Universal Immunization Program in India
Outline of the Presentation

- UIP Scope and Scale
- Scaling up coverage
- Immunization Coverage trends
- New Vaccine Introduction
India is the largest manufacturer of vaccines with a functional National Regulatory Authority.

One of the largest public health programs in India

Around 30 million pregnant women and 27 million newborns targeted annually;

>9 million sessions planned per year;

>27,000 cold chain points for storing and distributing vaccines

10 vaccines providing protection against 12 vaccine preventable diseases

India is the largest manufacturer of vaccines with a functional National Regulatory Authority.
EPI: Expanded Programme of Immunization, UIP: Universal Immunization Programme; MNTE: Maternal and Neonatal Tetanus Elimination

JE vaccine for adult introduced in 2014
* - Children considered fully immunized when they have received vaccination against TB, 3 doses of DPT & Polio & a dose of Measles vaccine
Percent children fully immunized (12-23 months)

Coverage Evaluation Survey 2009

Rapid Survey of Children (RSOC) 2013-14

61%

65%

< 50%
50% to 60%
60% to 70%
70% to 80%
>= 80%
Why are children being missed? India, 2015

Number of children monitored = 4,19,371

Source: Routine Immunization house to house monitoring data
Why are children being missed? India, 2016*

Immunization status of monitored children, 12-23 months, India 2016*

- Full Immunization: 79%
- Partial Immunization: 18%
- 3%

Number of children monitored = 2,17,073

* Jan16 – Jul 16
Source: Routine Immunization house to house monitoring data
Scaling-up coverage
Improving coverage, ensuring equity
“MISSION INDRADHANUSH”

Reaching the unreached with all vaccines

- 497 districts across 35 States/UTs covered in three phases.
- 201, 352 and 216 districts in phase 1, 2 and 3 respectively.
- Phase-4 in NE states started from 7th February 2017 in 68 districts
- Focus on underserved populations/areas
- Four intensified immunization drives held during each phase targeting all children & pregnant women
- Active engagement of State Governments and partners
MISSION INDRADHANUSH-Key Achievements

During the three phases:
• More than 2.1 crore children vaccinated
• Around 55 lakh children fully immunized
• Around 55.9 lakh pregnant women vaccinated with Tetanus toxoid
Initiatives in Vaccine Logistics & Cold Chain Management

**Capacity building:**
- National Cold Chain Training Centre (NCCTE), Pune
- National Cold Chain & Vaccine Management Resource Centre (NCCVMRC), NIHFW, New Delhi
  - Established to provide technical training to cold chain technicians in repair and maintenance of cold chain equipment.

**System strengthening**
- Electronic Vaccine Intelligence Network (eVIN) rollout for:
  - Real time stock management and Real time monitoring of cold chain temperature using mobile technology and data logger (sim based)
  - Currently operational in 12 states; phased expansion in other states.
- National Cold Chain Management Information System (NCCMIS) to track cold chain equipment inventory, availability and functionality.
AEFI Surveillance

Well established system for surveillance of Adverse Events Following Immunization (AEFI) in the country

Sensitivity of surveillance has improved as indicated by increased reporting of AEFI cases

National, State and District AEFI committees in place

Quality Management System developed and is being implemented

Causality Assessment reports of AEFI cases are available for public at MoHFW’s website

AEFI guidelines revised and training of state AEFI committees has been done in 24 states; further training in process
Expansion of VPD surveillance: Measles/Rubella

<table>
<thead>
<tr>
<th>Laboratory</th>
</tr>
</thead>
<tbody>
<tr>
<td>PGI, Chandigarh</td>
</tr>
<tr>
<td>SGPGI, Lucknow</td>
</tr>
<tr>
<td>PMC, Patna</td>
</tr>
<tr>
<td>NCDC, Delhi</td>
</tr>
<tr>
<td>SMS, Jaipur</td>
</tr>
<tr>
<td>GMC, Bhopal</td>
</tr>
<tr>
<td>BJMC, Ahmedabad</td>
</tr>
<tr>
<td>NIV, Pune</td>
</tr>
<tr>
<td>NIV, Bangalore</td>
</tr>
<tr>
<td>KIPM, Chennai</td>
</tr>
<tr>
<td>IPM, Hyderabad</td>
</tr>
<tr>
<td>IOS, Kolkata</td>
</tr>
<tr>
<td>MCG, Guwahati</td>
</tr>
<tr>
<td>ERC, Mumbai</td>
</tr>
</tbody>
</table>

2016* (till Nov)
1258 outbreaks

Outbreak confirmation for Measles: ≥ 2 cases IgM positive for measles, Similarly for Rubella
2011: Last polio case due to WPV (13 January, 2011)

2012: Removed from list of polio endemic countries on 24 Feb

2014: Receives polio-free certification on 27 March

Rukhsar, the last polio case due to wild poliovirus (WPV) in India!
• Poliovirus detection & interruption

• OPV withdrawal, IPV introduction, RI strengthening

• Containment & Global Certification

• Legacy Planning
OPV TYPE 2 WITHDRAWAL (APRIL 2016)

- Globally synchronized over a 2 week period 16 Apr to 1st May 16
  - Within these 2-week window, all countries switched on one day (national switch date)
- India switched from tOPV to bOPV on 25th April 2016
- bOPV vaccine supplied two weeks prior to switch date
- Recall – disposal – Validation
  - During the 2 weeks following the national switch date
- No use of any tOPV after the national switch date
Launched on 30th November 2015, initially introduced in 6 states; expanded to all states in April 2016.

IPV will be given to each infant at 14 weeks at OPV3 contact. 2 doses of fIPV given at 6 and 14 weeks in 16 states.

fIPV will further replace single dose IPV in 20 more states/UTs.

IPV will not replace OPV, it will reduce risk associated with tOPV-bOPV switch.
India also achieves Maternal & Neonatal Tetanus Elimination..

2003 - 2013
19 states/UTs

2014
30 states/UTs

2015
36 states/UTs

15 May 2015:
“WHO congratulates India on achieving the milestone of MNTE”
Introduction & scale-up of new vaccines
# Revised National Immunization Schedule

<table>
<thead>
<tr>
<th>Age</th>
<th>Vaccines given</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth</td>
<td>BCG, OPV-0, Hepatitis B Birth dose</td>
</tr>
<tr>
<td>6 Weeks</td>
<td>OPV-1, Pentavalent-1, fIPV-1, Rota-1 &amp; PCV-1</td>
</tr>
<tr>
<td>10 weeks</td>
<td>OPV-2, Pentavalent-2 &amp; Rota-2</td>
</tr>
<tr>
<td>14 weeks</td>
<td>OPV-3, Pentavalent-3+ fIPV-2/IPV, Rota-3 &amp; PCV-2</td>
</tr>
<tr>
<td>9-12 months</td>
<td>MR-1 (MCV1), JE1**, PCV-B</td>
</tr>
<tr>
<td>16-24 months</td>
<td>MR-2 (MCV2), JE2**, DPT-B, OPV-B</td>
</tr>
<tr>
<td>5-6 years</td>
<td>DPT-B2</td>
</tr>
<tr>
<td>10 years</td>
<td>TT</td>
</tr>
<tr>
<td>16 years</td>
<td>TT</td>
</tr>
<tr>
<td>Pregnant Mother</td>
<td>TT1, 2 or TT Booster***</td>
</tr>
</tbody>
</table>

** in endemic districts only  
*** one dose if previously vaccinated within 3 years
Pentavalent vaccine (DPT + HepB + HiB)

11.7 crore dose administered up to October 2016
Japanese Encephalitis (JE)

• JE vaccination: One time campaign strategy ➔ single dose JE vaccine targeting all children from 1 to <15 years of age ➔ JE vaccination is included into RI.

• 215 JE endemic districts (17 districts identified recently) identified across 21 states – campaigns completed in 206 districts ➔ JE now part of RI.

• More than 14.5 crore children immunized during the campaign

• 31 high burden districts identified in 3 states for Adult JE vaccination in endemic blocks (Assam, UP, West Bengal)

• Adult JE vaccination campaign completed in 21 districts of Assam, UP and West Bengal; 2.6 crore beneficiaries aged 15-65 years were vaccinated. Activity ongoing in remaining 10 districts.
Rotavirus vaccine (RVV) launched on 26\(^{th}\) March 2016.

Introduced in 4 states

Since introduction, 33.37 lakh doses of RVV have been administered to infants in these states till December 2016.

Plan to introduce RVV in Assam, Tripura, Madhya Pradesh, Rajasthan & Tamil Nadu in last quarter of 2016-17.
Measles Rubella (MR) Vaccine

Campaigns proposed to be conducted in a phased manner across India, targeting 420 million children over 3 years.

Campaign started in 5 states:
- Karnataka
- Tamil Nadu
- Goa
- Puducherry
- Lakshadweep

MR vaccine to be integrated into routine immunization following campaign, replacing both doses of measles vaccine given at 9-12 months & 16-24 months.
Pneumococcal Conjugated Vaccine (PCV)

- Approval of MSG obtained for introduction of PCV in a phased manner
- PCV will be introduced in the identified States as per Expert Group recommendations in the last quarter of FY 2016-17.
- In the first year, vaccine will be introduced in Himachal Pradesh & parts of UP & Bihar.
India committed to achieving 90% full immunization coverage by 2020!

THANK YOU