Chapter 5

CONDUCTING IMMUNIZATION SESSIONS
Immunization programs must safely administer potent vaccines to all eligible children and women before they are exposed to vaccine-preventable diseases. It is important therefore to conduct immunization sessions that meet quality standards and follow recommended procedures - whether this is done in a fixed site, through outreach or in special campaigns. Good quality immunization sessions will ensure that targeted clients will receive optimum immune response and are encouraged to come back for follow-up vaccination.

B. Objectives

This chapter describes our tasks before, during and after every immunization session. After reading Chapter 5, we will be able to:

1. Enumerate the steps and procedures in the preparation of the vaccines, physically preparing the immunization area and setting up the necessary equipment to be used for the immunization session;
2. Describe in detail how each vaccine is to be administered; and
3. List down the key information to be recorded at the end of every immunization session and the recording forms to be used

C. Scope and Coverage

Chapter 5 contains discusses the following topics:

- Guides in preparing for an immunization session
- Necessary procedures to observe in preparing the immunization area, equipment to be used, and preparation of the vaccines
- Assessing the eligibility of infants and women who come for vaccination, including children who are sick and clients who are susceptible or positive with HIV
- Correct techniques for giving each vaccine
- How to communicate with parents during and after the immunization session
- How to end an immunization session
D. Setting Up An Immunization Session

We need to do the following before any of the clients arrive for the immunization session.

D.1 Take the vaccines and diluents out of the refrigerator

D.2 Check if the vaccines are safe to use

Confirm that the vaccines are not expired and the VVM is not beyond the discard point.

D.3 Prepare the vaccine carrier with ice packs

FIGURE 4.
Packing a Vaccine Carrier

Place ice packs against each of the four sides of the vaccine carrier.

Place vaccines in the middle.
D.4. Prepare the Workplace

1. Fixed Site

1.1. Arrange the space in fixed health facilities for immunization sessions. The arrangement of the space in the health facility will affect how we work and efficiently complete the immunization process.

1.2. The space for immunization should be:
   - easily accessible to target children and women, but arranged so that they are not crowding the immunization area;
   - be in a clean area not directly exposed to sunlight, rain, or dust;
   - convenient for health staff who are preparing and giving doses of vaccines;
   - quiet enough so we can explain and give advice.

1.3. Put up a sign saying “immunization clinic” to show people where to come in and wait. The fixed health facility should have:
   - space in the shade where women and infants can sit before being vaccinated;
   - space and equipment for screening, registration, vaccination, and recording;
   - a table for vaccines and injection equipment;
   - a chair for the mother to sit on while holding a child for vaccination; and,
   - a chair for the health worker.

1.4. For other services during the immunization session, space and equipment must be provided as well. Set up a separate station for each of these services, which may include:
   - weighing babies and charting their growth
   - general health check up and treatment
   - antenatal care
   - health education
FIGURE 5.
Set-up of an Immunization Session at a Fixed Site

List of Equipment and Supplies Needed for Fixed and Outreach Sessions
- Soap or Hand sanitizer for hand washing
- Metal file to open ampules
- Immunization register
- New immunization cards for women and infants
- Safety box
- Cotton
- Waste container
- Immunization tally sheets or forms
- Paper, pencils, and pens
- Table(s)
- Stool / chair(s) for health providers and clients.
1.5. Plan for client movement through the immunization facility to ensure safety. This involves planning client flow to reduce the risk of accidental needle stick injury to the health worker or clients. For a safe clinic, keep the following in mind:

- If possible, a room with two doors should be used. Clients should enter through one door and exit through another so that people can move freely from entry to exit. Ideally health workers will check the names and immunization status and then provide immunization services accordingly and the health information.
- If the facility has only one door, priority should be given to the person being immunized – a child or his/her guardian - to enter, receive their vaccination and leave before allowing another person into the immunization area.
- If possible, separate the registration tables from the injection tables to help keep children calm.
- Incorporate other health care services being provided into the flow and position them accordingly (for example, infant weighing table, nutrition table, antenatal care,).
- Whenever possible, separate women and infants to be immunized from those who have just been immunized so people waiting are not distressed by babies and children crying.
- Assign someone (such as a community member or another health worker) to inform the waiting clients about the steps and flow of the immunization process. The person assigned should also monitor movements during the immunization session to ensure client flow is safe and efficient.

1.6. Prepare the Equipment for the Immunization Session

The amount of equipment needed for the session depends on the estimated number of women and infants to be immunized. The following is the basic list of equipment and supplies needed whether in a fixed site or outreach immunization session.

Plan the layout (see Figure 7) of the immunization work space such that:

- Where possible, there is a separate table for vaccination and another for examinations if these are taking place at the same time.
- There is a space or barrier between the infant and all needles or sharp objects.
- Persons administering vaccines have his/her own safety box.
- Needles are disposed without setting them down or carried around.
- Only one child with his/her parent are near the work space during vaccination.
- Hand-washing equipment must be positioned next to the immunization table. You must wash your hands. Observe proper handwashing prior to giving the first immunization vaccines and when in there is contact with dirt or blood.
- Record the vaccine given soon after it is administered and reflect the accomplishments in the TCL.
2. Outreach Site

The physical space during outreach immunization sessions may be in a building or in the open air. The building should be well-lit and well ventilated. If in the open air, activities should be done in the shade.

2.1. In arranging the immunization site, make sure that:

- There is a separate entrance and exit so people may move in and out more quickly without disrupting other ongoing activities.
- The waiting area is clean, comfortable, and in the shade.
- People’s movements are unobstructed from entrance to exit and guided by signs and the arrangement of chairs, tables, and guide ropes.
- The number of people in the immunization and other stations are limited and there is no crowding.
- Supplies and equipment are within reach in the immunization area.

2.2. Register all infants, child, adults, pregnant women, and other clients as soon as they arrive at the health facility or outreach site using the appropriate recording forms.

2.3. Names of clients could be recorded directly in the Target Client List (TCL) for Immunization Services.

2.4. Fill in the appropriate spaces except the space for services provided, which should be completed at the end of the immunization session.
Infants and women eligible for immunization have contact with health services and could be immunized if vaccines were offered. Routine screening for immunization status should occur for all infants and women of childbearing age who visit health services for any reason. Ideally, eligible infants and women should be given timely immunization, but at a minimum, they should be given an appointment for immunization.

### E. Assessing Clients for Immunization

#### E.1 Assess whether the client is eligible for vaccines

Whenever infants, children are brought and women visit the health center, we should screen if they have been immunized and give them the vaccines they are eligible to receive.

1. Determine the infant’s age
2. Determine which vaccines the infant has received
3. Determine all vaccines for which the infant is eligible
Decide which vaccines the infant is eligible to receive according to the national schedule. Follow the general guidelines below:

- If the infant is eligible for more than one type of vaccine, the vaccines may all be given at the same session, but at different injection sites.
- Multiple doses of the same vaccine cannot be given in one visit. The minimum interval between doses of same vaccine needs to be maintained.
- If the delay between doses is past the minimum period, do not restart the schedule. Simply provide the next needed dose in the series. For example, an 18-month old who has received only BCG, OPV1 and PENTA1 should receive OPV2, PENTA2 and measles containing vaccines (MMR) and advised to come after 4 weeks to receive the 3rd doses of OPV and PENTA.
- If there is a delay in starting primary vaccination, immunize the infant while maintaining the recommended dosage intervals.

E.2 Screening for Immunization

1. Policy on Immunizing Sick Children and Hospitalized Children
   Many health workers are hesitant to immunize an infant who is ill. Young infants may suffer frequently from minor illnesses, and immunization is often delayed. In some instances, infants catch one of the vaccine-preventable diseases because they were not vaccinated due to minor illness. IT IS SAFE TO IMMUNIZE INFANTS EVEN IF THEY ARE MILDLY ILL.

   Children with a mild illness: Immunize them following the guidelines. Check the immunization status of every child regardless of the service being sought. Immunization should be provided to all eligible children.

   Children with fever: Children can be immunized if suffering from mild fever. However if a child has a high fever and under medication, it is BETTER TO WAIT until his/her course of medication is completed.

   Very ill infants who need to go to hospital: Immunize them if possible. A senior health worker must decide for each individual infant. Remember that sick infants need protection against vaccine-preventable diseases. All children admitted to the hospital and those that are brought to outpatient health facilities must be screened and - if they are eligible for immunization - should receive it upon admission.

   Malnourished infants: Immunization should be encouraged. The child can develop good immunity although they are malnourished. Malnourished children are more likely than other infants to suffer from VPDs. Parents should thus be encouraged to bring their children for immunization despite illness. We should not withhold vaccines to sick or malnourished children.
2. Vaccinating HIV positive children

Children with compromised immune systems may not be able to fight off even a mild infection. Vaccinating them with live weakened viruses and bacteria is a particular risk because these can cause a form of the disease. This risk, however, must be balanced against the threat of disease that the vaccine is intended to prevent. Such diseases can be very severe in HIV-infected children.

One concern is that most HIV-infected infants do not show symptoms, and it is difficult to know if they should be excluded from vaccination. With respect to the vaccines that may present the greatest threat to HIV-infected children, the WHO recommends the following:

2.1. BCG should be carefully given to infants who are suspected for HIV. The updated recommendation says if the mother has HIV, we should wait and observe for HIV symptoms in the infant. Once confirmed that the baby is not HIV-positive, BCG should be given.

2.2. OPV: Available research data suggest that acquired (secondary) immunodeficiency syndromes, such as HIV infection, do not lead to added adverse events after OPV vaccination. HIV infection does not appear to be a risk factor for vaccine associated Polio or paralytic poliomyelitis caused by Wild Polio Virus.

2.3. Measles Vaccine: Measles vaccines are recommended for use in HIV-infected individuals unless severely immunocompromised. Measurements of measles antibody concentrations after vaccination showed that vaccination at age 6 months resulted in similar levels of protection in HIV-infected and uninfected children. By age 9 months, fewer HIV-infected children (with or without clinical signs of AIDS) responded to measles vaccine than uninfected children.

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Asymptomatic HIV infection</th>
<th>Symptomatic HIV infection</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCG</td>
<td>Do not Vaccinate (Refer to BCG section)</td>
<td>Do not vaccinate</td>
</tr>
<tr>
<td>PENTA</td>
<td>Vaccinate</td>
<td>Vaccinate</td>
</tr>
<tr>
<td>OPV</td>
<td>Vaccinate</td>
<td>Vaccinate</td>
</tr>
<tr>
<td>Measles</td>
<td>Vaccinate</td>
<td>Vaccinate</td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>Vaccinate</td>
<td>Vaccinate</td>
</tr>
<tr>
<td>Td</td>
<td>Vaccinate</td>
<td>Vaccinate</td>
</tr>
</tbody>
</table>
3. Conditions which are NOT Contraindications to Immunization

Incorrect reasons for withholding a vaccine are called false contraindications. The list below of conditions are examples of false contraindications. If an infant or adult presents with any of these, they should be vaccinated.

- Minor illnesses such as upper respiratory infection or diarrhea with fever < 38.5°C
- Allergy, asthma, or other atopic manifestations such as hay fever or runny nose
- Prematurity, low birth weight
- Malnutrition
- Breastfeeding
- Family history of convulsions
- Treatment with antibiotics, low dose corticosteroids or locally acting (e.g. topical or inhaled) steroids
- Dermatoses, eczema or localized skin infection
- Stable neurological conditions such as cerebral palsy and Down syndrome
- History of jaundice after birth

None of the above list is a true reason for withholding vaccination. If an infant or adult has any of these health issues, they should be vaccinated.

E.3 Assessing Women for Td immunization

During vaccination, ensure women - especially pregnant women - are screened if they are eligible for Td vaccination and offered the immunization and related Td cards if they so desire.

The existing policy is to encourage providing Td immunization to non-pregnant or recently-pregnant women during routine immunization sessions. To assess a woman’s eligibility for Td immunization, observe the following procedures:

1. Ask if the woman has a Td vaccination card.
   1.1. If YES, give the dose required according to the national Td schedule and record in her vaccination card the dose given.
   1.2. If the woman does not have a record, ask her if she was vaccinated for Td in the past:
       • If NOT: Give the first dose of Td, an appointment for the second dose one month later, and give her an immunization card.
       • If YES: Ask how many doses she received in the past and give the next doses in series. Take into account any dose given in SIAs but not those given for therapeutic wound management.
       • If she CANNOT REMEMBER or DOES NOT KNOW, give her a dose of Td and schedule a follow-up appointment for the next dose.
2. Record the Td doses given, ideally in a separate register. This register can be used in antenatal clinics or other occasions where women are vaccinated.

3. Use every opportunity to offer Td immunization to women. Record any Td dose given in the immunization card provided to the women.

F. Giving Vaccines Safely

F.1 Reconstituting vaccines

Reconstituting vaccines means mixing a powdered form of a vaccine with a fluid called a diluent so that it can be injected. The table below lists the vaccines that need to be mixed with diluent before use. Follow the steps described below.

<table>
<thead>
<tr>
<th>Vaccines that Need to be Reconstituted</th>
<th>Powder</th>
<th>Diluent</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCG</td>
<td>freeze-dried</td>
<td>vial liquid provided with vaccine</td>
</tr>
<tr>
<td>Measles</td>
<td>freeze-dried</td>
<td>vial liquid provided with vaccine</td>
</tr>
<tr>
<td>Measles-mumps-rubella</td>
<td>freeze-dried</td>
<td>vial liquid provided with vaccine</td>
</tr>
<tr>
<td>Measles-rubella</td>
<td>freeze-dried</td>
<td>vial liquid provided with vaccine</td>
</tr>
<tr>
<td>Japanese encephalitis</td>
<td>freeze-dried</td>
<td>vial liquid provided with vaccine</td>
</tr>
</tbody>
</table>

Remember

- Diluents are not interchangeable. Different vaccines have different diluents. Mixing and administering the wrong diluent can lead to serious adverse events.
- Always use diluent from the same manufacturer as the vaccine.
- Diluents should be cooled before being mixed with the vaccine. Ideally diluents are kept at the same temperature as the vaccine before administration. Store diluents in a dry place. Do not freeze.
- Do not reconstitute vaccines until it is time to administer them.
- Discard reconstituted vaccine, usually after six hours or at the end of the immunization session, whichever comes first.
F.2 Reconstituting BCG, Measles, MMR, MR and Japanese Encephalitis Vaccines

1. Wash your hands with clean water and soap before reconstituting vaccines.

2. Inspect the vaccine vial or ampule. Most vaccines come in vials, except for BCG, which comes in ampules. A vial is a glass bottle with a rubber stopper held in place by a metal or plastic cap.
   2.1. Check the vaccine vial monitor (if there is any) to ensure that the vaccine has not passed the discard point.
   2.2. Read the expiry date on the label to make sure that it can still be used.
   2.3. Discard the vaccine if it is expired.

3. Flick the vial or ampule. Make sure that all of the vaccine powder is at the bottom of the vial. Flick or tap the vial with your finger.

4. Open the vaccine vial or ampule. The center of the metal cap is pre-cut so that it can easily be removed. Lift the center of the metal cap and bend it back, using a metal file. Some vials have colored plastic caps instead of metal caps. Flip off the plastic cap with your thumb.

5. Inspect the diluent ampule or vial. The diluent for reconstituting vaccines is usually held in ampules. These are glass or plastic bottles that can be opened by breaking off the pointed tops. Make sure the ampule is not cracked.

6. Read the label on the diluent ampule or vial
   6.1. Use the diluent included with the vaccine. Make sure the expiry date has not passed.
   6.2. Do NOT use sterile water or saline provided for other purposes as a diluent. Each vaccine has its own diluent and must not be reconstituted with anything else.

7. Open the glass ampule
   7.1. Hold the ampule between your thumb and middle finger.
   7.2. Use your index finger to support the top
   7.3. Take the metal file that is packed with the ampules and scratch hard around the neck of the ampule you wish to open.

Step 7.3
7.4. Hold the top of the ampule with a piece of clean cloth and gently break off the top. In case of injury while breaking it, discard the ampule as the content may have been contaminated. Cover the wound before opening a new ampule.

8. Draw diluent into a mixing syringe

8.1. Use a new disposable mixing syringe (5 ml) to reconstitute each supply.

8.2. Put the needle in the open top of the ampule.

8.3. Pull back the plunger to draw all the diluent from the ampule into the syringe.

8.4. Do NOT reuse disposable mixing syringes.

9. Reconstitute the Vaccine

9.1. Insert the mixing syringe filled with diluent into the vaccine vial or ampule.

9.2. Hold the plunger of the mixing syringe between your index and middle fingers and push with your thumb. This empties the diluent into the vaccine vial or ampule.

9.3. To mix the diluent and vaccine, simply hold the vaccine vial in the body and gently shake a couple of times.

9.4. Dispose of the mixing syringe in a safety box after use.

9.5. Indicate in the vaccine label the time and date of reconstitution.

10. Place the reconstituted vaccine on the foam pad of your vaccine carrier. It is now ready for use.
F.3 Administering vaccines for infants

1. Wash your hands with clean water and soap before reconstituting vaccines.

2. Inspect the vaccine vial or ampule. Most vaccines come in vials, except for BCG, which comes in ampules. A vial is a glass bottle with a rubber stopper held in place by a metal or plastic cap.
   2.1. Check the vaccine vial monitor (if there is any) to ensure that the vaccine has not passed the discard point.
   2.2. Read the expiry date on the label to make sure that it can still be used.
   2.3. Discard the vaccine if it is expired.

3. Flick the vial or ampule. Make sure that all of the vaccine powder is at the bottom of the vial. Flick or tap the vial with your finger.

4. Open the vaccine vial or ampule. The center of the metal cap is pre-cut so that it can easily be removed. Lift the center of the metal cap and bend it back, using a metal file. Some vials have colored plastic caps instead of metal caps. Flip off the plastic cap with your thumb.

5. Inspect the diluent ampule or vial. The diluent for reconstituting vaccines is usually held in ampules. These are glass or plastic bottles that can be opened by breaking off the pointed tops. Make sure the ampule is not cracked.

6. Read the label on the diluent ampule or vial
   6.1. Use the diluent included with the vaccine. Make sure the expiry date has not passed.
   6.2. Do NOT use sterile water or saline provided for other purposes as a diluent. Each vaccine has its own diluent and must not be reconstituted with anything else.

**FIGURE 7. Different Needle Positions**

- Intramuscular
- Subcutaneous
- Intradermal

- Dermis (skin)
- Subcutaneous layer
- Muscle
F.4 How to Give an Injection Using auto disable (AD) syringes

1. Clean and dry the injection site before vaccination. If visibly dirty, clean the site with cotton balls wet with sterile water. Wait till it is dry.

2. Hold the syringe barrel between thumb, index and middle fingers. Do not touch the needle. The plunger can go back and forth only once, so do NOT draw in air to inject into the vial as this will disable the syringe.

3. Insert the needle with a smooth action.

4. It is NOT necessary to aspirate first.
   4.1. Use the thumb to push the plunger without moving the syringe around.
   4.2. Pull the needle out quickly and smoothly (which is less painful than doing it slowly).

5. Ask the parent or accompanying adult to press the site gently with a clean swab for a few seconds (to stop bleeding and relieve pain).

6. Instruct the adult accompanying the child NOT to rub the injection site.

F.5 Intradermal (ID) Injection in Arm: BCG Vaccine

BCG is the only childhood vaccine that is injected into the layers of skin for slow absorption (intradermally).

1. The vaccine is injected into the skin of the outer upper arm. The BCG dose is small (0.05 ml). To measure and inject the dose accurately, use a special small syringe and needle.

2. To give an intradermal injection correctly, use a short, very fine needle (10 mm, 26 gauge).
   2.1. Position infant sideways on the mother’s lap and expose the arm and shoulder.
   2.2. Instruct the mother to hold the infant close to her body, supporting the head and holding the arms close to the body.
   2.3. Hold the syringe in your right hand with the bevel of the needle facing upwards.
   2.4. Stretch the skin out flat with your left thumb and forefinger.
   2.5. Angle the syringe and needle almost flat along the infant’s skin.
   2.6. Insert the tip of the needle just under the surface but in the thickness of the skin-just past the hole at the end of the needle.
   2.7. Keep the needle FLAT along the skin, so that it goes into the top layer of the skin only. Keep the bevel facing up.
<table>
<thead>
<tr>
<th>Name of Vaccine</th>
<th>Vaccination site</th>
<th>When given</th>
<th>How given</th>
<th>Dose</th>
<th>Type</th>
<th>Appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCG</td>
<td>Outer upper arm</td>
<td>At birth</td>
<td>ID</td>
<td>0.05 mL</td>
<td>Powder + diluent</td>
<td>White cloudy liquid with sediment that suspends when shaken</td>
</tr>
<tr>
<td>Hep B</td>
<td>Outer upper thigh</td>
<td>At birth</td>
<td>IM</td>
<td>0.5 mL</td>
<td>Ready-to-use</td>
<td>White, cloudy liquid</td>
</tr>
<tr>
<td>OPV</td>
<td>Oral</td>
<td>6, 10, 14 weeks</td>
<td>Oral dropper</td>
<td>2 drops</td>
<td>Vial with oral dropper</td>
<td>Clear, pink or orange liquid</td>
</tr>
<tr>
<td>PENTA</td>
<td>Outer right upper thigh</td>
<td>6, 10, 14 weeks</td>
<td>IM</td>
<td>0.5 mL</td>
<td>Ready-to-use</td>
<td>White, cloudy liquid with sediment that suspends when shaken</td>
</tr>
<tr>
<td>PCV</td>
<td>Outer left upper thigh with 2 finger-breadth interval from IPV</td>
<td>6, 10, 14 weeks</td>
<td>IM</td>
<td>0.5 mL</td>
<td>Ready-to-use</td>
<td>Clear, colorless liquid</td>
</tr>
<tr>
<td>IPV</td>
<td>Outer left upper thigh with 2 finger-breadth interval from PCV</td>
<td>14 weeks</td>
<td>IM</td>
<td>0.5 mL</td>
<td>Ready-to-use</td>
<td>Clear, colorless liquid</td>
</tr>
<tr>
<td>Rota Vaccine</td>
<td>Oral</td>
<td>6 and 10 weeks</td>
<td>Oral applicator</td>
<td>1 mL</td>
<td>Powder + diluent</td>
<td>Clear, colorless liquid</td>
</tr>
<tr>
<td>MR</td>
<td>Outer upper arm</td>
<td>Grades 1 and 7</td>
<td>SC</td>
<td>0.5 ml</td>
<td>Powder + diluent</td>
<td>Clear, slightly yellow liquid</td>
</tr>
<tr>
<td>MMR</td>
<td>Outer upper arm (Right Arm)</td>
<td>9 and 12 months</td>
<td>SC</td>
<td>0.5 ml</td>
<td>Powder + diluent</td>
<td>Clear, slightly yellow liquid</td>
</tr>
<tr>
<td>JE Vaccine</td>
<td>Outer upper arm (Left arm)</td>
<td>9 months</td>
<td>SC</td>
<td>0.5 ml</td>
<td>Powder + diluent</td>
<td>Clear or slightly whitish turbid liquid</td>
</tr>
<tr>
<td>Td Vaccine</td>
<td>Outer upper arm</td>
<td>Grades 1 and 7</td>
<td>IM</td>
<td>0.5 ml</td>
<td>Powder + diluent</td>
<td>White cloudy liquid</td>
</tr>
<tr>
<td>HPV Vaccine</td>
<td>Outer upper arm</td>
<td>9-10 years old</td>
<td>IM</td>
<td>0.5 ml</td>
<td>Ready-to-use</td>
<td>Clear or slightly whitish turbid liquid</td>
</tr>
<tr>
<td>PPV</td>
<td>Outer upper arm</td>
<td>60 and 65 years old</td>
<td>IM</td>
<td>0.5 ml</td>
<td>Ready-to-use</td>
<td>Clear, colorless liquid</td>
</tr>
<tr>
<td>Influenza Vaccine</td>
<td>Outer upper arm</td>
<td>≥ 60 years old</td>
<td>IM</td>
<td>0.5 ml</td>
<td>Ready-to-use</td>
<td>Clear, colorless liquid</td>
</tr>
</tbody>
</table>
2.8. Do not push too far and do not angle the needle down to avoid going under the skin.

2.9. Hold the needle in place by placing your left thumb on the lower end of the syringe near the needle, but do not touch the needle.

2.10. Hold the plunger between your right index and middle fingers. Press the plunger in with your right thumb.

2.11. Inject 0.05 ml of vaccine and pull out the syringe.

3. BE ALERT: When an intradermal injection is administered correctly, the plunger is hard to push. If the vaccine goes in easily you may be injecting too deeply. Stop injecting immediately, correct the position of the needle, and give the remainder of the dose.

4. If the whole dose has already gone under the skin, count the infant as having received a dose of vaccine. Do not repeat the dose. Ask the parent to return with the child if he/she shows any side-effects, such as abscesses or enlarged or swollen glands.

5. If you have injected BCG correctly, a flat-topped swelling appears on the skin. The swelling may look pale with very small pits, like an orange peel. If the technique is incorrect, the vaccine has gone in deeper and no swelling will be visible.

F.6 Intramuscular (IM) Injection in Thigh: PENTA, PCV, IPV

1. Position the infant sideways on the adult’s lap with the infant’s whole leg exposed.

2. Ask the adult to hold the infant’s legs.

3. Gently stretch the skin flat between your thumb and forefinger.

4. Insert the needle at a 90° angle.

5. Quickly push the entire needle through the skin and into the muscle. Inject slowly to reduce pain.

6. Intramuscular injections for older children and adults

   6.1. Vaccine can be injected in the deltoid muscle of the upper arm for older children, adolescents and adults

   6.2. NOTE: However, the deltoid muscle in infants and young children under 15 months of age does not provide a safe intramuscular (IM) injection site due to the superficiality of the radial nerve and being insufficiently developed to absorb medication adequately.
FIGURE 9.
Injection Sites for PENTA, PCV and IPV

Pentavalent (or other) in the thigh

IPV and PCV given in the outer aspect of the upper thigh

Injection sites separated by at least 2.5 cm -- about two fingers apart

FIGURE 9.
Locating the Site to Give IM Injection to Infants

lateral femoral condyle

Injection site

Injection site 1

Greater trochanter
F.7 Subcutaneous (SC) Injection: Measles and JE vaccine

1. Position the infant sideways on the adult’s lap with the whole arm exposed.
2. The adult should hold the infant’s legs.
3. Reach your fingers around and pinch the skin.
4. Quickly push the needle into the pinched skin—the needle should point toward the shoulder.
5. To control the needle, support the end of the syringe with your thumb and forefinger but do not touch the needle.

F.8 Oral vaccine Administration: OPV

1. Ask the adult to hold the infant with the head supported and tilted slightly back.
2. The chin and cheeks should be dry: OPV is less likely to spill out.
3. Open the infant’s mouth gently, either with your thumb on the chin (for small infants) or by squeezing the infant’s cheeks gently between your fingers.
4. Squeeze two (2) drops of vaccine from the dropper onto the tongue. Do not let the dropper touch the infant’s mouth or tongue.
F.9 Td Vaccine (for women): intramuscular (IM) injection in the left arm

1. Ask the woman to sit down.
2. Request her to drop her shoulder and place her left hand behind her back or resting on the hip. This relaxes the muscle and makes the injection nearly painless.
3. Pinch / squeeze the muscle of the OUTER part of the upper arm.
4. Quickly push the needle straight down through the skin between your fingers. Go deep into the muscle.
5. Press the plunger with your thumb to inject the vaccine.
6. Pull out the needle quickly and smoothly and ask the woman to press the site gently with a cotton.

G. Communication with Parents During and After Immunization Session

Below are some tips on how to communicate with parents or guardians after their children have been vaccinated. These should be adjusted depending on the time available, the number of people or the length of the queue, and the weather conditions in the place where the session is being conducted.

G.1 Essential Elements of Every Immunization Session

1. The most important elements to observe in dealing with clients are:
   1.1. Treat the person with respect;
   1.2. Advise him or her of possible side-effects and what to do about them;
   1.3. Explain when and where the next immunization session will be held.
2. To ease the client’s stress during the vaccination session:
   2.1. Display a positive attitude through facial expression, body language and comments.
   2.2. Use a soft and calm tone of voice.
   2.3. Explain why vaccines are needed (e.g. this vaccine will protect you from getting sick and against which disease)
   2.4. Explain what to expect (e.g. do not say that injection will not hurt)

G.2 Step-by-step guide on what to tell clients during a vaccination session

1. Thank the parent for coming to the immunization session and for their patience if they had to wait.
2. Explain in simple terms the diseases that the vaccines protect against.
3. Describe the possible adverse effects of immunization and what to do about them. Advise the parent on what to do if they need to bring the infant to the health center or hospital in case of a serious side effect.
4. If the vaccine given is one dose in a series, explain that the infant must complete the series or the total number of sessions in order to be fully protected. Use the chart on the immunization card as a guide. Congratulate the mother if the infant has completed the series.
5. Write the date for the next appointment on the card. Tell the parent / guardian the date as clearly as possible. If possible, link the date to a special occasion or local event to help them remember when to return.
6. Tell the parent when and where to go to receive the infant’s next immunization and vitamin A supplement.
7. If the parent or guardian cannot bring the infant on that date, ask them when they will be available soonest.
8. Explain to women clients how many more times, when and where they must return to complete their vaccines against tetanus.
9. Remind the parent to always bring their immunization cards when they come to be vaccinated.
10. If the infant or women missed some doses, do not scold them. Instead, explain why it is important for them to be fully immunized. Also explain that you will be giving (as much as possible) any missing doses during the current session. Also request them to come on time for their next session or appointment.
11. Inform the parent / guardian of any upcoming campaigns, school-based immunization, or catch-up measles vaccination.
12. Finally, ask the parent / guardian if they have any questions. Make sure you repeat each of these messages more than once if necessary. The likelihood parents will remember your messages increase if they hear the messages more than once.
H. Ending the Session

At the end of each immunization session, complete the clients’ Immunization Cards and the health facility’s Immunization Registry. Ensure that logistics and equipment used are properly stored away. Ensure that the vaccines that need to be discarded are properly disposed of. Ensure that the immunization work area is maintained clean.

H.1 Complete the Immunization Cards

Complete the clients’ Immunization Cards. These could either be part of the Mother and Child Book or a separate Immunization Card:
1. Write down the date for each vaccine administered, including vitamin A supplement given.

2. Do not keep the Immunization Card. Return it to the parent or guardian. Mark the next immunization date on the card after every dose, and tell them when and where to return for the next vaccination.

3. Tell the parent or guardian to keep the card in good condition. Explain use of the Card to keep track of their own and the infant’s health and immunization status. Explain that these are helpful to the health staff who will administer the vaccine during the next session.

4. Remind the clients / parents or guardians to always bring the Immunization Card everytime they come to the health center.

5. Complete the Immunization Cards for women. There are three ways to record the vaccines received by the women:
   - On a life-long Immunization Card (most preferred)
   - On the Antenatal Card
   - On the infant’s Immunization Card (for additional recording).

**H.2 Complete the Immunization Tally Sheet and Immunization register**

1. At the end of an immunization session, count the number of doses of each type of vaccine that were given and record this in the Immunization Tally Sheet.

2. Record the Vitamin A supplement provided, if any, on proper forms of the health facility.

3. Transfer these data to the corresponding Target Client List provided for the Immunization Program.

4. Every month, compile the immunization coverage data into the FHSIS Barangay summary table for reporting to the next higher level.

   The examples of TCL and FHSIS forms are in Chapter 8 (Monitoring, Supervision and Evaluation).

**H.3 Ensure the Safety and Viability of the Vaccines**

1. Use opened vials of OPV, Td, hepatitis B vaccines in the subsequent immunization sessions. This is referred under the multi-dose vial policy. Follow the protocols for safe usage. Please refer to this policy in the next chapter.

2. DISCARD opened vials of measles and BCG vaccines at the end of each immunization session, or after 6 hours, whichever comes first.

3. Keep the opened vials that can be used for the following session in the refrigerator – in a box marked “USE FIRST” so they can be used first in the next session.
H.4 Dispose of used equipment

1. Dispose used needles and syringes safely.
2. Wrap vials and rubbish in paper. If the local government does not collect them, bury them for proper disposal.

H.5 Special Tasks on Completing an Outreach Session

In addition to the tasks at a fixed site, additional tasks must be done after an outreach session.

1. Pack the vaccine carrier
   1.1. Check the ice packs to make sure the ice has not melted. If the ice packs have completely melted and/or the thermometer in the vaccine carrier shows a temperature above +8°C, check VVM to ensure it is still safe to use.
   1.2. Pack unopened vaccines and open vials which can still be used under the multi-dose vial policy.
   1.3. Place empty and opened vials of reconstituted vaccines in a separate container for disposal.
   1.4. Clean the outreach site.
   1.5. Do NOT leave anything behind that might be a health threat to the community.
   1.6. Collect safety boxes containing AD syringes and other waste material. Take the safety boxes and waste back to the health center for proper disposal.
   1.7. Do NOT leave empty or opened vials at the site.
   1.8. Do NOT leave any syringes or needles at the site.
   1.9. Return tables, chairs, and other equipment to their proper place or to their owners.
   1.10. Thank the local people who helped organize the session and remind them when you will return.

2. Return vaccines to the refrigerator
   2.1. If the ice packs in your vaccine carrier have melted during the trip back to the health center, check the vaccine vial monitor to ensure that the vaccine is safe to use. Store these to the refrigerator and place in the “USE FIRST” box so they will be used first during the next session.
   2.2. If the ice packs are still frozen, put unopened vials in the “USE FIRST” box in the refrigerator.
   2.3. Transfer the ice packs from the carrier into the freezer. Check and record the temperature of the refrigerator.

3. Clean the vaccine carrier
   3.1. Wipe the carrier with a damp cloth and check for cracks.
   3.2. Repair any cracks with adhesive tape and leave the carrier open to dry.
I. Reaching Every Purok Strategy:

The Reaching Every Purok (REP) Strategy was first introduced in 2013 as the next step after the Reaching Every Barangay (REB) Strategy to address significant immunity gaps among disadvantaged puroks or sitios in a barangay. The REP Strategy includes door-to-door monitoring of vaccination status within the barangay. It is designed for densely or highly populated areas and focuses on the barangay at purok / block / sitio level. It is effective in addressing the following immunization problems: (i) uncertain population denominators resulting in incomplete TCL/registers; (ii) population movement and migration from other areas; (iii) informal settlements not included in the official population; (iv) high cost of transport to the health center; and (v) population shared across regional borders.

Objectives of the strategy:

- Describe how to use locally available data to strengthen routine immunization services;
- Define how to prioritize and reach high-risk puroks through vaccination activities; and
- Outline how to monitor progress by purok.

Please refer to the Reach Every Purok (REP) guideline developed by the DOH on May 2015, entitled Strengthening Routine Immunization Simple Guide For Reaching Every Purok For Health Centers.