

## Faculty Development Program for IIHMR Group of Institutions

# Vaccine-preventable diseases

Date: December 5, 2020



**Dr. Manjunath**  
IIHMR Delhi

Dr. Usha Manjunath is a Professor and Director at IIHMR Bangalore. Her education includes M.Sc. Speech & Hearing from AIISH, Mysore and M.Phil. (Hospital and Health System Management) and Ph.D. in Management from BITS, Pilani. She holds a certificate on 'Strategic Leadership and Management in Healthcare' 2012 by IIHMR, Delhi and Johns Hopkins Bloomberg School of Public Health. She is trained in Implementation of NABH Standards for Hospitals in June 2019 by NABH/Quality Council of India.

Dr. Usha has a unique experience in allied health/disability, communication, entrepreneurship, general and health system management research/academics. She has 13 years of experience as a Speech and Audiology professional with a Certificate of Clinical Competence (CCC) in Speech Pathology from ASHA, USA (1990). During these years, she worked in various organisations including NGOs, Schools and Hospitals in India and USA. Speech Therapy and Deaf Children Education form the core of her contributions. In 1999, she made a career change and joined BITS, Pilani, Rajasthan, as a teaching faculty in management which propelled her into academics/higher education, and pursued her passion in healthcare further. She joined IIHMR Bangalore in 2010, and is a dynamic leader backed by her long unique experience in academics/teaching, consultancy & research projects, training & capacity building, community/social development work with special focus in health system management. Her competencies include healthcare delivery system analysis, social mobilization, SBCC/IEC, communication, management principles, organization behaviour, marketing, HRM, quality and strategy. She is adept at training and undertaking MDPs for different stakeholders in her area of expertise, using a variety of platforms: live-physical, on-line and hybrid modalities.

Dr. Usha's research work includes Total Quality Service Management Model for Healthcare, nutrition-health-life cycle approach, IEC pre-testing, MCH, WASH, Women Empowerment, Health, Stress Management etc. Her research strengths are in field work, mixed methodology approach for field and organization research, writing of reports, manuscripts, research briefs, and content writing etc. Research projects successfully completed include those funded by GoI, GoK, ICMR, Unicef, WHO, Alive & Thrive, Deaf Child Worldwide – UK, HCL Foundation, United Way India, BDT School for the Deaf and others. Her Consultancy projects include: Impact Evaluation of Primary School Education project by APD in four districts of Karnataka supported by DCW; Market Research for Ophthalmic Products – BIRAC Project by a private Ophthalmology group in Bangalore; Strategy and Future directions for BDT Deaf School in Laxmeshwar, Gadag; Impact of COVID 19 on Health and Nutritional Status among Young Children: A Qualitative Study in Selected Anganwadi Centres in Bengaluru Urban.

Dr. Usha has published widely in National and International Journals and print/e-media. She has published a book "Total Quality in Healthcare-An Empirical Investigation" 2012 by Rawat Publications based on her Ph.D. thesis supported by ICSSR grant. Endowed with excellent communication and documentation skills, she was conferred with an Outstanding Editor Award by AIMS, International in 2012. She was awarded Bharat Ratna Indira Gandhi Gold Medal Award – for Excellence by GEPR, New Delhi. March 8th, 2018. She likes to take up volunteering whenever time permits and is humbled by her role of social responsibility in mobilizing and supporting Global Grant application to Rotary International and Local Rotary Club (Matching Grant) for BDT Deaf School for strengthening education through technology including Hearing Aids, Audio-visual Lab, Smart Classrooms, Audiometry Set Up, and STEM Mini Lab.



# Faculty Development Program

## IIHMR - Bangalore

**Dr. Manjunatha R**

**MBBS, MPH, Ph.D (Community Medicine)**

Associate Professor, IIHMR, Bangalore

Date: 05<sup>th</sup> December 2020



# Introduction



## Vaccine preventable diseases

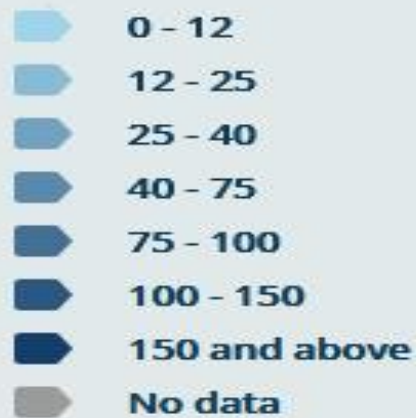
- Vaccines
- Immunization
- UIP
- Cold chain and vaccine storage
- VHND
- Adult vaccination
- Immunization during COVID - 19
- IIHMR Bangalore's participation in Immunization campaigns



# Importance of Immunization

- Globally, Immunization currently **prevents 2-3 million deaths every year**
- It is one of the **most cost-effective public health interventions** and largely responsible for reduction of vaccine preventable under-5 mortality rate.
- Two regions, Sub-Saharan Africa and Central and Southern Asia, account for more than 80 per cent of the **5.2 million under-five deaths in 2019**, while they only account for 52 per cent of the global under-five population.
- Half of all under-five deaths in 2019 occurred in just **five countries**: Nigeria, India, Pakistan, the Democratic Republic of the Congo and Ethiopia.
- WHO is working with countries and partners to improve global vaccination coverage, through the **“Global Vaccine Action Plan 2011-2020”**.



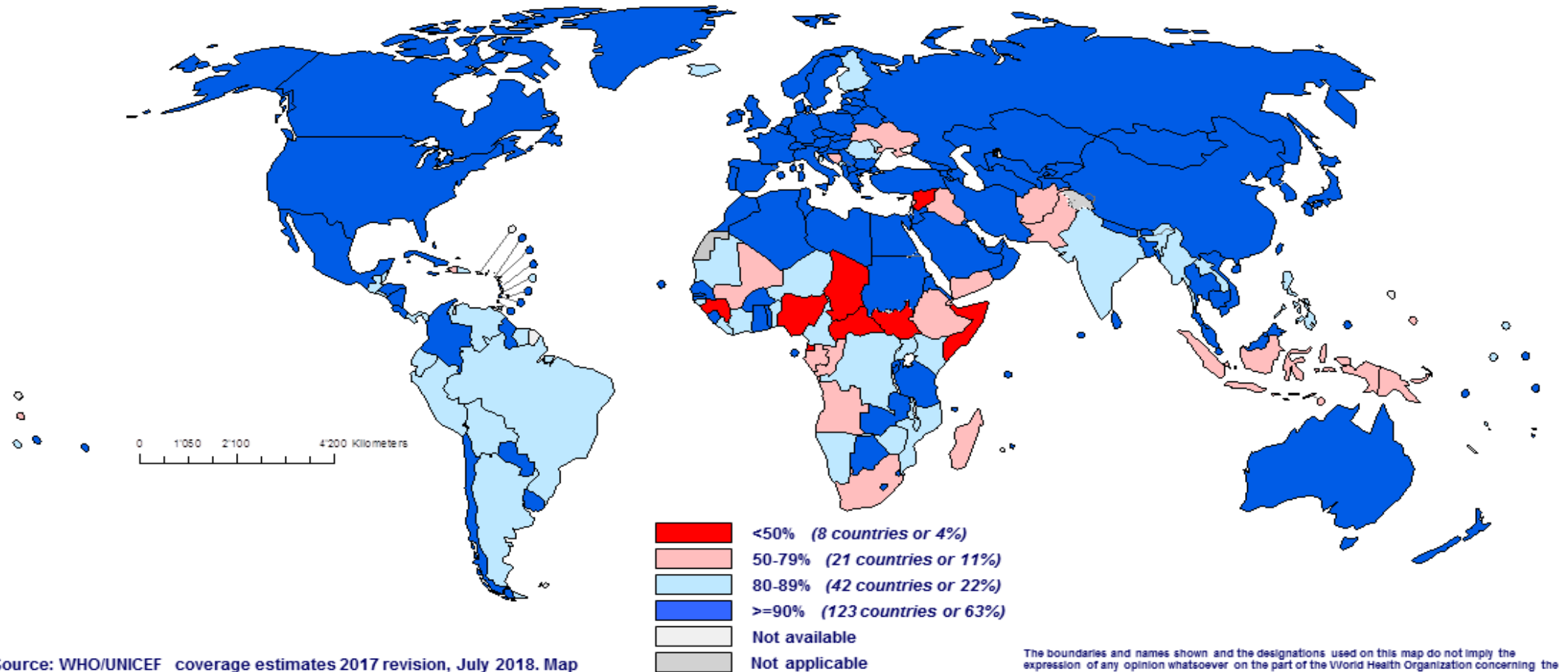


*Note: This map does not reflect a position by UN IGME agencies on the legal status of any country or territory or the delimitation of any frontiers.*

## Under five mortality – Global picture (2019)

- Estimates developed by the UN Inter-agency Group for Child Mortality Estimation
- (UNICEF, WHO, World Bank, UN Population Division) at [childmortality.org](https://childmortality.org).

# Immunization coverage with DTP3 vaccines in infants , 2017



Source: WHO/UNICEF coverage estimates 2017 revision, July 2018. Map production: Immunization Vaccines and Biologicals, (IVB). World Health Organization. 194 WHO Member States. Date of slide: 15 July 2018.

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement. © WHO 2018. All rights reserved.



**SUSTAINABLE  
DEVELOPMENT  
GOALS**

## Looking ahead: Child survival and the Sustainable Development Goals

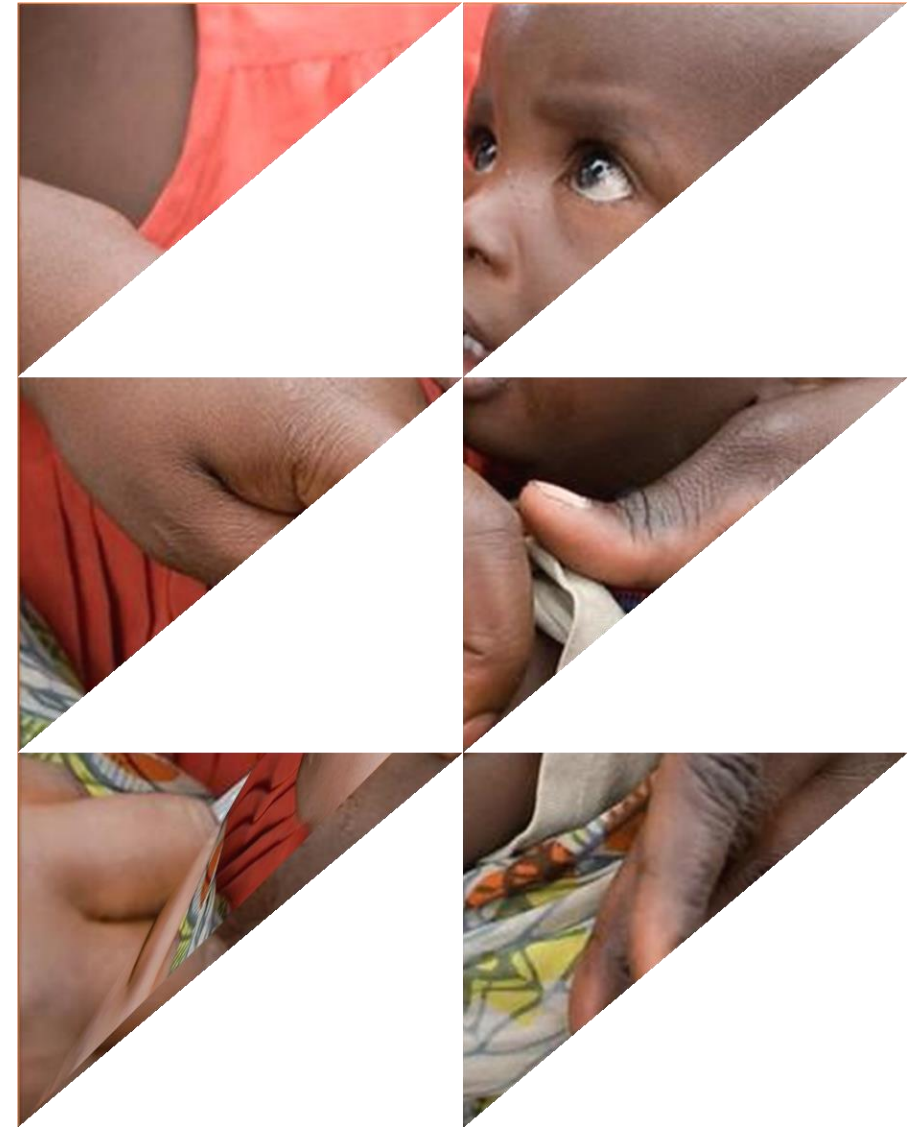
### Indicator 3.2.1: Under-5 mortality rate

- The proposed SDG target for child mortality aims to end, by 2030, preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce -
  1. Neonatal mortality to at least as low as 12 deaths per 1,000 live births and
  2. Under-5 mortality to at least as low as 25 deaths per 1,000 live births.



# Vaccine

- **Vaccine** is a biological preparation that provides active [acquired immunity](#) to a particular [infectious disease](#).
  - A vaccine typically contains - weakened or killed forms of the microbe,
  - Its toxins, or one of its surface proteins.
- **Vaccination** is a simple, safe, and effective way of protecting people against harmful diseases, before they come into contact with them
- **Immunization** is the process whereby a person is made immune or resistant to an infectious disease, typically by the administration of a vaccine.





# Immunization

## Active Immunization

- **Active immunization** can occur naturally when a person comes in contact with a microbe. Eg. Natural infection with polio virus
- **Artificial active immunization** is where the microbe, or parts of it, are injected into the person before they are able to take it in naturally. Eg. IPV, OPV

## Passive Immunization

- **Passive immunization** is where pre-synthesized elements of the immune system are transferred to a person so that the body does not need to produce these elements itself. Eg. TT

- Vaccines contain dead or inactivated organisms or purified products derived from them.

## Types of vaccines

Live attenuated Vaccines  
Eg. : BCG, OPV, Measles

Inactivated or killed  
vaccines  
Eg.: IPV, JE, Hepatitis – A

Subunit vaccines

- \* Toxoids – Td
- \* Polysaccharide – Pneumococcus, Typhoid
- \* Conjugated – Hib
- \* Recombinant – HBV, HPV

# Vaccine Preventable Diseases (VPDs)

- Vaccines to prevent more than 27 life-threatening diseases
- Immunization is a key component of primary health care and an indisputable human right.

- 
- Cervical cancer
  - Cholera
  - Diphtheria
  - Hepatitis - A
  - Hepatitis - B
  - Influenza
  - Japanese encephalitis
  - Measles
  - Meningitis
  - Mumps
  - Pertussis
  - Pneumonia
  - Polio
  - Rabies
  - Rotavirus
  - Rubella
  - Tetanus
  - Typhoid
  - Varicella
  - Yellow fever
-

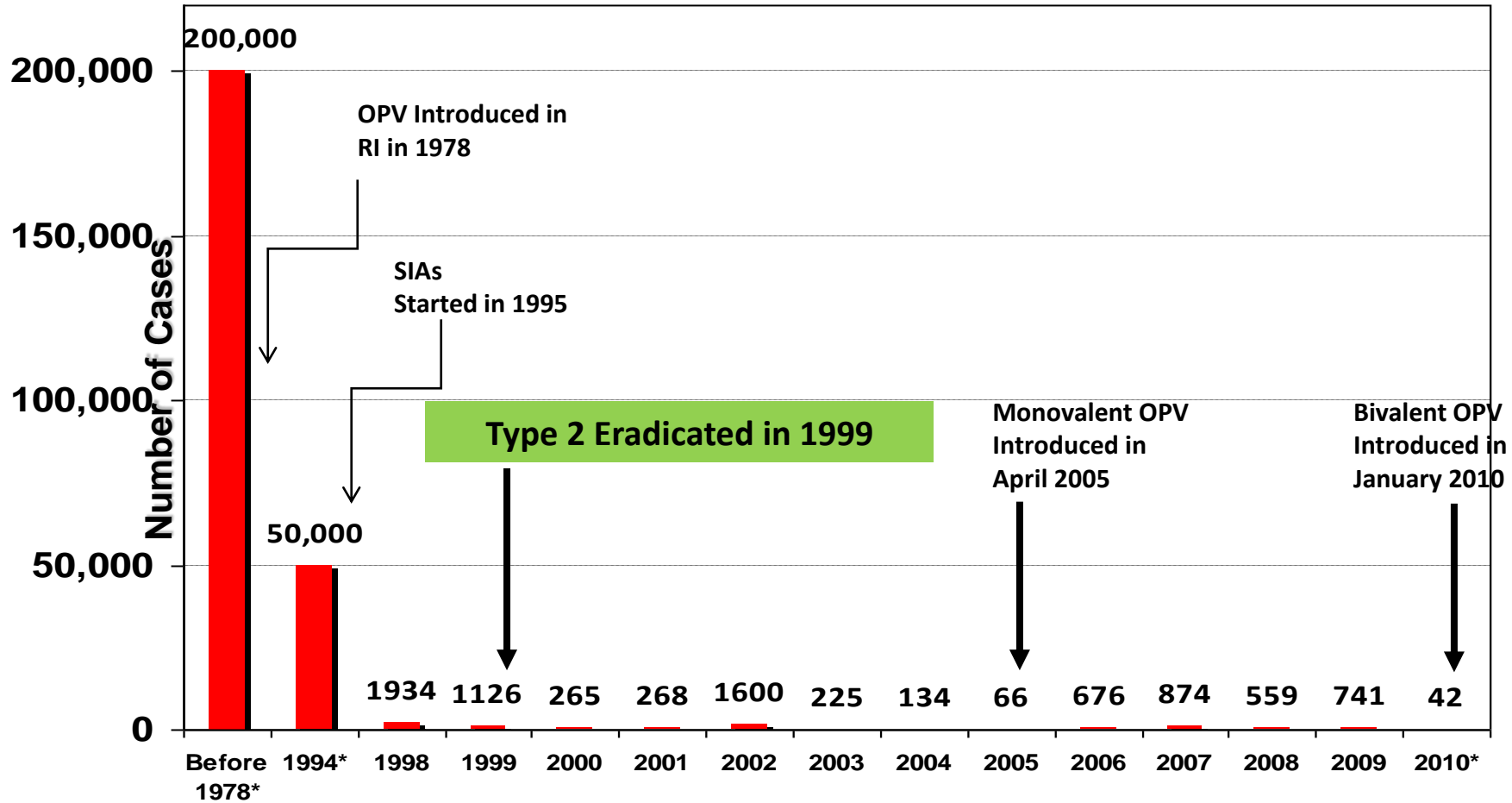
# Polio

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- Poliomyelitis (polio) is a highly infectious viral disease that largely affects children under 5 years of age.
- The virus is transmitted by person-to-person spread mainly through the faecal-oral route or, less frequently, by a common vehicle (e.g. contaminated water or food)
- 3 strains of wild poliovirus (type 1, type 2 and type 3),
  - Wild poliovirus type 2 was eradicated in 1999 and
  - No case of wild poliovirus type 3 has been found since the last reported case in Nigeria in November 2012.
  - Both strains have officially been certified as globally eradicated.
- As of 2020, wild poliovirus type 1 affects two countries: Pakistan and Afghanistan.



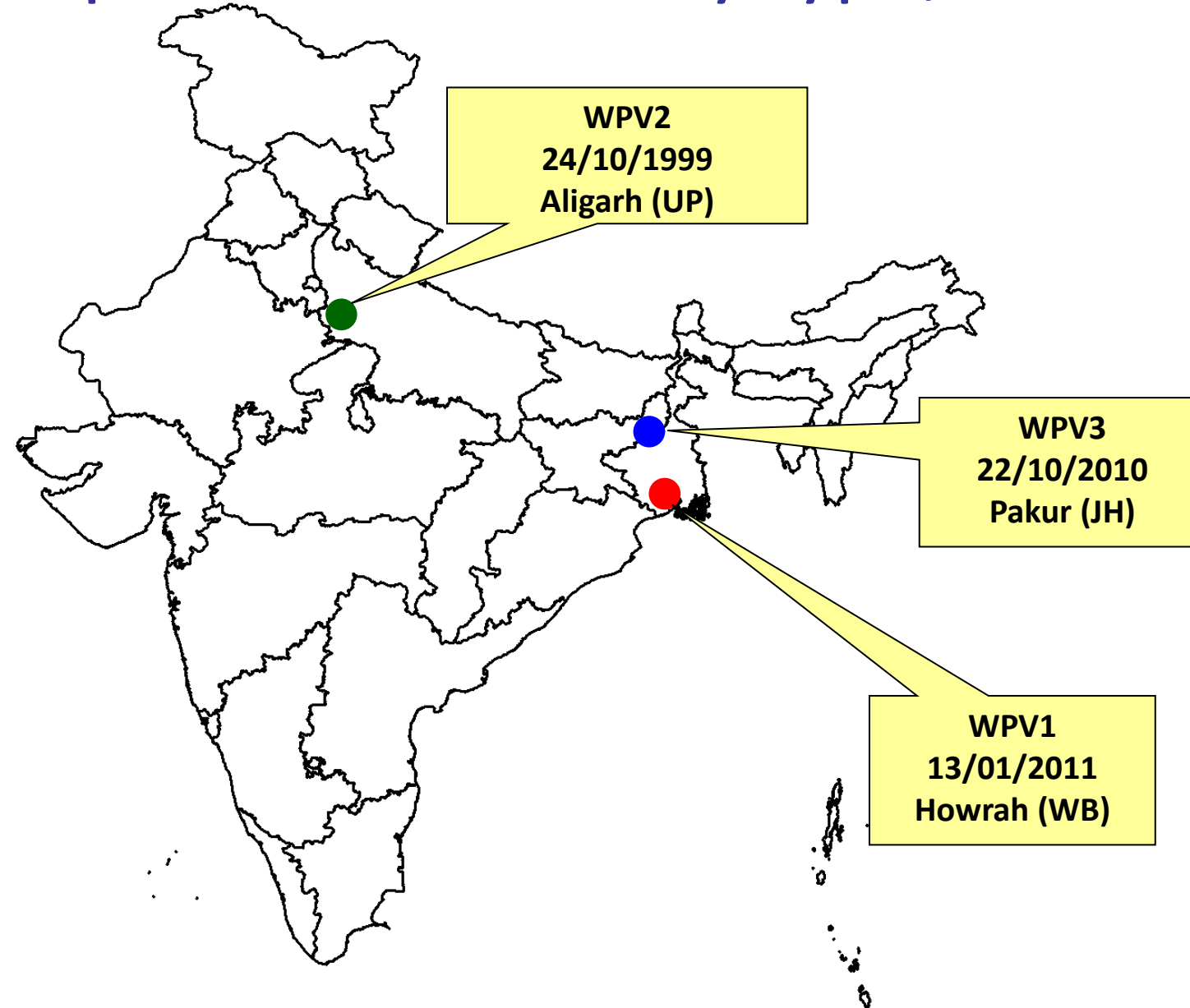
# History of Polio in India



Based on estimates by Indian Academy of Pediatrics and World Health Organization

OPV, Oral Polio Vaccine  
 RI, Routine Immunization  
 SIAs, Supplementary Immunization Activities

# Last wild poliovirus cases by type, India





# Smallpox

- Smallpox is an acute **contagious disease** caused by the variola virus
- Smallpox is transmitted from person to person via **infective droplets** during close contact, or in some cases through contaminated clothing and bedding.
- It was one of the most devastating diseases known to humanity and caused millions of deaths before it was eradicated. **It is believed to have existed for at least 3000 years.**
- Smallpox was **fatal** in up to 30% of cases
- **The smallpox vaccine, created by Edward Jenner in 1796,** was the first successful vaccine to be developed
- The World Health Organization launched an **intensified plan to eradicate smallpox in 1967.** Widespread immunization and surveillance were conducted around the world for several years. The last known natural case was in **Somalia in 1977. In 1980 WHO declared smallpox eradicated** – the only infectious disease to achieve this distinction.







# Universal Immunization Programme in India

# Immunization Programme in India

- Immunization Programme in India was introduced in 1978 as Expanded Programme of Immunization (EPI)
- The programme gained momentum in 1985 and was expanded as Universal Immunization Programme (UIP)
- Currently, under Universal Immunization Programme, Government of India is providing vaccination to prevent 12 vaccine preventable diseases
- i.e. Hepatitis-B, H. influenza b, Polio, Tuberculosis, Diphtheria, Pertussis, Tetanus, Japanese Encephalitis, Rotavirus diarrhoea, Pneumonia, Measles and Rubella.



**Be Wise!**  
**Get your child fully immunized**



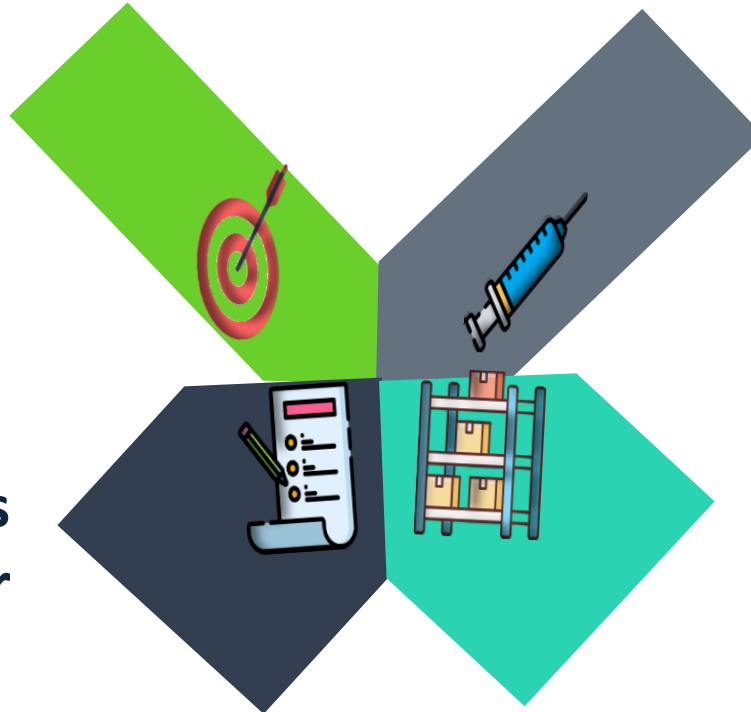
# Universal Immunization Programme

(Scope and Scale)

## One of the largest Public Health Programmes

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

**~1.2 crore sessions**  
**planned per year**



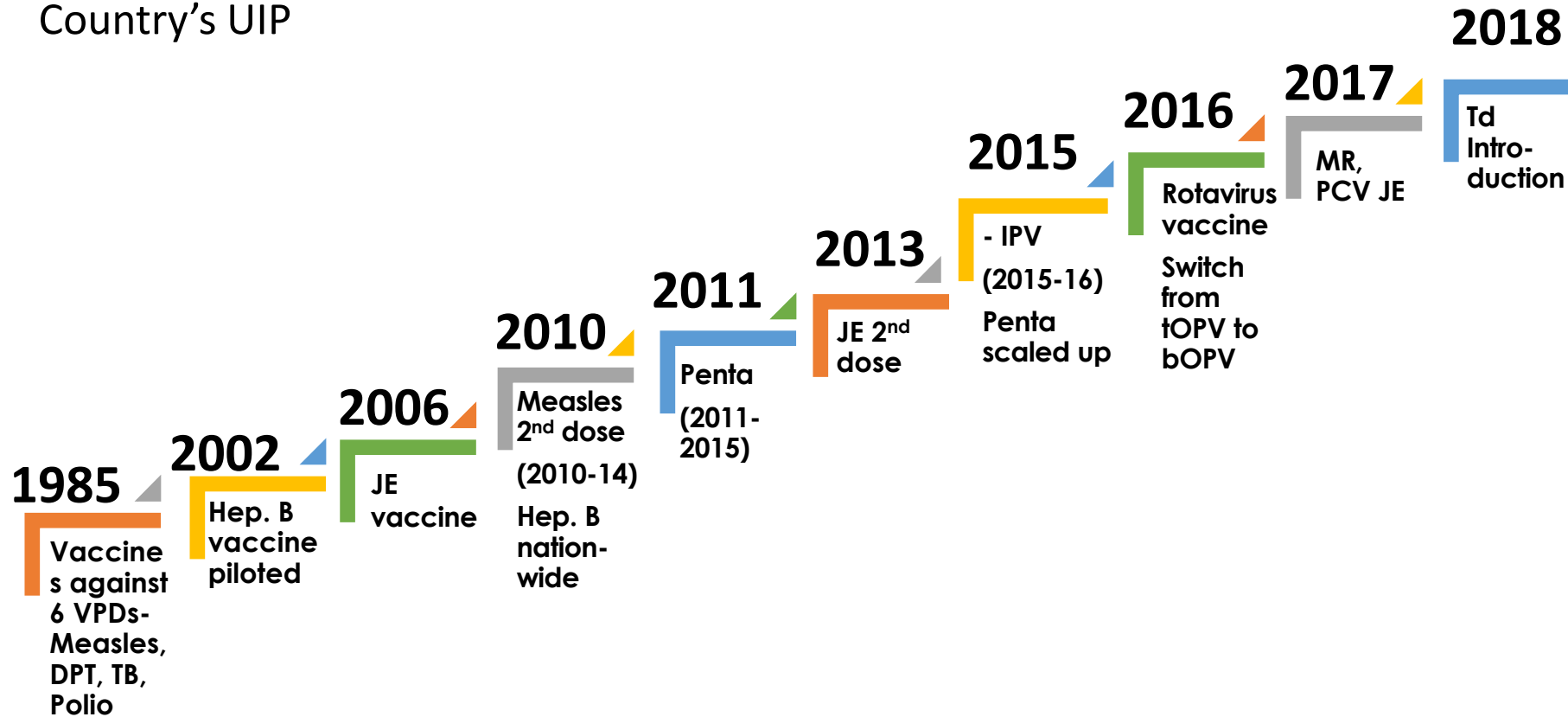
**Vaccine against VPDs**  
**10 nation wide;**  
**2 sub-nationally (JE,**  
**PCV)**

**~29,000 cold**  
**chain points for**  
**storage and**  
**distribution**

**Make in India: Largest vaccine manufacturing capacity in the world**

# Roadmap of New Vaccine Introduction

Since 2010 several new vaccines introduced in Country's UIP



Age	Vaccines given
Birth	BCG, OPV-0, Hepatitis B Birth dose
6 Weeks	OPV-1, Rota-1, Pentavalent-1, IPV-1 & PCV-1*
10 weeks	OPV-2, Rota-2 & Pentavalent-2
14 weeks	OPV-3, Rota-3, Pentavalent-3, IPV-2 & PCV-2*
9-12 months	MR-1, JE1*, PCV-B*
16-24 months	MR-2, JE2*, DPT-B, OPV –B
5-6 years	DPT-Booster-2
10 years	Td
16 years	Td
Pregnant Women	Td-1, 2 or Td Booster**

*\*in select states and districts*

*\*\* one dose if previously vaccinated within 3 years*

# Monumental Milestones Achieved

On 14th July 2016, WHO certified India for eliminating maternal and neonatal tetanus

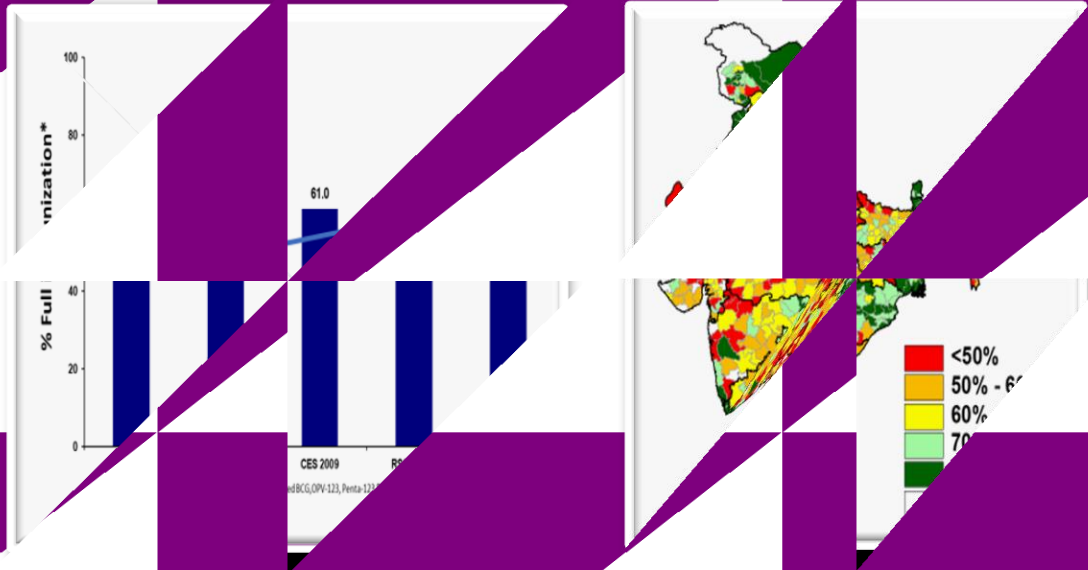


On 27th March 2014, South-East Asia Region of WHO, including India, certified POLIO-FREE



# Universal Immunization Program

(Programmatic  
Challenges)



Slow Progress

Equity Issues



Accessibility



Acceptance



Rapid  
Urbanization



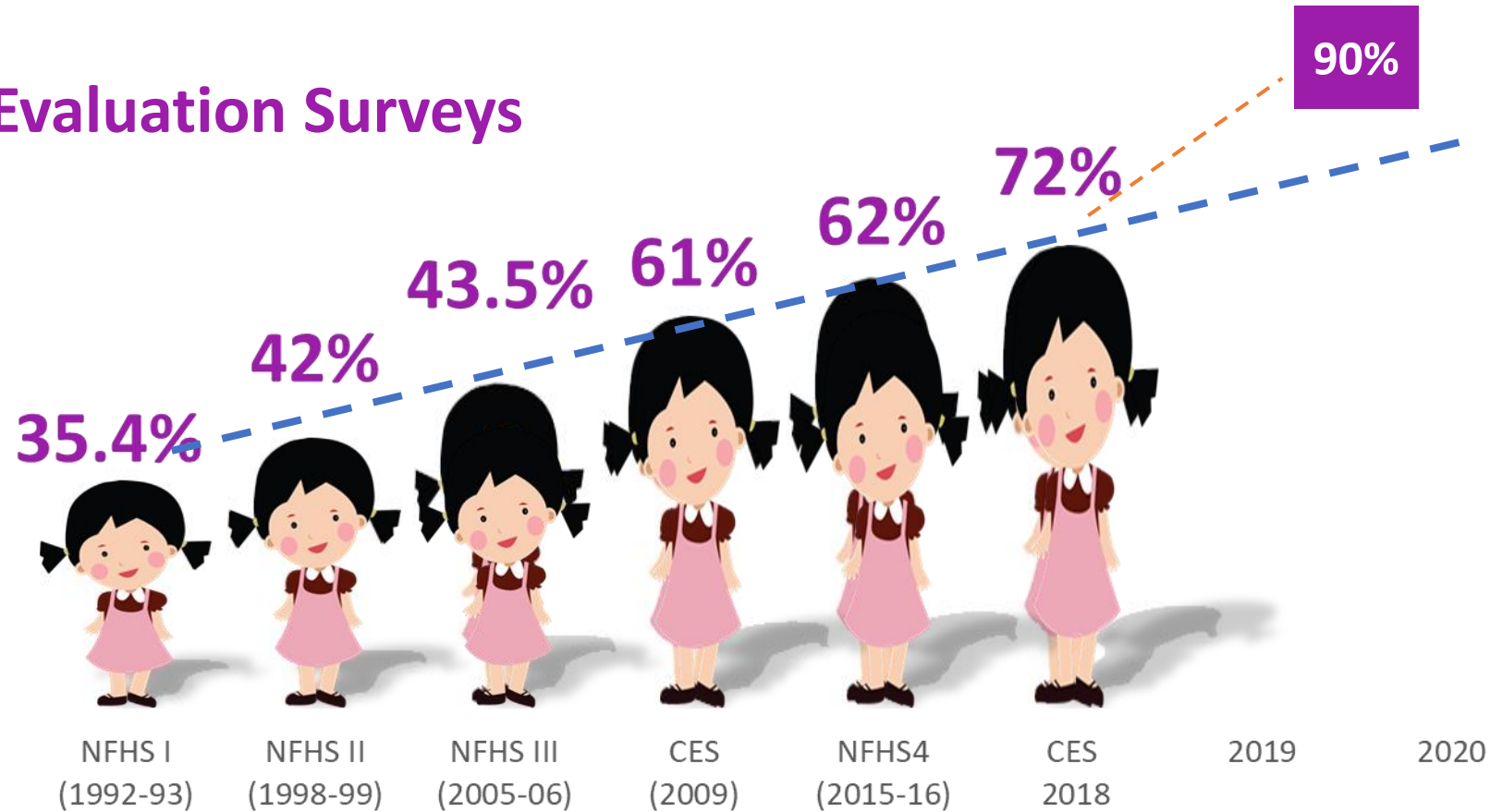
Migrant  
Populations





# Full Immunization Coverage

## Evaluation Surveys

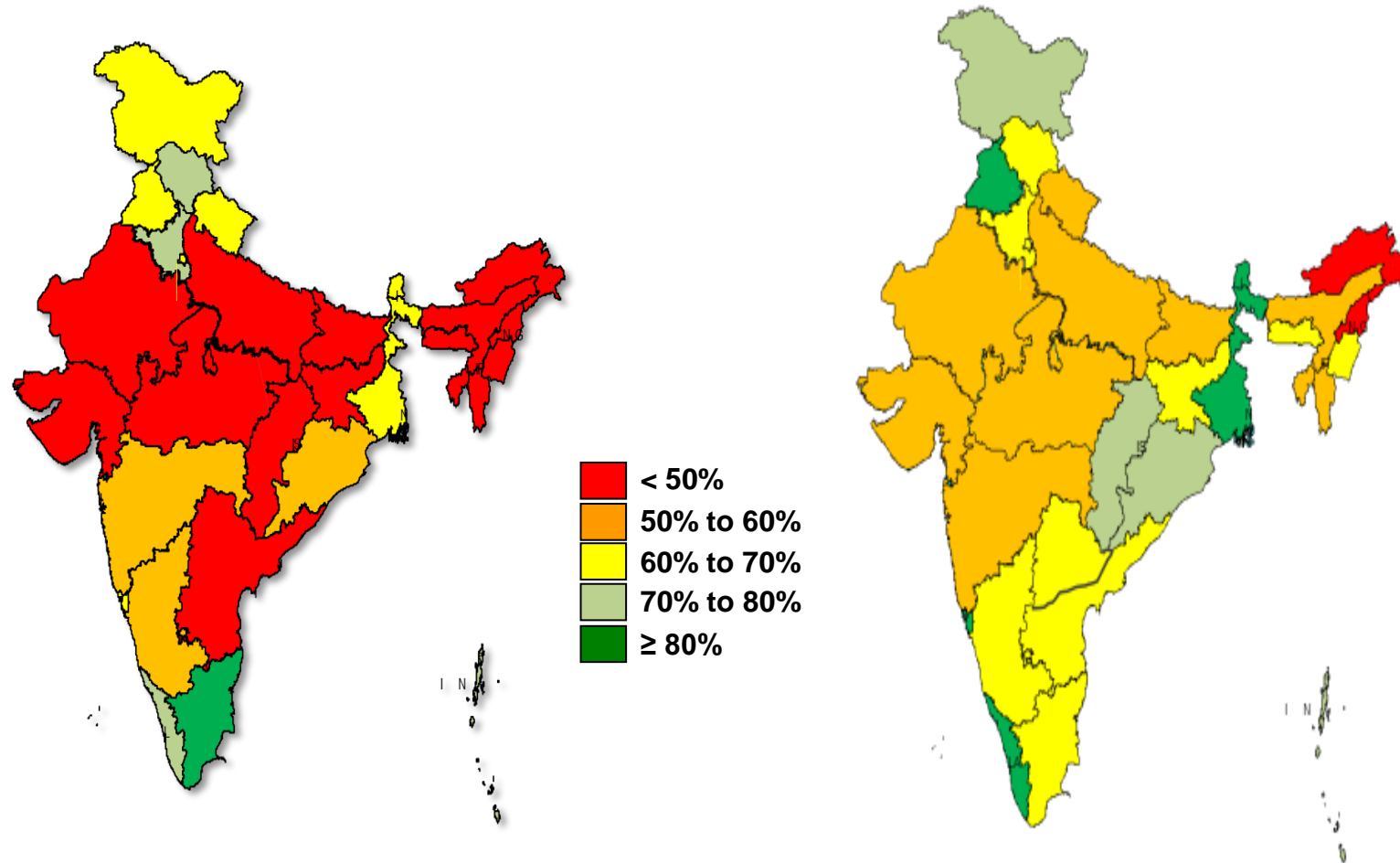


**CES 2018 shows 10% increase over NFHS 4**

*Source: Various Surveys*

\* FIC- Full Immunization Coverage: Children considered fully immunized when they have received BCG, 3 doses of DPT & Polio & a dose of Measles containing vaccine

# Immunization Coverage (FIC)

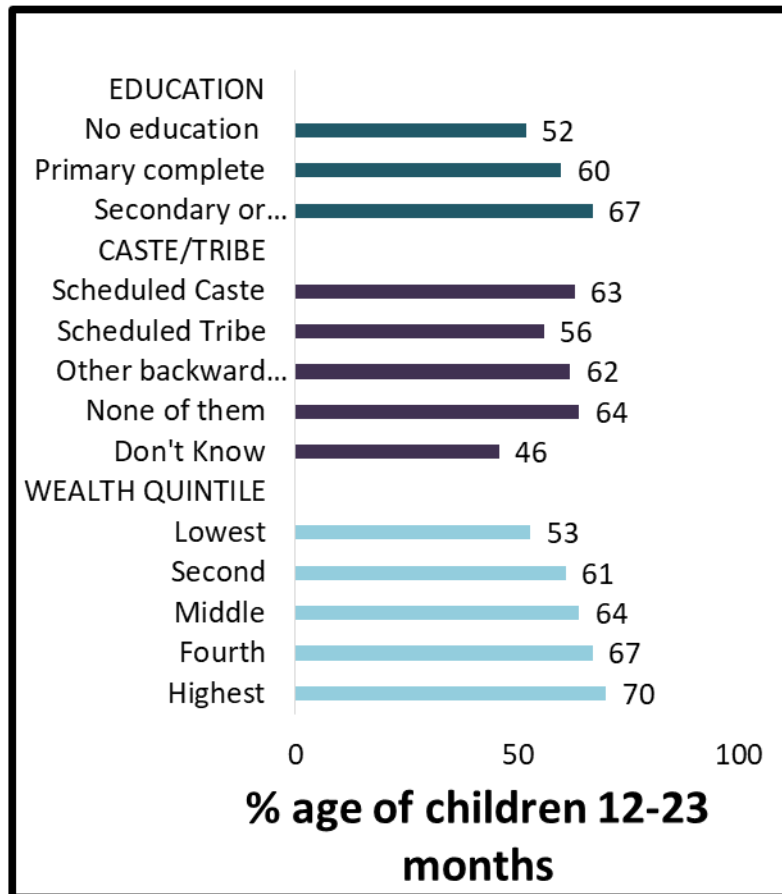


**India: 43.5% ranging from  
21% to 81%, NFHS-3, 2005-06**

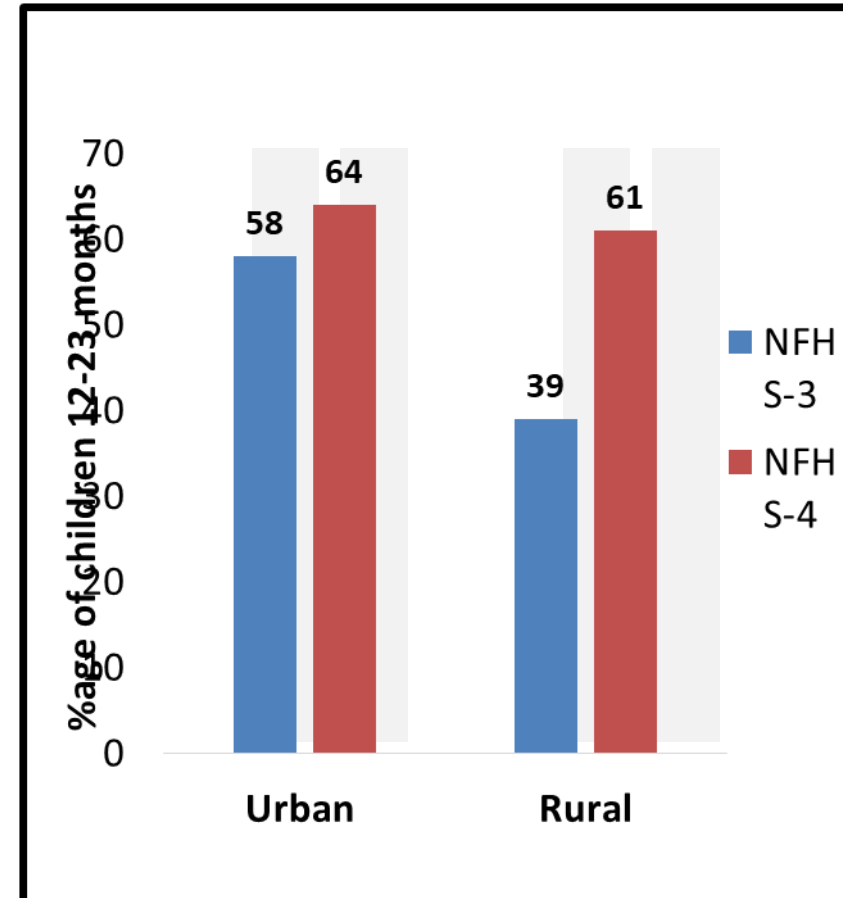
**India: 62% ranging from  
36% to 91%, NFHS-4, 2015-16**

# Inequity in Immunization

## Full Immunization Coverage



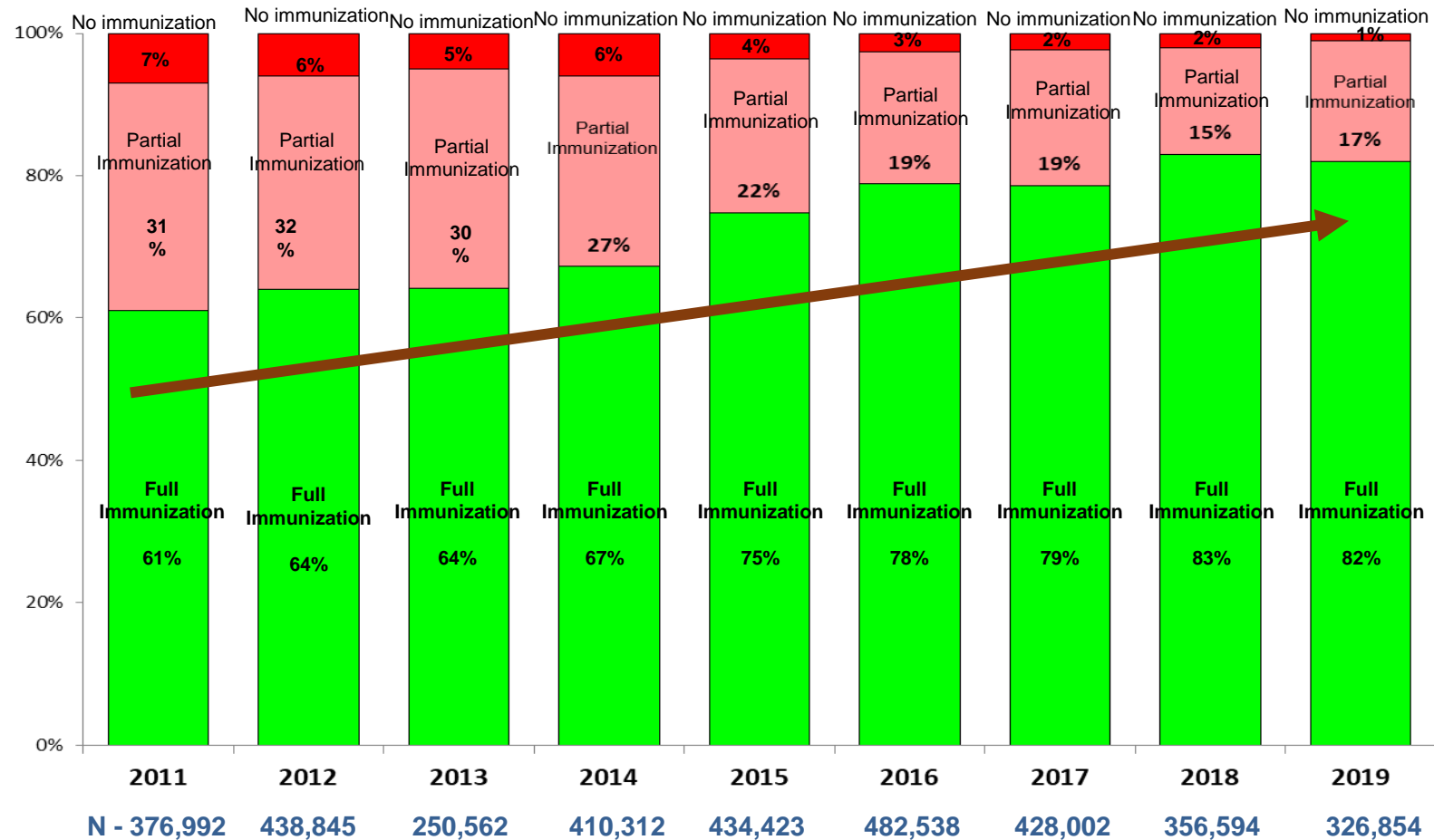
## Full Immunization Coverage in Urban & Rural areas



Data Source: NFHS-4 (2015-16)

# Improving Immunization Coverage

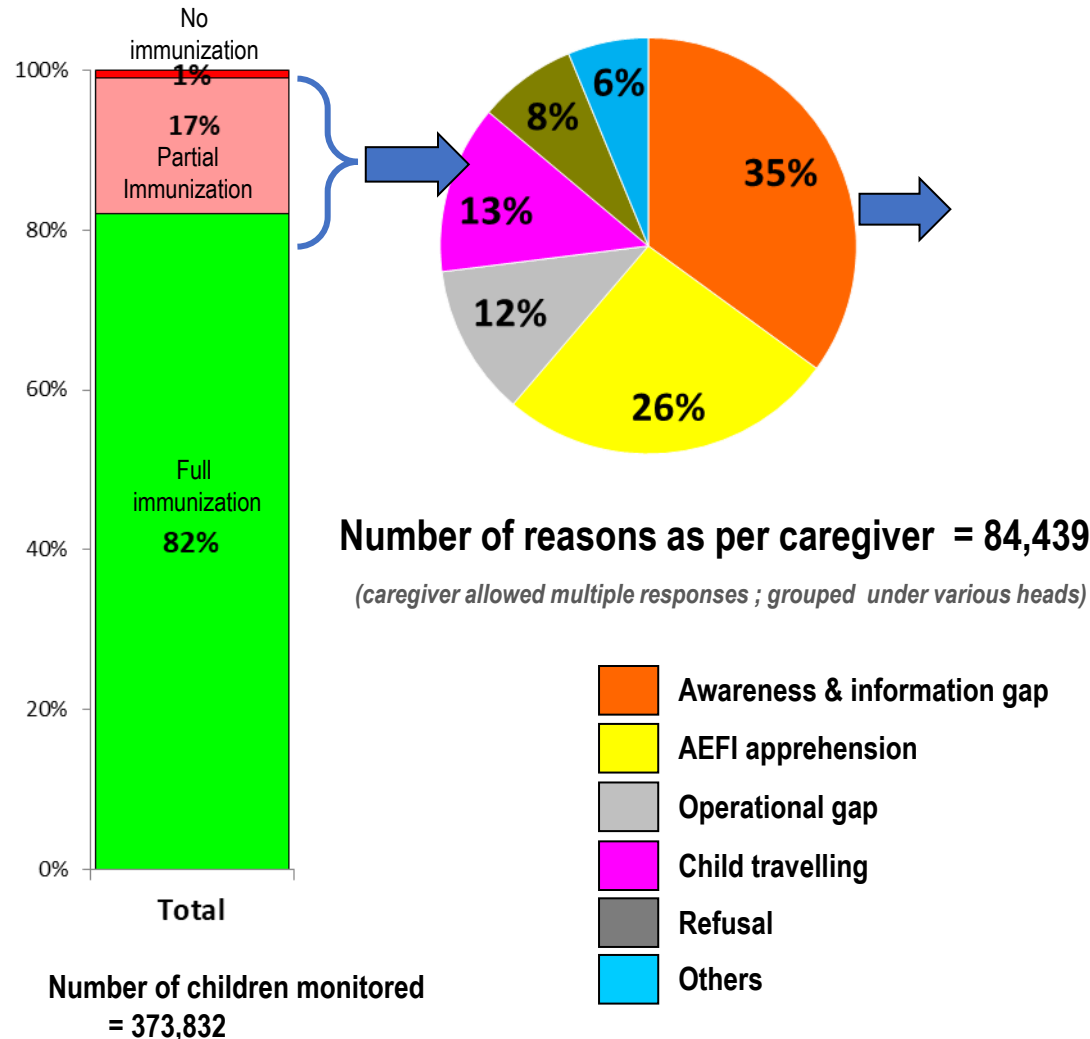
Concurrent RI Monitoring: 2011-2019\*



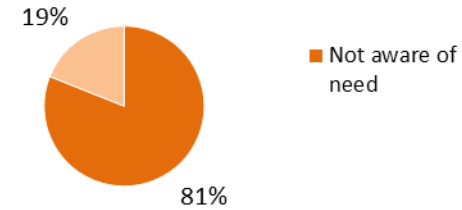
Data source : Concurrent RI monitoring data, 1<sup>st</sup> Jan 2010 to 31<sup>st</sup> Aug 2019

# Why Children Missing Due Vaccine Doses

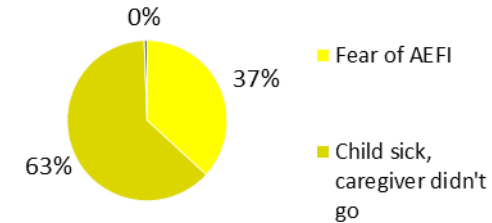
Children Aged 12-23 Months, RI Monitoring, India, 2019\*



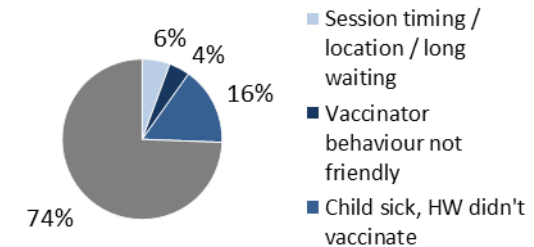
## 1. Awareness & information gap



## 2. AEFI apprehension



## 3. Operational gap



\* Data source: Concurrent RI monitoring, 1<sup>st</sup> Jan to Sep 2019

# Immunization Schedule for Pregnant Women



<b>Vaccine</b>	<b>Prevents</b>	<b>When to give</b>	<b>Dose</b>	<b>Route</b>	<b>Site</b>
<b>Td-1</b>	Tetanus and Diphtheria	Early in pregnancy	0.5 ml	Intra-muscular	Upper Arm
<b>Td-2</b>		4 weeks after Td-1	0.5 ml	Intra-muscular	Upper Arm
<b>Td-Booster</b>		If received 2 TT/Td doses in a pregnancy within the last 3 yrs	0.5 ml	Intra-muscular	Upper Arm

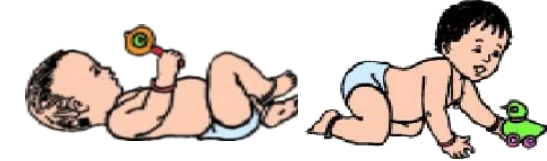
# Immunization Schedule for New-born



Vaccine	Prevents	When to give	Dose	Route	Site
Hepatitis B - birth dose	Hepatitis B virus infection	At birth or as early as possible within 24 hours	0.5 ml	Intra-muscular	Antero-lateral side of mid-thigh
OPV-0	Poliomyelitis	At birth or as early as possible within the first 15 days	2 drops	Oral	Oral
BCG	Tubercular meningitis and disseminated TB.	At birth or as early as possible till one year of age	0.1ml (0.05ml until 1 mth)	Intra-dermal	Left Arm Upper



# Immunization Schedule for Infant



Vaccine	Prevents	When to give	Dose	Route	Site
OPV 1,2 & 3	Poliomyelitis	At 6 weeks, 10 weeks & 14 weeks (can give up to 5 years of age)	2 drops	Oral	Oral
Inactivated Poliovirus Vaccine (IPV)	Poliomyelitis	At 6 weeks and 14 weeks along with OPV 1 and OPV 3 (Two fractional doses)	0.1 ml	Intra-dermal	Right Upper arm
Pentavalent 1, 2 & 3	Diphtheria, Pertussis, Tetanus, HI type b Hepatitis B	At 6 weeks, 10 weeks & 14 weeks (can give up to 1 year of age)	0.5 ml	Intra-muscular	Antero-lateral side of mid-thigh
Rotavirus vaccine 1,2, & 3	Diarrhoea due to rotavirus	At 6 weeks, 10 weeks & 14 weeks (can give up to 1 year of age)	2.5 ml	Oral	Oral

# Immunization Schedule for Infant



Vaccine	Prevents	When to give	Dose	Route	Site
MR (1st dose)	Measles and Rubella	9 completed mths-12 mths. (can give up to 5 yrs if not received at 9-12 mths age)	0.5 ml	Sub-cutaneous	Right Arm upper
JE 1	Japanese Encephalitis	9 completed months-12 months (can give up to 15 years of age)	0.5 ml	Sub-cutaneous	Left Arm Upper
Vitamin A (1 <sup>st</sup> dose)	Xerophthalmia	At 9 months with measles	1 ml (1 lakh IU)	Oral	Oral

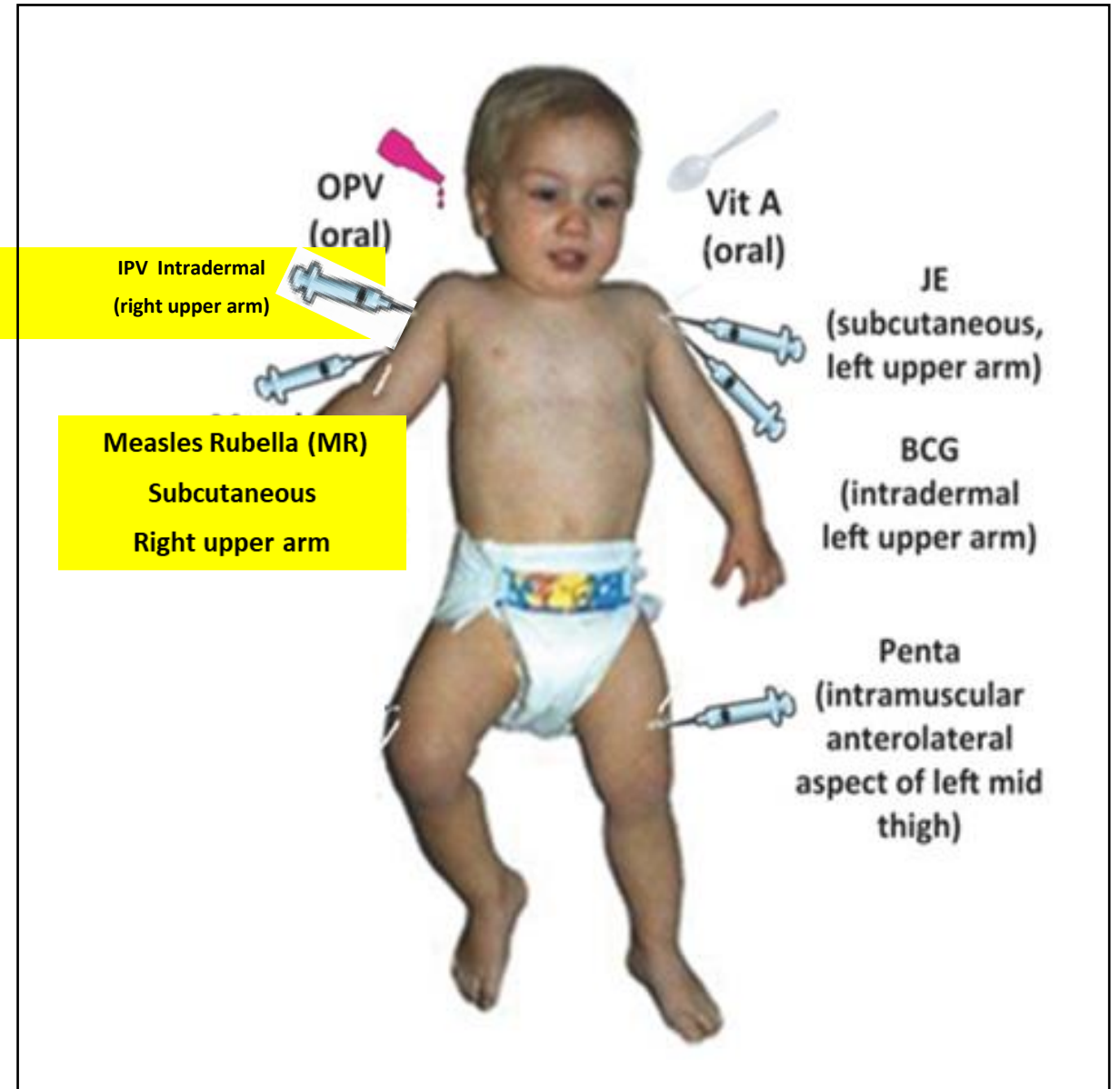
# Immunization Schedule for Child



Vaccine	When to give	Dose	Route	Site
DPT booster-1	16-24 months (DPT can be given up to 7 yrs of age)	0.5 ml	Intra-muscular	Antero-lateral side of mid-thigh
MR 2nd dose	16-24 months	0.5 ml	Sub-cutaneous	Right upper Arm
OPV Booster	16-24 months	2 drops	Oral	Oral
JE - Booster	16-24 months with DPT/OPV booster	0.5 ml	Sub-cutaneous	Left Upper Arm
Vitamin A (2 <sup>nd</sup> to 9 <sup>th</sup> dose)	16 months with DPT/OPV booster Then, one dose every 6 mths up to 5 yrs of age.	2 ml (2 lakh IU)	Oral	Oral
DPT Booster-2	5-6 years	0.5 ml.	Intra-muscular	Upper Arm
Td	10 yrs and 16 yrs	0.5 ml.	Intra-muscular	Upper Arm



# Site & Route of Different Vaccines





# Cold Chain and Vaccine storage

# What is the Cold Chain?

The Cold Chain is the system of:



People



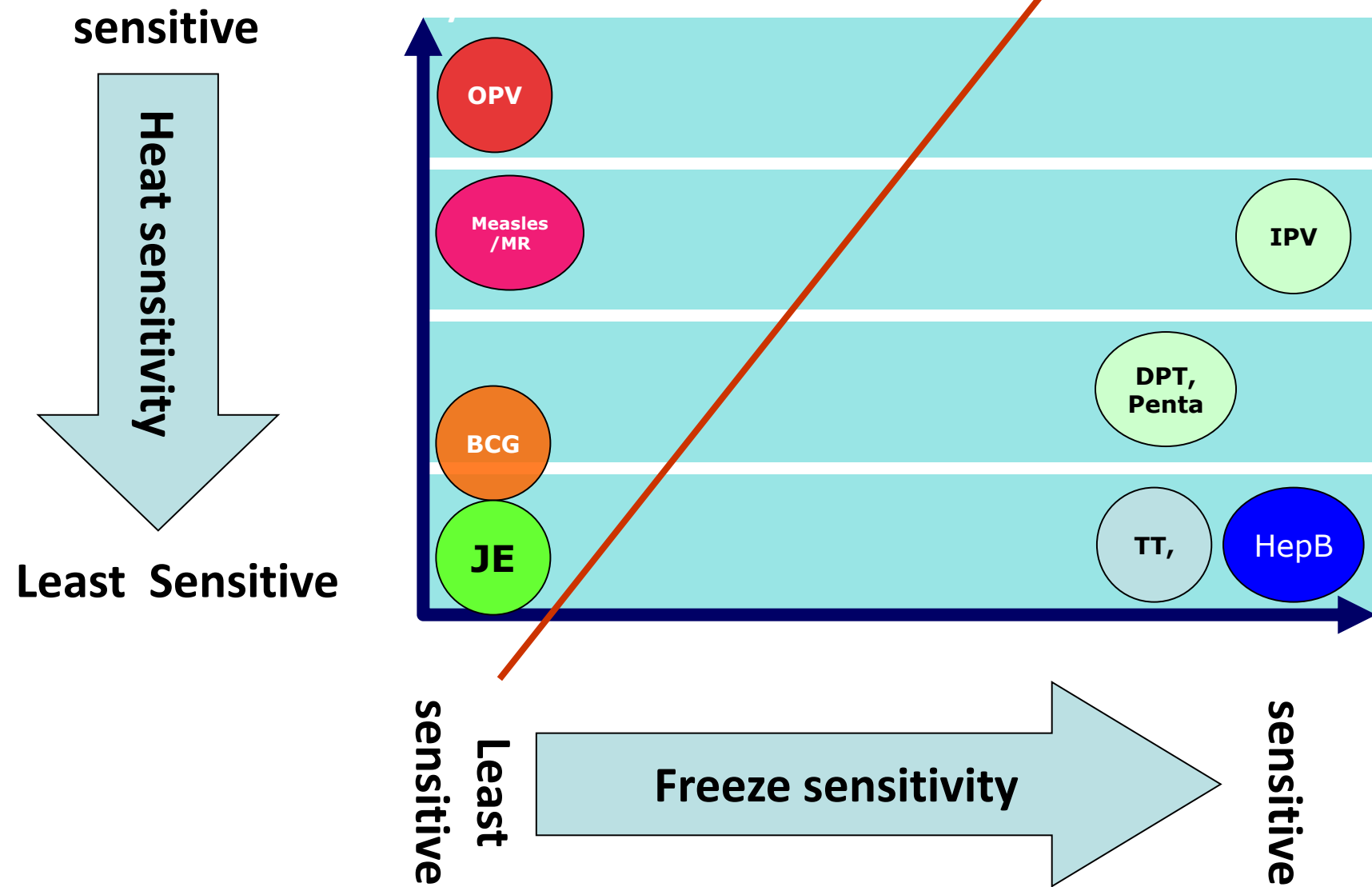
Equipment



Procedures

Keeps vaccines at the right temperature to enable them to remain potent during their journey from the site of manufacturing to the point of use

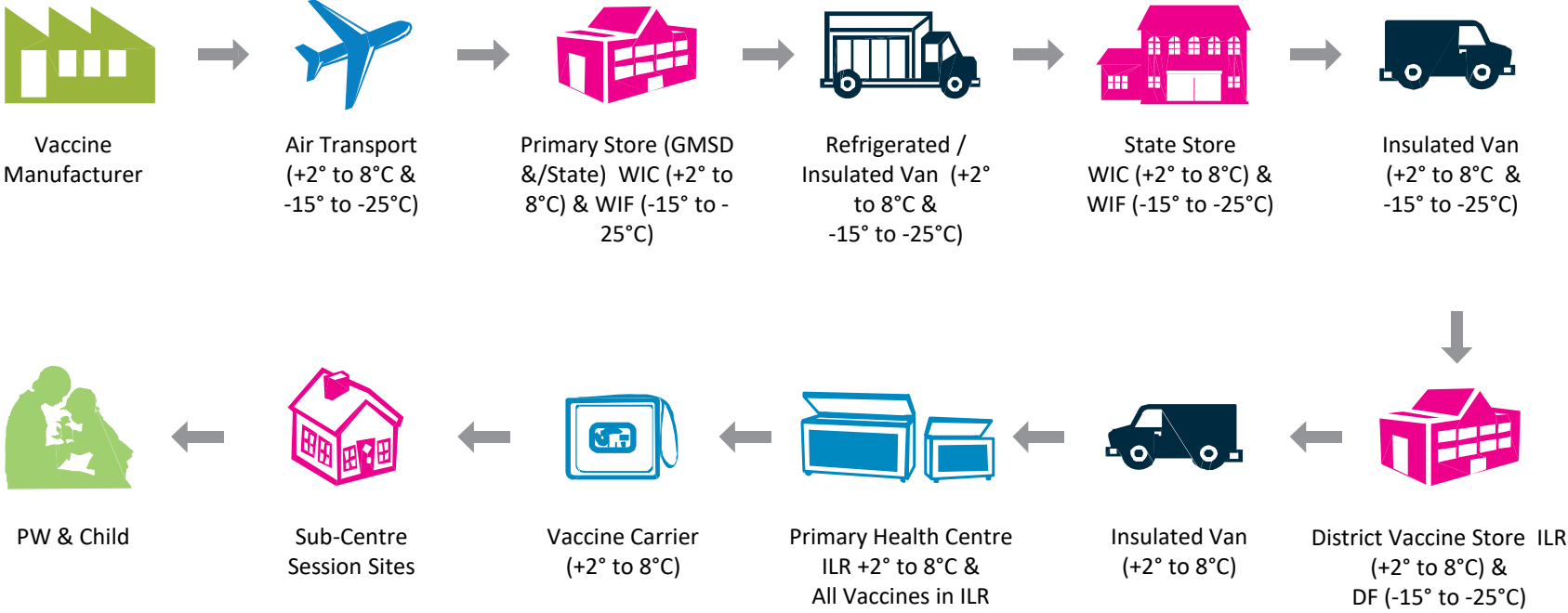
# Vaccine Temperature Sensitivity



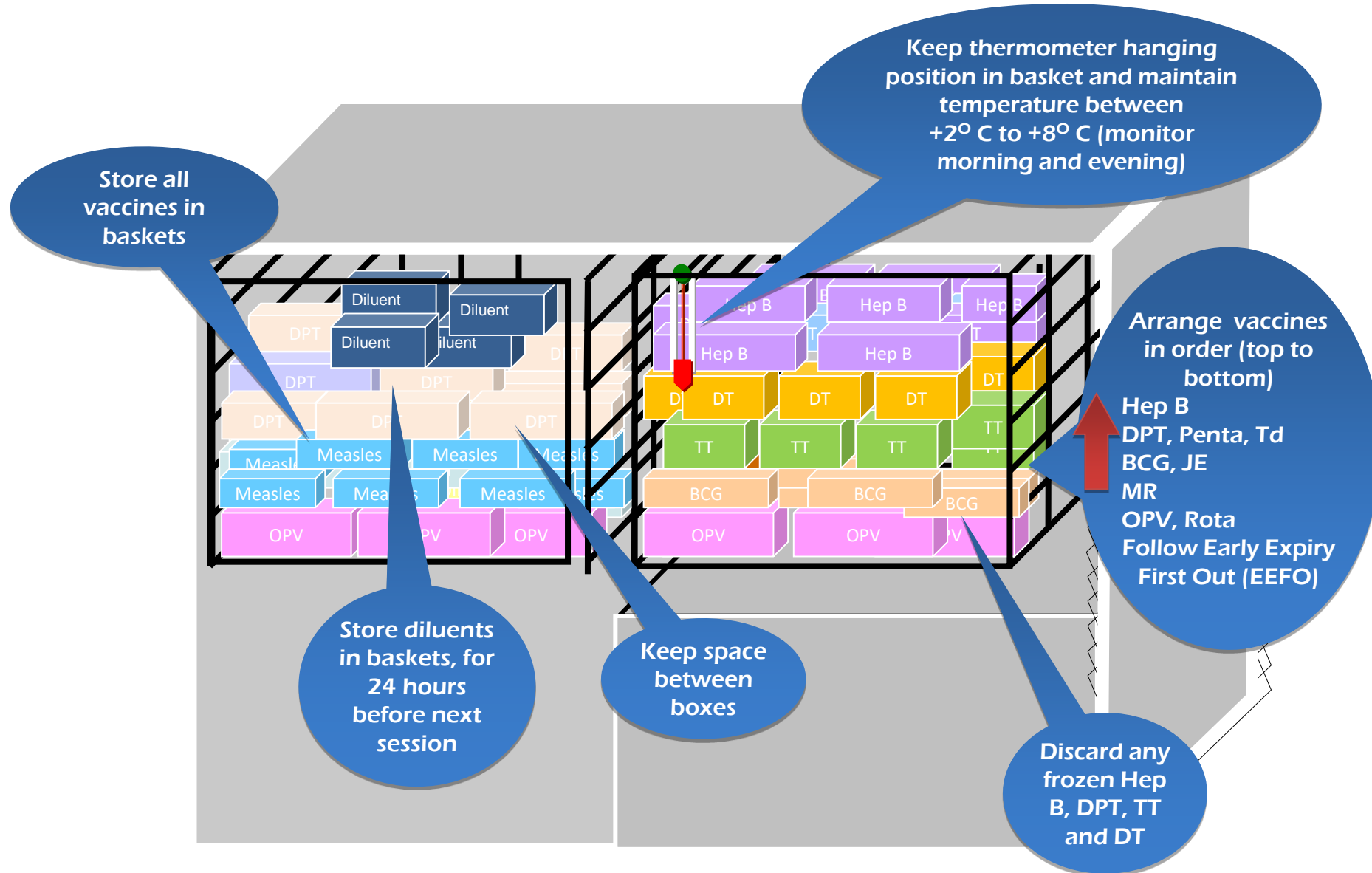
**Vaccines in the PHC's ILR at +2°C to +8°C for 1 month**



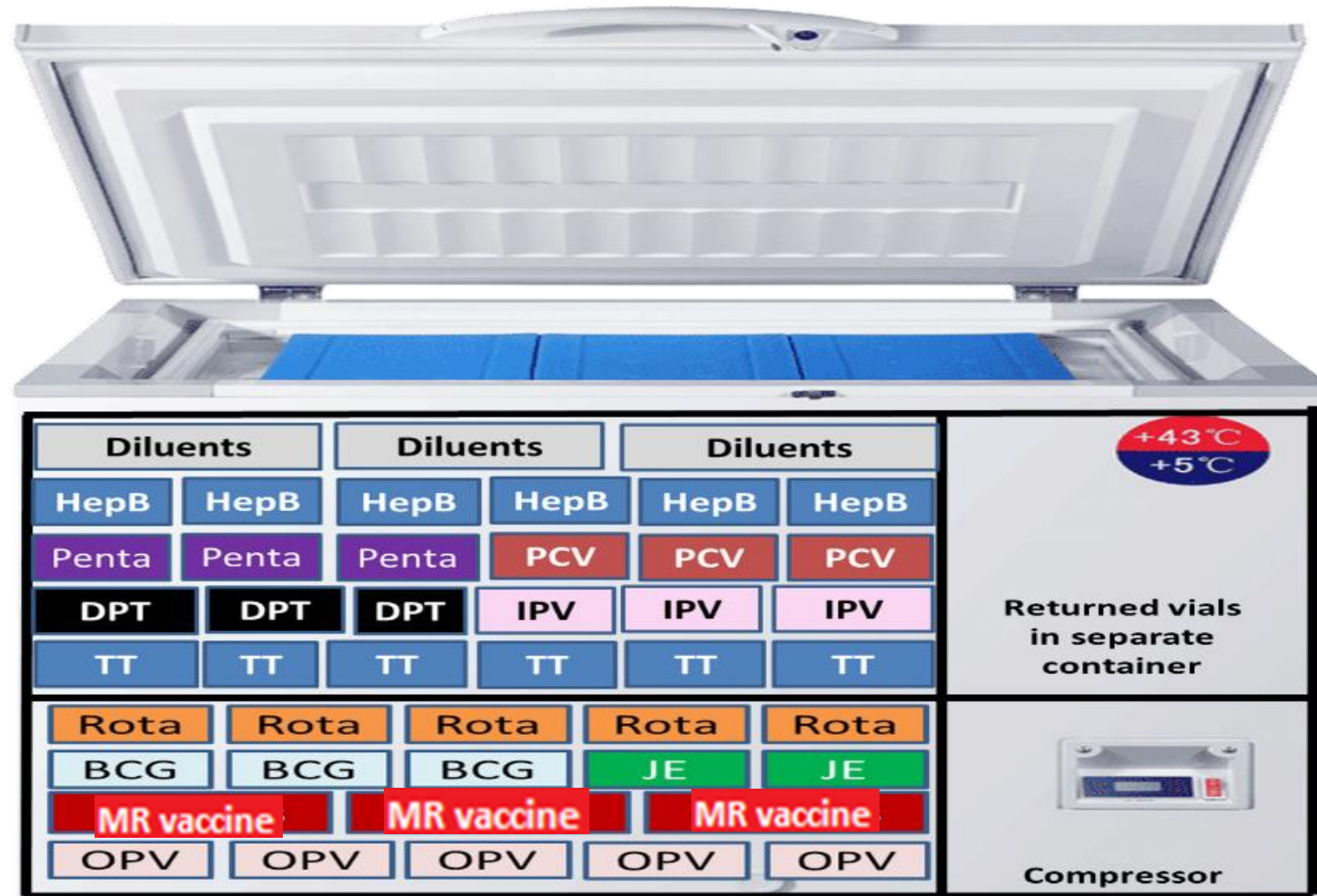
# What is Cold Chain?



# Storing vaccines in the Ice-Lined Refrigerator



# Storage of Vaccines in ILR



# Vaccine storage in Ice lined Refrigerator





1

## Condition Frozen Ice-Packs

- Place frozen Ice-Packs in the open till they "sweat," (some condensation or droplets of water)
- Check if an Ice-Pack has been conditioned by shaking it and listening for water

*Unconditioned Ice-Packs may damage freeze sensitive vaccines (DPT, DT, TT, Td, IPV and Hepatitis B)*



2

## Pack the Vaccine Carrier

- Place four conditioned Ice-Packs against the sides of the carrier
- Place the plastic bag containing all vaccines and diluents in the centre of the carrier.



3

## Remember to..

- Collect vaccines in the carrier on the session day (Vaccine carriers may not store vaccines effectively beyond 12 hrs)
- Do not drop or sit on the vaccine carrier.
- Do not leave in sunlight. Keep in shade.
- Do not leave the lid open once packed.

# Use the Vaccine Carrier Correctly



# Packing of vaccine in Vaccine Carrier

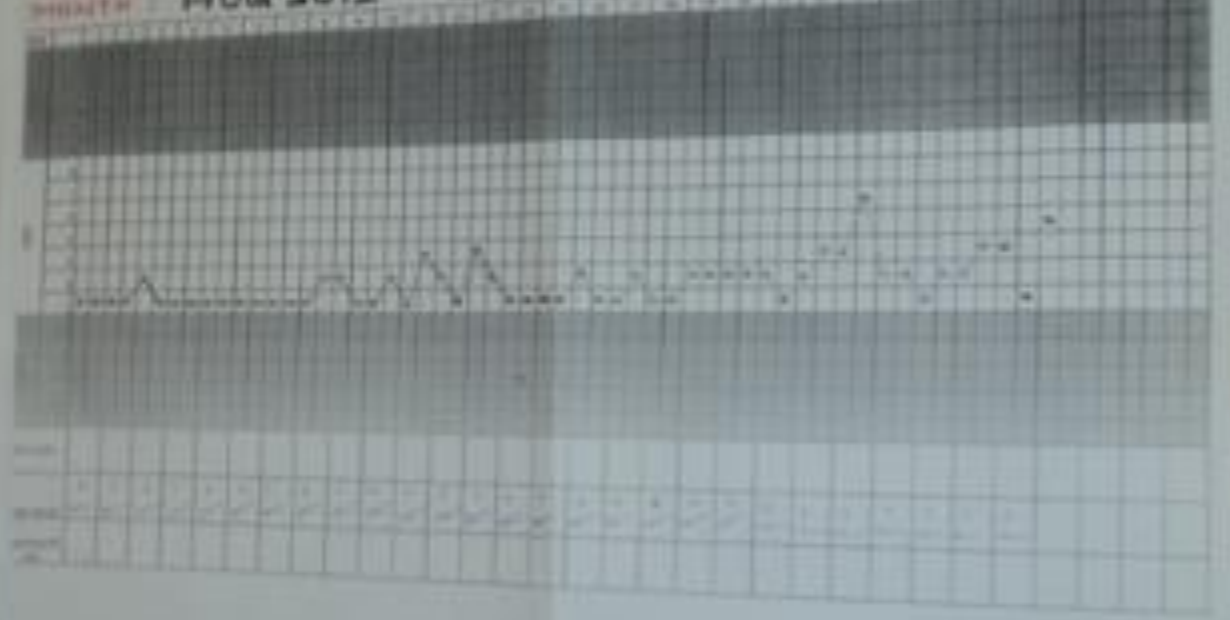


PHC - ADDAGAL, SRINIVASA PURM  
KOLAR (Dist)



MONTH : AUG 2012



Temperature Record






Monitoring Temperature



# Check that the vaccine is usable

## How to read a VVM

  Inner square is lighter than outer circle.  
**If the expiry date has not been passed, USE the vaccine.**

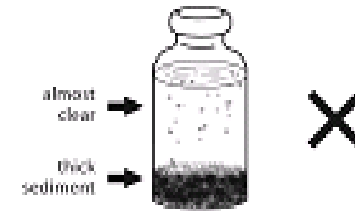
  At a later time, inner square is lighter than outer circle. **If the expiry date has not been passed, USE the vaccine.**

  **Discard point:**  
Inner square matches colour of outer circle.  
**DO NOT use the vaccine.**  
**Inform your supervisor.**

  **Beyond the discard point:**  
Inner square darker than outer circle.  
**DO NOT use the vaccine.**  
**Inform your supervisor.**

Usable

Not usable



**Discard T-series vaccines and Hepatitis B, if:**

- **Frozen**
- **Floccules found after shaking (Shake- test positive)**

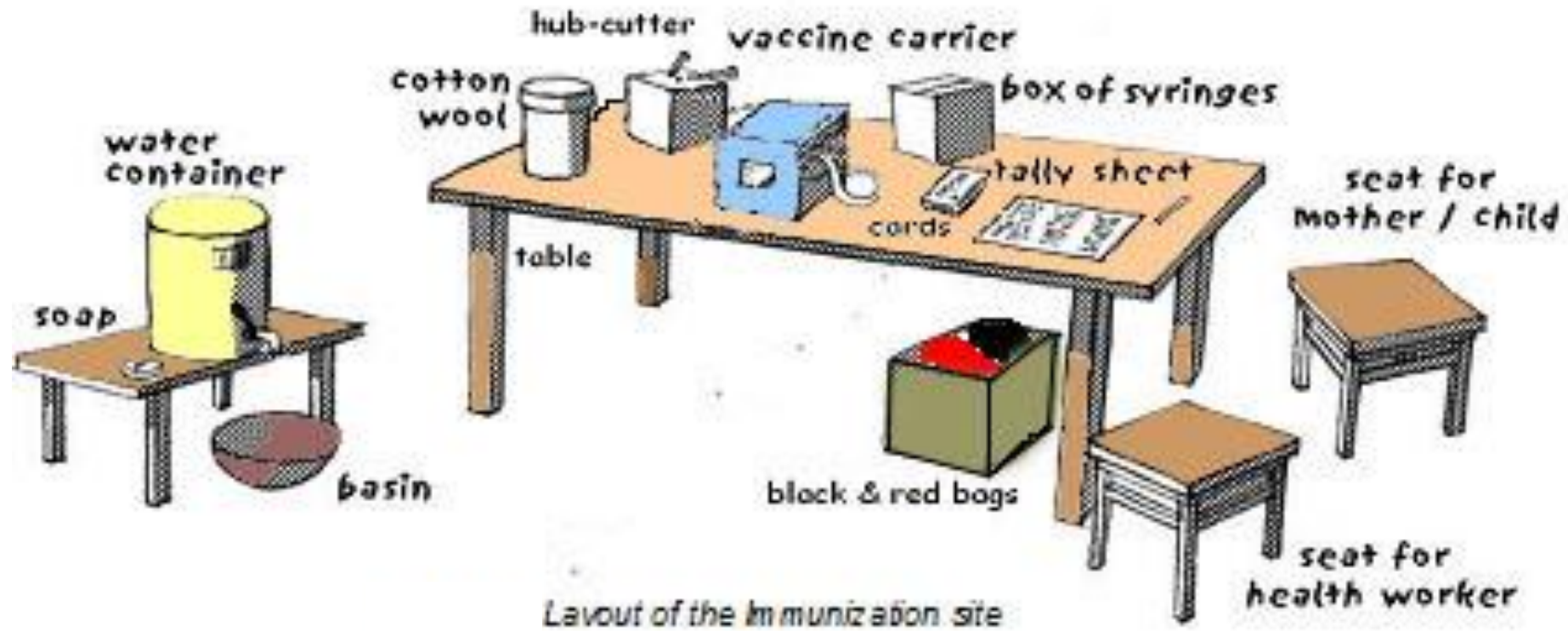
**Freeze Damage**

**Heat Damage  
identification**



# Session site Lay out

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# Which all vaccines should be kept on an ice pack at the immunization site?

- As per GoI guidelines, ANM should take out one ice pack\* at the session site and use them as shown in figure
  - On Ice Pack: BCG and MR (place them in the holes on ice pack), OPV, Rota and JE vaccine should be placed on the surface of the ice pack.
  - IPV, Hep-B, TT, Td, DPT and Penta should never be kept on the ice pack.



\*Remember: This is not applicable during pulse polio campaign



# Community Involvement

# Communicating with parents

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## KEY MESSAGES to parents

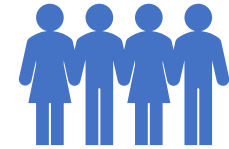
- What vaccine was given and what disease it prevents
- When to come for the next visit
- What are the minor side-effects and how to deal with them
- To keep the immunization card safe and to bring it along for the next visit
- To wait for 30 minutes after vaccination at the session site

Explain the benefits of vaccines and answer the questions patiently

# Community Involvement

Involve Community in:

- Planning services
- Identifying session sites accessible and acceptable to the community
- Creating awareness and demand
- Tracking and mobilizing beneficiaries
- Monitoring the quality of services
- ASHA/ Link workers are the key to the success





# VILLAGE HEALTH NUTRITION DAY

## Why VHNDs?

- Evidence indicates that VHND is an excellent available platform for the community to access a range of MNCHN services on an assured basis



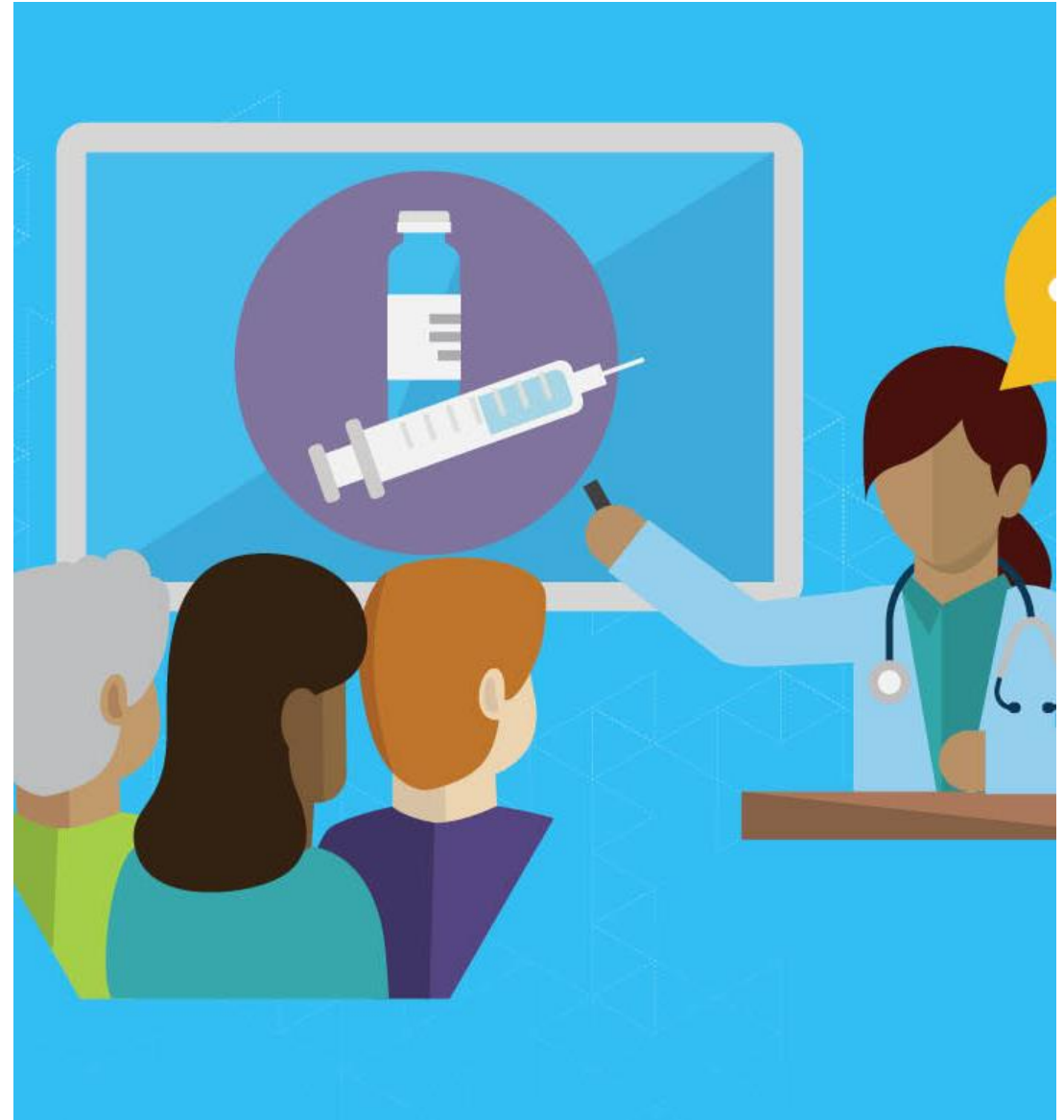
## Background of Village Health & Nutrition Days (VHNDs)

Priority intervention under the National Rural Health Mission (NRHM) of Government of India (2005-2012):

- **Objective:** Increase access and coverage of basic health & nutrition services for rural community
- **Frequency:** Monthly service delivery in each village
- **Approach:** Multiple services on fixed day, fixed time and fixed place
- **Services:** Guidelines mandate 15 basic MNCHN services
- **Service Providers:** Collaboration of three frontline workers from Departments of Health & Family Welfare (HFW) and Women & Child Development (WCD)

# Adult vaccination

- Adult vaccination coverage in India is negligible; even in a developed country like US, the coverage is only 2% of the adult population.
- The Expert Group realized that there is an urgent need for collecting reliable epidemiological data in India on infectious diseases, efficacy, and safety
- **‘Expert Group Meeting for evolving Consensus Recommendations on Adult Immunization in India’**, which was jointly organized on December 6 – 7, 2008 by the Association of Physicians of India and the Department of Medicine, All India Institute of Medical Sciences, New Delhi
- Advisory Committee on Immunization Practices **(ACIP), 2012**



## ACIP ADULT IMMUNIZATION SCHEDULE, AGE-BASED RECOMMENDATIONS, INDIA

Vaccine / Age group	19-26 yrs	27-49 yrs	50-59 yrs	60-64 yrs	≥ 65 yrs
Tetanus, Diphtheria, Pertussis (Tdap)	Substitute one time dose of Tdap with Td, then booster with Td every 10 years				Td booster every 10 yrs
Human Pappiloma Vaccine	3 doses				
Varicella	2 doses				
Zoster				1 dose	
Measles, Mumps, Rubella				1 or 2 doses	1 dose
Influenza			1 dose annually		
Pnemococcal (Polysaccharide)			1 or 2 doses		1 dose
Hepatitis A					
Hepatitis B					
Meninngicoccal	1 or more doses				

- Recommended if some risk factor is present
- All persons who meet the age criteria
- No recommendation

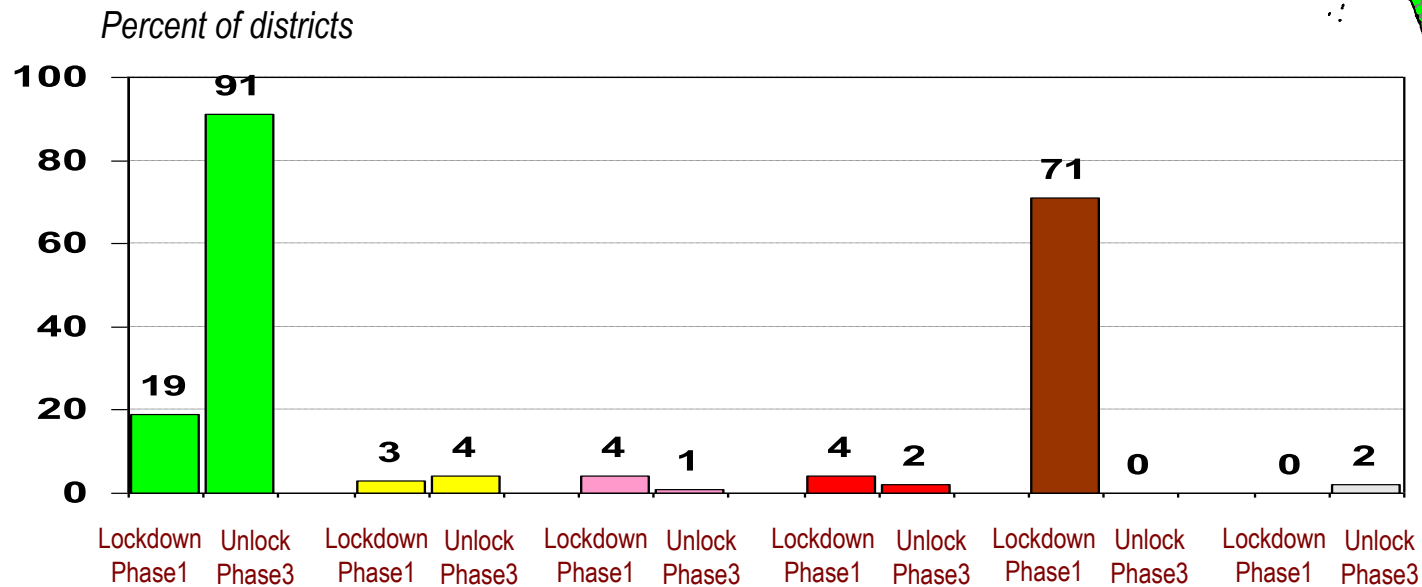
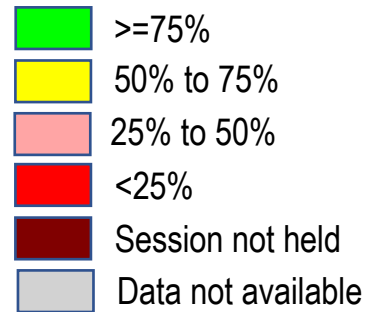
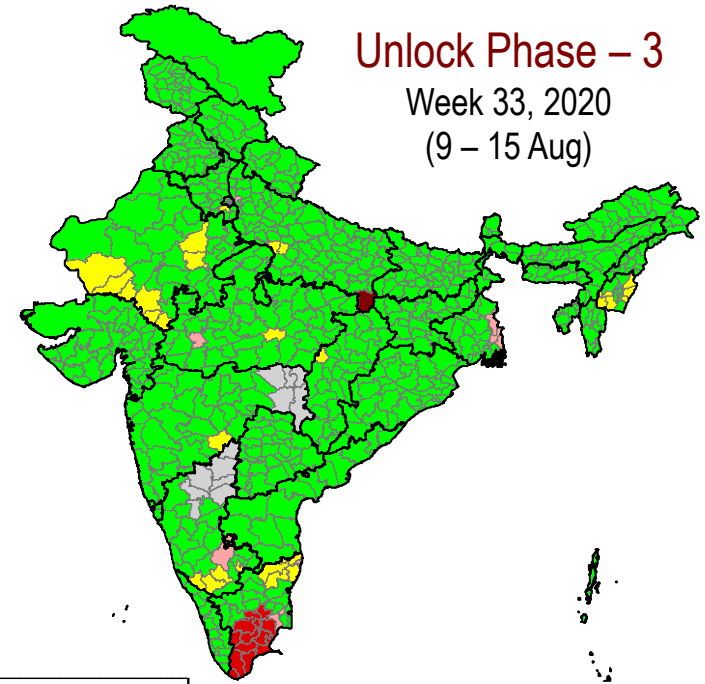
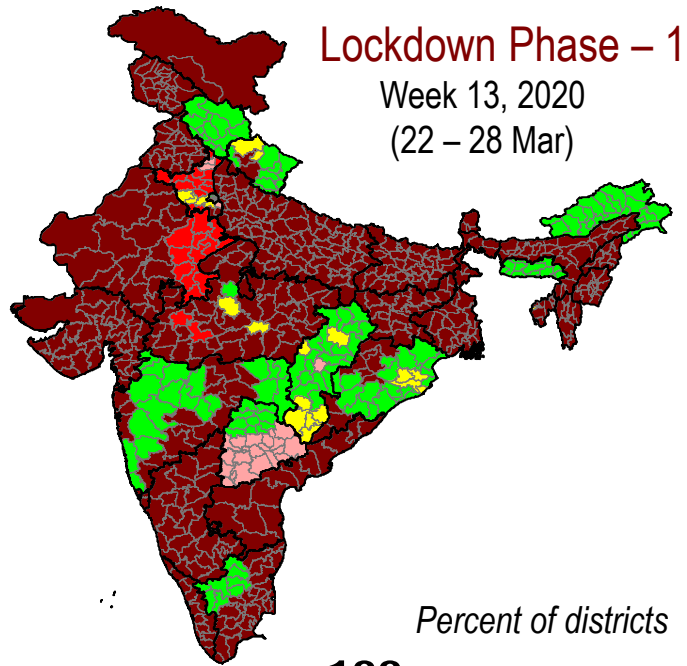
2/15/2013





RI sessions during COVID – 19  
Pandemic

# Status of fixed RI sessions held, India



# Concerns during COVID - 19

- The World Health Organization and UNICEF warned of an alarming decline in the number of children receiving life-saving vaccines around the world.
- These disruptions threaten to reverse hard-won progress
- UNICEF and WHO are supporting countries in their efforts to reimagine immunization and build back better by:
  - **Restoring services**
  - **Helping health workers**
  - **Rectifying coverage and immunity gaps**
  - **Expanding routine services to reach missed communities**



# Resuming Immunization Services - Guiding Principles

1. Guidelines from MHA and MoHFW on COVID-19 shall be the primary reference points
2. Practice **social distancing, hand washing, and respiratory etiquettes** at immunization sessions
3. Continue **birth dose vaccination** at health facilities
4. District/area COVID-19 categorization is a dynamic process shall be implemented according to updated category



भारत सरकार  
स्वास्थ्य एवं परिवार कल्याण विभाग  
स्वास्थ्य एवं परिवार कल्याण मंत्रालय  
Government of India  
Department of Health and Family Welfare  
Ministry of Health & Family Welfare

No.Z.33014/04/2019-Imm  
Dated : 20<sup>th</sup> May, 2020

Dear colleague,

It has already been communicated to the states/UTs, that during the COVID-19 outbreak, essential services for reproductive, maternal, new born and child care and adolescent health care are to be continued (vide letter dated 14<sup>th</sup> April 2020). It is pertinent to reemphasize that Immunization services are an essential component of health services and need to be continued to protect children and pregnant mothers from vaccine preventable diseases (VPDs).

The Ministry has now prepared a comprehensive guidance note for enabling delivery of immunization services during and post COVID-19 outbreak in line with the area categorization for COVID-19 into two groups i.e. (i) Containment zone & Buffer zone and (ii) Beyond buffer zone.

I am enclosing the guidance note for delivery of immunization services during and post COVID-19 outbreak for your ready reference. The same has been also uploaded on our website.

*Kind regards*  
Yours sincerely,

*Preeti Sudan*  
(Preeti Sudan)

ACS/ Principal Secretary of all states/ UTs

Copy to: Chief Secretaries/ Administrators of states/ UTs.





**MHA order dated  
15th April 2020**

- All health services are deemed essential, need to be functional across country
- Immunization is one of the essential health service, to be continued during COVID-19 outbreak to protect children and pregnant women from Vaccine Preventable Diseases





## How IHMR Bangalore is contributing in UIP

- Faculties and students participate in monitoring of MI, SIA rounds
- Community studies module – field practice area, survey on coverage of UIP using WHO monitoring tool





IIHMR Bangalore's  
participation in  
Immunization campaigns





# Summary

- We now have vaccines to prevent more than 27 life-threatening diseases
- Smallpox is eradicated in the year 1980
- Polio free status is achieved in India in 2014
- Globally, Immunization currently prevents 2-3 million deaths every year
- Adult immunization practices and policies must be framed by the India
- Immunization is one of the most cost-effective public health interventions and largely responsible for reduction of vaccine preventable under-5 mortality rate.
- ***“Immunization is a global health and development success story, saving millions of lives every year” (Who.int)***





Thank you.....

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