भारत सरकार
स्वास्थ्य एवं परिवार कल्याण मंत्रालय
MINISTRY OF
HEALTH AND
FAMILY WELFARE

Guiding Vaccination Ambassadors

Teachers' Manual

Guiding Vaccination Ambassadors

Teachers' Manual

About the Teachers' Manual

Teachers play a pivotal role in shaping students' understanding. In alignment with India's commitment to strengthening preventive health and building vaccine confidence, the *Teachers' Manual: Guiding Vaccination Ambassadors* has been developed as a comprehensive support resource to accompany the *Students' Handbook: Staying Healthy: Immunization for All*. The manual is designed to equip teachers with the knowledge, pedagogical guidance, and practical tools required to facilitate age-appropriate, accurate, and engaging learning on immunization within the school setting.

Anchored in the principles of health promotion and community engagement, the manual supports teachers in translating public health concepts into meaningful classroom experiences. The manual aims to build teacher confidence in addressing questions related to microbes, diseases, immunity, vaccines, and national immunization programmes, while also enabling them to respond constructively to myths, misinformation, and apprehensions related to vaccination. The manual follows a structured and progressive learning pathway organised around eight interconnected themes. These include *The World of Microbes and Diseases*, *Diseases on the Run: Immunity and Vaccines to the Rescue*, *The Vaccine Adventure*, *India's Shield of Health: Our Vaccination Victory*, *Special Missions and Campaigns: Vaccines for Extraordinary Times*, *Empowering Students as Vaccination Messengers*, *Promoting Vaccine Confidence through Effective Communication Strategies*, and *My Role as a Vaccination Ambassador*. Together, these themes guide teachers from foundational concepts to applied health practice and community engagement.

A key focus of the manual is capacity building. It supports teachers in understanding the Universal Immunization Programme, the National Immunization Schedule, and major vaccination campaigns such as Pulse Polio and Mission Indradhanush. The manual also provides guidance on using experiential learning methods, including stories, classroom demonstrations, discussions, role-play, case studies, and real-life examples, to help students connect individual health behaviours with collective well-being. The manual places strong emphasis on empowering students as Vaccination Messengers. Teachers are guided to nurture students' communication skills, critical thinking, and, enabling them to share accurate information on vaccination with their peers, families, and communities. In addition, the manual highlights the role of teachers as Vaccination Ambassadors who can promote vaccine confidence, support community engagement, and contribute to myth busting and informed decision-making at the community level. Teachers are encouraged to adapt activities to local contexts, use available learning resources, and foster inclusive classrooms where questions are welcomed and diverse perspectives are respected.

Ultimately, *Guiding Vaccination Ambassadors* seeks to support teachers in nurturing informed, confident, and socially responsible students. By bridging classroom learning with national public health priorities and community realities, the manual aspires to contribute to sustained immunization awareness, improved vaccine acceptance, and healthier communities in the years ahead.

Immunization Division
Ministry of Health and Family Welfare
Government of India

Training Module Index

This manual will guide you through understanding:

Introduction: Guiding the Next Generation of Health Champions and Becoming a Vaccination Ambassador

As educators, you play a pivotal role in shaping students' understanding of health and disease prevention. This manual equips you with comprehensive knowledge and practical tools to teach vaccination science effectively to students. Through carefully structured themes, you'll learn to transform complex medical concepts into engaging, age-appropriate lessons that empower students to become informed vaccination messengers in their communities. This manual will also guide you to your journey of becoming a Vaccination Ambassador for community advocacy.

Teaching Objectives

This manual will help build your confidence in:

Capacity Building

Understand the science behind immunization and impart knowledge to class students.

Empowering Students as Vaccination Messengers

Cultivate student skills to become Vaccination Messengers so that they can spread vaccination awareness to their peers, families and communities, promoting vaccine acceptance and uptake.

Community Engagement and Myth Busting

Understand the role as a Vaccination Ambassador and promote the importance of vaccination and address misinformation and apprehensions in the community.

Let's embark on this important educational journey together, preparing our students to become informed and responsible members of a healthier society.

Pre-Assessment Questionnaire

Dear Teacher,

Please complete this questionnaire before starting the manual. Choose the most appropriate answer for each question.

1. Which of the following best describes the difference between vaccination and immunization?
   a) They are exactly the same thing
   b) Vaccination is the act of giving a vaccine, while immunization is the process of becoming immune to a disease
   c) Immunization is only through natural infection
   d) Vaccination only refers to injectable vaccines
2. What is meant by "herd immunity"?
   a) Immunity that animals develop naturally
   b) Protection from disease when a large portion of the population is vaccinated
   c) Immunity developed after getting infected
   d) Protection only for children
3. How many vaccine-preventable diseases are covered under India's Universal Immunization Programme (UIP)?
   a) 8
   b) 10
   c) 12
   d) 14
4. How many times should a child visit a health centre for vaccination by their fifth birthday as per the National Immunization Schedule?
   a) 5 times
   b) 6 times
   c) 7 times
   d) 8 times
5. Which diseases has India successfully eliminated through vaccination? (Select all that apply)
   a) Smallpox
   b) Polio
   c) Measles
   d) Japanese Encephalitis
6. When should the 1st dose of BCG vaccine be given?
   a) At 6 weeks
   b) At birth
   c) At 9 months
   d) At 16-24 months
7. True or False? Vaccines prevent a disease while medicines cure a disease.
   a) True
   b) False
8. True or False? Multiple vaccines given together can overwhelm a child's immune system.
   a) True
   b) False
9. Which digital platform is used for tracking immunization in India?
   a) Routine Immunization
   b) U-WIN
   c) eVIN
   d) mHealth
10. As a Vaccination Ambassador, what are your key responsibilities? (Select all that apply)
    a) Administering vaccines
    b) Sharing accurate vaccine information
    c) Addressing misconceptions
    d) Maintaining vaccine cold chain
    e) Collaborating with health workers

1 The World of Microbes and Diseases

Learning objectives

1. Explain different types of microorganisms and their roles in health and disease.
2. Guide students through hands-on activities that demonstrate routes of disease transmission
3. Explain the role of immunity in protecting our health

Key Concepts for Teachers

Microorganisms are diverse and ubiquitous.
While teaching, focus on these main types:

Bacteria

- Single-celled organisms which are not visible without a microscope. They are found almost everywhere on Earth.
- Harmful examples: Mycobacterium Tuberculosis (Tuberculosis), Corynebacterium diphtheriae (Diphtheria: Sore throat, Swollen neck glands, Fever).
- Beneficial examples: Gut bacteria (aid digestion), probiotics in yogurt.

Viruses

- They're much smaller than bacteria, requires host cell to reproduce.
- Examples: Influenza virus (flu), SARS-CoV-2 (COVID-19), Rotavirus (Diarrhoea)

Fungi

- Can be single-celled (yeasts) or multi-cellular (molds, mushrooms).
- Some fungi cause diseases: Ring worm, some mold that grow on food
- Some fungi are edible: Baker's yeast, mushrooms

Disease-Causing Mechanisms: Know the Difference

Understanding how these microbes enter the body and cause disease is crucial for prevention and treatment.

Bacteria can cause infections in many ways. They can enter the body through cuts, contaminated food or the air we breathe. Often, they stay in one place, like the throat during a sore throat. However, sometimes they can spread to other parts of the body.

Viruses rely on host cells for replication, leading to widespread effects on health. Viruses infect host cells by attaching to them and injecting their genetic material. Once inside, they hijack the cell's machinery to produce more viruses, often causing the cell to burst and die.

Fungal infections can enter skin or other tissues, leading to symptoms like itching and discomfort. They thrive in warm, moist areas and can spread if not treated properly.

Routes of Disease Transmission

Air-borne
Through air (e.g., flu, COVID-19)

Faecal-oral route: Contaminated food or water (e.g., cholera, hepatitis A, polio) E.g., cholera is caused by a harmful bacterium found in contaminated drinking water by sewer systems.

Direct contact: Skin-to-skin contact (e.g., ringworm, scabies)

Vector-borne: Transmitted by insects or animals (e.g., malaria, dengue)

Vertical transmission: From mother to child during pregnancy or birth (e.g., HIV, rubella)

Understanding these routes is crucial for explaining disease prevention strategies.

Classroom Activities

1. The Chalk Powder Germs

- **Materials needed:** Chalk powder, handwashing facilities
- **Safety considerations:** Ensure students don't inhale chalk powder.
- **Procedure:**
  - Sprinkle a small amount of chalk powder on students' hands
  - Have them shake or clap hands or touch objects
  - Observe how the powder spreads
  - Wash hands with soap after this activity
  - Discuss how this represents germ transmission : Germs, like the chalk powder, can spread through:

1. Direct contact (touching others)
2. Indirect contact (touching surfaces that others will touch later)
3. The spread can be silent and invisible, just like real germs
4. One contaminated hand can spread to many surfaces and people

Please note: Ask students to wash hands after the activity

2. The Sneeze Zone

- **Materials needed:** Spray bottle with water (or use hands for sprinkling water), white paper
- **Safety considerations:** Use clean water and maintain social distancing
- **Procedure:**
  - Place white paper on the floor
  - Demonstrate "sneezing" using either a spray bottle or wet hands to sprinkle water
  - Observe how far droplets travel
  - Repeat the activity by covering the bottle nozzle or wet hands with a tissue or with another hand to demonstrate covering the mouth and nose during sneezes

After completing the spray/sprinkle demonstrations, guide students to understand the impact of covering the mouth during sneezes by comparing the two scenarios:

Scenario 1: Without Cover Demonstration

Show students how far the droplets traveled: "Look at how far these water droplets spread - imagine these are sneeze droplets carrying germs. They can reach other people sitting or standing nearby. Just like these visible water drops, real sneeze droplets can carry germs through the air and make others sick."

Scenario 2: With Cover Demonstration

Show the difference when using a tissue/hand: "Now see how the tissue/hand stopped most of the droplets. Very few drops reached the paper, and they didn't travel as far. This shows why covering our nose and mouth while sneezing helps protect others from getting diseases."

Real-world Connection

"Just like in our activity we stopped water drops from spreading everywhere, covering our sneezes stops germs from reaching other people. This simple habit helps keep everyone healthy, especially during flu season or when someone has a cold."

Remember, your role is not just to teach facts, but to inspire curiosity about how we stay healthy and why good health practices are important. Use everyday scenarios to help students apply what they've learned. Encourage questions and critical thinking about personal and public health.

Common Diseases and Their Prevention

Diseases Caused by Microbes

You should be familiar with these common diseases to help students understand how different microbes can affect our health:

1. Bacterial Diseases:

Tuberculosis

- **Transmission:** Through air by sneezing, coughing, or spitting
- **Key teaching points:** Importance of covering mouth while coughing, proper ventilation

Other common bacterial infections are diphtheria, pneumonia, pertussis, influenza, tetanus and typhoid for which vaccines are available.

2. Viral Diseases:

Viral Diarrheal Diseases

- **Transmission:** Through contaminated food and water
- **Key teaching points:** Importance of personal hygiene, safe food handling

Common Cold

- **Transmission:** Through air and close contact
- **Key teaching points:** Covering nose/mouth while sneezing, hand washing

Measles

- **Transmission:** Through air and direct contact
- **Key teaching points:** Importance of prevention through vaccination

There are vaccines available to protect against viral diseases like rotavirus (causes severe diarrhea), rubella (German measles), hepatitis (liver inflammation), Polio, Coronavirus 2019 (COVID-19 disease)

3. Fungal Diseases

Ringworm (itchy rashes)

- **Transmission:** Through direct contact
- **Key teaching points:** Personal hygiene, not sharing personal items. Note: There is no vaccine for ringworm – prevention is through good hygiene practices like keeping skin clean and dry, not sharing towels or clothing and avoiding contact with infected areas

Disease Prevention Strategies

When teaching about disease prevention, focus on these six key methods that help maintain good health, with special emphasis on hand hygiene and vaccination:

1 Hand Washing and Hygiene

Proper hand washing is fundamental to preventing disease spread. Students should learn that effective hand washing requires soap, thorough scrubbing of all parts of the hands, and at least 20 seconds of washing time.

Key times for hand washing include:

Before eating or handling food

After using the toilet

After playing outdoors

After touching pets or animals

When hands are visibly dirty

After coughing or sneezing

Guide Students Through the Common Steps of Handwashing

Wet hands with water and apply enough soap to cover all hand surfaces. Follow the below handwashing steps:*

Rub hands palm to palm

Right palm over back of left hand with interlaced fingers and then repeat with left palm over back of right hand

Palm to palm with fingers interlaced

Backs of fingers to opposing palms with fingers interlocked

Rotational rubbing of left thumb clasped in right palm and vice versa

Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa

Rinse hands with water and dry them thoroughly.

Beyond hand washing, teach students about the importance of general hygiene practices like covering mouths during coughs or sneezes, regular bathing, and keeping nails clean.

*Source: World Health Organization (WHO)

2 Healthy Eating

A balanced diet with plenty of fruits and vegetables helps strengthen our immune system. Good nutrition, combined with food hygiene practices, supports overall health and disease resistance.

3 Clean and Safe Drinking Water

Clean drinking water helps you stay hydrated and healthy. Using safe water sources and keeping water covered and clean can help prevent diseases.

4 Adequate Sleep

Regular, sufficient sleep helps our body maintain strong defences against diseases. A well-rested body is better equipped to fight off infections.

5 Physical Activity

Regular physical activity strengthens our body's ability to fight diseases. Simple daily activities like playing during breaks or helping with household chores can keep us active.

6 Vaccination

Vaccines protect children from various infectious diseases that can cause severe illness. Vaccination helps build a child's natural defences against infections. Since infants and young children have underdeveloped immune systems, they are more susceptible to diseases. Children who receive vaccinations tend to have better growth and cognitive outcomes compared to those who do not and also reduce school absenteeism.

Important Pearl: Remember that vaccines prevent an individual from getting the disease by stimulating the immunity, while medicines are drugs which are used for treatment or cure from a disease.

The Immune System

The immune system is the body's defence against the disease-causing microbes.

Types of Immunity

Innate Immunity: The body's first defence system that we are born with. It includes physical barriers like skin, germ-fighting substances in saliva, and special blood cells that quickly react to threats. This defence works the same way for all germs and is always ready to protect us.

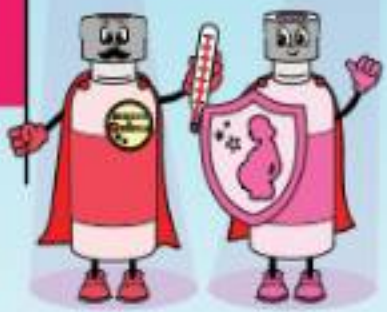
Adaptive Immunity: A defence system that grows stronger over time as we encounter different germs or receive vaccines. It learns to create specific defences against particular microbes and remembers how to fight them quickly in the future.

Vaccines work by teaching our immune system to recognize and fight specific germs without making us sick. This training helps our body build strong defences, so we can stay protected from infections without experiencing the actual illness.

Key Takeaways

- Microbes are diverse; they cause diseases and make us fall sick
- Diseases can spread through air, contaminated water, food and by contact
- Our immune system is a powerful defender against microbes
- Vaccines train our immune system to fight against specific diseases
- Good hygiene practices help prevent many illnesses

2



Diseases on the Run: Immunity and Vaccines to the Rescue!

Learning objectives

1. Understand the concept of immunity and how vaccines provide immunity
2. Explain vaccine-preventable diseases and their impact on child health

Understanding the Immune System and Vaccination

Natural Immunity and Defence

The human immune system is a complex network of cells, tissues and organs that work together to defend the body against microbes. You should understand that immunity functions through two main mechanisms. The first is innate immunity, which includes physical barriers like skin and mucous membranes, along with general responses like inflammation and fever. The second is adaptive immunity, a specialized system that learns to recognize specific pathogens and remembers them for future encounters.

When teaching about immunity, help students understand that our bodies are constantly fighting off microbes naturally. This natural defence system can learn and remember how to fight specific diseases either through natural infection, which can be dangerous, or through vaccination, which provides a safer way to develop immunity.

Vaccine Mechanism of Action

Vaccines work by introducing a weakened or killed bacteria or virus or, parts of microbes, or inactivated toxins called toxoids. This variety of approaches allows scientists to create the safest and most effective vaccine for each specific disease.

The three-step immune mechanism process can be explained as follows:

1. Vaccine enters your body with weakened or inactive microbes
2. Your immune system's white blood cells (WBCs) detect these foreign substances
3. WBCs recognize them as **antigens** that don't belong in the body
4. This triggers your body's natural defense response

1. WBCs produce special proteins called **antibodies**
2. **Antibodies** are specifically designed to fight that particular microbe
3. These **antibodies** attach to and neutralize the vaccine **antigens**
4. Your body practices fighting the microbe without getting sick

1. Some WBCs become special "**memory cells**"
2. Memory cells remember exactly what the microbe looks like
3. They stay in your body for many years or even a lifetime
4. When the real microbe attacks later, memory cells recognize it immediately
5. Your body quickly produces **antibodies** to defeat the microbes before you get sick

Understanding Vaccines and Disease Prevention

Vaccines are one of medical science's greatest achievements, saving millions of lives each year. When teaching about vaccines, it's important to first help students understand what they're protecting us against. Vaccine-preventable diseases once caused widespread illness, disability and death among children worldwide. Today, thanks to vaccination programmes, many of these diseases have become rare in most countries.

Edward Jenner: The Story of the World's First Vaccine

This vaccine helped to eradicate the smallpox virus from the world and make it free from the deadly disease.

How to Tell This Story to Students

Start by helping students imagine a time when a terrible disease called smallpox made many people very sick. This sets the scene for why Jenner's discovery was so important.

As you tell the story, focus on how Dr. Jenner noticed something interesting - the dairymaids who got mild cowpox from their cows never got the dangerous smallpox. This shows students how paying attention to what's happening around us can lead to important discoveries.

The story shows how Dr. Jenner carefully tested his idea with young James Phipps, and how this brave test led to a way to protect people from smallpox without making them seriously ill. This helps students understand that vaccines are like training for our body's defences.

What Students Should Learn

After hearing this story, students should understand:

1. Vaccines help protect us without making us seriously ill
2. Scientific discoveries often start with careful observation
3. One person's discovery can help protect millions of people
4. Vaccines are safer than getting the actual disease

Remember to connect this historical story to students' lives by explaining that this is why we get vaccines today – to stay safe from diseases without having to get sick first.

Smallpox Elimination: India's Historical Milestone Using Smallpox Vaccine

Smallpox, once a devastating disease that caused severe rashes, permanent scarring, and death in many cases, was officially eliminated from India in 1977. This was achieved through:

- Systematic vaccination campaigns reaching remote areas
- Door-to-door vaccination programmes
- Regular checking of areas for new cases and quickly stopping their spread
- Community engagement and education

Vaccine-Preventable Diseases

Tuberculosis

About the disease

- Bacterial disease
- Airborne infection transmission
- Persistent cough, weight loss, night sweats and fever

Vaccine schedule

BCG vaccine: At birth (up to one year of age, before 1st birthday)

Prevents severe forms of childhood TB, particularly TB meningitis, through a single dose

Poliomyelitis

About the disease

- Viral disease
- Enters through contaminated water or food
- Affects the nervous system
- Symptoms include fever, fatigue and headache, while severe cases can lead to permanent paralysis, usually in the limbs
- India achieved polio-free status in 2014

Vaccine schedule

Oral polio vaccine: Administered as two drops, directly into the mouth, at birth (up to 15 days), 6,10 and 14 weeks followed by booster at 16-24 months.

Inactivated polio vaccine (IPV): Administered at 6 weeks, 14 weeks and at 9 months of age.

Hepatitis B

About the disease

- Viral disease
- Causes liver damage
- Spreads through blood, body fluids, and from mother to baby

Vaccine schedule

Hepatitis B vaccine: At birth within 24 hours

Followed by **pentavalent vaccine*** at 6, 10 and 14 weeks

Diphtheria

About the disease

- Bacterial disease
- Causes thick grey throat coating and breathing difficulties.
- Symptoms include sore throat, mild fever and swollen neck glands

Vaccine schedule

Pentavalent vaccine:* At 6, 10 and 14 weeks

Followed by booster doses of **DPT vaccine** at 16-24 months and at 5 years

Pertussis

About the disease

- Bacterial disease
- Also called as whooping cough,
- Causes severe coughing spells that can last for weeks
- Dangerous for babies, who may struggle to breathe during coughing episodes

Vaccine schedule

Pentavalent vaccine:* At 6, 10 and 14 weeks

Followed by booster doses of **DPT vaccine** at 16-24 months and at 5 years

Tetanus

About the disease

- Bacterial disease
- Enters through wounds and produce a toxin causing severe muscle spasms
- Can be life-threatening, especially in newborns
- The bacteria are found in soil and animal waste.

Vaccine schedule

Pentavalent vaccine:* At 6, 10 and 14 weeks

Followed by booster doses of **DPT vaccine** at 16-24 months and at 5 years

Td vaccine: At 10 years and 16 years

For pregnant women: 2 doses of Td vaccine and one booster dose in subsequent pregnancy, if within 3 years

Haemophilus Influenzae Type B

About the disease

- Bacterial disease
- Causes meningitis, pneumonia and throat infections
- Mainly affects children under 5 years
- Spread through coughing and sneezing

Vaccine schedule

Pentavalent vaccine:* At 6, 10 and 14 weeks

Rotavirus Diarrhea

About the disease

- Viral disease
- Spreads easily through contaminated hands and surfaces cause diarrhea and severe dehydration

Vaccine schedule

Rotavirus vaccine (RVV): At 6, 10 and 14 weeks

Pneumococcal Pneumonia

About the disease

- Bacterial disease
- Causes severe pneumonia, blood infections and meningitis
- Young children are vulnerable
- Spreads through respiratory droplets
- Symptoms include fever, cough and difficulty in breathing

Vaccine schedule

Pneumococcal vaccine (PCV): At 6 weeks and at 14 and one booster dose at 9 months

Measles

About the disease

- Viral disease
- Spreads through air when infected people cough or sneeze
- Symptoms include fever, runny nose and red eyes, followed by white spots in the mouth and a red rash that starts on the face and spreads downward
- Causes serious complications including pneumonia and brain infection

Vaccine schedule

Measles rubella vaccine (MR): 1st dose at 9-11 months and 2nd dose at 16-23 months

Rubella

About the disease

- Viral disease
- Symptoms include mild fever, swollen lymph nodes, and a light red rash starting on the face.
- Affects unborn babies if pregnant women are infected causing birth defects

Vaccine schedule

Measles rubella vaccine (MR): 1st dose at 9-11 months and 2nd dose at 16-23 months

Japanese Encephalitis

About the disease

- Mosquito-borne viral infection
- Can cause brain inflamation severe cases can lead to seizures, paralysis and death
- Vaccines are given in endemic region only

Vaccine schedule

Japanese encephalitis (JE) vaccine: 1st dose at 9-11 months and 2nd dose at 16-23 months

Adult vaccination in some high endemic states only

** Pentavalent vaccine provides protection against five diseases: Diphtheria, Pertussis, Tetanus, Hepatitis B and Hemophilus influenzae type B*

Key Takeaways

- Vaccines are preventive shields of disease
- Each vaccine protects against specific diseases
- There are vaccines available for 12 vaccine-preventable diseases
- India has achieved the status of being free from smallpox and polio.

The Vaccine Adventure

Learning objectives

1. Explain key terms like vaccination, immunization, and herd immunity
2. Explain different types of vaccines
3. Discuss the role of COVID-19 vaccines in pandemic control

Key Concepts and Terms

1. Understanding Vaccination vs. Immunization

Vaccination is the act of administering a vaccine to provide protection against specific diseases. It's comparable to giving the body tools for defence. In student-friendly terms, we describe this as "giving a magic shield to your body."

Immunization is the broader process where the body develops immunity after vaccination. It includes both receiving the vaccine and the body's subsequent immune response. This is what we describe to students as "becoming strong and protected from diseases."

2. Duration of Vaccine Protection

Vaccine-induced immunity typically provides long-term protection, though the duration varies by vaccine type. Even in cases where vaccinated individuals contract the disease, they generally experience milder symptoms compared to unvaccinated individuals. This demonstrates the ongoing protective effect of vaccines even when they don't prevent infection entirely.

3. Importance of Timely Vaccination

Complete protection requires:

- Age-appropriate vaccination
- Correct number of doses
- Following the recommended immunization schedule

These factors are crucial because:

- Some vaccines require multiple doses to build adequate immunity
- Protection develops gradually over time
- Vaccines are given at specific ages based on disease risk and immune system development

4. Understanding Herd Immunity (Community Protection)

When a community has a large number of unvaccinated or undervaccinated children, it creates a pocket of low immunity. This vulnerability significantly increases the risk of disease transmission. If an outbreak occurs, such areas often experience a higher number of reported disease cases, demonstrating the direct relationship between low vaccination rates and disease spread.

Conversely, when a large number of people in a community are fully vaccinated, the chances of disease spread become very low. This high vaccination coverage creates a strong barrier against disease transmission. Even if a few cases occur, the disease finds it difficult to spread because most people have protection through vaccination. This demonstrates how community-wide vaccination not only protects individuals but also builds a shield of protection for the entire population.

Your vaccination is like holding an umbrella that protects not just you, but everyone standing with you!

This community protection works because:

- High vaccination rates create barriers to disease transmission
- Reduced disease circulation protects vulnerable individuals
- Community immunity helps protect those who could not be vaccinated

5. Complete vs. Full Immunization

- **Full immunization:** The status of a child who has received BCG, 3 doses of OPV, 3 doses of pentavalent, and 1 dose of MR by the first year of age.
- **Complete immunization:** The status of a child who has received all vaccines specified in the Universal Immunization Programme (UIP) by two years of age.

Types of Vaccines: Detailed Guide

Vaccines (Oral Drops)

These vaccines are given as drops directly into the mouth. They work by stimulating immunity in the digestive system's lining, creating a barrier against diseases that enter through this route. The weakened viruses in these vaccines multiply in the intestine, triggering an immune response similar to natural infection but without causing disease.

Key Examples:

Oral polio vaccine and rotavirus vaccine

Injectable Vaccines

These vaccines deliver their protective components directly into muscle tissue or under the skin, where specialized immune cells quickly recognize and respond to them. This route ensures reliable absorption and consistent immune response.

Examples of Injectable Vaccines:

- DPT
- Pentavalent vaccine
- PCV (Pneumococcal vaccine)
- Td (Tetanus diptheriae)
- MR (Measles Rubella vaccine)
- JE (Japanese Encephalitis vaccine)
- BCG
- IPV (Inactivated Polio Virus vaccine)

Pain Management and Student Concerns:

When explaining injectable vaccines to students:

- Acknowledge that brief discomfort is normal
- Explain that the quick pinch means the vaccine is doing its job
- Emphasize the strength and protection gained

The Three Little Pigs (Immune Ghar) Story: Teaching Guide

Story Analysis and Teaching Points

Core Message:

The story uses the familiar tale of the Three Little Pigs to illustrate three levels of disease protection through vaccination. Each pig represents a different approach to health protection:

1. Straw Pig (No Vaccination)

Teaching Points:

- Represents complete vulnerability to disease
- Shows dangers of avoiding vaccination
- Use to discuss common excuses for avoiding vaccines ("I'm young and strong!")
- "Like building a house with straw, skipping vaccines leaves you vulnerable. Just as wind can easily blow through straw, diseases can easily make you sick when you're not vaccinated."

2. Woodie Pig (Partial Vaccination)

Teaching Points:

- Illustrates incomplete protection
- Shows why completing all vaccine doses matters
- Use to explain the importance of following vaccination schedules
- "This is like getting some vaccines but missing others, or not getting booster doses. You have some protection, but there are still gaps where diseases can get through. It's like having a house with strong walls but holes in the roof."

(Continued)

(Continued)

3. Brickwall Pig (Complete Vaccination)

Teaching Points:

- Represents optimal protection through full vaccination
- Shows how strong protection benefits others
- Use to explain the concept of complete immunization
- "Complete vaccination is like a well-built brick house with strong walls, a solid roof, and secure doors. Every vaccine dose is like adding another layer of bricks, making your protection stronger."

Teaching Community Protection:

Use the story to explain how vaccination protects others:

"When Brickwall Pig shelters his friends, it shows how vaccinated people help protect others. In real life, when most people are vaccinated (like having many brick houses in a neighbourhood), it's harder for diseases to spread through the community."

Teaching About COVID-19: A Contemporary Case Study

Understanding COVID-19: A Modern Public Health Challenge

The COVID-19 pandemic presents a powerful contemporary example of how vaccines help address new disease challenges. When the SARS-CoV-2 virus emerged, it demonstrated how quickly a new pathogen could spread globally in our interconnected world. The pandemic necessitated unprecedented public health measures, including widespread mask use, social distancing, and the rapid development of new vaccines.

COVID-19 served as a real-world example of the success of vaccination programmes, which depends on:

1. Prioritization of vaccination and nationwide deployment plan with vaccination drive
2. Ensuring to address vaccine misinformation and filling the information gaps
3. Community advocacy and participation with door-to-door campaign and people participation
4. Using digital technology, i.e., Co-WIN for registration
5. Addressing the fear and myths through communication campaign

Individual and Community Benefits

The relationship between individual vaccination and community health illustrates how personal health decisions affect public welfare. When individuals get vaccinated, they protect not only themselves but also contribute to the community's disease resistance. This dual benefit of vaccination - personal and public protection - makes it a cornerstone of public health efforts.

In the context of COVID-19, this relationship became particularly clear. Communities with higher vaccination rates typically experienced lower rates of severe illness and death, demonstrating how individual vaccination decisions collectively impact community health outcomes. This real-world example helps explain why vaccination is both a personal health choice and a public health responsibility.

Answer keys from the students' manual

Match the following:

- Straw Pig — Straw house — Not vaccinated
- Woodie Pig — Wooden house — Partially vaccinated
- Brickwall Pig — Brick house — Fully vaccinated

Common Questions from Students

Q. Why do we need vaccines if we're already healthy?

A. Explain that vaccines work by preventing illness before it happens, like wearing a helmet while riding a bicycle.

Q. Why do some vaccines need multiple doses?

A. Compare it to learning a new skill – sometimes we need practice to get better at something. It's like how superheroes need regular training to stay strong and defeat their enemies.

Q. Can vaccines make us sick?

A. No, vaccines are designed to protect us, not make us sick. Sometimes mild symptoms like fever or body pain may occur, which actually show that our body is learning to fight the disease. These mild reactions are normal signs that the vaccine is working.

Key Takeaways

- Full immunization is when children get all recommended vaccines till one year of age, while complete immunization is referred to when a child gets all recommended vaccines till 2 years of age.
- Vaccines have to be taken in recommended doses, at defined intervals in a timely manner.
- Vaccines also help to build herd immunity (community immunity).

India's Shield of Health: Our Vaccination Victory

Learning objectives

1. Explain the structure and significance of India's Universal Immunization Programme
2. Discuss India's vaccination milestones and achievements in disease control
3. Guide students in understanding and following the national immunization schedule
4. Teach the importance of Mother and Child Protection (MCP) cards

Universal Immunization Programme (UIP): Comprehensive Overview

One of the largest public health programmes

Annual target
~2.6 crore newborns;
~2.9 crore pregnant women

Vaccine against VPDs
11 nation wide;
1 sub-nationally (JE)*

Sessions planned per year
~1.3 crore

Cold chain points
~30,000 for storage and distribution of vaccines

* JE vaccine is provided in select endemic districts.

Vaccine Delivery System

The UIP ensures that vaccines reach people through three main ways:

1. **Fixed-site Vaccination:** Regular vaccination is available at government health centres and hospitals. These places have proper vaccine storage and trained staff. You can get vaccines at primary health centres, government hospitals, and approved private hospitals.

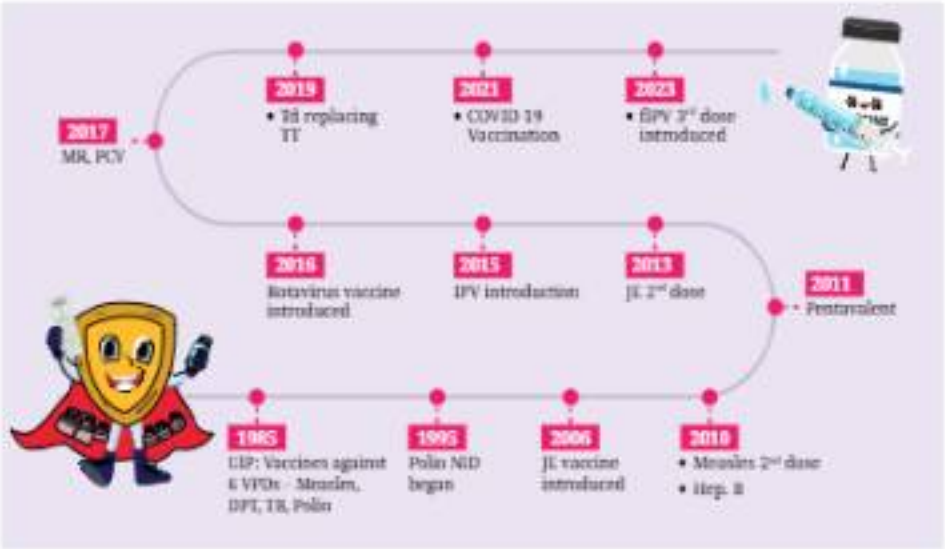
2. **Outreach Services:** For people living far from health centres, vaccination teams come to nearby places like Anganwadi centres, schools and panchayat offices. The teams bring vaccines in special containers that maintain proper temperature for several hours.

3. **Special Drives:** Periodic vaccination campaigns are organized to reach more people, especially in high-risk areas or populations with low vaccination coverage. E.g., Pulse Polio, Measles Rubella Vaccination Campaign, Intensified Mission Indradhanush Campaign, COVID-19 vaccination drives.

Remember: all vaccines at fixed and outreach session sites at any Government health facility or centres are provided free of cost.

India's Vaccination Achievements: Historical Perspective and Milestones

Evolution of India's Vaccination Programme (1985 onwards)



Polio-Free Status (2014)

India's journey to becoming polio-free demonstrates the power of persistent vaccination efforts:

- National Immunization Days (NID) of Pulse Polio reaching millions of children
- House-to-house vaccination drives
- Engagement of community leaders and health workers
- Strategic placement of vaccination booths in high-risk areas
- Interdepartmental coordination of MoHFW with other departments like Education department and Integrated Child Development Services Scheme (ICDS)
- Strong political will and commitment

Government Flagship Programmes

Mission Indradhanush

Launch and Goal

- Launched in 2014 to increase immunization coverage
- Aimed at reaching children previously missed by routine immunization programmes
- Focus on ensuring every child receives life-saving vaccines

(Continued)

Evolution to Intensified Mission Indradhanush (IMI)

- IMI launched in 2017 for enhanced reach
- Target: Reaching every child up to 5 years of age
- Recent rounds focused on improving measles and rubella vaccination coverage

Key Impact

- Bridged immunization gaps across India
- Reached children in remote and underserved areas
- Strengthened India's Universal Immunization Programme

Digitalization of immunization (U-WIN)

Programme Overview

- U-WIN stands for "Winning with Universal Immunization Programme"
- Digital platform for India's Universal Immunization Programme
- Inspired by successful Co-WIN platform used during COVID-19 vaccination

Launch and Features

- Launched in 2024
- Revolutionizes vaccination record-keeping and access
- Provides real-time tracking of immunization status

Key Benefits for Families

- Parents can register online for vaccination
- Book vaccination appointments from home
- Walk-in option available at any vaccination centre across India
- Digital vaccination certificates generated automatically
- Easy access to vaccination records anytime, anywhere

Technology Integration

- Every UIP vaccination is digitally recorded
- Records easily accessible regardless of location
- Convenient for families to maintain immunization schedules
- Ensures no child is left behind in vaccination coverage

Mother and Child Protection (MCP) Card: A Comprehensive Health Tool

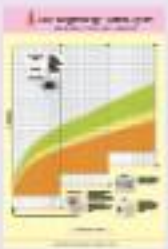
The MCP card is more than a simple vaccination record for both pregnant women and her child. It also serves as a comprehensive health monitoring tool that tracks a child's growth and development from birth through early childhood. Designed to be both informative and accessible, the card comes in regional languages, ensuring parents across India can understand and utilize this crucial health document.

Structure and Components of the MCP Card

The MCP card is designed to be user-friendly while containing crucial information:

The **identification section** includes the child's name, parents' details, and contact information

The **immunization schedule** clearly lists all vaccines with their due dates



Growth monitoring charts help track physical development

Milestone markers indicate expected developmental progress

Health advice sections provide guidance on nutrition and care

Practical Usage of MCP Card /U-win

The MCP card, which is now used in the digital platform U-win, needs to stay updated. Health workers update this on each vaccination visit. Maintaining the updated vaccination card/U-win generated card helps ensure no vaccines are missed.

Guiding the MCP Card or Vaccination Card Activity

When introducing the activity to students, explain:

"Today we'll explore your health journey using your MCP or vaccination card. This special activity will help you understand which vaccines have kept you healthy and which ones you'll need in the future. You'll need your MCP card and colored pencils."

"There might be other vaccination cards in place of MCP card, which has mention of vaccines received by you. You can use it for this activity. If you have received any additional vaccines from private doctors or hospitals, you can write these in the empty rows provided in the chart."

"Take this chart home and work with your parents. Together, look at your MCP card and match each vaccine entry to our chart. For every vaccine you've received, draw a bright star. Leave spaces blank for vaccines you haven't received yet."

"If your family can't find your MCP card, they can check with your local health centre. Also, for any vaccines received after October 29, 2024, you can check your U-WIN digital certificate. You're welcome to bring your U-WIN certificate to class to share with everyone."

"When filling the Health Passport, read each vaccine name carefully. Ask your parents about when you received it. Color a star for completed vaccines. Then discuss when you might need your next vaccine."

Remember, your chart helps track your journey to staying healthy through vaccination. Bring any questions back to class – we'll discuss what you've learned together."

National Immunization Schedule: Current Framework

India's national immunization schedule is carefully designed to provide optimal protection at the most appropriate ages.

Birth to One Year

At Birth:
- BCG (Bacillus Calmette–Guérin) for tuberculosis protection
- OPV-0 (Oral Polio Vaccine)
- Hepatitis B Birth dose

6 Weeks:
- Pentavalent (Diphtheria, Pertussis, Tetanus, Hepatitis B, Hemophilus influenzae type B) 1st dose
- OPV 1st dose
- IPV 1st dose
- Rotavirus vaccine 1st dose
- Pneumococcal conjugate vaccine 1st dose

10 Weeks:
- OPV 2nd dose
- Pentavalent 2nd dose
- Rotavirus vaccine 2nd dose

14 Weeks:
- Pentavalent (Diphtheria, Pertussis, Tetanus, Hepatitis B, Hemophilus influenzae type B) 3rd dose
- OPV 3rd dose
- IPV 2nd dose
- Rotavirus vaccine 3rd dose
- Pneumococcal conjugate vaccine 2nd dose

9–11 Months:
- Measles Rubella (MR) vaccine 1st dose
- PCV booster
- IPV 3rd dose
- JE vaccine 1st dose (selected areas only where disease burden is high)

Beyond First Year

16–23 Months:
- 1st booster dose of DPT
- Booster dose of OPV
- Measles, Rubella (MR) vaccine 2nd dose
- JE vaccine 2nd dose (selected areas only where disease burden is high)

5–6 Years:
- DPT 2nd booster

10 Years:
- Td vaccine

16 Years:
- Td vaccine

It is important for children and their parents to know that they must visit the health centre 7 times by the child's fifth birthday for vaccination as per the National Immunization Schedule (NIS) of UIP.

FOR PREGNANT WOMEN: Td vaccine has to be given, two doses at an interval of one month. It helps to protect both mother and child.

Special Considerations

Catch-up Vaccination: For children who miss vaccines at recommended ages, the schedule provides guidelines for catch-up vaccination. This ensures children can still receive protection even if they start late or fall behind.

Regional Variations: Some vaccines are specifically recommended for certain regions based on disease prevalence. For example, Japanese Encephalitis vaccine is included in the schedule for endemic areas.

How Vaccines are Introduced in UIP and How is This Immunization Schedule Decided?

The decision to introduce and include any vaccine in UIP is guided by experts and a technical group called National Technical Advisory Group on Immunization (NTAGI) in our country. Various pieces of evidence are studied and discussed before any decision. It is also based on disease transmission and geography of the area.

Common Questions from Students

Q. Can children get multiple vaccines at once?

A. Yes! It's completely safe to get more than one vaccine at the same time. It has no adverse effect. Vaccines are given at a particular age and one should follow the schedule.

Q. Why do we need booster doses of vaccines?

A. Some vaccines' protection becomes weaker over time. Booster doses make this protection strong again (boosts the immunity to an optimum level) and enhances initial immune response. Think of it like recharging a battery to keep it working well.

Q. What should we do if there's any health issue after vaccination?

A. Vaccines are safe, but sometimes they can cause mild discomfort. This is normal. If you're worried about any reaction, whether small or big, tell your ASHA or ANM didi, or visit the nearest government health centre. Don't wait if the discomfort doesn't go away.

Key Takeaways

- India's Universal Immunization Programme is a global success
- Under the UIP, we have 11 vaccines for 12 vaccine-preventable diseases during childhood and Td vaccine for pregnant women.
- MCP card and U-WIN helps track the pregnant women andchildren'simmunization status

Special Missions and Campaigns: Vaccines for Extraordinary Times

Learning objectives

1. Explain pandemic concepts and vaccine's role in disease control
2. Describe situations requiring special immunizations

Understanding Epidemics and Pandemics

Basic Concepts

The distinction between outbreak, epidemic, and pandemic is crucial for understanding disease spread and control measures.

- An **outbreak** occurs when a disease appears in a specified area in excess of what is expected over a given time period - like more dengue cases than usual in one neighbourhood.

- An **epidemic** happens when this outbreak grows and affects many people within a larger geographical area, such as when the disease spreads across a city or state. It represents a sudden increase in cases beyond what's normally expected in that population.

- A **pandemic**, by contrast, occurs when an epidemic spreads across multiple countries or continents, affecting large populations globally. So the progression goes from a localized outbreak, to a wider epidemic, and potentially to a global pandemic if the disease continues to spread.

COVID-19: A Case Study in Emergency Response

India's Vaccination Response

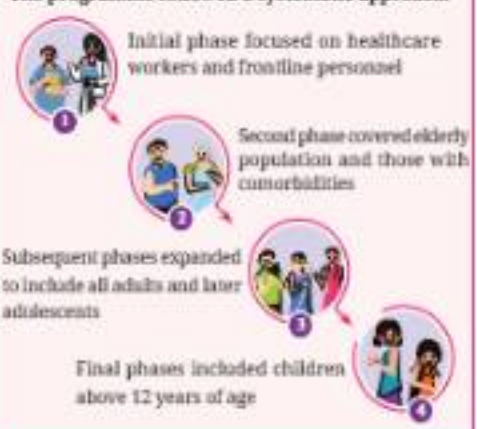
India's COVID-19 vaccination programme represents one of the largest immunization drives in history. The programme demonstrated several key aspects of emergency vaccination response:

Vaccine Development and Production:

Development of vaccines showcases India's scientific capacity. India is the major exporter of the vaccine for the world. The vaccine development process during COVID-19 maintained safety standards while achieving unprecedented speed.

Vaccination Implementation:

The programme followed a systematic approach:



Immunization: Campaigns

Vaccination Campaigns

Pulse Polio Programme

The rationale for the Pulse Polio Campaign, initiated by the Government of India, centred around the goal of eradicating poliomyelitis (polio) through widespread immunization. This initiative has been launched since 1995 and aims to vaccinate all children under five years of age against the polio virus to prevent outbreaks and transmission of the disease. During this campaign, door-to-door outreach and polio booths are set up and children are given 2 drops of the Oral Polio Virus vaccine (OPV).

To prevent resurgence of polio in India, it's crucial to continue vaccination efforts in UIP, especially since India was declared polio-free in 2014.

Measles Rubella Vaccination Campaign

The Measles-Rubella Vaccination Campaign in India is aimed at eliminating measles and controlling rubella through widespread immunization. This campaign targets children from 9 months to under 15 years of age with an additional dose of MR vaccine. This is being delivered by organizing camps in the school and community. India is striving to achieve a 95% coverage of MR vaccination to achieve elimination of measles.

Human Papillomavirus Vaccine

Human Papilloma Virus (HPV):

- HPV can cause cervical cancer and other types of cancers
- Spreads through close personal contact
- Often has no immediate symptoms

About the Vaccine:

- Recommended for adolescents before exposure
- Prevents from cervical cancer and some other types of cancer
- Most effective when given at recommended age

Key Takeaways

- Special situations need special protection
- Vaccines help people of all ages
- Vaccines given to children during campaigns are additional doses and are required to be taken to reduce transmission of disease
- Being prepared helps keep everyone safe

6 Empowering Students as Vaccination Messengers

Learning objectives

1. Build capacity of students in identifying and countering common vaccine misconceptions
2. Teach effective methods for sharing accurate vaccine information
3. Develop student leadership in becoming a Vaccination Messenger

Understanding and Addressing Vaccine Myths Through Stories

Story: Three Curious Pigs

In the earlier story of the Three Little Pigs, we saw how vaccines keep everyone safe. In this comic, the same pigs learn the facts about vaccination from a trusted health worker.

Ask questions. Learn the facts. | Complete vaccination protects everyone. | Be a Vaccination Messenger

Natural Immunity After Disease Infection vs. Vaccine-Induced Immunity

The misconception about natural immunity developed after getting the disease being superior needs careful explanation. While getting infected does provide immunity, the disease it causes carries serious risks:

- Potential severe complications like delayed complications, hospitalizations
- Risk of spread to vulnerable groups like newborns, children, pregnant women
- Unnecessary suffering with increased costs of treatment
- Possible long-term health effects

Vaccines provide protection without these risks, using weakened or killed microbes that cannot cause disease but still teach the immune system to respond effectively.

Addressing Side Effect Concerns

The story addresses vaccine side effects by:

- Acknowledging that mild reactions like fever, pain and redness at injection site are common and usually get resolved within 1 to 3 days
- Explaining why these reactions occur and advising to contact the health care worker or visit the nearest government health facility in case of concern or if it does not self limit

Verifying Vaccine Information

In today's world of social media and instant messaging, false information can spread quickly. Students learn why doctors and health organizations are trustworthy sources – they have scientific training, access to research, and follow established medical guidelines. This helps students understand the importance of verifying health information with qualified professionals rather than relying on unverified sources.

Activity

Neighbourhood Health Reporter

This activity helps prepare students to become a vaccination messenger in the community. By talking to different groups of people in their neighbourhood, students will gain insights into various aspects of community health awareness, vaccination attitudes, and information dissemination. In this activity we assign students specific tasks to meet and discuss about vaccination with family members, friends and classmates, and neighbours.

1. Family Member

The questions for family members focus on record-keeping and positive attitudes towards vaccination.

- **"Have you kept the vaccination cards/MCP cards for everyone in our family?"**
  This helps students understand the importance of maintaining health records.
- **"What do you think are the best things about getting vaccinated?"**
  This encourages students to explore the benefits of vaccination from their family's perspective.

2. Friends and Classmates

These questions address healthcare accessibility and concerns about vaccination.

- **"Where can you get the vaccines?"**
  This checks if friends and classmates know about the available vaccination centres in their area.
- **"Have you received your vaccination shots?"**
  This helps understand if friends and classmates have received their age-appropriate vaccines.

3. Neighbours

These questions focus on information dissemination and about vaccination camps and their children's vaccination statuses.

- **"Do you know where to go for your child's vaccination in your area?"**
  This helps understand if neighbours are aware of local vaccination activities and schedules.
- **"What do you think are the benefits of vaccines?"**
  This reveals neighbours' understanding of how vaccines protect health and prevent diseases.
- **"Do you have any children aged above 5 years? How many of them are vaccinated with the DPT booster?"**
  This assesses neighbours' knowledge about their children's vaccination status, particularly regarding the DPT booster for children aged above 5 years.

How to track students' progress: As students complete the interview with each category of people, encourage them to stick bindis on the empty boxes above the table. If they cannot find bindis, they can even color the empty boxes. This interview completion tracker shows their work as a health reporter!

By engaging with these diverse groups, students will gain a comprehensive understanding of vaccination awareness, attitudes, and information flow within their community. They'll learn about record-keeping practices, perceptions of vaccine benefits, access to healthcare facilities, common concerns or misconceptions, information needs, and the role of community members in health promotion. This activity will help students appreciate the complex factors that influence community health and vaccination rates.

Students' role as Vaccination Messengers

As Vaccination Messengers, students' role is to promote vaccination awareness in their homes, schools and communities. By engaging in various actions across these three environments, students will develop a comprehensive understanding of vaccine advocacy and community health support.

1. At Home

In the home environment, students learn to be family health advocates:

- They assist in organizing and keeping family vaccination cards safely, making their family members aware of the importance of health record-keeping.
- Reminding family members about upcoming vaccination dates helps them understand the importance of timely vaccinations.
- Sharing their vaccine knowledge during family time encourages open discussions about health.

2. At School

In the school setting, students become peer supporters and information resources:

- By supporting friends who are nervous about vaccines, students develop empathy and learn to provide emotional support.
- Sharing correct vaccine information with classmates helps students practice fact-checking and information dissemination.
- Discussing with teachers regarding vaccine rumours helps them to be vigilant against misinformation
- Creating "I Got Vaccinated!" badges allow students to positively reinforce vaccination.
- Ensuring inclusion in health activities teaching other students about vaccination importance and awareness on where they can get their vaccination from
- Creating colorful vaccination calendars helps students visualize and track important health events.

3. In the Community

As messengers in the community, students extend their impact beyond home and school:

- Assisting neighbours in locating vaccination centres will help them in community service and healthcare access.
- Sharing vaccination camp dates through small groups or "tollies" helps spread community-wide health information.
- Sharing personal positive vaccination experiences with neighbours and friends in the community helps students become authentic health advocates.
- Asking caregivers of young children about their vaccination status helps students understand the importance of community health monitoring and follow-up care.

By engaging in these activities across different environments, students will:

1. Develop a sense of responsibility for community health.
2. Learn to communicate health information effectively to different audiences.
3. Understand the importance of accurate information and fact-checking.
4. Recognize the role of emotional support in healthcare.
5. Appreciate the importance of inclusivity in health initiatives.
6. Gain practical skills in organizing health information and events.

You should encourage students to adapt these actions to their specific contexts and to reflect on their experiences regularly.

Key Takeaways

- As Vaccination Messengers students spread accurate information at home, school, and in the community
- Vaccination records and timely shots are crucial for family health
- Everyone deserves to have access to vaccine information and services

7 Promoting Vaccine Confidence: Effective Communication Strategies and Educational Initiatives

Learning objectives

1. Understand what is vaccine hesitancy and causes of vaccine avoidance behaviour.
2. Learn effective communication techniques to address vaccine concerns.
3. Develop strategies to promote vaccine confidence in educational settings.

Understanding Vaccine Hesitancy

When addressing vaccine concerns in your classroom, it is crucial to understand what is vaccine hesitancy and why people hesitate to vaccinate. Vaccine hesitancy refers to delay in acceptance or refusal of safe vaccines despite availability of vaccination services. It usually stems from multiple factors working together.

Causes of Hesitancy

1. Misinformation:

The spread of false information has increased dramatically with social media. People encounter misleading stories about:

- **Harmful ingredients in vaccines**
  (Fact: All ingredients are tested, safe and publicly listed)
- **Hidden agendas like financial gain of pharmaceutical companies**
  (Fact: India's UIP provides free vaccines for public health, not profit)
- **Exaggerated or false stories about Adverse Events Following Immunization (AEFI)**
  (Fact: Serious side effects are extremely rare; prevented diseases are far more dangerous)

These are all myths. Understanding these myths helps you address them effectively when students bring them up from home discussions.

2. Trust Issues:

Lack of trust in health authorities often stems from:

- Fear of adverse event
- Negative personal experiences with healthcare
- Media coverage of pharmaceutical industry problems

3. Religious and Cultural Beliefs:

Some communities have specific concerns about:

- Vaccine ingredients conflicting with religious dietary laws
- Traditional medicine preferences
- Cultural beliefs about disease and immunity

Approach these sensitively, focusing on how vaccines work with, not against, cultural practices.

4. Complacency:

When diseases become rare due to successful vaccination programmes, people may:

- Forget how serious these diseases can be
- Think vaccines are no longer necessary
- Underestimate infection risks

Effective Communication Techniques

1. Active Listening Skills

When students or parents express vaccine concerns, practice:

- Giving full attention without interrupting
- Using encouraging phrases like "Tell me more about that"
- Noting both words and emotions being expressed
- Reflecting back what you've heard: "It sounds like you're worried about..."

This builds trust and helps you understand the real concerns behind questions.

2. Clear Information Sharing

When explaining vaccines:

- Start with basic concepts students already know
- Build up to more complex ideas gradually
- Use consistent, simple language
- Check understanding frequently

Example Progression:

"You know how wearing a helmet protects your head while cycling? Vaccines protect your body from specific diseases. Just like you wear different protective gear for different sports, different vaccines protect against different diseases."

3. Addressing Specific Concerns

Common Concern Examples and Responses:

Fear of Needles:

- Acknowledge the fear as normal
- Explain that momentary discomfort prevents serious illness
- Share coping strategies (deep breathing, distraction techniques)
- Focus on the protection gained

Vaccines are Safe:

Mention that vaccines are safe and effective. Before any vaccine is introduced in the programme, it goes through careful testing and research. Expert groups thoroughly review all safety data and approve the vaccine only after ensuring it meets all quality standards. Vaccines are introduced into the country's immunization programme only after this complete assessment and approval process.

Strategies to Promote Vaccine Confidence: Educational Setting Initiatives

1 Creating a Supportive Classroom Environment

Physical Environment:

- Create and display age-appropriate health posters related to vaccination, immunization schedule, prevention of vaccine-preventable diseases
- Create a "Health Heroes" wall featuring scientists and doctors who have contributed in the field of vaccination and immunization.
- Maintain a health information corner with reliable resources

Learning Environment:

- Encourage questions about health and science
- Celebrate when students share accurate health information
- Create a safe space for expressing health concerns

2 Integrating with Other Class Activities

Here are some suggestions for how Science/EVS/Physical Education subjects in school can incorporate the topic of vaccination and promote the message of becoming Vaccination Messengers:

- Study how the immune system works using models
- Conduct simple experiments demonstrating microbe spread
- Hold debates on vaccine benefits and the implications of not getting vaccinated
- Create science projects related to vaccine and immunity
- Conduct poster/drawing competitions for creating awareness materials on vaccination

3 Engaging Parents

- Invite health workers to give talks during annual functions, science exhibitions or any other activities
- Host family health education events
- Connect with local health department and support them for vaccination awareness events
- Share positive vaccination experiences when appropriate
- Promote a culture of community health and responsibility

4 Collaborating with School Health Services

- Support and facilitate school-based vaccination programmes
- Help disseminate accurate vaccination information to families

Myth-Busting Role-Play Exercise

Objective: To practice addressing common vaccine misconceptions in a realistic, interactive setting in order to build teacher confidence and effectiveness in discussing this important topic with students and parents.

Preparation:

- Set aside dedicated time for this exercise, such as during a professional development day or regular staff meeting.
- Gather reliable vaccine information resources to have on hand, e.g., MoHFW website, local health department websites.

MYTH	FACT
Vaccines cause infertility	Studies have shown that there is no link or association found between vaccines and infertility. Vaccines do not affect fertility in boys or girls. Millions of vaccinated people around the world have healthy children.
Natural immunity after disease is better than vaccine-acquired immunity	Natural immunity may develop after an infection but the disease itself may pose risks like increased severity, hospitalizations, complications etc. The immunity acquired by vaccines prevents from getting the disease or serious form of the disease and therefore also reduces these risks.
Vaccines aren't necessary for rare diseases	No, vaccines are still to be taken even though some diseases are less common now. The bacteria and virus are still in circulation in some geographical locations and therefore taking vaccination will provide immunity to self and community and hence, will prevent the transmission.
Vaccines contain toxic ingredients	No. The ingredients in the labels of vaccines are very safe. Additionally, vaccines are tested and go through rigorous scientific trials as well as certification processes with WHO and national regulatory agencies to ensure that they are safe and effective.
Too many vaccines overwhelm a child's immune system	No, multiple vaccines do not cause any adverse events. Rather giving vaccines to children as per schedule builds the immunity of the child and provides long term protection. Also, giving all vaccines at same time as per the schedule saves time travel.

Exercise Steps:

1. Use the above common vaccine myths to focus on at the session.
2. For each selected myth:
   a. Take turns playing the role of a concerned parent or student presenting the myth to the teacher. Make an effort to present the concern realistically and even emotionally as a parent might.
   b. The other person responds as the teacher, aiming to address the concern effectively.
   c. In the teacher role, remember to:
      - Acknowledge the concern respectfully without judgment
      - Provide accurate, evidence-based information to debunk the myth
      - Use simple, clear language that a layperson can understand
      - Offer reliable sources for further reading on the topic
      - Emphasize that you understand their worries as a parent and that safety is the top priority
   d. Allow the "parent" to ask follow-up questions, engaging in a back-and-forth dialogue as would happen in real life.
3. After each role-play exchange, take a few minutes to reflect together on:
   - What worked well in the teacher's explanation?
   - Were any aspects particularly challenging to explain?
4. Repeat this exercise regularly, perhaps weekly or monthly. Frequent practice will help build your confidence and keep your knowledge fresh. Regularly review your notes and fact sheets as well.
5. Adapt the exercise to include new myths as they emerge. Vaccine misconceptions constantly evolve, so stay up-to-date and incorporate new scenarios into your role-plays.

By practicing these sometimes challenging vaccine conversations in a low-pressure environment, teachers can build the communication skills to effectively address misconceptions, ease concerns, and encourage evidence-based vaccine decision-making. Regularly engaging in this myth-busting exercise as a school staff can better prepare you for real-world discussions with parents and students.

Over time, this practice may help your school build a culture of open, honest and scientifically-grounded dialogue around vaccines. Consider sharing this exercise with teacher colleagues at other schools as well to spread this important skill-building practice.

Key Takeaways

- Understanding vaccine hesitancy is crucial for addressing concerns effectively
- Active listening and clear communication build trust and promote vaccine acceptance
- Integrating vaccine education across subjects reinforces health messages

8

My Role as a Vaccination Ambassador

Learning objectives

By the end of this chapter, teachers should be able to:

1. Facilitate collaboration between schools, health services and community.
2. Learn the role of teachers as Vaccination Ambassadors.

As educators, your influence extends beyond the classroom walls. As teachers you are trusted and have influence within the community. You act as role models for students and parents and therefore you can facilitate community partnerships and play a pivotal role in improving vaccination coverage in the community. There are times when school is encouraged for health promotion activities, by school or by government.

Key Roles of Teachers as Vaccination Ambassadors

1. Knowledge Dissemination to Children and Other Staff at School

- Impart accurate and age-appropriate information about vaccines, its benefits, and the importance of immunization.
- Help in addressing myths and misconceptions, addressing concerns and doubts that may arise.

2. Community Engagement:

- You can help in organizing awareness campaigns, workshops, and seminars for parents and community members.
- You can collaborate with health care providers, RWAs, Panchayats, and elected representatives to facilitate vaccination drives in schools and community.

3. Parental Counselling:

- Utilize Parent-Teacher Meetings (PTMs) to discuss the importance of timely vaccination and address parental concerns about vaccines.
- You can counsel parents on the importance of timely vaccination, address their queries and concerns.
- Provide information on the vaccination schedule and the benefits of complete immunization.

4. Role Modeling:

- By getting yourself and your children (or other family members) vaccinated, you will set a positive example for your students and the community.
- Share your personal experiences with vaccination, highlighting the benefits and safety.

5. Monitoring and Follow-up:

- You can monitor the vaccination status of your students and encourage those who are overdue for immunization.
- You can follow up with parents to ensure that their children receive all necessary vaccinations.

Collaboration between School and Health Services

Here are some initiatives to promote health education in schools:

- Organizing health awareness events and vaccination drives.
- Coordination with Health Sector:
  - Local health departments
  - Hospitals and clinics
  - Private healthcare providers
  - ASHA workers and ANMs (Auxiliary Nurse Midwives)

Why are schools engaged for this?

- Easy to reach out to target population
- Effective way of engaging with community
- Ample opportunity to convey the right message to beneficiaries

Examples of school vaccination campaign include: MR Catchup campaign, polio rounds.

Measles and Rubella are highly contagious diseases that cause significant morbidity, but they can be prevented with a two doses of MR vaccine. In 2017, the Government of India launched the Measles-Rubella (MR) elimination campaign through a school-led initiative. Schools played a crucial role by hosting vaccination sessions during school hours, minimizing absenteeism and ensuring high participation rates. This strategy, implemented across many states in India, led to a significant reduction in measles cases and contributed to building community immunity against both measles and rubella.

Collaboration between School and Community Organizations

Lessons from Polio Eradication

During India's polio eradication campaign, schools played a vital role. Students were engaged as advocates for polio vaccination, encouraging their families to participate in vaccination drives. This peer influence was effective in reaching hesitant parents. Teachers received training on the importance of polio vaccination, enabling them to communicate effectively with parents and dispel vaccine myths. This created a supportive environment for vaccination campaigns within schools.

School teachers were instrumental in social mobilization through school activities and involving children as "bulawa tollies". These tollies or children's brigades used to encourage participation of community in polio vaccination campaigns. Doctors, as trusted sources, helped overcome family resistance to vaccination, especially when children were ill.

Lessons from COVID-19 Pandemic

During the COVID-19 vaccination drive, under the 'Har Ghar Dastak' initiative, teachers collaborated with local health authorities on door-to-door campaigns. They provided educational outreach about COVID-19 vaccinations, playing a key role in mobilizing communities and ensuring families understood the importance of vaccination. Teachers organized special sessions in schools where health workers provided information about the COVID-19 vaccine, addressing common myths and concerns directly with students and their families.

Leveraging Community Outreach Programmes

Effective outreach programmes are key to raising vaccination awareness. Here's how you can contribute:

1. Participating in Vaccination Awareness Events:

- Choose accessible venues (e.g., school grounds, community halls)
- Consider timing (after work hours, weekends for working parents or during parent teacher meeting)
- Collaborate with ANM/ASHA workers to support their activities in the community for spreading vaccination awareness.

2. Designing Educational Materials:

- Create visually appealing posters and brochures in local languages. Use simple language and infographics to explain vaccine benefits and address common concerns.

3. Leveraging Technology:

- Use WhatsApp groups for information dissemination
- Create short educational videos for social media platforms
- Share knowledge on U-WIN registration for getting vaccination appointments

Leveraging Digital Resources: The U-WIN Portal

The U-WIN portal is an electronic registry of immunization records. It provides the single source of information for immunization services, which will record pregnancy details and outcome, newborn registration and immunization at birth.

Self-Registration:

- **Pregnant Women:** Register once on the U-WIN platform using your mobile number.
- **New Child Registrations:** Can be done under the parent's account.
- **Walk-in Registration:** Available at vaccination centres.

Finding Vaccination Centres:

Search for nearby centres using state and district filters.

Scheduling Appointments:

- Book appointments for desired vaccination sessions and centres.
- All vaccines are available at every session.

Digital Vaccination Records:

- Each dose is administered to a verified individual.
- Digital records are created for pregnant women and children in real-time.

Digital Acknowledgement:

- Receive digital acknowledgment and e-Vaccination certificates after each dose.
- Download and save certificates for future reference.

(Continued)

Notifications and Reminders:

Get SMS notifications and reminders about upcoming vaccinations.

Ensuring Dose Intervals:

Adherence will be further strengthened with a minimum dose interval between two doses through the U-WIN system.

Nationwide Vaccination Access:

Digitalization enables vaccination services across the country at scheduled sessions.

Overcoming Common Challenges

- Engage respected community leaders to advocate for vaccination
- Address concerns through open dialogues and Q&A sessions
- Collaborate with local health department

What you can do: Identify a specific challenge in your community's vaccination efforts. Brainstorm potential solutions and partners who could help address this challenge.

Your Efforts: Achievement of India's Successful Vaccination Programme

By promoting awareness and addressing concerns, you can significantly contribute to increasing vaccination rates of our country, thereby helping in reducing disease burden of vaccine preventable diseases.

By engaging with the community, as an ambassador of health you can foster a culture of health and well-being.

Key Takeaways

- Teachers act as role models for students and parents and therefore are important in creating awareness about vaccination importance to the community.
- Facilitate strong collaborations between schools, health services and community members and can facilitate increasing coverage of vaccination

Post-Assessment Questionnaire

Dear Teacher,

Please complete this questionnaire after completing the manual. Choose the most appropriate answer for each question.

1. Which of the following best describes the difference between vaccination and immunization?
   a) They are exactly the same thing
   b) Vaccination is the act of giving a vaccine, while immunization is the process of becoming immune to a disease
   c) Immunization is only through natural infection
   d) Vaccination only refers to injectable vaccines
2. What is meant by "herd immunity"?
   a) Immunity that animals develop naturally
   b) Protection from disease when a large portion of the population is vaccinated
   c) Immunity developed after getting infected
   d) Protection only for children
3. How many vaccine-preventable diseases are covered under India's Universal Immunization Programme (UIP)?
   a) 8
   b) 10
   c) 12
   d) 14
4. How many times should a child visit a health centre for vaccination by their fifth birthday as per the National Immunization Schedule?
   a) 5 times
   b) 6 times
   c) 7 times
   d) 8 times
5. Which diseases has India successfully eliminated through vaccination? (Select all that apply)
   a) Smallpox
   b) Polio
   c) Measles
   d) Japanese Encephalitis
6. When should the birth dose of BCG vaccine be given?
   a) At 6 weeks
   b) At birth
   c) At 9 months
   d) At 16-24 months
7. True or False? Vaccines prevent a disease while medicines cure a disease.
   a) True
   b) False
8. True or False? Multiple vaccines given together can overwhelm a child's immune system.
   a) True
   b) False
9. Which digital platform is used for tracking immunization in India?
   a) Routine Immunization
   b) U-WIN
   c) eVIN
   d) mHealth
10. As a Vaccination Ambassador, what are your key responsibilities? (Select all that apply)
    a) Administering vaccines
    b) Sharing accurate vaccine information
    c) Addressing misconceptions
    d) Maintaining vaccine cold chain
    e) Collaborating with health workers

Answer Keys to Knowledge Check 1 (page 11 of Students' Manual)

1. **Match the following diseases with the microbes that they spread through:**
   a) COVID-19 – Virus
   b) Tuberculosis – Bacteria
   c) Poliomyelitis – Virus
   d) Measles – Virus
   e) Ringworm – Fungi
2. **Fill in the blanks:**
   a) contact
   b) unsafe; unhygienic
   c) 1. Washing our hands and maintaining hygiene
   2. Eating healthy foods
   3. Drinking safe water
   4. Getting enough sleep
   5. Staying active
   6. Getting vaccinated
3. **True or false:**
   a) False
   b) True
   c) True
   d) True
4. **Match each vaccine with the diseases it prevents:**
   a) OPV vaccine – Poliomyelitis
   b) MR vaccine – Measles
   c) Rotavirus vaccine – Diarrhoea
   d) BCG vaccine – Tuberculosis
   e) PCV vaccine – Pneumococcal pneumonia
5. **Fill in the blanks:**
   Immunization
6. **Match the following:**
   a) Bacteria – Present in intestines and helps to digest food
   b) Virus – Smaller than bacteria and causes flu
   c) Vaccine – Trains body's defence system
   d) Immunity – Body's protection against disease

Answer Keys to Knowledge Check 2 (page 19 of Students' Manual)

1. **Match the following:**
   a) MCP card – Records vaccination history
   b) Campaign – Large-scale vaccination effort
   c) Polio drops – Helps during disease outbreaks
   d) U-WIN – Digital vaccination platform
2. **Fill in the blanks:**
   a) smallpox; polio
   b) 11 (eleven)
   c) 7 (seven)
   d) Herd
3. **Tick all correct places I can get my vaccines:**
   a), b), c) and d) are all correct answers
4. **Tick all correct answers: A Vaccine Messenger should:**
   a), b) and c) are correct answers
5. **True or false:**
   a) True
   b) False
   c) True
   d) False (OPV is given as oral drops, while DPT vaccine is given as an injection)
6. **Match the following:**
   a) COVID-19 vaccine – Prevents severe COVID-19 disease
   b) Do Boond Zindagi Ke – Polio campaign
   c) MR vaccine – Given at 9 to 11 months
   d) BCG vaccine – Given at birth

Answer Keys to Pre- and Post-Assessment Questionnaire (Teachers' Manual)

1. Which of the following best describes the difference between vaccination and immunization?

   b) Vaccination is the act of giving a vaccine, while immunization is the process of becoming immune to a disease

2. What is meant by "herd immunity"?

   b) Protection from disease when a large portion of the population is vaccinated

3. How many vaccine-preventable diseases are covered under India's Universal Immunization Programme (UIP)?

   c) 12

4. How many times should a child visit a health centre for vaccination by their fifth birthday as per the National Immunization Schedule?

   c) 7 times

5. Which diseases has India successfully eliminated through vaccination? (Select all that apply)

   a) Smallpox

   b) Polio

6. When should the 1st dose of BCG vaccine be given?

   b) At birth

7. True or False? Vaccines prevent a disease while medicines cure a disease.

   a) True

8. True or False? Multiple vaccines given together can overwhelm a child's immune system.

   b) False

9. Which digital platform is used for tracking immunization in India?

   b) U-WIN

10. As a Vaccination Ambassador, what are your key responsibilities? (Select all that apply)

    b), c) and e) are correct answers

List of contributors

Notes

Immunization Division
Ministry of Health and
Family Welfare
Government of India