

# **Sustaining Measles elimination and preventing Rubella and congenital Rubella Syndrome**

Developing Country Vaccine Manufacturers  
Network Meeting  
27-28 October 2014 New Delhi India

Stephane Guichard  
Regional Advisor Vaccine Supply and Quality



**World Health  
Organization**

# Global 2015 Goals

- Global targets by 2015:
  - Measles vaccination coverage  $\geq 90\%$  national and  $\geq 80\%$  in all districts
  - Measles reported incidence  $< 5$  cases per million total population
  - Measles mortality reduction of 95% vs. 2000

Targets set by GVAP and adopted by the World Health Assembly



World Health  
Organization

# Objectives to Achieve 2020 Regional Goals

- **Immunization:** Achieve and maintain at least 95% population immunity with two doses against measles and rubella within each district of each country in the Region through routine and/or supplementary immunization.
- **Surveillance:** Develop and sustain a sensitive and timely case-based measles and rubella and CRS surveillance system in each country in the Region that fulfils recommended surveillance performance indicators.
- **Laboratory:** Develop and maintain an accredited measles and rubella laboratory network that supports every country or area in the Region.
- **Support and Linkages:** Strengthen support and linkages to achieve the above three strategic objectives.



# Immunization Objectives & Strategies in SEA

- Achieve and maintain at least 95% population immunity against measles and rubella within each district of each country
  - Combination of routine and campaigns
  - Extremely high 1<sup>st</sup> and 2<sup>nd</sup> dose coverage through routine immunization
  - Nationwide wide-age range (9m-15y) MR campaign “Catch Up”
  - Nationwide or sub-national narrow age range MR campaigns as necessary “Follow Up”

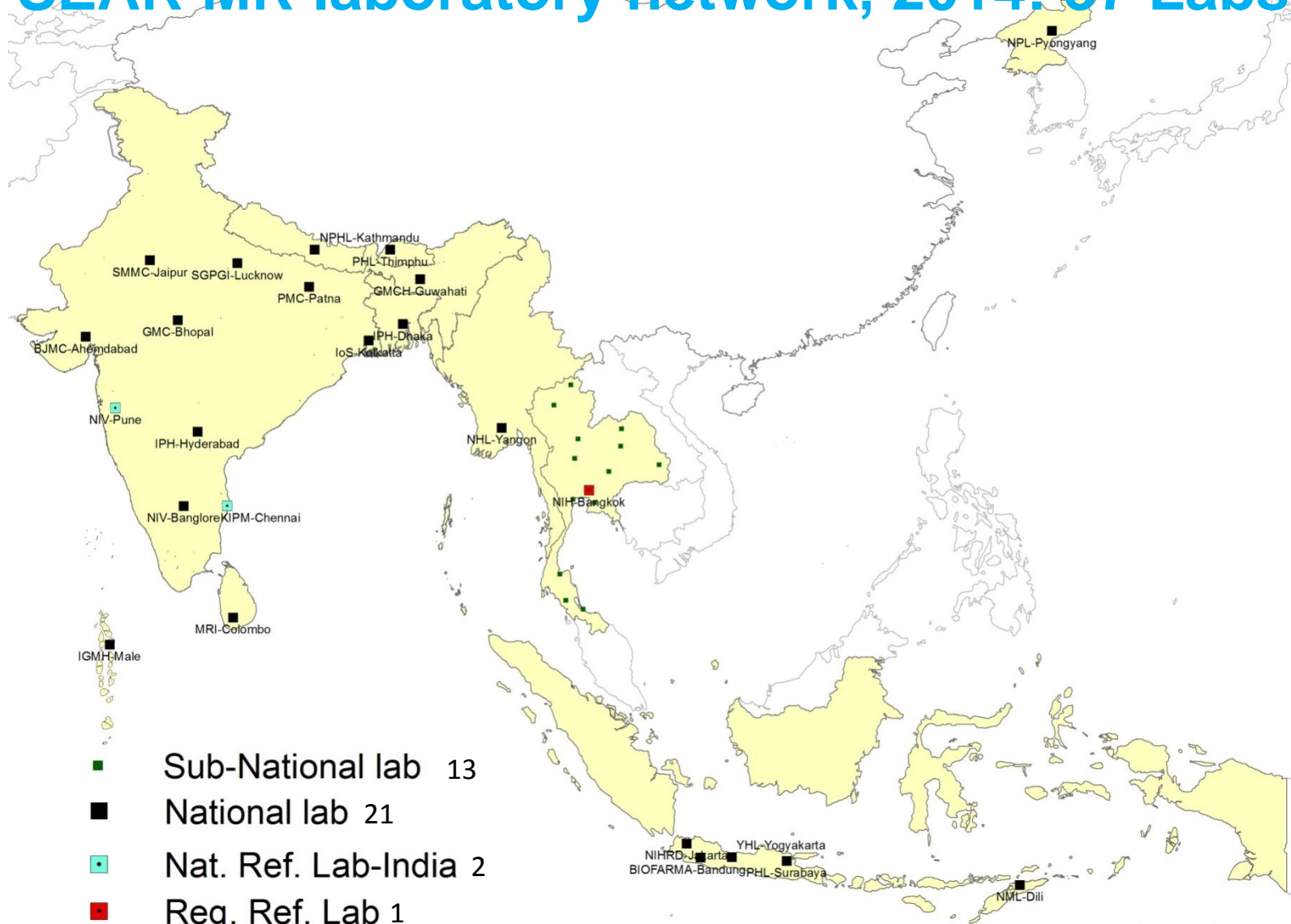


# Immunization Objectives & Strategies in SEA (cont.)

- Develop and sustain a sensitive and timely case-based measles and rubella and CRS surveillance system in each country in the Region that fulfils recommended surveillance performance indicators.
  - Develop and maintain an accredited measles and rubella laboratory network that supports every country or area in the Region.



# SEAR MR laboratory network, 2014: 37 Labs



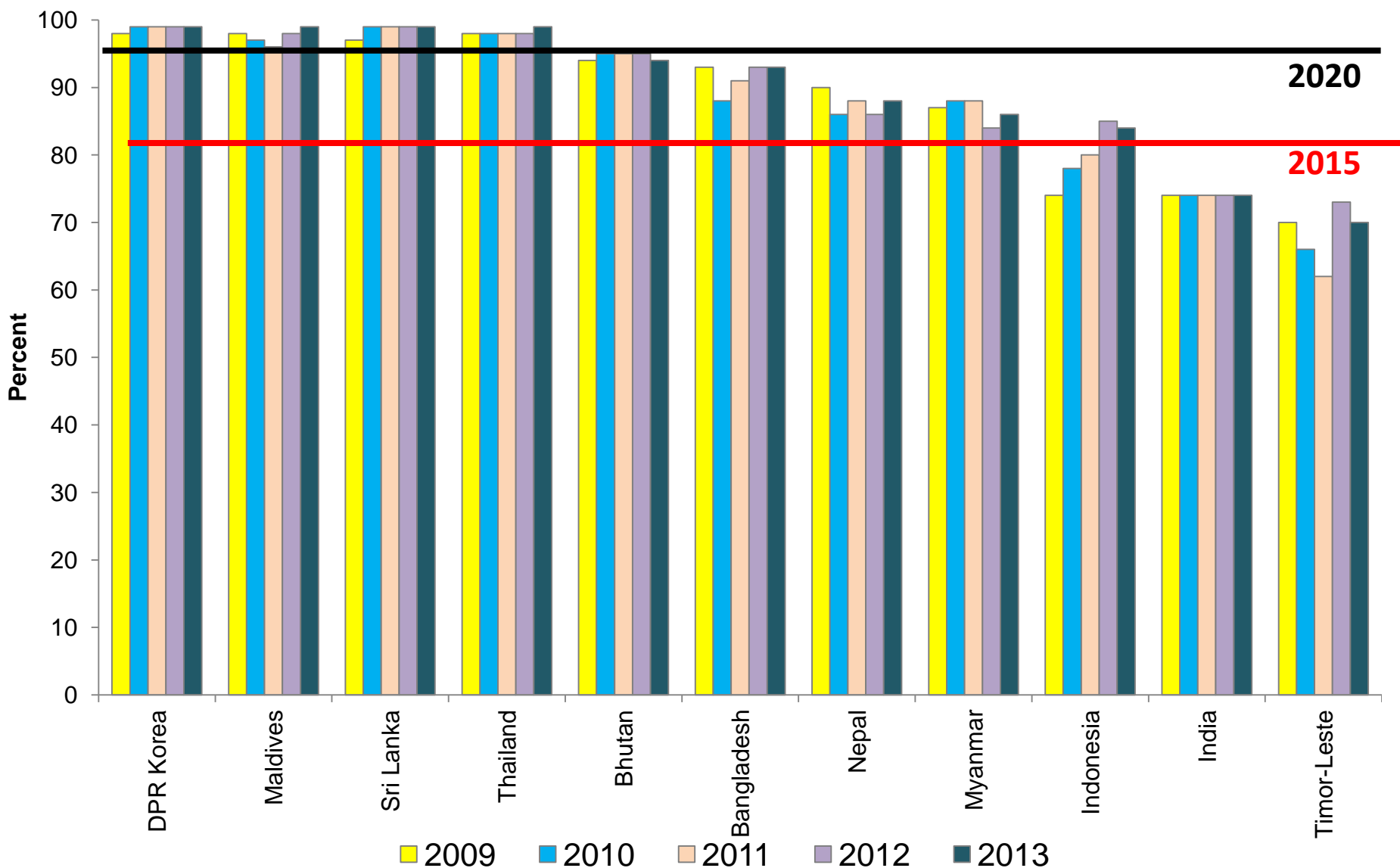
World Health  
Organization

# Immunization Objectives & Strategies in SEA (cont.)

- Strengthen support and linkages to achieve the above three strategic objectives.
  - Strengthen vaccine management systems
  - Improve vaccine, immunization and injection safety
  - Monitor and evaluate



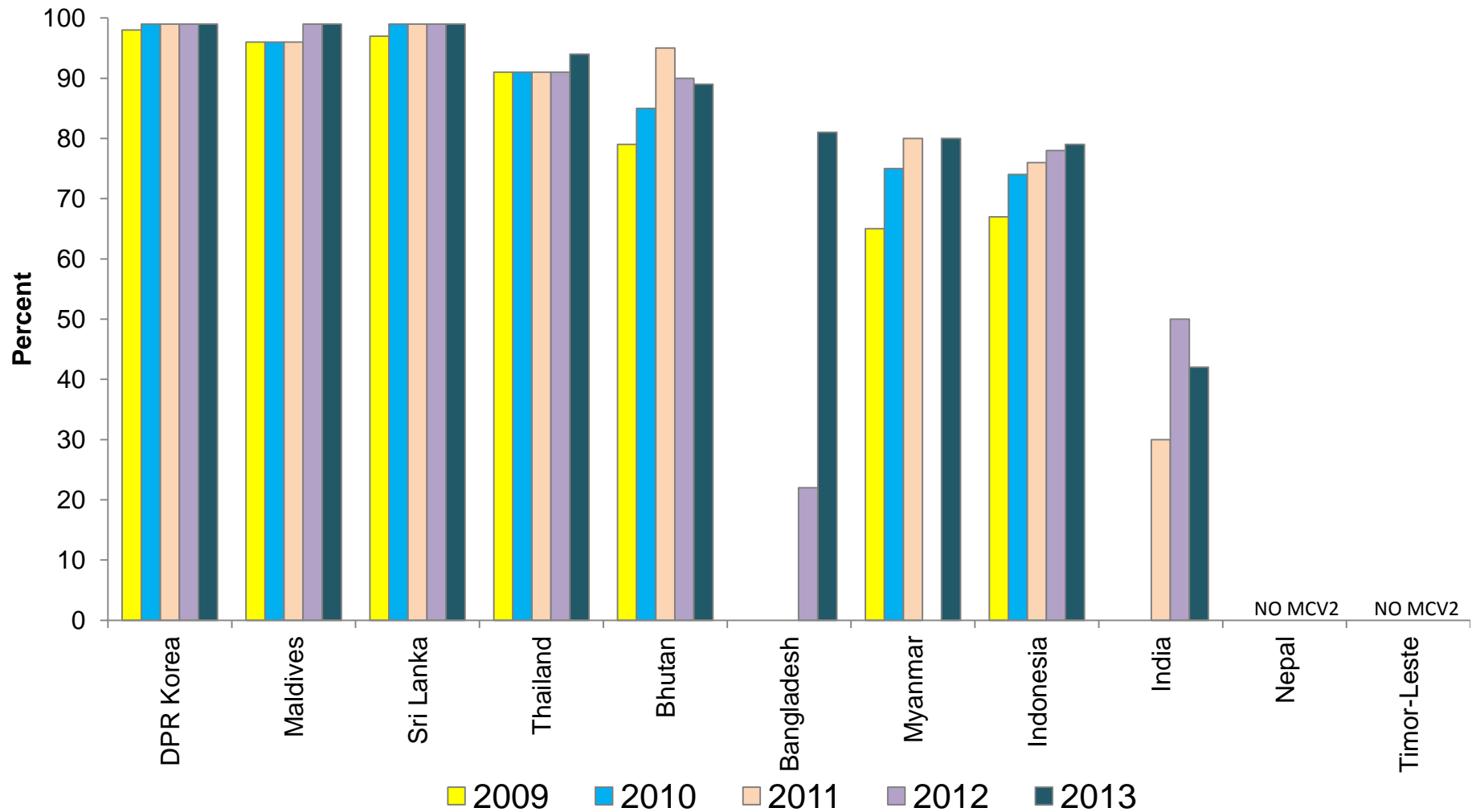
# 1<sup>st</sup> Dose Measles RI Coverage by Country, SEAR, 2009-2013



World Health  
Organization

# 2<sup>nd</sup> Dose Measles RI (MCV2) Coverage by Country

## SEAR, 2009-2013



World Health  
Organization

# Measles SIA 2002-2013 in South East Asia



World Health  
Organization

Country	Year	Type	National or Sub-nat	Vax Aqs	Target Ages	SIA Target pop (no.)	No. vax	Cov (% of SIA target)
BAN	2005-2006	Catch up	Rolling-national	M	9 M-10 Y	35,680,911	36,012,154	101
	2010	Follow Up	National	M	9-59 M	18,136,066	18,085,685	100
BHU	2000	Catch Up	Sub-national	M	0 M-14 Y	214,128	214,128	100
DPRK	2007	Catch Up	National	M	6 M-45 Y	16,123,376	16,109,432	100
IND	2010-2013	Catch Up	Rolling-national	M	9 M-10 Y	139,490,164	118,566,640	85
INO	2000-2007	Catch Up	Rolling-national	M	6M-15 Y	42,710,910	40,425,408	95
	2008-2011	Follow Up	Sub-national	M	9-59 M	59,663,573	57,235,120	96
MAV								
MMR	2002-2004	Catch Up	Rolling-national	M	9 M-5 Y	5,670,597	4,910,950	87
	2007	Follow Up	National	M	9 M-5 Y	6,056,000	5,706,351	94
	2012	Follow up	National	M	9 M-5 Y	6,432,064	6,267,535	97
NEP	2004-2005	Catch Up	Rolling-national	M	9 M-15 Y	9,671,113	9,985,161	103
	2008	Follow Up	National	M	9 M-5 Y	3,903,515	3,634,277	94
SRI	2003	Catch Up	Rolling-national	M	10-14 Y	1,987,847	1,897,173	95
	2013	Campaign	National	M	6-12 M	176,587	173,187	98
THA								
TLS	2003-2006	Catch Up	Rolling-national	M	6 M-15 Y	519,005	285,126	55
	2009	Follow Up	National	M	9-59 M	167,136	126,823	76
	2011	Catch up	National	M	6 M- 14 Y	494,427	454209	92

# MCV Wide-Age Range Catch-up Campaigns 2005-2013

Country	Year	Type	National or Sub-nat	Vax Aqs	Target Ages	SIA Target pop (no.)	No. vax	Cov (% of SIA target)
BAN								
BHU	2006	Catch Up	National	MR	9 M-44 Y	338,040	332,041	98
DPRK								
IND								
INO								
MAV	2005, 2007	Catch Up	National	MR, MMR	6-34Y, 4-6Y	174,526	140,104	80
MMR								
NEP	2012	Catch Up	National	MR	9 M-15 Y	9,958,196	9,991,152	100
SRI	2004	Catch Up	Rolling-national	MR	16-20 Y	1,890,326	1,362,108	72
THA								
TLS								



**World Health  
Organization**

# MCV SIA 2014 and plans 2015-2018

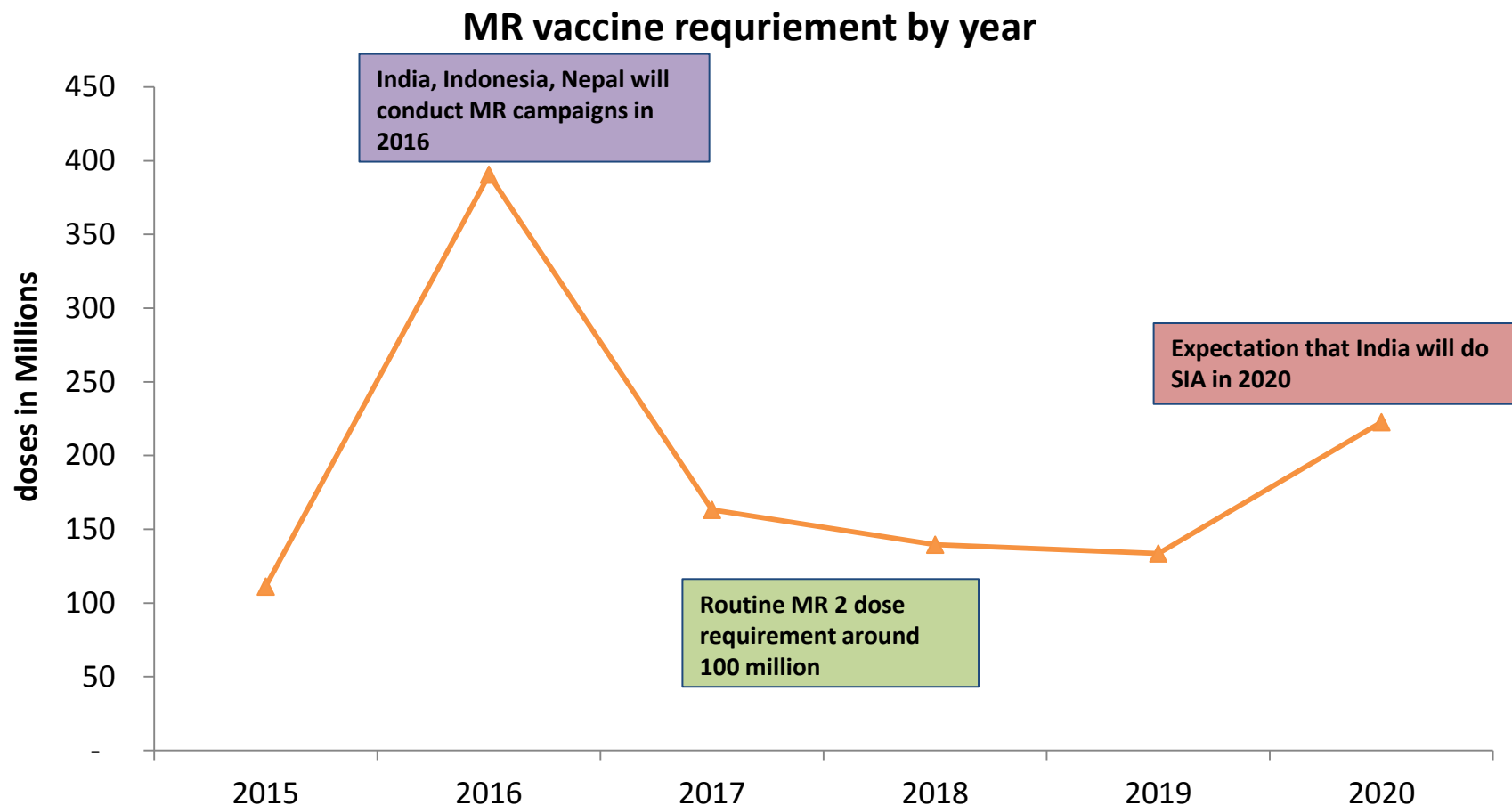
Country	2014 SIA	MCV SIA 2015-2018
BAN	in 2014 (9m – 15y) targeted 53 millions	FU campaigns 2018
BHU	-	Assess population immunity to confirm need for FU campaign in 2016
DPRK	-	Assess population immunity to confirm need for FU campaign in 2016
IND	-	2015-2017 MCV SIA (9m-15y) target 452 mi plans not confirmed yet
INO	-	2016 (9m-15 y) target 66.5 mi children. Plan not confirmed yet
MAL	-	Assess population immunity to confirm need for FU campaign in 2016
MYA	-	MR campaign 9m-15y target 17.4 mi children starting Jan 2015
NEP	-	2 <sup>nd</sup> dose MR in routine 2015, anticipated MR SIA 9m-5y 2016
SRK	-	Assess population immunity to confirm need for FU campaign in 2016
THA	-	Assess population immunity to confirm needs for FU campaign. More information after EPI review in Nov. 2014
TLS	-	Anticipated Catch-up campaign MEAS/MR in 2015 ?? Follow-up with intro of 2 doses MR in routine

# MR vaccine needs

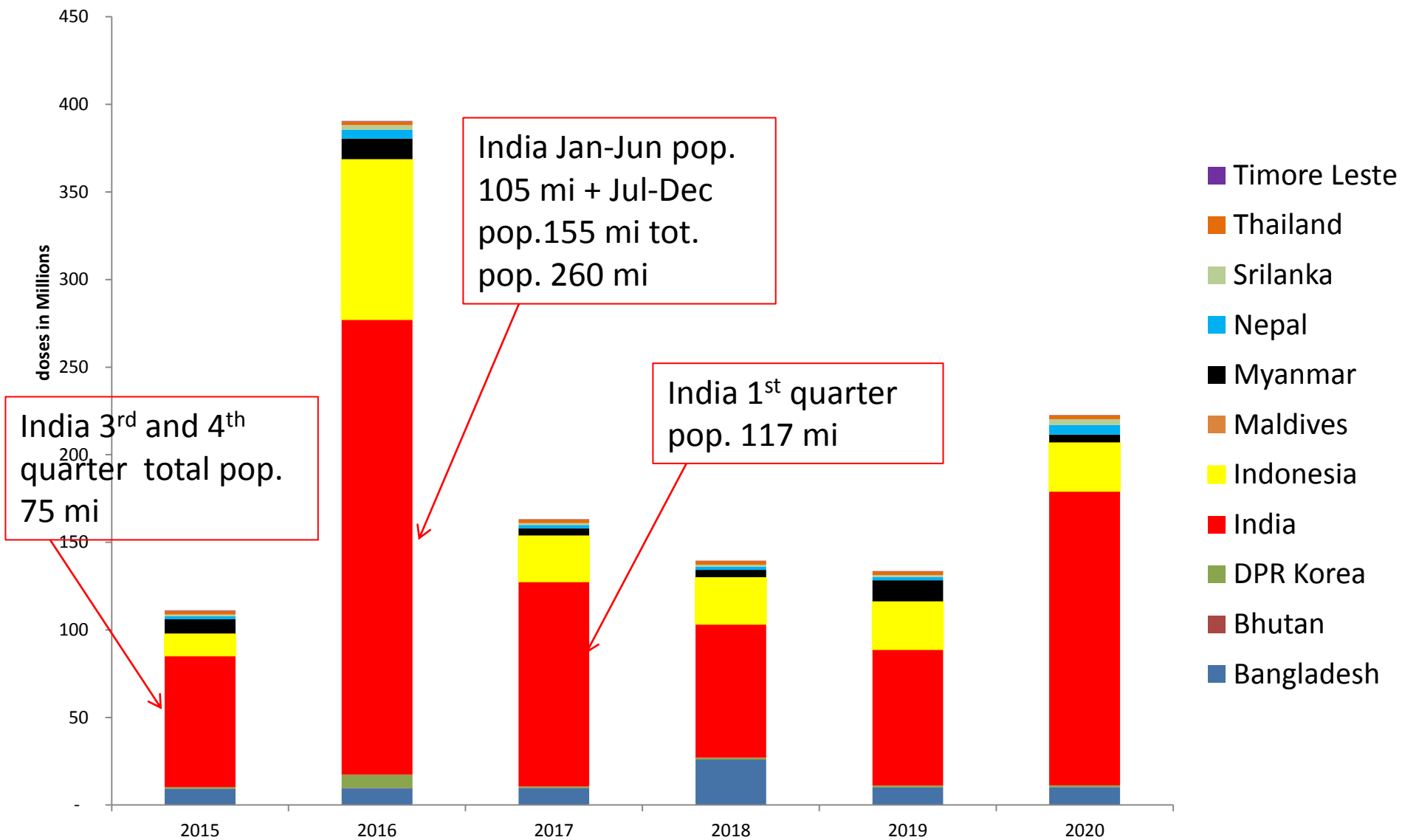
- Currently one manufacturer of Rubella Containing vaccine WHO PQ (SII)
- In 2017 Biofarma Indonesia plan to start producing MR vaccine with 10 mi doses. However it will not meet Indonesia requirement for SIA. Decision to be made to import MR or postpone SIA with risk to miss the target objective of 2020.



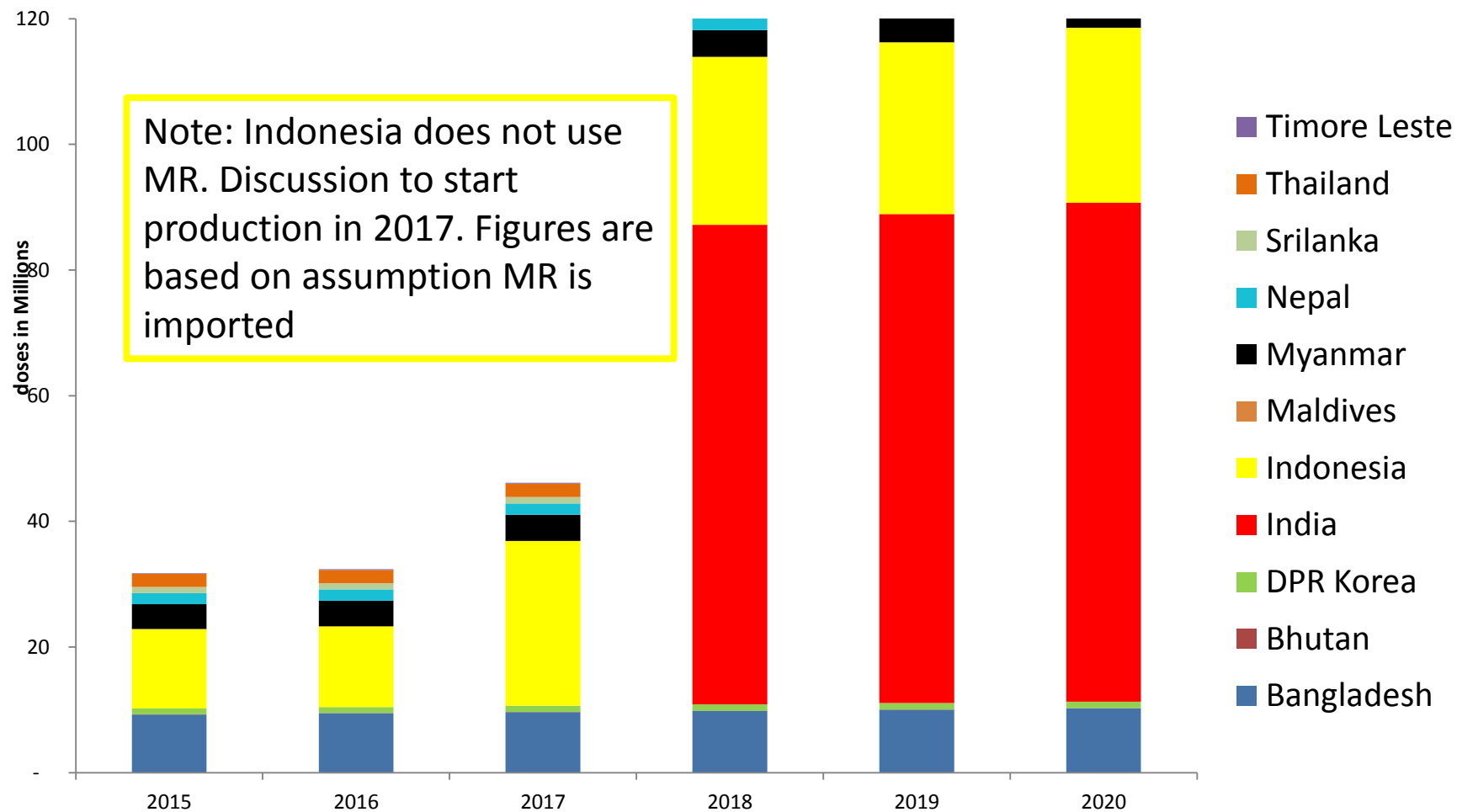
# MR vaccine needs forecast 2015-2020



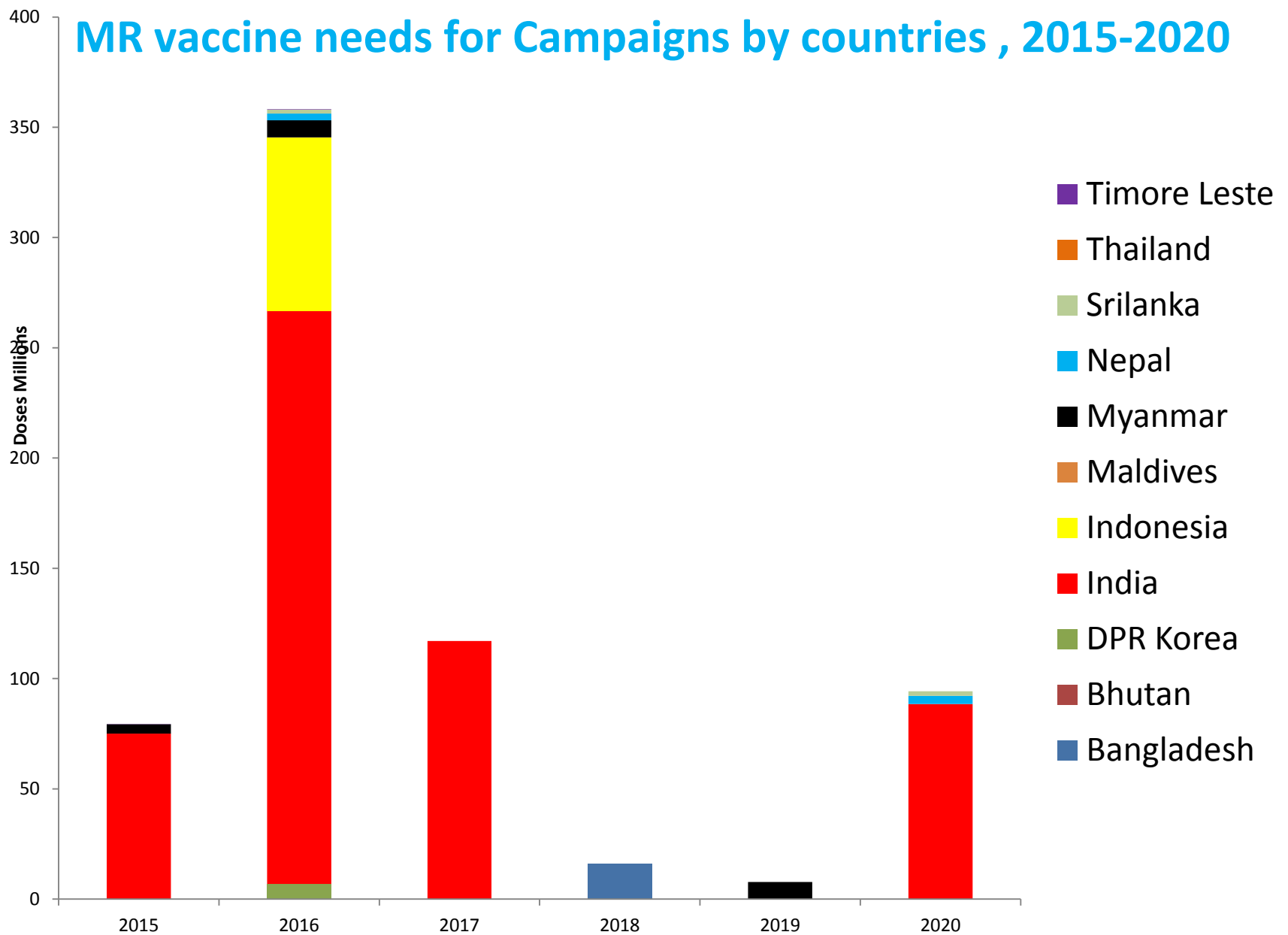
# Estimated MR vaccine requirement 2015-2020



# MR vaccine needs for Routine EPI by countries , 2015-2020



# MR vaccine needs for Campaigns by countries , 2015-2020



World Health  
Organization

# The Funding Challenge, 2014-2020

## Regional Requirements of about US\$800 mill.

- GAVI funding support available
- Measles Rubella Initiative funding support
- Reliable funding support from USCDC
- National budget lines:
  - India will cover its vaccine costs
  - Indonesia may have potential funds for vaccine
  - Other countries: mix of external and internal funds



# Key Challenges

- Increasing routine immunization coverage
  - Can't rely on repeated SIAs
- Finalize plans and Government commitments for SIA
- Scale-up **Scale-up Scale-up** MR vaccine production
- Ensuring adequate funding
- Ensuring adequate trained staff



# Strengthening Routine Immunization

- If routine immunization does not achieve greater than 95% coverage for both doses, then measles elimination will likely not be achieved
- This has not been achieved for any antigen throughout the Region
- No greater challenge



# Conclusion:

## The 2020 Target Can Be Reached

### Positives:

- BHU, DPRK, MAL and SRL may have eliminated measles
- BAN, NEP, THA with relatively low level of measles transmission
- Polio infrastructure still in place in the five priority countries of BAN, IND, INO, MYN and NEP

### Challenges:

- Routine immunization coverage for both doses of MR or MMR must be extremely high,  $\geq 95\%$
- All countries that have yet to conduct national wide-age range MR campaigns must do so
- All countries need to rapidly achieve required case-base, laboratory surveillance standards
- Need to accelerate implementation of the recommended strategies



World Health  
Organization

# ITAG Recommended Milestones

- **By the end of 2014:**
  - Regional surveillance guidelines and national action plans will be in place.
  - All countries will have initiated case-based reporting of measles/ rubella.
  - All countries will finalize plans to achieve, maintain and verify at least 95% population immunity against both measles and rubella in all age cohorts.
  - Individual case-based data should be reported monthly to the WHO country office and WHO SEARO in line with reporting requirements.
- **By the end of 2015:**
  - Case-based surveillance for measles and rubella will be fully operational in all countries except for India and Indonesia which will be expanding case-based surveillance.
  - All countries will have initiated sentinel surveillance for CRS.
  - National susceptibility profile of populations to measles and rubella will be described.
  - A Regional Verification Commission will have been established and a National Verification Committee established in every country.
  - All countries will have adequate access to an accredited national and reference laboratory or laboratories.
- **By the end of 2016:**
  - Countries will have an optimal two-dose measles-rubella containing vaccine schedule.
  - All countries will have conducted high quality wide age-range immunization campaigns against both measles and rubella.
  - India and Indonesia will have fully operational nationwide case-based, laboratory supported measles/rubella surveillance with strong links to outbreak investigations and inclusion of line-listed cases from confirmed outbreaks.
  - All countries to plan for evaluations of the impact of the nationwide wide age-range MR campaigns and plan for follow-up narrower age-range MR campaigns.

