

Measles Elimination and Rubella Control India marching towards the goal



Dr Satyabrata Routray
Measles Rubella Focal Person, WHO-India



Outline of the presentation...

- Moving fast from mortality reduction to elimination
- MCV 1 and MCV 2 status in the country
- Lab-based Measles-Rubella Surveillance
- CRS Surveillance plan
- M-R vaccine introduction plans
- M-R campaign challenges in India
- Way forward



Country Profile

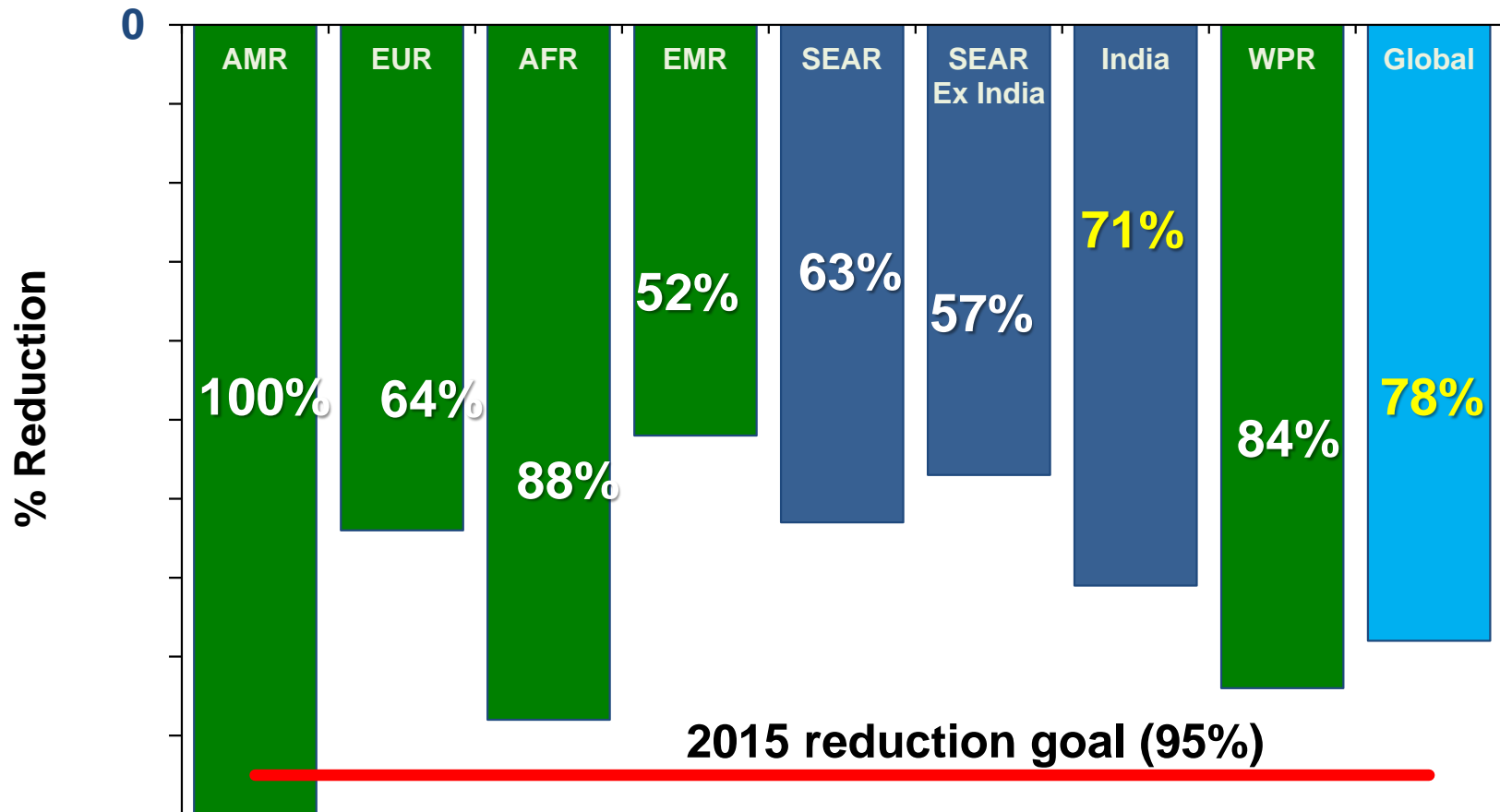
- 36 states / Union Territories
 - 668 Districts
 - 6,007 Blocks
- 1.2 billion population
 - **26 million birth cohort**
 - 30 million pregnant women
- Inter state variation
 - Uttar Pradesh pop 199.5 million, **birth cohort 5.5 million** (largest state)
 - Lakshadweep pop 0.064 million, **birth cohort below 1 thousand** (smallest -UT)



SEAR Measles Elimination Goal - 2020

*SEAR countries resolve to eliminate Measles and control Rubella/CRS by the end of – **2020** .*

Reduction in Estimated Measles Deaths by WHO Regions and in India, (2000 to 2012)

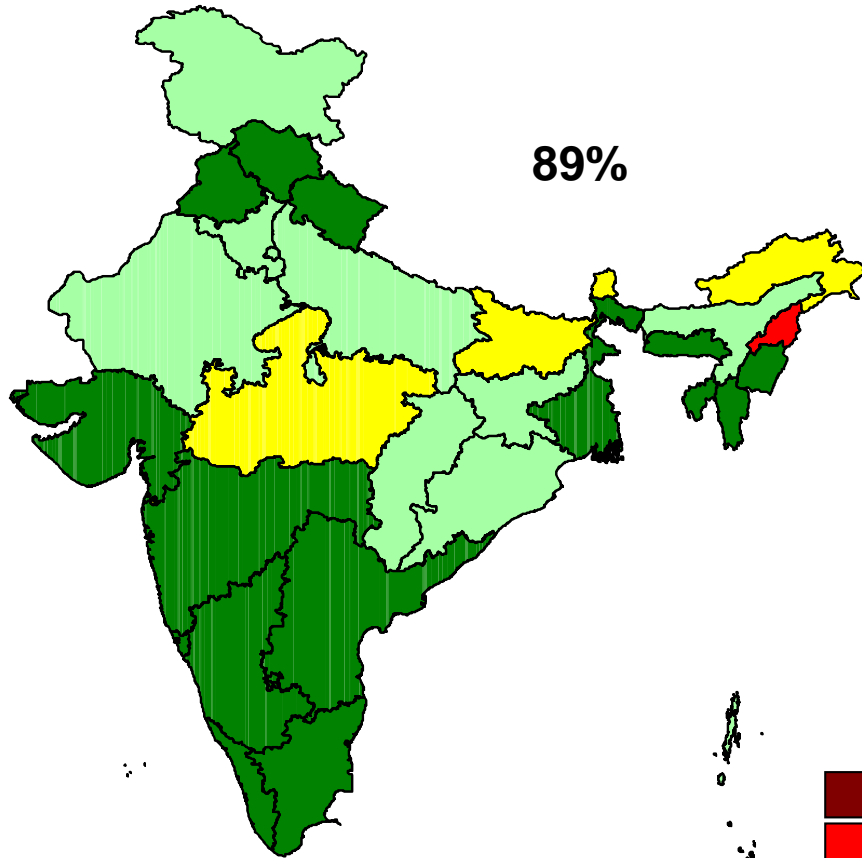


Global targets by 2015:

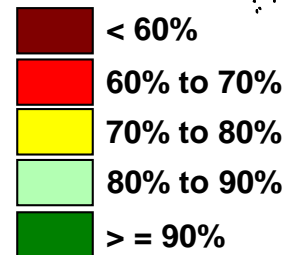
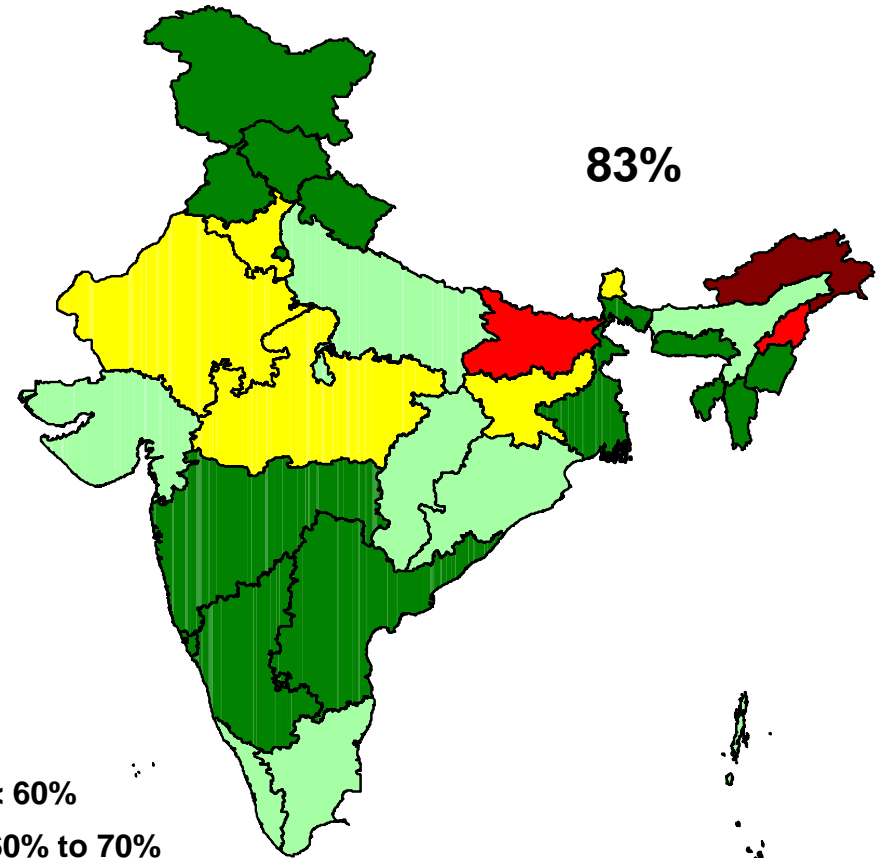
- Measles vaccination coverage $\geq 90\%$ national and $\geq 80\%$ district
- Measles reported incidence < 5 cases per million

Measles vaccine -1st dose reported coverage, HMIS

2013



2014*



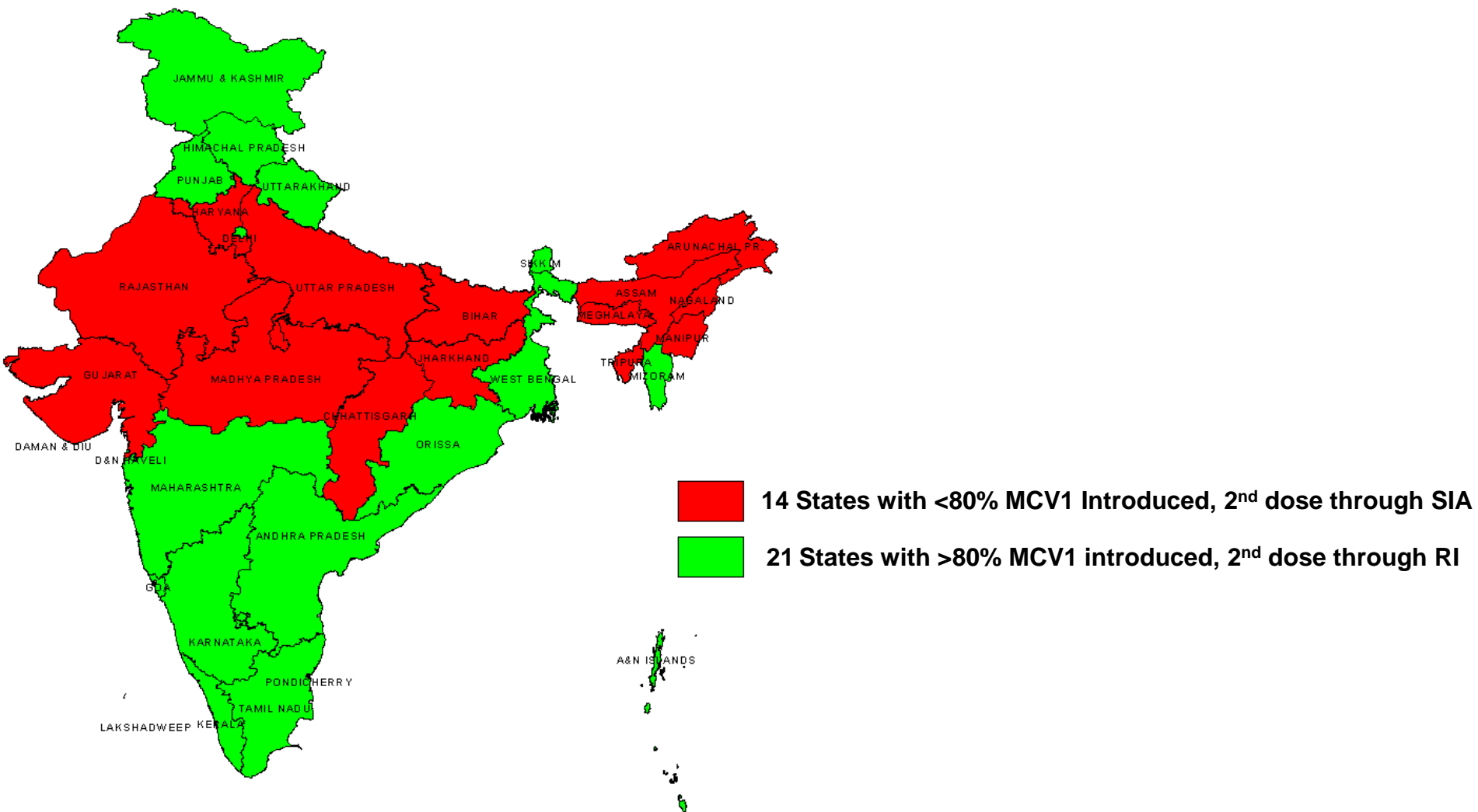
N : As per Need assessed by Gol

*Data as on 26 Jul 2014

State wide efforts to enhance MCV 1 by strengthening RI



2nd dose Measles vaccine introduction - India

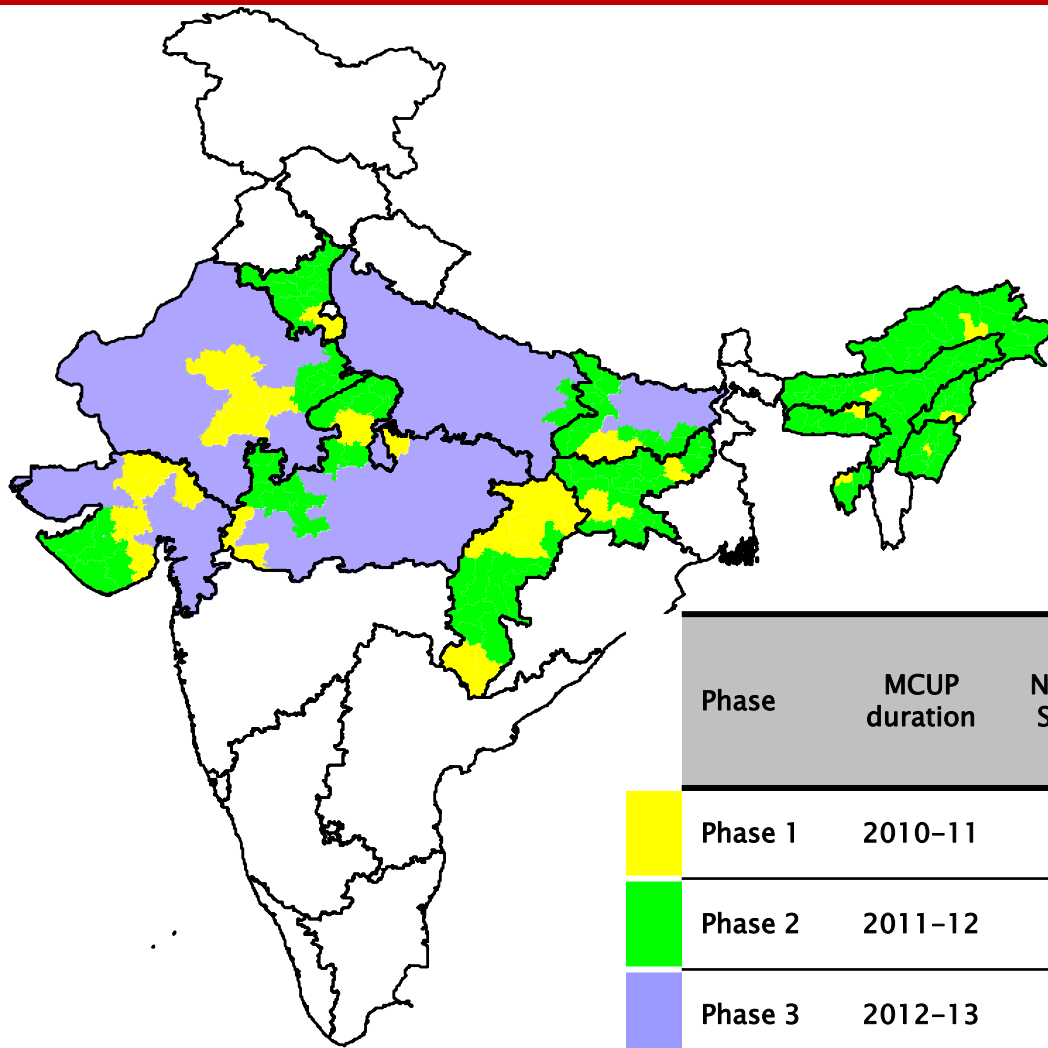


Following recommendations of NTAGI*, 2nd dose Measles vaccine introduced in - 2010

MCV-2 through measles SIAs conducted in 3 phases

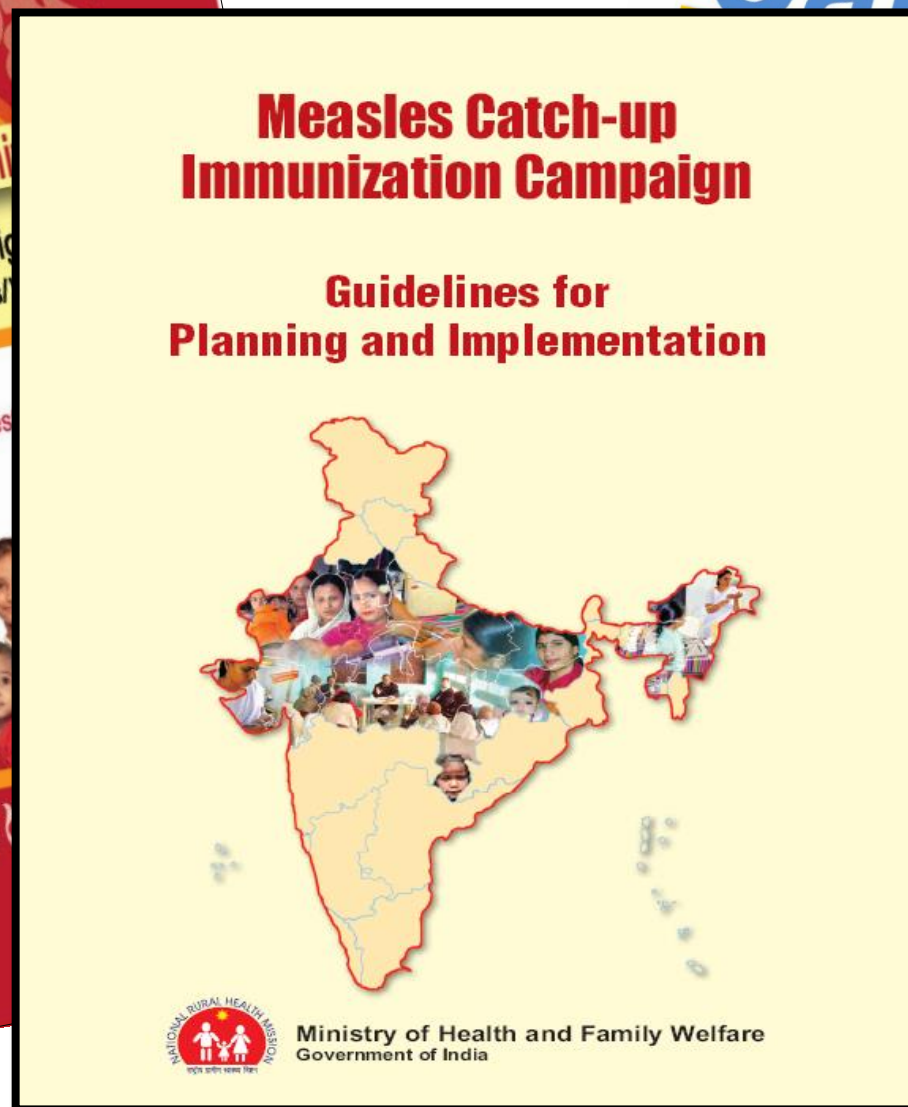
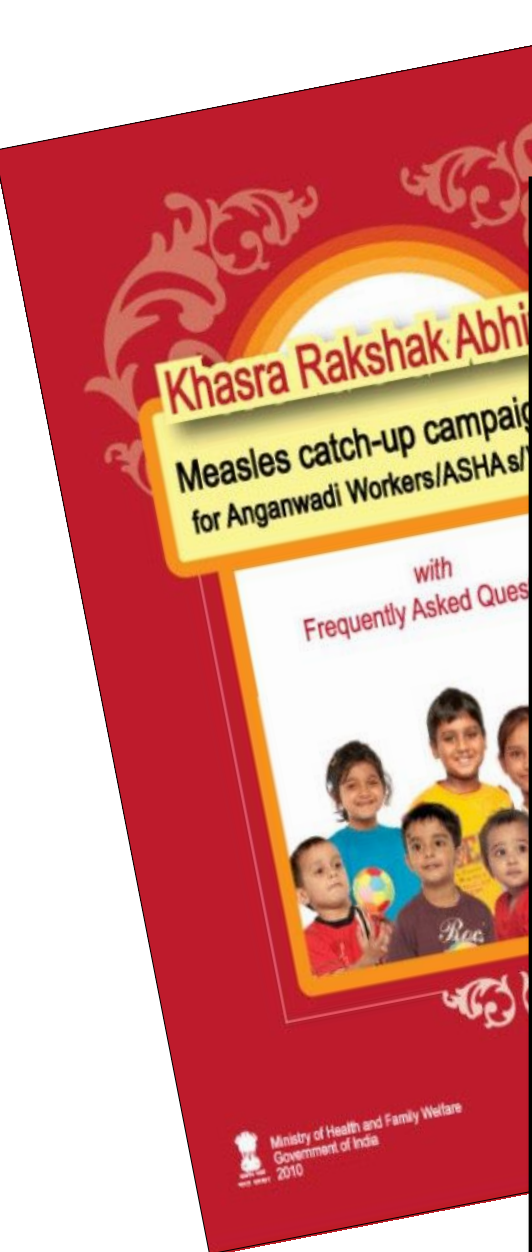
Target population:

- ~ 139 million children 9 months – 10 years of age
- 367 districts in 14 states



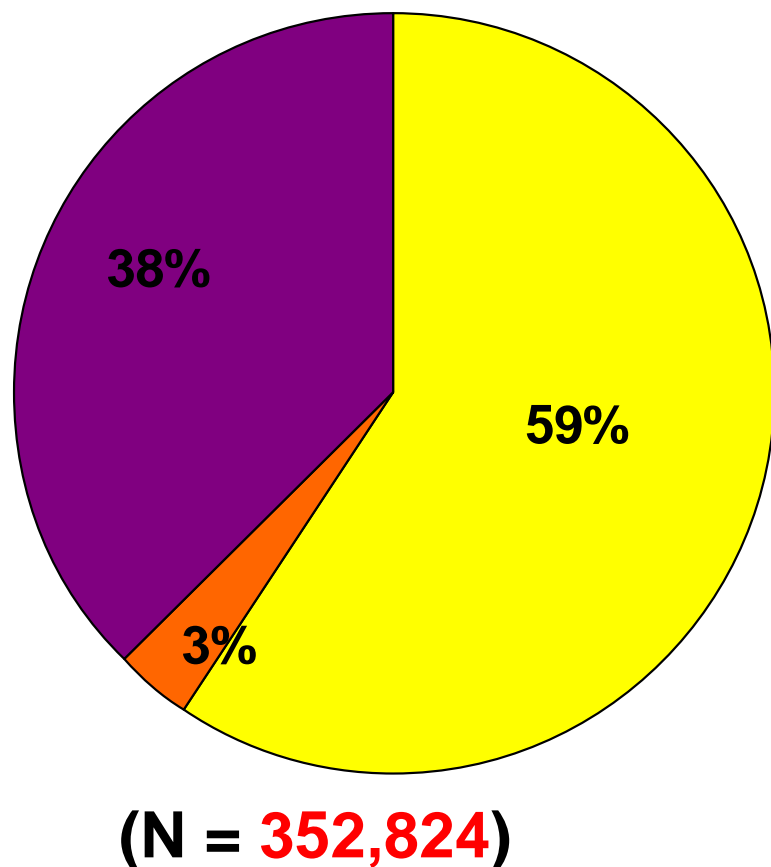
Phase	MCUP duration	No. of State	No. of District	Estimated Target Population (9 m – 10 yrs)	Children vaccinated	% Coverage
Phase 1	2010–11	13	45	13,845,686	12,076,836	87.2
Phase 2	2011–12	14	153	40,167,580	36,134,669	90.0
Phase 3	2012–13	5	169	85,476,898	70,615,482	82.6
Total		14	367	139,490,164	118,826,987	85.2

Country Measles catch up campaign Guidelines



Measles Campaign Monitoring - India

Reasons for unvaccinated children by RCA



■ Social mobilisation

■ Operational

■ Others

Social mobilisation includes

- Parents did not know of campaigns
- Did not know about place/date
- Did not give importance
- Fear of injection & AEFI

Operational

- No vaccine/logistics
- No vaccinator
- Site too far, long queue

Others

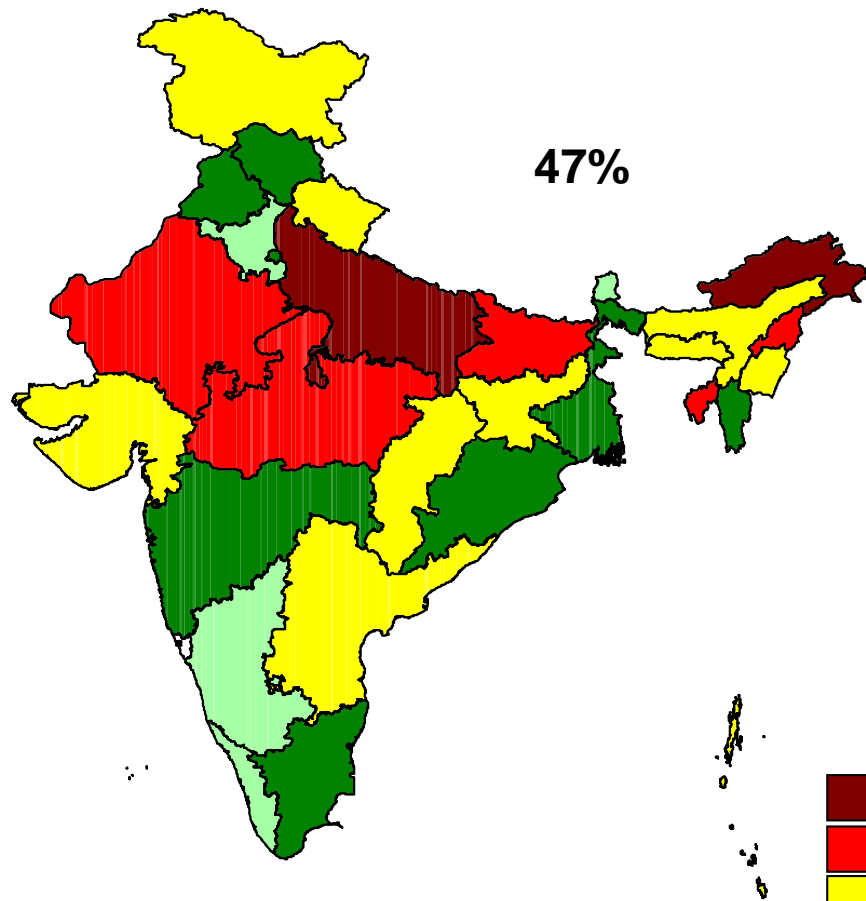
- Family travelling, sick child,
- Gone to School etc.

N - Total No of Unvaccinated children verified through RCA monitoring



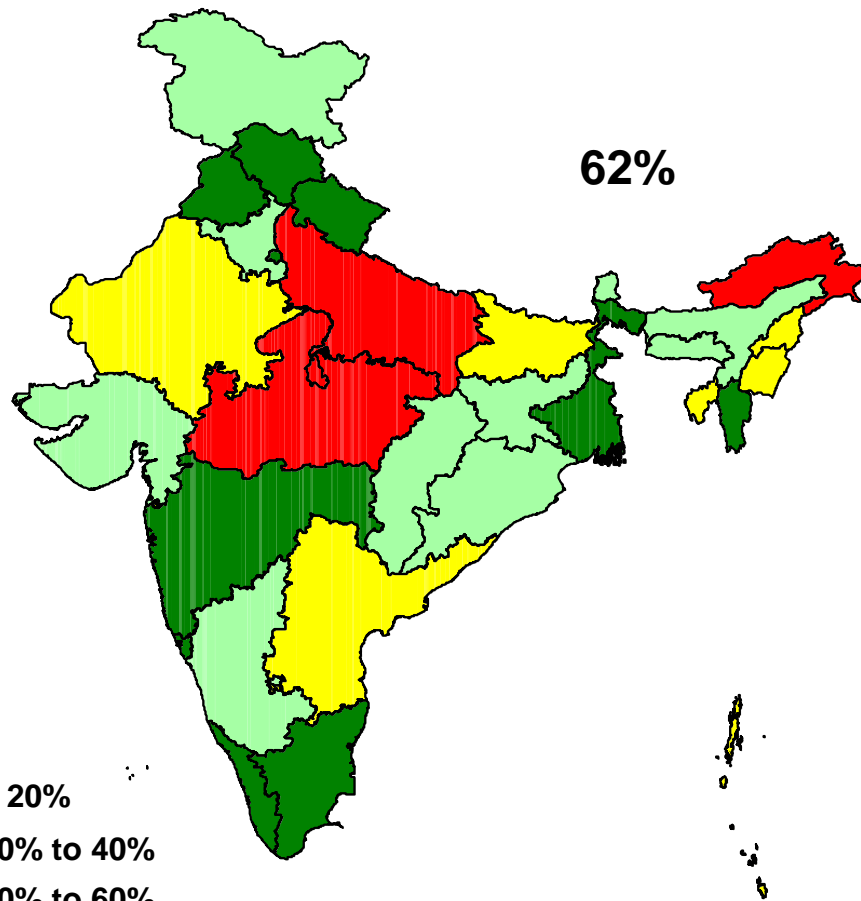
MCV 2 coverage in RI (including MMR), HMIS

2013

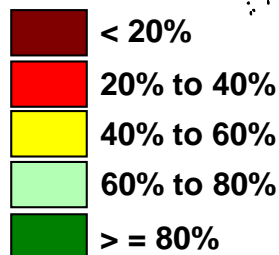


47%

2014*



62%

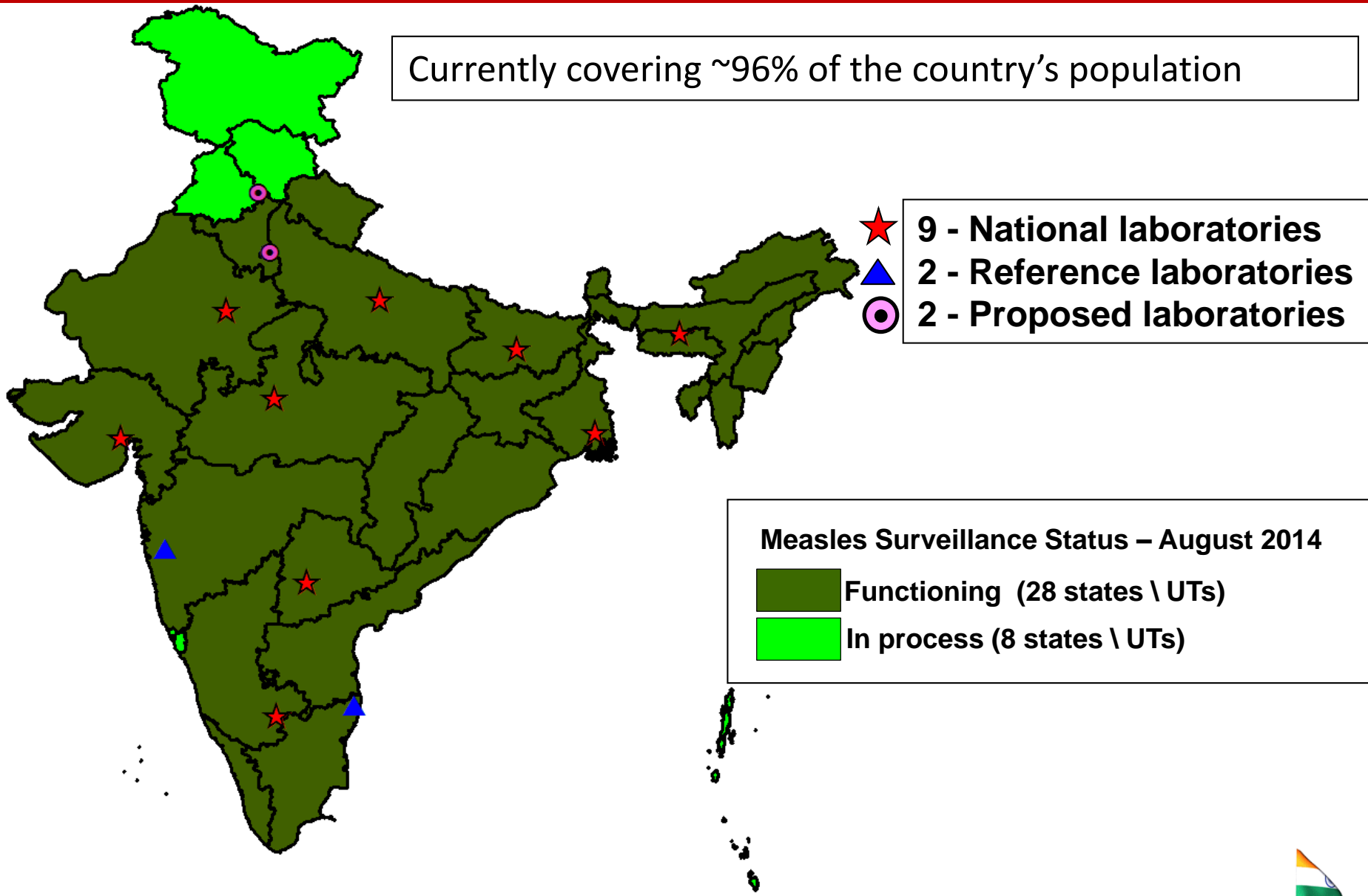


N : As per Need assessed by Gol
*Data as on 26 Jul 2014

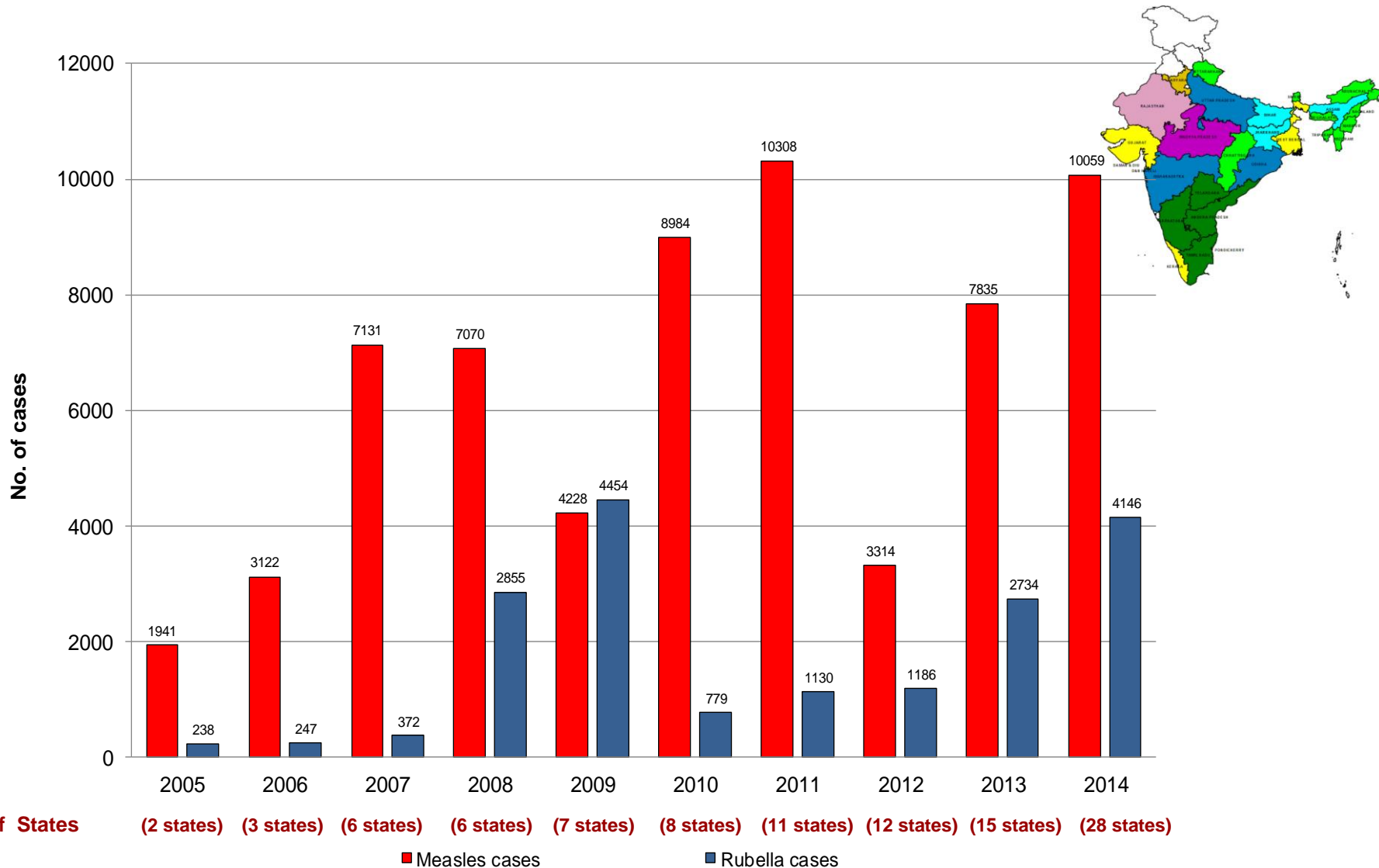
Country wide efforts ongoing to boost MCV 2 in RI



Laboratory supported, AFP based surveillance for measles and rubella initiated across India



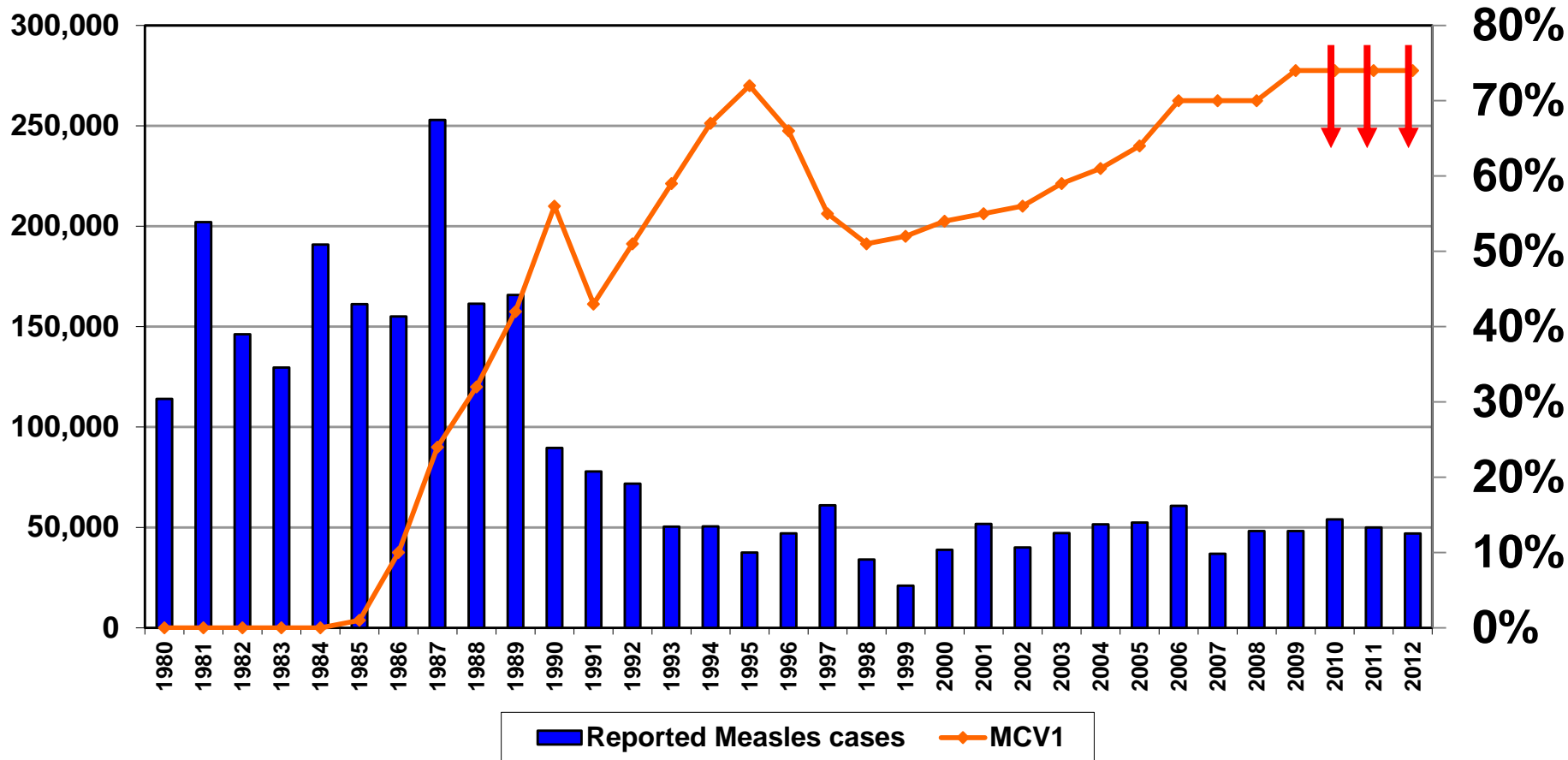
Measles & Rubella Cases by Year, selected states, 2005-2014



Measles cases reported & MCV1 coverage, India

Reported measles cases in JRF

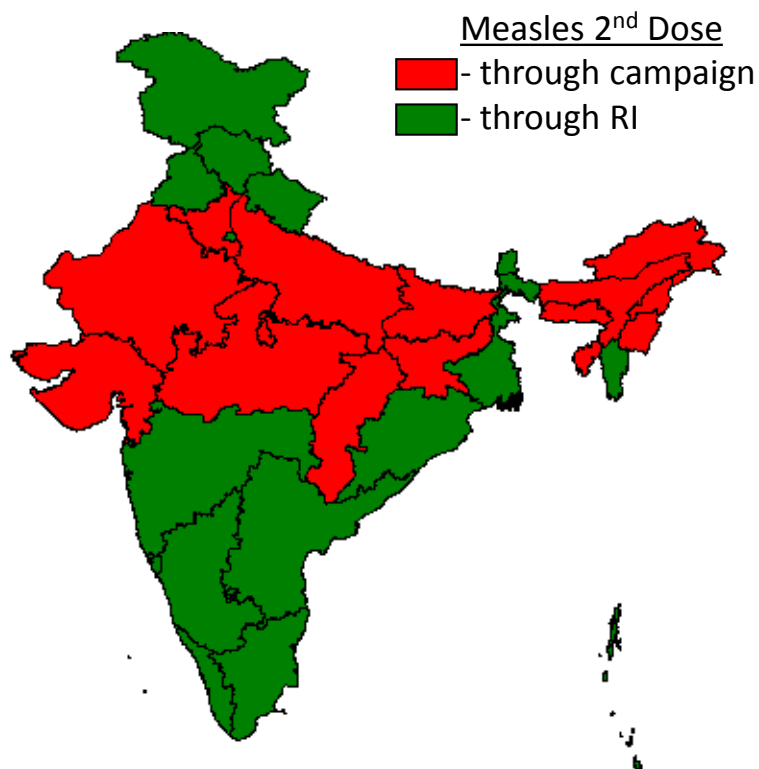
Reported MCV1 coverage in JRF



↓ Measles SIA	2010	2011	2012	2013
Children covered	~ 4 million	~ 19 million	~ 34 million	~ 62 million

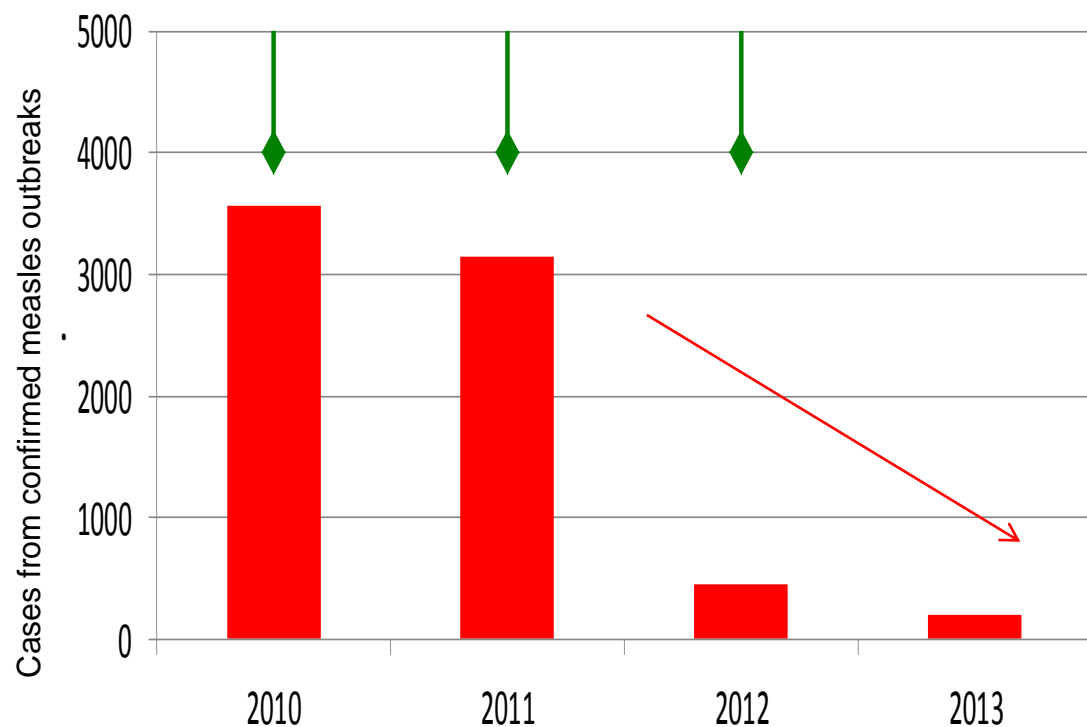


Measles vaccination campaign & it's impact



~ 119 million children covered in measles catch-up campaigns

Measles catch-up campaign Phase I Phase II Phase III



Measles cases from three 3 states (Gujarat, Madhya Pradesh and Rajasthan) with surveillance pre and post Measles vaccination campaigns

Serologically confirmed# Measles outbreaks, India

(Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, D&D Haveli, Daman & Diu, Gujarat, Haryana Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Pondicherry, Rajasthan, Sikkim, Tamil Nadu, Telangana, Tripura, Uttar Pradesh, Uttarakhand and West Bengal)@

2013*

2014*

● Measles outbreaks confirmed

208 outbreaks, (15 states)

310 outbreaks, (28 states)

No Surveillance

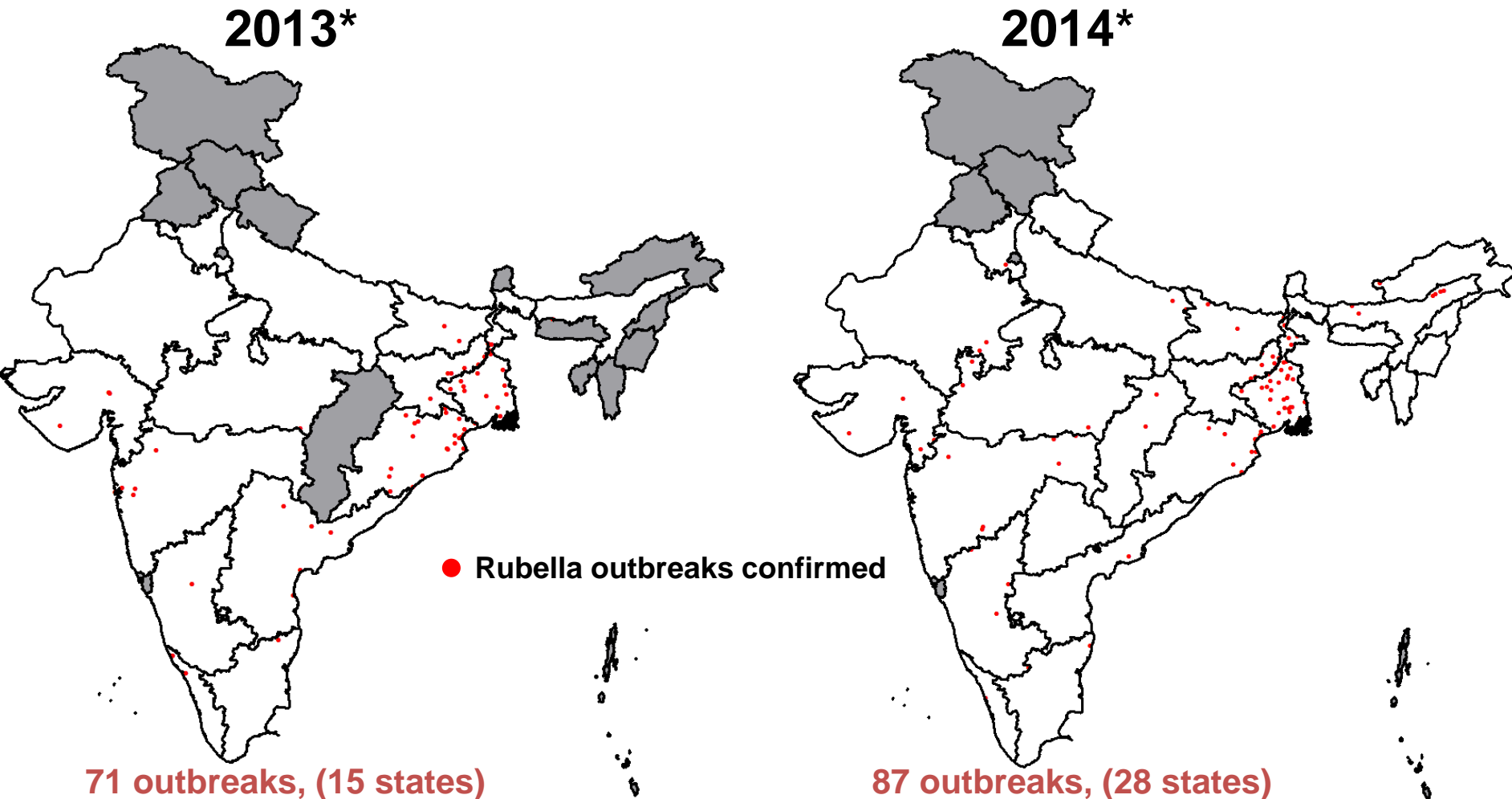
Outbreak confirmation for Measles: ≥ 2 cases IgM positive for rubella,
@ Surveillance started from January 2013 in Maharashtra & Odisha and from October 2013 in UP, Surveillance started in Chhattisgarh and Uttarakhand in January 2014, Manipur and Mizoram in March 2014, Arunachal Pradesh and Meghalaya in April 2014, Pondicherry, Sikkim and Tripura in May 2014, Nagaland in June 2014, Telangana carved out of Andhra Pradesh in 2014, D&N Haveli and Daman & Diu in July 2014

*data as on 12th August, 2014, Source – WHO NPSP



Serologically confirmed# Rubella outbreaks, India

(Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, D&D Haveli, Daman & Diu, Gujarat, Haryana Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Pondicherry, Rajasthan, Sikkim, Tamil Nadu, Telangana, Tripura, Uttar Pradesh, Uttarakhand and West Bengal)@



Outbreak confirmation for Rubella: ≥ 2 cases IgM positive for rubella,

@ Surveillance started from January 2013 in Maharashtra & Odisha and from October 2013 in UP, Surveillance started in Chhattisgarh and Uttarakhand in January 2014, Manipur and Mizoram in March 2014, Arunachal Pradesh and Meghalaya in April 2014, Pondicherry, Sikkim and Tripura in May 2014, Nagaland in June 2014, Telangana carved out of Andhra Pradesh in 2014, D&N Haveli and Daman & Diu in July 2014

No Surveillance

* data as on 12th August, 2014, Source – WHO NPSP



Rubella / CRS surveillance

- Current laboratory based measles-rubella surveillance generates information on rubella epidemiology in the country
- Projected estimate suggest high CRS burden in the country as there is no rubella antigen in the national immunization schedule at present
- Sentinel CRS surveillance system under active discussion in the MOH with all partners , likely to be initiated soon



M-R vaccine introduction plan in India

NTAGI Recommendations:

- Wide age range (9 months-15 years), Nation wide M-R campaigns to be conducted
- M-R vaccine to replace both MCV1, and MCV 2 at 9-12 months and 16-24 months respectively
- Rubella vaccine introduction likely 1st quarter - 2015

Political commitment for Rubella vaccine:

- 'Prime Minister' has already announced four new vaccines including Rubella in routine Immunization

MR campaign in India – challenges

- Country target (9 months-15 years) - 450 million
- Vaccine availability and management will be a big challenge
- SIAs will be phased across states and staggered, 2-3 years
- Quality training, micro planning & monitoring will be the key to success for high coverage with safety
- Health, Education and WCD (women and child development department) will play vital roles in campaign
- Social Mobilization (IEC/IPC/BCC) will get priority and focus
- Injection safety, waste management , AEFI management established , based on lessons from last MCV-2 campaigns



Way forward

- Country intensifying efforts to enhance both MCV 1 and MCV 2 in routine immunization
- Laboratory based measles-rubella surveillance system established across country on AFP surveillance network
- CRS surveillance efforts being initiated
- Country set to conduct a wide age range M-R campaigns covering all States & Union territories with political will
- Following MR campaigns, M-R vaccine will replace both MCV1 and MCV 2 in routine immunization
- MR surveillance will transition to case based after SIAs
- future campaigns with M-R will be determined based on surveillance data generated



Thank you





Polio is gone !
Measles - Rubella next !

