Vaccination Session

- Measles vaccine is very sensitive to heat and sunlight. Never expose the vaccine carrier, the vaccine vial or icepack to direct sunlight.
- All vaccine vials and diluents should be kept inside the vaccine carrier with the lid closed until a child comes to the centre for vaccination.
- The VVM on the cap of the vaccine vial indicates whether the dry vaccine is usable or not. Once reconstituted, VVM is of no use to indicate usability of the vaccine.
- At the time of reconstitution the diluent must have the same temperature as that of the vaccine.
- Measles vaccine becomes more sensitive to heat after reconstitution. Reconstituted vaccine must be kept between +2 to +8 degrees Celsius and discarded 4 hours after reconstitution or at the end of session whichever is earlier.
ADVERSE EFFECTS OF MEASLES VACCINE

Measles vaccine is an extremely safe vaccine. But like all medicines including vaccines, it does have some side effects or adverse effects. The commoner adverse effects are mild and have no long term consequences. One very rare and serious adverse effect is anaphylaxis. A list of adverse effects is given below.

<table>
<thead>
<tr>
<th>Adverse Effect</th>
<th>Interval from injection to onset</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local reaction at injection site</td>
<td>0-2 days</td>
<td>Common but not serious. Recovers on its own. You may see 1 local reaction for every 10 doses.</td>
</tr>
<tr>
<td>Fever</td>
<td>6-12 days</td>
<td>Common but not serious. One child in 20 may have fever. Fever should be treated with paracetamol per IMNCI guidelines.</td>
</tr>
<tr>
<td>Rash</td>
<td>6-12 days</td>
<td>Common but not serious. One child in 20 may have rash (and fever). Rash disappears on its own. Treat fever. Reassure parents.</td>
</tr>
<tr>
<td>Febrile seizures (convulsions)</td>
<td>6-12 days</td>
<td>Rare. Self-limiting with no long term effects. Refer for medical help immediately.</td>
</tr>
<tr>
<td>Anaphylaxis*</td>
<td>0-1 hour</td>
<td>Extremely rare (1 in 10lakh doses). You may not even see one in your lifetime. But very serious emergency. Child must get medical attention immediately.</td>
</tr>
</tbody>
</table>

* See identification of anaphylaxis below.

How should the adverse effects be managed?

- Supervisor, ANM, ASHA, AWW should know name and telephone number of nearest AEFI management centre
- For minor AEFI like fever etc. treat with paracetamol per IMNCI guidelines
- For serious AEFI e.g. convulsions or anaphylaxis
  - Give primary care: lay child flat; ensure airway is clear. If child is unconscious, put in semi-prone position.
  - Refer immediately to the nearest AEFI management centre
  - Call (telephone) the AEFI management centre and inform them of the referral.
  - Inform immediate supervisor

What are adverse events due to programme errors?
Adverse events are caused by errors in vaccine preparation, handling, or administration. They may give rise to serious reactions and even death.

- This is not due to the vaccine, but due to human error and must be prevented at all costs.

- Two common causes of programme error with measles vaccine are:
  - Use of wrong diluent and
  - Using reconstituted vaccine beyond the recommended time of four hours.

- Programme errors must be prevented at all costs.

⇒ Identification of anaphylaxis

<table>
<thead>
<tr>
<th>Clinical Progression</th>
<th>Signs and symptoms of anaphylaxis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mild, early warning signs</strong></td>
<td>Itching of the skin, rash and swelling around injection site. Dizziness, general feeling of warmth</td>
</tr>
<tr>
<td></td>
<td>Painless swelling in part of the body e.g. face or mouth.</td>
</tr>
<tr>
<td></td>
<td>Flushed, itching skin, nasal congestion, sneezing, tears.</td>
</tr>
<tr>
<td></td>
<td>Hoarseness of voice, nausea, vomiting</td>
</tr>
<tr>
<td></td>
<td>Swelling in the throat, Difficult breathing, abdominal pain</td>
</tr>
<tr>
<td><strong>Late, life-threatening Symptoms</strong></td>
<td>Wheezing, noisy, difficult breathing, collapse, low blood pressure, irregular weak pulse</td>
</tr>
</tbody>
</table>

⇒ How will you ensure injection safety and safe waste disposal?

- Use a new sterile packed AD syringe for each injection for each child.

- **DO NOT ATTEMPT TO RECAP** the needle. This practice can lead to needle stick injuries.

- Cut the hub of the AD syringe immediately after administering the injection using the Hub cutter.

- Store broken vials in the same hub cutter.

- Segregate and store the plastic portion of the cut syringes and unbroken (but discarded) vials in the red bag.

- Send the Immunization waste generated in the outreach session to the PHC, for further disposal.
### SESSION-4: SESSION-SITE MICRO-PLAN FORMATS, DUE-LIST, INVITATION CARD, TALLY SHEET AND VACCINATION CARD

<table>
<thead>
<tr>
<th>Learning Objective</th>
<th>To fill the microplan formats, tally sheet and vaccination card</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Training Method</td>
<td>Discussion and Demonstration</td>
</tr>
<tr>
<td>Training Materials</td>
<td>Blank copy of formats</td>
</tr>
</tbody>
</table>
| Steps to conduct the session | 1. Explain the planning guidelines for the measles catch-up campaigns regarding the composition of vaccination teams, types of session sites, duration of sessions etc. as mentioned in the contents below.  
2. Discuss the details to be filled in each format.  
3. Ask participants to complete the exercise given at the end of the session in the Handbook. |

### SESSION-5: PREPARATION OF MICRO-PLANS FOR EACH SUB-CENTRE AREA BY THE ANMS

<table>
<thead>
<tr>
<th>Learning Objective</th>
<th>To prepare the micro-plan for their sub-centre areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>2 hours</td>
</tr>
<tr>
<td>Training Method</td>
<td>Interactive</td>
</tr>
<tr>
<td>Training Materials</td>
<td>Formats for Baseline information, session site plan at school, outreach and high risk sites</td>
</tr>
</tbody>
</table>
| Steps to conduct the session | 1. Ask the participants to review and revise their sub-centre's micro-plan formats for baseline information, session site plan at school, outreach and high risk sites; facilitated by Supervisor  
2. Check if the vaccinators are aware of the names/addresses and contact numbers of local influencers from the area.  
3. Discuss with the teams whether they have any constraints/problems/concerns in covering their areas. |
SESSION-4 and 5: CONTENTS
You must have started the basic micro-plan for your area. Here we will recapitulate basic principles of the micro-plan and then refine the micro-plans developed so far.

Remember: You must achieve 100% coverage of target age group children (9 month-10 year old) in your area.

- Remember we shall immunize all children in the immunization campaign from fixed posts only. There will be no house to house immunization.
- Only trained vaccinators (ANM, HW, Supervisors, LHV etc.) will give injections to children during catch-up campaigns.
- 1st week of campaign will cover the target age group children in schools. Children from different villages may come to the school. You will immunize all of them.
- 2nd and 3rd weeks of the campaign will cover non-school going and left out children in the villages or urban areas through outreach sessions, fixed sites and mobile teams for high-risk populations.
- When you do the outreach sessions some children in the village will already have been immunized in schools. ASHA should update her due list and mobilize the un-immunized children to the outreach session. If school coverage is high, the injection load in outreach sessions would be less.
- During the campaign period, ANM/HW will conduct immunization activities for the campaign on 4-5 working days of the week without disturbing the routine immunization/Village Health & Nutrition days of the week.
- An ANM/HW will be able to vaccinate 150-200 children in a day in a school based session and 100-150 children in a day in an outreach session in a village or urban area.
  - If you organize the school session correctly, you can vaccinate more children in a school session because you do not have to wait for the children to turn up from their homes. They are already in the school for the day.
- In some schools, the target population may be less than 100 and there may also be an adjacent village with a very small target population. In such situations, the school and the village out-reach sessions can be combined together at the school, provided the total target children per vaccinator does not exceed 200. Wherever this is done, it should be clearly recorded in the session site micro-plan.
- One village or an urban area will be covered in 1 day by one or more teams. Therefore, you can calculate
  - Number of teams needed to cover a school in one day = Target population/200.
  - Number of teams needed to cover a village/urban area in one day = Target population/150.
- A Vaccination team will have
  - 1-2 vaccinators* (ANM/Male HWs/LHV/ retd. ANMs, LHVs / pharmacists / nurses / doctors)
  - 1 ASHA / Link worker or similar staff (for urban areas)
  - 1 AWW o1 volunteer
*Note: In case the beneficiary load is 150-300 at outreach site or 200-400 at school site, the team will have two vaccinators.

- One team-One day-One site
  - Plan to complete measles immunization in one day in a village or an urban area (mohallas) or in a school by 1 or more teams as required. To ensure injection safety no team will conduct sessions at two different sites in one day.
  - For larger villages, separate teams may be strategically placed in different areas of the village to maximize coverage.

- So, several ANMs will work in a large village or urban area to complete the activities in the same day. Local ANM will always be a member of one of these teams. ASHA or AWW will work in her usual area of work. The ASHA or AWW will be different for different days of the activity.

- **No vaccination team will conduct activities at two different session sites in any one day.**

  **Types of session sites:** There will be four types of session sites during the catch-up campaign:
  - *Session sites at educational institutes*
  - *Outreach sites (regular RI sites and additional sites in village/urban mohalla)*
  - *Mobile teams (to cover hard to reach areas, nomadic population, temporary settlements)*
  - *Facility based session sites (at PHC / CHC / Hospital/ Private clinic)*

- **Duration of Session**
  - *Sessions in educational institutes* will run as per school timing to complete all vaccinations in a school in one day.
  - *Catch-up campaign sessions at outreach and fixed sites* will run from 8:00 AM to 2:00 PM. The vaccinators and ASHA/AWW will then perform their other routine activities until 4:00 PM at this site.
  - *Mobile teams* may have to work at unusual hours to reach special population groups. The time of activity for each day and area should be specifically recorded on the micro-plan for such activity.
  - *Facility based session sites (PHC / CHC / Hospital/ Private Clinic)* will work during the whole duration of the campaign from 8:00 AM to 4:00 PM.
What are the formats that you will use for micro-planning, recording and reporting? [Ask facilitator for one copy of each format]

<table>
<thead>
<tr>
<th>Name of Format</th>
<th>Purpose</th>
<th>Who will fill</th>
<th>Complete by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base-line Information</td>
<td>Collect base-line information for each sub-centre/urban area. Each ANM should come to the training with this form completed.</td>
<td>Each ANM/Urban health worker for her area. Senior staff at PHC will check for completeness.</td>
<td>At least 6 weeks before campaign;</td>
</tr>
<tr>
<td>Beneficiary Due list</td>
<td>ANM will guide ASHA to list all beneficiaries in her area</td>
<td>ASHA (AWW if ASHA not selected)</td>
<td>At least 4 weeks before campaign</td>
</tr>
<tr>
<td>Invitation card</td>
<td>ANM will guide ASHA/AWW to give it to each beneficiary</td>
<td>ASHA and AWW</td>
<td>At least 3 days before campaign</td>
</tr>
<tr>
<td>School micro-plan</td>
<td>Session site plan for school phase (1st week); each school and number of teams needed must be listed.</td>
<td>ANM and 1st Line supervisor; senior staff at PHC/Block will guide</td>
<td>At least 6 weeks before campaign</td>
</tr>
<tr>
<td>Outreach and High Risk population micro-plan</td>
<td>Session site plan for outreach and special areas/high risk groups; Check that all villages/areas in base-line info format have been included.</td>
<td>ANM and 1st Line supervisor; senior staff at PHC/Block will guide</td>
<td>At least 6 weeks before campaign</td>
</tr>
<tr>
<td>Communication plan</td>
<td>Communication plan for school and outreach sessions</td>
<td>ANM and 1st Line supervisor; senior staff at PHC/Block will guide</td>
<td>At least 4 weeks before campaign</td>
</tr>
<tr>
<td>Tally sheet</td>
<td>Tally marking of children immunized</td>
<td>Vaccination team at session site</td>
<td>On day of activity</td>
</tr>
<tr>
<td>Vaccination card</td>
<td>Record of catch-up campaign dose</td>
<td>Vaccination team at session site</td>
<td>On day of activity</td>
</tr>
</tbody>
</table>
Basic information you will need to fill in the formats:

Remember that for larger villages, more than one vaccination team will work together in one day. This means that local ANM and other ANMs plus ASHA and AWW will work together in the larger villages on the day of activity. Therefore the micro-plans will be developed at the PHC level as a group exercise to fix up names of persons and village specific dates of activity.

The first step is to collect and compile the following background information:

- Reliable estimates of village / mohalla wise target population (9 months to 10 years) in sub-centre /urban area that you serve. Use the highest of the available estimates.
- Names and location of schools (Govt., Private, Madarsa, Kindergarten or Montessori schools etc.) and number of students enrolled in each school who are within target age-group.
- What are the high risk population groups in your area? Are there street children and other high-risk populations that may not attend school or community vaccination sites? Shall we need special plans to reach these groups (e.g. night visits) etc.?
- Estimate requirement of logistics (vaccine/diluents, ADS etc.) per norms by session site (see wastage multiplication factor etc. below).
- Finally after completing the formats draw a map of session site plan with dates as shown for the PHC area.
Let us now answer the following questions

New Age school in Rampur village in Suti PHC has 600 children in the target age group.

1. How many ANMs will be needed to vaccinate all the children in this school in one day?
   ___________________________________

2. How many vaccine doses will you need?
   ___________________________________

3. Calculate the logistics – Number of vaccine vials, diluent ampoules, AD syringes, mixing syringes that will be needed for the school activity.
   ________________________________________________________________

The next week, Dilari village in Suti PHC will have the catch-up campaign. The ASHA and the AWW who work in this village have enlisted 300 target age group children in Dilari village.

4. How many vaccination teams will be needed for the activity?
   ___________________________________

5. Calculate the logistics – vaccine doses, vaccine vials, diluent ampoules, AD syringes, mixing syringes that will be needed for the outreach activity in Dilari.
   ___________________________________

[Remember: In actual practice the injection load in outreach activity in Dilari village may be less depending on the number of children from Dilari who have been immunized in the school phase of the campaign.]

The participants will work on the formats for the rest of the session.
### 5. Do’s and Don’ts during Measles Catch-up Campaign Sessions

<table>
<thead>
<tr>
<th>Do’s</th>
<th>Don’ts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vaccination Schedule</strong></td>
<td>• Withhold the vaccine in case of mild illness such as cold, cough, diarrhea or fever and malnutrition</td>
</tr>
<tr>
<td>• Give measles vaccine to all children who have completed 9 mths of age and are below 10 years.</td>
<td>• Vaccinate if child has high fever, history of severe allergic reaction or is hospitalized.</td>
</tr>
<tr>
<td>• Ask parents to bring the child for routine dose of measles vaccine after 4 weeks, in case it is due per immunization schedule.</td>
<td></td>
</tr>
<tr>
<td><strong>Cold Chain</strong></td>
<td>• Keep the vaccine carrier in sunlight or open the lid of vaccine carrier frequently; this can allow heat and light into the carrier, which can spoil vaccines.</td>
</tr>
<tr>
<td>• Check that both diluent and vaccine are from the same manufacturer.</td>
<td>• Use vaccine with VVM in unusable stage or with expiry date.</td>
</tr>
<tr>
<td>• Check expiry date of vaccine and diluent and VVM label of vaccine vial before reconstitution.</td>
<td>• Keep the reconstituted vaccine on table; needs to be kept in the hole of the ice-pack to maintain temperature of +2° to +8 °C.</td>
</tr>
<tr>
<td>• Keep the vaccines and diluents inside the vaccine carrier with lid closed until a child comes for vaccination.</td>
<td></td>
</tr>
<tr>
<td>• Take one ice pack from vaccine carrier and keep reconstituted Measles vaccine in the hole of the ice pack.</td>
<td></td>
</tr>
<tr>
<td><strong>Vaccine Handling &amp; Administration</strong></td>
<td>• Reuse disposable syringe or needle for reconstitution; it can lead to infection with HIV, Hepatitis B or Hepatitis C.</td>
</tr>
<tr>
<td>• Use a new AD syringe for each injection and new disposable syringe for each reconstitution.</td>
<td>• Draw air into AD syringes.</td>
</tr>
<tr>
<td>• Use entire amount of diluent for reconstitution of the vaccine.</td>
<td>• Recap/bend or touch any part of the needle.</td>
</tr>
<tr>
<td>• Write the time of reconstitution on label of measles vaccine.</td>
<td>• Pre-fill AD syringes with vaccine.</td>
</tr>
<tr>
<td>• Inject Measles vaccine by sub-cutaneous route in Right upper arm</td>
<td>• Use reconstituted vaccine beyond 4 hours of reconstitution.</td>
</tr>
<tr>
<td>• Explain potential adverse events following immunization and what to do.</td>
<td>• Carry and use reconstituted vaccine from one session site to another; it increases risk of contamination leading to Toxic Shock Syndrome.</td>
</tr>
<tr>
<td>• Ask beneficiary to wait for 30 minutes after injection at session site.</td>
<td></td>
</tr>
<tr>
<td><strong>Waste management</strong></td>
<td>• Keep the used syringes and needles on the table or floor; it increases risk of injury and infection to the beneficiaries/caregivers.</td>
</tr>
<tr>
<td>• Cut the hub of AD syringe in hub-cutter immediately after administering the injection.</td>
<td></td>
</tr>
<tr>
<td>• Dispose off the plastic part of cut AD syringe in red plastic bag.</td>
<td></td>
</tr>
<tr>
<td><strong>Recording and Reporting</strong></td>
<td>• Mark tally sheet before the vaccination; it can lead to inaccurate recording and reporting of data.</td>
</tr>
<tr>
<td>• Mark left little finger of child.</td>
<td></td>
</tr>
<tr>
<td>• Mark tally sheet</td>
<td></td>
</tr>
<tr>
<td>• Record each immunization in the immunization card,</td>
<td></td>
</tr>
<tr>
<td><strong>Adverse Event Following Immunization (AEFI)</strong></td>
<td>• Delay primary care, referral and reporting of serious AEFI; it may lead to death of the child.</td>
</tr>
<tr>
<td>• In case of serious AEFI give primary care and refer immediately to nearest AEFI management centre, inform the center and your supervisor.</td>
<td></td>
</tr>
</tbody>
</table>
Measles Catch-up
Immunization Campaign
Handbook for field level workers

Ministry of Health and Family Welfare
Government of India