

Celebrating the Power of Vaccines

Posted On: 17 MAR 2026 12:38PM by PIB Delhi

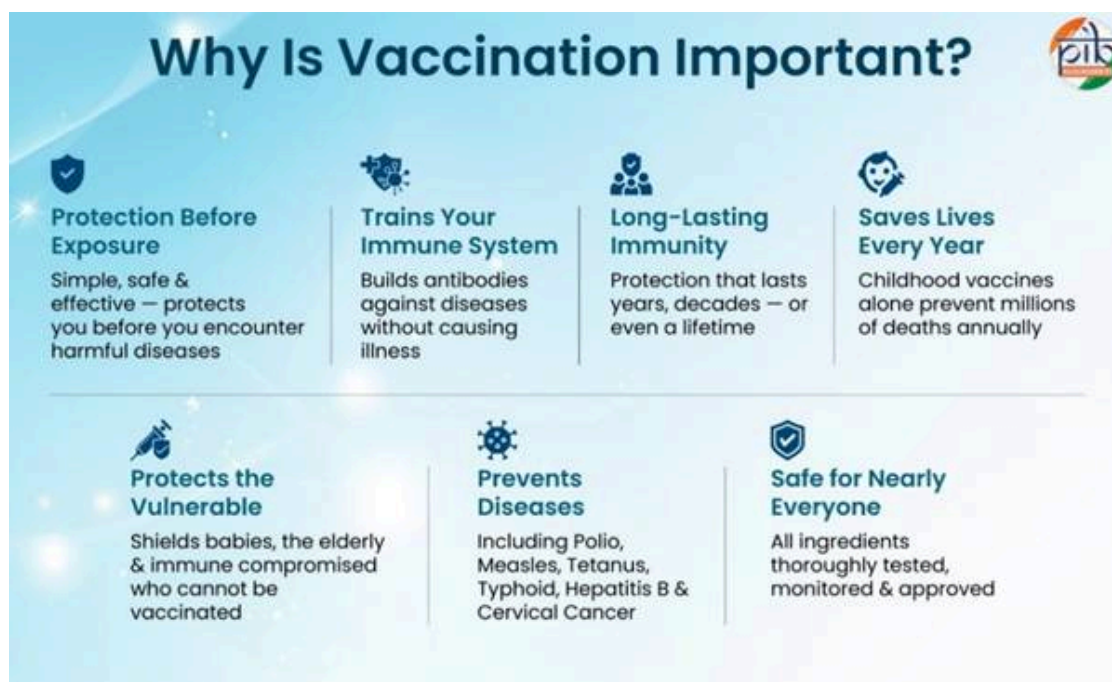
Key Takeaways

- India has eradicated smallpox, polio and maternal & neonatal tetanus through vaccination, and continues to expand its immunisation programme — most recently launched HPV and indigenous Td vaccines in 2026.
- The UIP is one of the world's largest immunisation programmes, reaching 2.9 crore pregnant women and 2.54 crore newborns every year, free of cost.
- Full immunisation coverage has risen from 62% in 2015 to 98.4% in January 2026.
- Percentage of zero-dose children to the total population has declined from 0.11% in 2023 to 0.06% in 2024.

National Vaccination Day

Immunisation through vaccination saves crores of lives every year by reducing the risks of contracting diseases. It builds people's natural defences to create protection against illnesses.

In India, vaccines have had resounding impact on the improvement of public health. Apart from polio, vaccines have eradicated smallpox, and eliminated yaws, polio and maternal & neonatal tetanus in India. They have reduced child mortality rates, measles-rubella, and tuberculosis. During COVID-19, India, the pharmacy of the world, supplied over 200 crore COVID-19 vaccine doses, including indigenously developed and licensed vaccines manufactured in India. In 2026, the Government of India launched nation-wide HPV vaccination campaign for girls aged 14 years to protect from cervical cancer, and an indigenously manufactured tetanus-diphtheria (Td) vaccine.



Why Is Vaccination Important?

- Protection Before Exposure**
Simple, safe & effective — protects you before you encounter harmful diseases
- Trains Your Immune System**
Builds antibodies against diseases without causing illness
- Long-Lasting Immunity**
Protection that lasts years, decades — or even a lifetime
- Saves Lives Every Year**
Childhood vaccines alone prevent millions of deaths annually
- Protects the Vulnerable**
Shields babies, the elderly & immune compromised who cannot be vaccinated
- Prevents Diseases**
Including Polio, Measles, Tetanus, Typhoid, Hepatitis B & Cervical Cancer
- Safe for Nearly Everyone**
All ingredients thoroughly tested, monitored & approved

India's robust Universal Immunisation Programme (UIP), a wide-spread network of publicly funded healthcare centres, workers and cold-chain infrastructure, and a strong digital network, have delivered results.

Full immunisation coverage has risen from 62% in 2015 to 98.4% as of January 2026. India's percentage of zero-dose children to the total population has declined from 0.11% in 2023 to 0.06% in 2024. India has a long history of prioritising vaccination, and it continues to push for higher vaccination rates to further improve public health through the Universal Immunisation Programme.



India celebrates **National Vaccination Day** on March 16 every year to commemorate the first dose of the Oral Polio Vaccine given to citizens in 1995, under the Pulse Polio Programme launched in the same year.

The programme, launched in 1995, successfully eliminated polio in India, with the last case in India reported on January 13, 2011, in Howrah, West Bengal.

HOW THE IMMUNE SYSTEM AND VACCINES WORK



NATURAL INFECTION & IMMUNE RESPONSE

A Person Falls Ill



PATHOGENS: bacteria, virus, parasites, fungi

A person encounters pathogens and falls ill

Immune System Action



ANTIBODIES

Immune system identifies pathogens and creates antibodies (like specialised soldiers)

Defeating Germs & Memory



MEMORY CELLS

The antibodies help the person fight the illness; the immune system retains a 'memory' of the germ for future defenses

HOW VACCINES ASSIST THE PROCESS

Vaccination



Vaccines help produce antibodies without the person falling ill first.

Vaccine Components



WEAKENED/INACTIVE GERM ORGANISM (ANTIGENS), GENETIC BLUEPRINT

Components cannot cause disease.

Provoking Defences



ANTIBODIES, MEMORY CELLS

Effectively provoke the immune system to create necessary defences.

FUTURE ENCOUNTER WITH REAL PATHOGEN



The body is protected.

If the real pathogen is encountered, memory cells allow the body to defend itself much more efficiently.

Universal Immunisation Programme

Mothers pass antibodies to their babies when they are born. However, these antibodies, which are transferred from the mother to the child through pregnancy and breast milk, only provide immune protection for the first few months of a newborn's life.

Vaccines are crucial to protect babies and infants from germs and even life-threatening diseases. It is best to give vaccines to children before they are exposed to the illnesses – ideally within the first 12 to 18 months of their lives.

The Universal Immunisation Programme, launched in 1985 and implemented by the Ministry of Health and Family Welfare, aims to provide free vaccines to children and pregnant women against various diseases. The programme reaches about 2.9 crore pregnant women and 2.54 crore newborns every year.

The objectives of the UIP are:

- ☐ To increase immunisation coverage
- ☐ To improve the quality of services
- ☐ To establish a reliable cold chain system to the health facility level
- ☐ Monitoring of performance
- ☐ To achieve self-sufficiency in vaccine production

The UIP provides vaccines to newborns, children, adolescents and pregnant women for protecting against 12 diseases. The Japanese Encephalitis vaccine is provided to people only in endemic districts, and the rest are provided nationally.

In the past decade, various new vaccines were added to the programme – Inactivated Polio Vaccine (IPV) (2015), Rotavirus Vaccine (RVV) (2016), Measles-Rubella (MR) vaccine (2017) and Pneumococcal Conjugate Vaccine (PCV) (2017). The vaccines given under UIP are:

- Bacillus Calmette-Guérin (BCG)
- Diphtheria, Pertussis and Tetanus (DPT)
- Tetanus and adult Diphtheria (Td)
- Bi valent oral polio vaccine (bOPV)
- Measles-Rubella (MR) vaccine
- Hepatitis B (Hep B)
- Pentavalent — DPT + Hepatitis B + Haemophilus Influenzae type b (DPT + Hep B + Hib)
- Rotavirus Vaccine (RVV)
- Pneumococcal Conjugate Vaccine (PCV)
- Japanese Encephalitis (JE) Vaccine

These vaccines protect against life-threatening diseases.

#	Disease	Disease Description
1	Tuberculosis (severe childhood form)	Bacterial infection affecting the lungs; can spread to the brain and multiple organs
2	Diphtheria	Bacterial infection affecting the throat; can damage the heart and nerves
3	Pertussis (Whooping Cough)	Highly contagious cough illness, dangerous for infants
4	Tetanus	Bacterial infection from contaminated wounds causing muscle stiffness
5	Polio	Viral infection attacking the nervous system; can cause permanent paralysis or death
6	Measles	Highly contagious viral disease, causes fever and rash

7	Rubella	Mild viral illness with fever & rash; spreads through coughing and sneezing
8	Hepatitis B	Viral infection of the liver that can become chronic and cause liver damage
9	Meningitis & Pneumonia (Hib)	Meningitis — infection and inflammation of the membranes surrounding the brain and spinal cord Pneumonia — infection and inflammation of the lungs
10	Rotavirus Diarrhoea	Viral infection causing severe diarrhoea in infants
11	Pneumococcal Pneumonia	Bacterial lung infection causing fever and breathing difficulty
12	Japanese Encephalitis	Mosquito-borne viral disease-causing brain inflammation

National Immunisation Schedule

Getting vaccines in a timely manner is important for protection from life-threatening diseases. This is the prescribed schedule under the UIP for pregnant women, and infants and children.

Pregnant Women

Td-1: As early as possible during the First Antenatal visit

Td-2: 4-weeks after first Td shot

Td-Booster: If two Td doses already received in a previous pregnancy within the last 3 years

All doses ideally given before 36 weeks — but administered even if missed, including during labour

Infants and Children

At birth –

Hep B

bOPV

BCG

By 1st birthday –

3 doses of bOPV,

3 doses of rotavirus vaccine

3 doses of pentavalent

3 doses of fractional IPV

3 doses of PCV

1st dose of MR vaccine

1st dose of JE vaccine (where applicable)

By 2nd birthday –

2nd dose of MR vaccine

1st dose of DPT booster

1 dose of bOPV booster

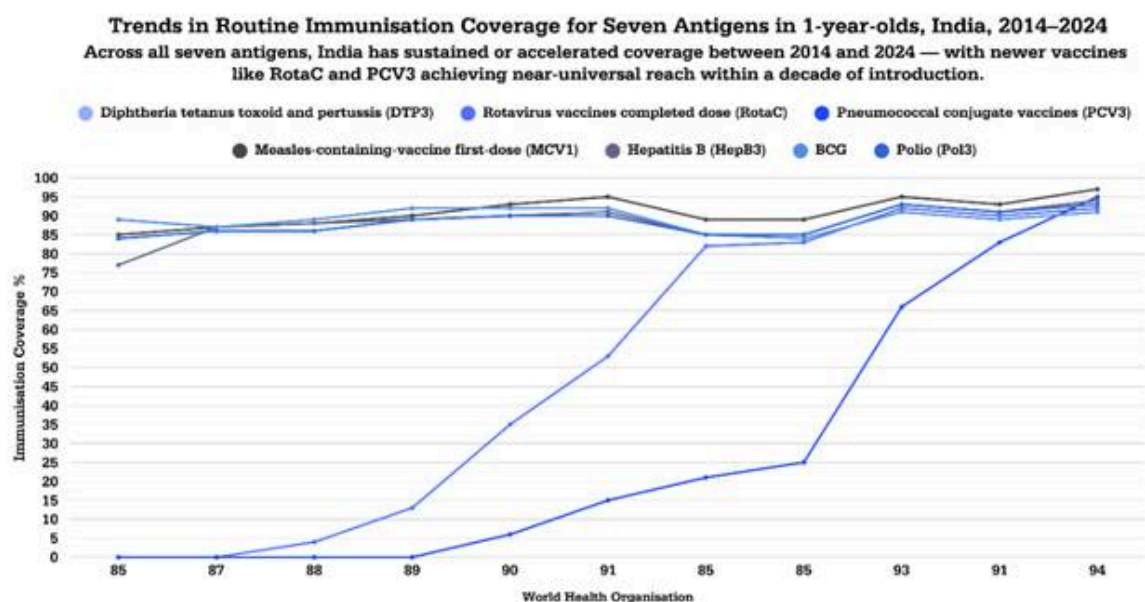
2nd dose of VE vaccine (where applicable)

After 5th birthday –

2nd dose of DPT booster at 5 years of age

1 dose of Td vaccine at 10 years

1 dose of Td vaccine at 16 years



Recent Vaccine Launches & Programmes

The most recent chapter in this expansion is also the most ambitious — with two landmark launches in early 2026 that extend UIP's reach.

Indigenous Tetanus–Diphtheria (Td) Vaccine Launch (2026)

An indigenously manufactured Tetanus & Adult Diphtheria (Td) vaccine was launched on 21 February 2026. The vaccine is produced at the Central Research Institute (CRI), Kasauli. About 55 lakh doses will be supplied to the Universal Immunisation Programme (UIP) by April 2026.

India's domestic vaccine manufacturing capacity underpins this entire edifice. As the world's largest vaccine producer, India supplies approximately 60% of global vaccines. The launch of the indigenously manufactured Td vaccine is an expression of self-reliance.

Nationwide HPV Vaccination Campaign (2026)

A nationwide Human Papillomavirus (HPV) vaccination campaign was launched on 28 February 2026. The campaign was launched from Ajmer, Rajasthan by Prime Minister Narendra Modi. It targets 14-year-old girls to protect them from cervical cancer. Around 1.15 crore girls across India are expected to receive the vaccine free of cost at government health facilities.

Mission Indradhanush

To reach children and pregnant women who are unvaccinated or partially vaccinated, the government launched the Mission Indradhanush programme in 2015, following it with Intensified Mission Indradhanush Missions (with a greater focus on urban areas), with greater interministerial convergence. These missions aim to achieve over 90% full immunisation coverage under the UIP by strengthening routine immunisation services and targeting hard-to-reach populations.

12 phases of Mission Indradhanush have been held so far until 2023, vaccinating 5.46 crore infants and 1.32 crore pregnant women across 765 districts.

Infrastructure Supporting UIP Implementation

Community Health Centres and Workers

Where are the Vaccines Provided?

UIP vaccines are provided free of cost to all beneficiaries at fixed sites such as Primary Health Centres (PHCs), Community Health Centres (CHCs) and Government hospitals, at sub-centres, and through outreach sessions held at Anganwadi centres or at other identified locations within villages. Since 2005, UIP is under the National Rural Health Mission. Under this mission, UIP is also implemented in urban slums.

Frontline health workers – ASHAs (Accredited Social Health Activists), Anganwadi Workers (AWWs) and link workers — play a central role in mobilising beneficiaries to session sites and ensuring no child or pregnant woman is missed.

Model Immunisation Centres

The Government of India encourages states and union territories to have model immunisation centres. They are already operational in Uttar Pradesh, Bihar and the union territories of Chandigarh and Ladakh.

Cold-Chain Network

Vaccines must be stored continuously within a limited temperature range — from the time they are manufactured to the moment of vaccination. Temperatures that are too high or too low can cause a vaccine to lose its potency (its ability to protect against disease), and once lost, potency cannot be regained or

restored. The system for storing and transporting vaccines within these prescribed conditions is called a **cold chain system**. It forms part of the broader vaccine supply chain, which must remain uninterrupted and efficient to ensure immunisation coverage and outreach.

India's vaccine cold chain is one of the largest in the world — spanning nearly 30,000 cold chain points, from Government Medical Supply Depots at the national level down to Primary Health Centres at the sub-district level. These storage points at hospitals, community health centres, primary health centres and other health facilities are equipped with over **1.06 lakh ice-lined refrigerators and deep freezers**, and **432 walk-in cooler and walk-in freezers** for bulk vaccine storage. Conducting over **1.3 crore immunisation sessions annually** across this network, maintaining temperature integrity at every point is critical to ensuring vaccines reach the last beneficiary in potent condition.

To digitise and strengthen this vast infrastructure, the Ministry of Health and Family Welfare uses the **Electronic Vaccine Intelligence Network (eVIN)** — a state-of-the-art software platform that tracks vaccine stock levels and storage temperatures in real time at multiple locations across the country, backed by strong IT infrastructure and trained professionals. eVIN has expanded nationwide across all States/UTs. The platform proved critical during the COVID-19 pandemic, enabling the vaccination of a record number of people in a short period of time.

Digital Initiatives

India's immunisation management system has been upgraded through a robust digital ecosystem with platforms for registration, appointment scheduling, vaccine tracking and real-time monitoring.

U-Win

U-Win is a digital platform and app to help people find vaccination centres near their residence, manage vaccination appointments at health facilities and maintain vaccination records.

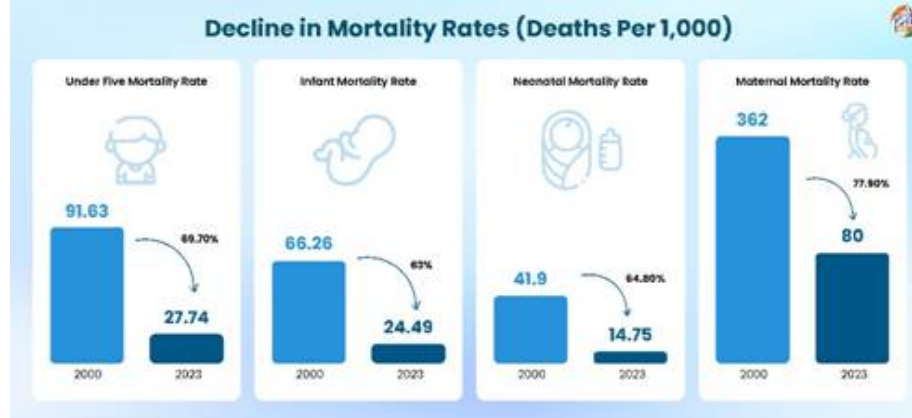
One user can register up to 10 people in one mobile number, including citizens/guardians, pregnant women, infants (0-1 years), children (1-7 years) and adolescents (7-19 years). U-Win was launched in October 2024 and is available in 12 languages including English.

CoWIN

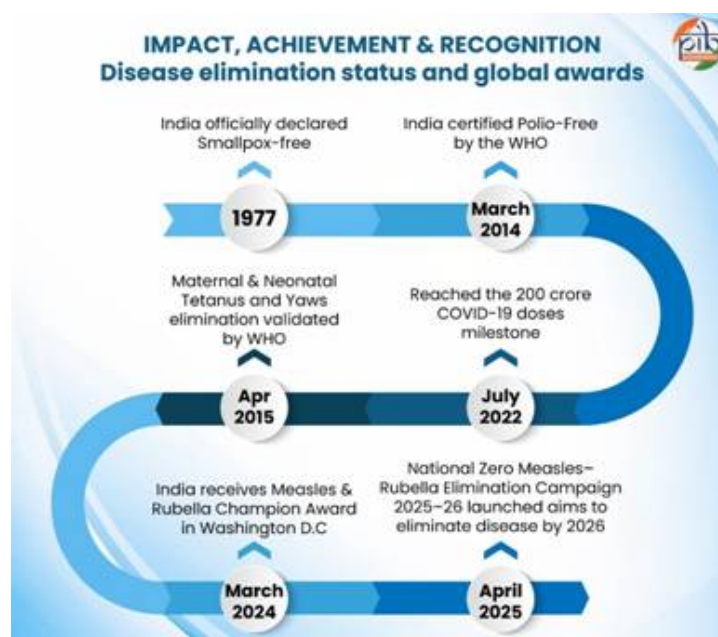
Like U-Win, CoWIN is a digital platform for COVID-19 vaccination registration at health and other centres, and for managing vaccination appointments and records. It was launched on January 16, 2021, and since then, over 220 crore doses have been administered through it, of which only 56.28 lakh are not through CoWIN.

Impact

Vaccination is one of several factors — alongside improvements in nutrition, sanitation, maternal care, and healthcare access — behind India's broader gains in child and pregnant women survival rates. Better-nourished, better-immunised women face lower risks during pregnancy and childbirth, while stronger healthcare systems that deliver vaccines also expand access to skilled birth attendants and emergency obstetric care, reducing maternal mortality.



The newer vaccines — rotavirus, PCV, and Measles-Rubella — have directly targeted the leading infectious causes of child death. The percentage of zero-dose children against the country population, has been halved, from 0.11% in 2023 to 0.06% in 2024 — an achievement acknowledged by the **UN Inter-Agency Group for Child Mortality Estimation (2024)** in positioning India as a global exemplar in child health.



Vaccination campaigns do more than protect public health — they reduce the financial burden of illness on families, keeping children healthy and allowing them to live fuller, more meaningful lives. The benefits extend across generations: a healthy child becomes a healthy adult, and a healthy population contributes more productively to the workforce, driving broader social and economic progress.

Conclusion

From eradicating Smallpox in 1977 to eliminating Polio and Neonatal Tetanus, administering 200 crore COVID-19 doses, and now pursuing Measles-Rubella elimination — India's immunisation journey is one of verified, milestone-by-milestone achievement.

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