
FOURTEENTH INTERNATIONAL
ROTAVIRUS SYMPOSIUM
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Ministry of Health & Family Welfare
Government of India

POST INTRODUCTION EVALUATION OF ROTAVIRUS VACCINE ROLL-OUT IN INDIA

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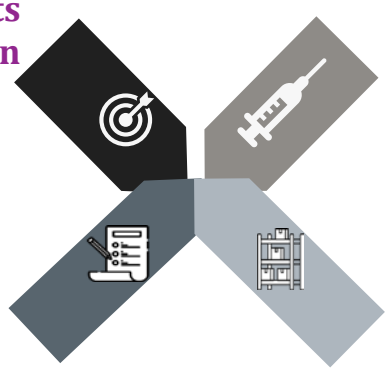
Overview of UIP

Universal Immunization Programme (UIP): India

One of the largest Public Health Programmes

Annual target
~26.7 million infants
~29.1 million pregnant women



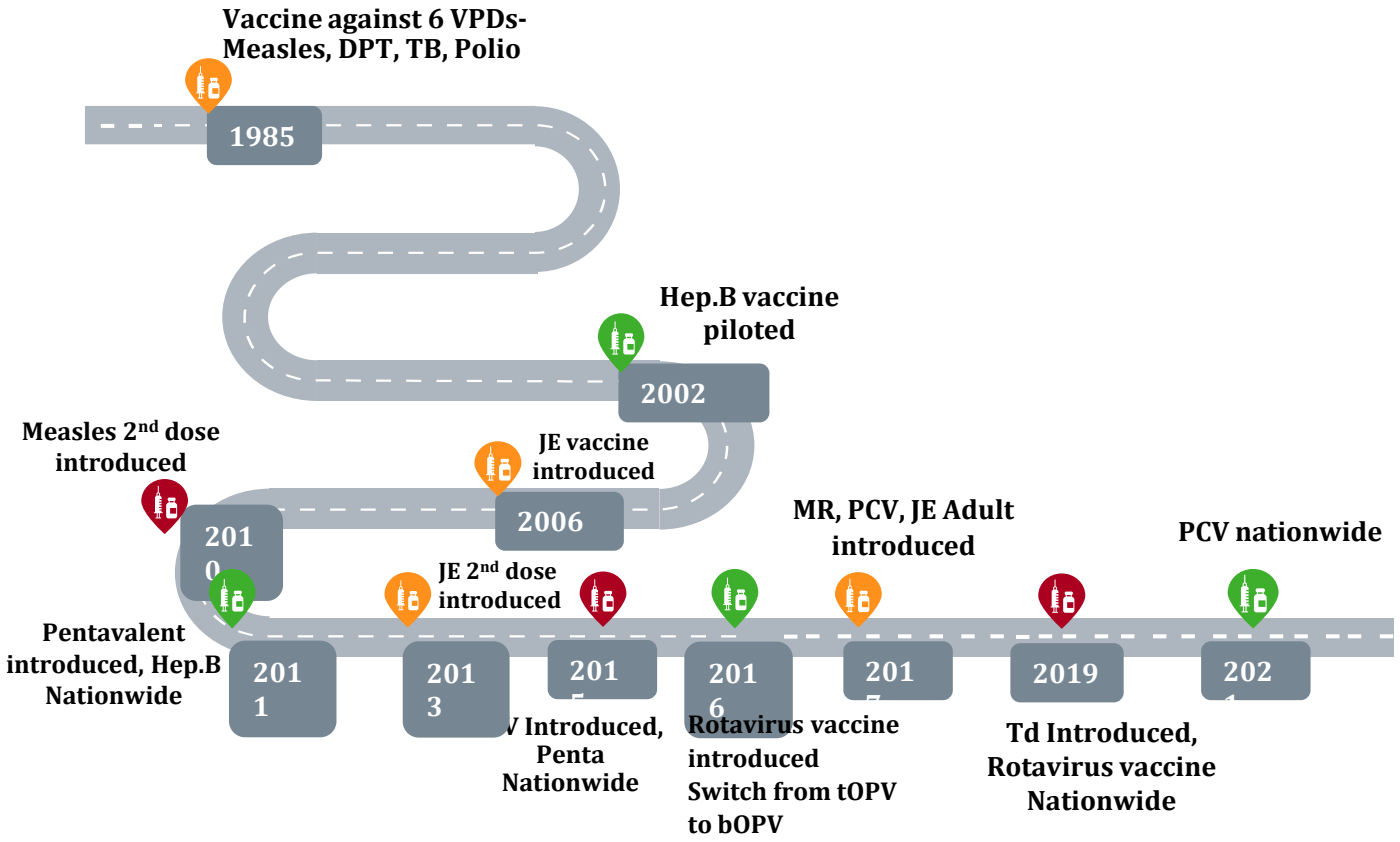
Vaccines against VPDs
11 nationwide;
1 sub-nationally (JE)

~12 million immunization sessions per year

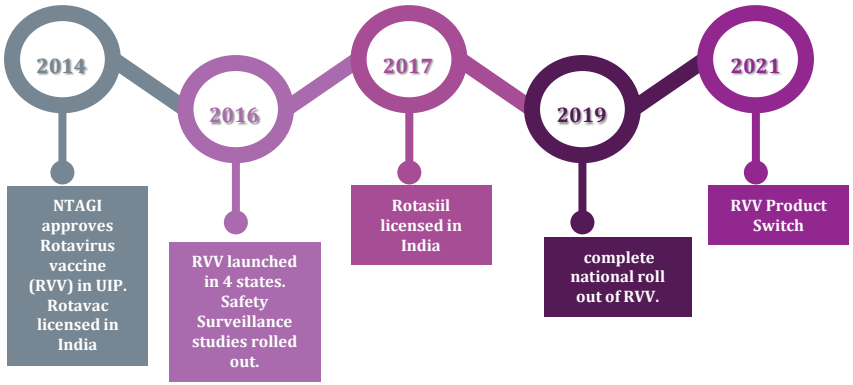
~30,000 cold chain points for storage and distribution

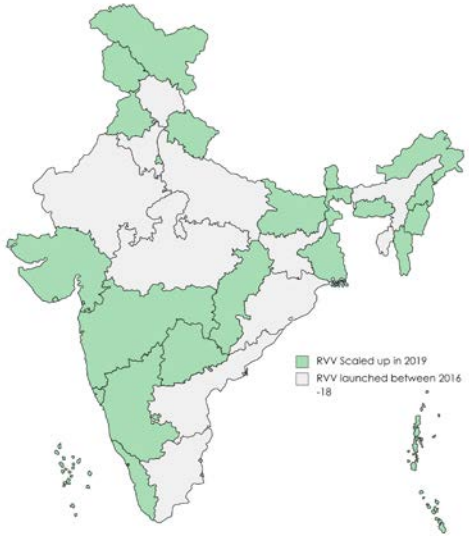
Make in India: Largest vaccine manufacturing capacity in the world

New vaccine introduction in UIP: Key Milestones



Rotavirus Vaccine (RVV) introduction and expansion under UIP





281.3 million doses of RVV administered*

* till Dec'22

Overview of RVV PIE

RVV: Post Introduction Evaluation (PIE)

WHO Guidelines*

- Recommended between 6 and 12 months after introduction of the new vaccine
- Evaluation be performed at all levels of the health system

RVV PIE in India

- Initially planned in 2020 following the nation wide expansion of RVV in 2019
- Delayed due to the COVID 19 pandemic
- WHO PIE Tool modified and contextualized for India
- Digital PIE Tool developed and used for the first time

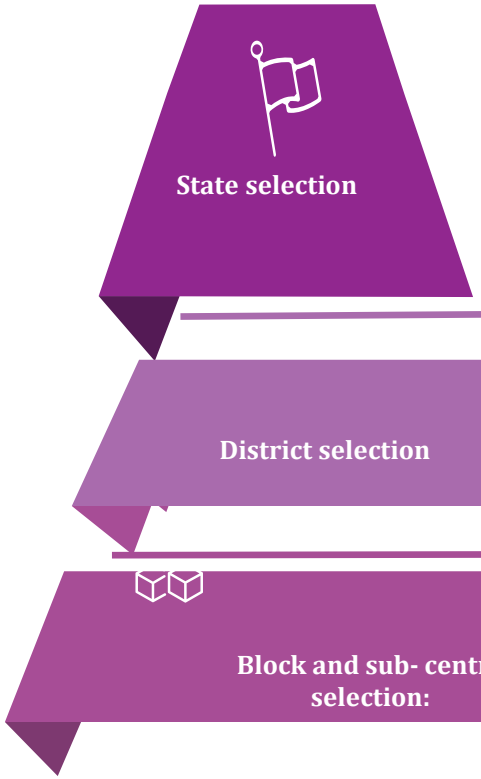
*WHO PIE Guidelines

Key Objectives of RVV PIE

- To identify problem areas needing correction within the immunization programme
- Provide valuable lessons for health system strengthening and future new vaccine introductions
- Interchangeability amongst different RVV products and existence of different RVV products in the UIP
  - Awareness of health workers regarding dosage, interchangeability, method of administration of RVV
  - Resilience of the programme for RVV product switch
  - Review of the immunization supply chain

Methodology

Sampling for RVV PIE: Key criteria



- States using different RVV products
- States transitioning between different RVV products
- Phase in which RVV was introduced
- Representation of States from each part of country (North East, North, South, East, West)

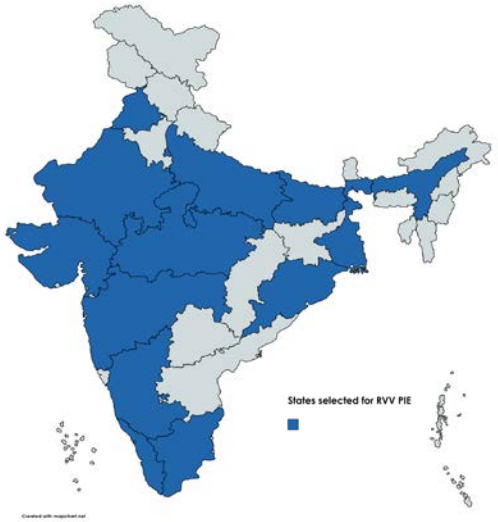
- Intensified Mission Indradhanush (IMI)* / Non-IMI
- Female literacy (Based on NFHS 5 data)
- Vaccine availability index (Based on eVIN data)

- Operational feasibility

*IMI is a national immunization catch up drive in identified low performing districts to improve the immunization coverage

Geographical Scope of RVV PIE

- 14 States were selected where PIE was conducted through interviews, visit to cold chain stores, session sites and desk review of data
- In each State, two districts were selected
- 1 Block in each district was selected
- 1 Health worker from each block was interviewed
- 2 caregivers from each block was interviewed
- In total 14 States, 28 districts, 28 blocks and 28 Health Sub-Centres were visited



Who were interviewed

During the visit to state, the team interacted with :

State Immunization Officer
(for State level questionnaire)

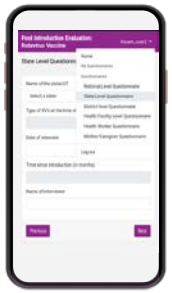
District Immunization Officer from the 2 selected districts
(for district level questionnaire)

Two caregivers from the selected ANM's area
(for caregiver questionnaire)

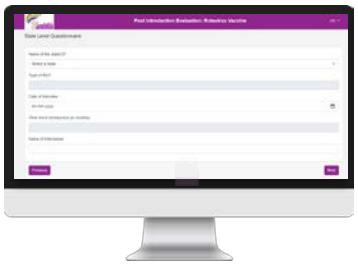
Medical Officer In charge from the 1 selected block/planning unit within the selected district
(for Health facility questionnaire)

One ANM involved in the immunization from the selected block
(for Health worker questionnaire)

RVV PIE : Digital Tool



Mobile Phone



PC/Desktop

Tablet

For the 1st time: Digital RVV PIE Tool used for data collection & analysis

Key Features

- Questionnaire in story format, mix of subjective and objective questions with multiple choice options
- Multiple features to ensure error free recording of answers with ease
- Ability to monitor completion status with inbuilt features to ensure submission of completed forms only
- Automatic recording of data in a standardized master template with automated KPI analysis appearing on the dashboard
- Automatic Visualization of selected KPIs providing a comprehensive view of KPIs on the same platform

RVV PIE : Programme Components

Programme components assessed in RVV PIE

A. Program Management

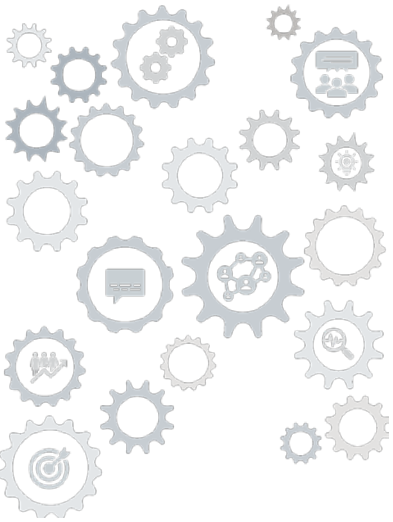
B. Supervision, monitoring & review

C. Data management

D. Immunization supply chain

E. Capacity building

F. Programme operations



G. Communication

H. Innovations

I. Safety surveillance

J. Rotavirus surveillance and impact

K. COVID-19 impact on RI

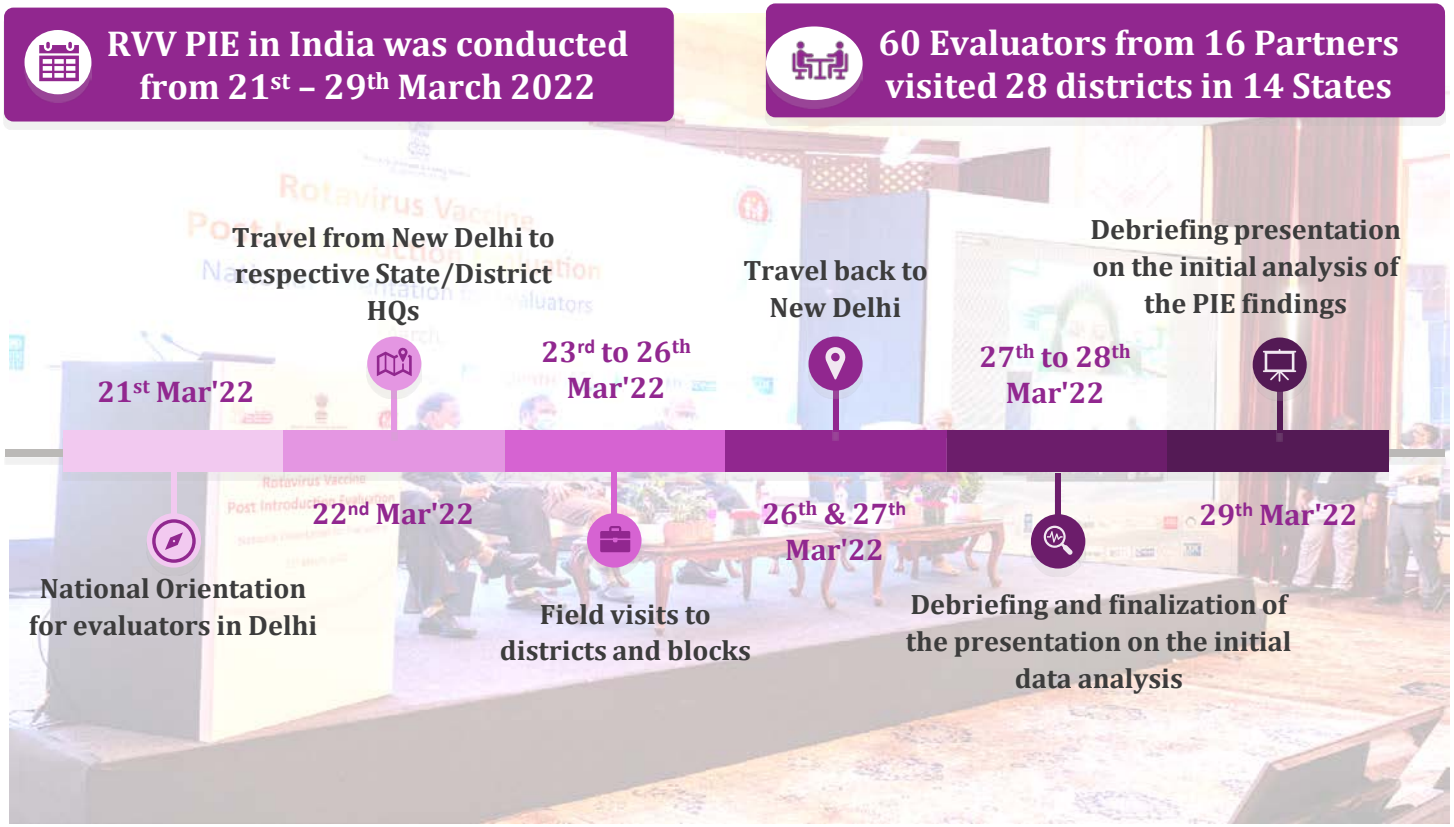
L. Impact of vaccine product switch

Operationalization

RVV PIE in India: schedule

RVV PIE in India was conducted from 21st – 29th March 2022

60 Evaluators from 16 Partners visited 28 districts in 14 States



Key findings

RVV PIE: Key findings (1/4)

Programme Management

- Pre-introduction activities conducted in a timely manner
- Updated due list available at most of the observed sessions
- All observed vaccinators administered vaccines correctly
- Job aids were reported to be distributed in all states and in over 75% of health facilities

Capacity Building

- Cascade model of training was followed for the RVV introduction
- Station approach was used extensively in the training, up to district level
- Nearly three-quarter (72%) of the evaluated districts completed training at least one month before RVV introduction
- Trainings have improved over time with use of more AV aids, short videos, job aids, and hands on exercise (like station approach) in RVV trainings

RVV PIE: Key findings (2/4)

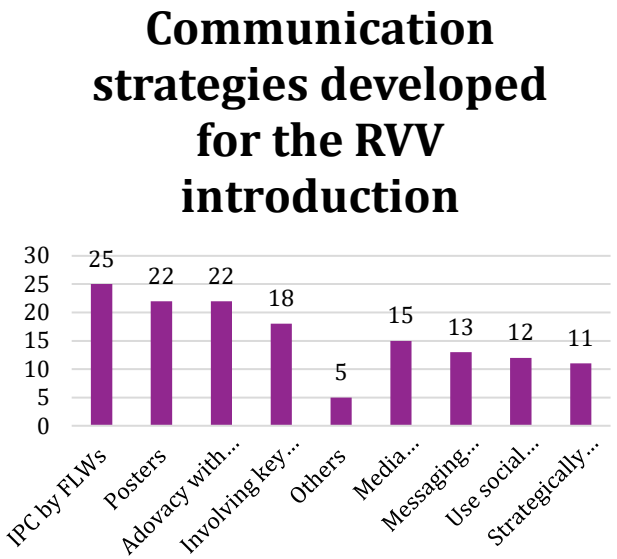
Immunization supply chain

- Periodic field assessments are carried out for review and monitoring in more than 57% of district and health facility surveyed
- All the health facilities surveyed reported to have adequate cold chain space before RVV introduction.
- Immunization safety guidelines for RI were followed at all session sites
- No expired vaccines found at any level of the supply chain including the session sites.
- No vaccines with VVM in the unusable stage found during the PIE field visit

RVV PIE: Key findings (3/4)

Communication

- Media sensitization and ceremonial launch ceremony was held in 82.1% and 71.4% districts
- Innovative practices for communication- LED vans, catchy radio jingles, influencer & NGO mapping, wall paintings, appreciation certificate, beneficiaries as brand ambassador
- Various social media platforms used at district and facility level were WhatsApp, Facebook and Twitter



RVV PIE: Key findings (4/4)

Supervision, Monitoring and Review

- 60% of the district officials monitored the sessions more than 2 times in a month
- Monitoring observations were discussed in the review meetings and feedback letters were shared
- Feedback given to the health workers during supervisory visits

COVID-19 impact on RI

- COVID-19 pandemic affected delivery of routine immunization services
- Coverage and surveillance impacted
- Disruptions limited to the initial wave of the pandemic
- Multiple learnings from COVID 19 vaccination
  - COWIN platform
  - Augmentation of cold chain space
  - Impetus on intersectoral coordination (ULBs, SHGs, Education department)
  - Use of digital tools to monitor and review the program

Disease Surveillance- key findings

- Implementation of National Rota surveillance network (NRSN) and designated officers to smoothen disease surveillance
- Dedicated Portals (Eg *Matrima* in West Bengal) for reporting
- Acute Encephalitis Syndrome surveillance system that currently exists in states of Uttar Pradesh and West Bengal serve as multi-pathogen surveillance unit
- Public private partnerships model for specimen collection, specimen transport, and processing in select states (Karnataka, Gujarat and Tamil Nadu)
- Partnerships and support of organizations like ICMR, NCDC, WHO, UNDP, JSI

Safety Surveillance- key findings

- **No intussusception case** (as AEFI) was reported by State and Districts visited in last one year
- Sensitization of District AEFI committee was done prior to RVV introduction.
- Dedicated sessions on AEFI surveillance

Areas for Improvement

- Planning and implementation among Urban population remains a challenge
- Need for better planning and implementation among migratory population & specific resistant groups
- Inadequate supervision to monitor the stock (e.g. monthly physical stock count, triangulation of physical stock, register and eVIN)
- Need for continous mentoring
- Training to be conducted in smaller batches
- District & Subdistrict level monitoring of training is crucial but often suboptimal
- SOP for crisis response communication should be revised to provide detailed guidance

RVV PIE Highlights

- The **trust on and acceptance** for RI remains strong
- The **pandemic** and the roll out of the **C19 vaccines** have had an impact on RI
- **Supply** of RI vaccines maintained and **availability** of COVID **logistics** ensured
- Relevant **IEC material** available and utilized
- RI **microplanning** and **trainings** were impacted during the pandemic
  - Virtual trainings have been enabling, however the need for in-person trainings is well recognized
  - Use of digital tools for refresher trainings and post training follow ups
- **Program monitoring** and **reviews** conducted virtually
  - Districts and blocks have now reverted back to in person reviews


Rotavirus Vaccine
Post Introduction Evaluation
Dissemination Meeting
29th March, 2022
Rotavirus Vaccine
Post Introduction Evaluation
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PATH
JSI
CDC

Thank You