

# Opportunities to Accelerate Measles and Rubella Elimination

SAGE Meeting  
7 November 2012

# Outline

- New policies
- Global Measles and Rubella Strategic Plan
  - 5 key strategies
- New partners and resources
- Questions for SAGE

# Policy Basis

## Measles Position Paper (7/09)

- 2 doses of measles vaccine as a standard
- Criteria for introduction of routine MCV2
- Optimal timing for MCV1 & MCV2
- Need to continue SIAs until coverage >90-95% for both doses

## Rubella Position Paper (08/11)

- Use measles delivery platform
- Use combined MR, MMR vaccines
- Preferred approach is to start with wide age range SIA combined with introduction in routine
- Need to achieve >80% coverage through routine **and/or** SIAs

*“Every dose of single-antigen measles vaccine is a missed opportunity for protection against rubella”*

*..... Dr Ciro de Quadros*

# GLOBAL MEASLES AND RUBELLA

## STRATEGIC PLAN

2012–2020

*“With strong partnerships, resources and political will, we can, and must work together to achieve and maintain the elimination of measles, rubella and CRS globally”*

Margaret Chan, DG, WHO

Anthony Lake, Executive Director, UNICEF

Timothy E. Wirth, President, UNF

Gail J. McGovern, President & CEO, ARC

Thomas R. Frieden, Director, CDC

# Vision

Achieve and maintain a world  
without measles, rubella and  
congenital rubella syndrome



# Targets

## By end 2015:

- Reduce global measles mortality by at least 95% compared with 2000 estimates
- Achieve regional measles and rubella/CRS elimination goals
  - Measles: The American (2000), W. Pacific (2012), European (2015) and E. Mediterranean (2015)
  - Rubella: The American (2010) and European (2015)

## By end 2020:

- Achieve measles and rubella elimination in at least five WHO regions

# Guiding Principles

1. Country ownership and sustainability
2. Routine immunization and health systems strengthening
3. Equity
4. Linkages



# Strategies

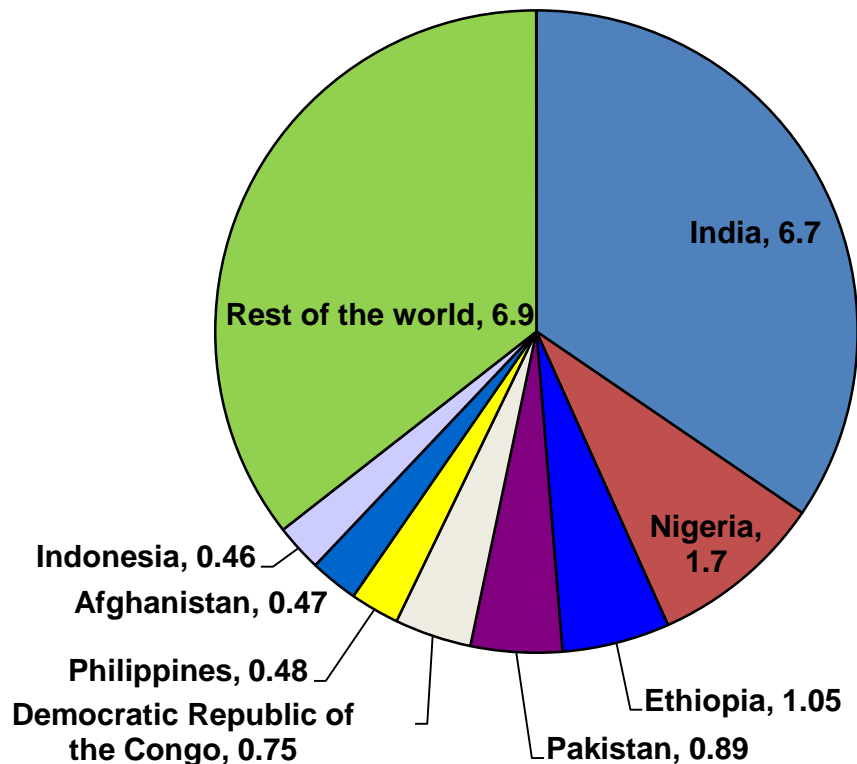
1. High population immunity through vaccination with two doses of measles and rubella containing vaccines
2. Effective surveillance, monitoring and evaluation
3. Outbreak preparedness and response & case management
4. Communication to build public confidence and demand for immunization
5. Research and development



# Population Immunity

- **Routine immunization**
  - *Increase 1<sup>st</sup> dose to  $\geq 95\%$*
  - *Expand coverage with 2<sup>nd</sup> dose*
- **High quality SIAs**

# 20.1 million infants not immunized against measles (MCV1), 2011



## 4 Countries with MCV1 < 50%, 2011:

Cote d'Ivoire (49%)  
Somalia (46%)  
Liberia (40%)  
Chad (28%)

# Root causes of low coverage...



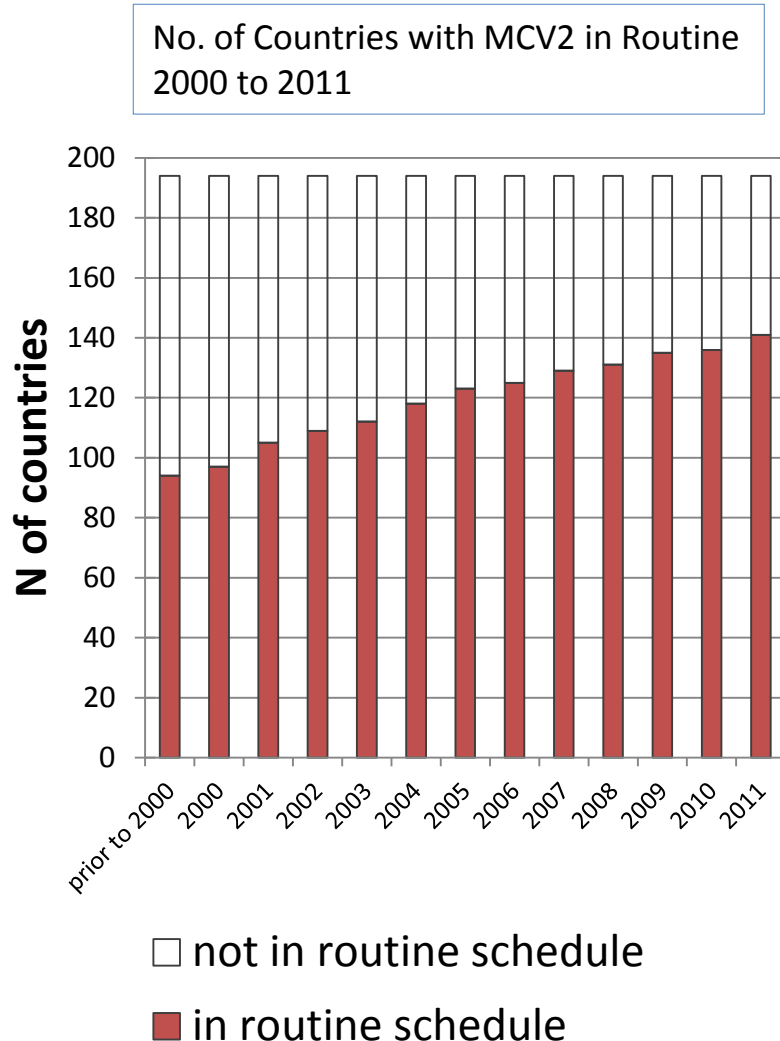
- Vaccine availability
- Physical access
- Missed opportunities
- Health worker KAP
- Caregiver factors
- Community/societal factors

# Health Worker Knowledge and Practice

## before vs. after Measles SIAs in India, 2011

Category	Indicator	Before SIA	After SIA
Vaccine safety	Health worker knows a child with AEFI should be given first aid; referred	70%	100%
	Health worker has AEFI contact information	65%	85%
	Health worker has working hub cutter	80%	100%
	Health worker kept Measles vial in hole of ice pack during RI session	20%	55%
Record-keeping	Health worker properly filled register, health card, tally at RI session	52%	84%
Cold chain	Health worker received cold chain training past 6 months	25%	58%
Waste management	Health worker received waste management training in past 6 months	45%	74%
Child tracking	Health worker received training on child tracking in past 6 months	20%	42%

# Expanding MCV2 in routine



## Countries introducing MCV2:

- 2011:
  - Bolivia, Botswana, Djibouti, India
- 2012:
  - Bangladesh, Burundi, Cambodia, Eritrea, Gambia, Ghana, Sao Tome, Zambia
- 2013
  - Burkina Faso
  - Kenya
  - Tanzania

# Routine MCV2: an opportunity to strengthen systems

A Guide to Introducing a 2<sup>nd</sup> Dose of Measles Vaccine  
into Routine Immunization Schedules

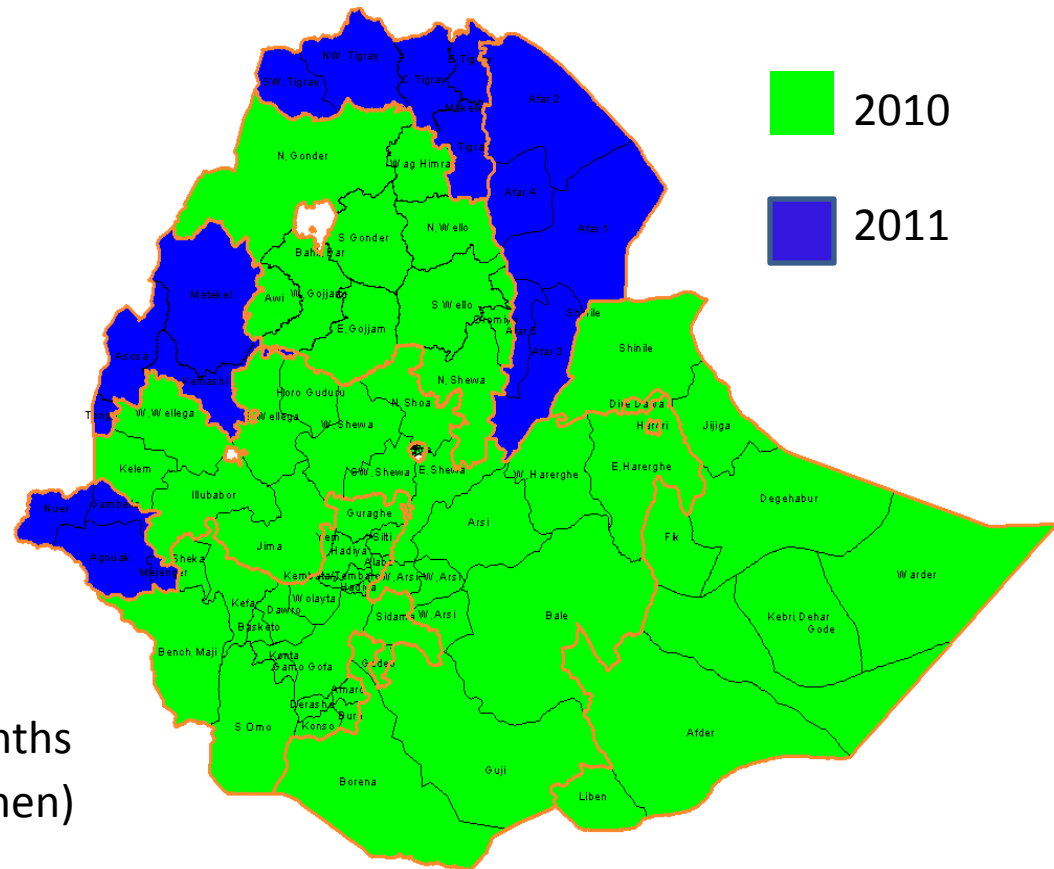


Expanded Programme on Immunization  
Department of Immunization, Vaccines and Biologicals

- Provides a well-child visit at 15-18 months
  - Catch-up missed doses
  - Nutrition screening
  - Vitamin A, deworming
  - Malaria prevention
- Administer other vaccines:
  - 4<sup>th</sup> dose of pertussis
  - Pneumococcal vaccine
  - Meningitis A
  - ?Malaria vaccine

# "Best Practices" Measles SIAs: Ethiopia, 2010-2011

- **Target:** 8.5 million (9 – 47 months)
- **Phased in 2:**
  - October 2010 (90.8%)
  - February 2011 (9.2%)
- **Integrated interventions:**
  - **OPV** (0-59 months)
  - **Vitamin A** (6-59 months)
  - **De-worming** (24-59 months)
  - **Nutritional Screening** (6-59 months and pregnant and lactating women)



Source: Dr Fiona Braka, WHO Ethiopia

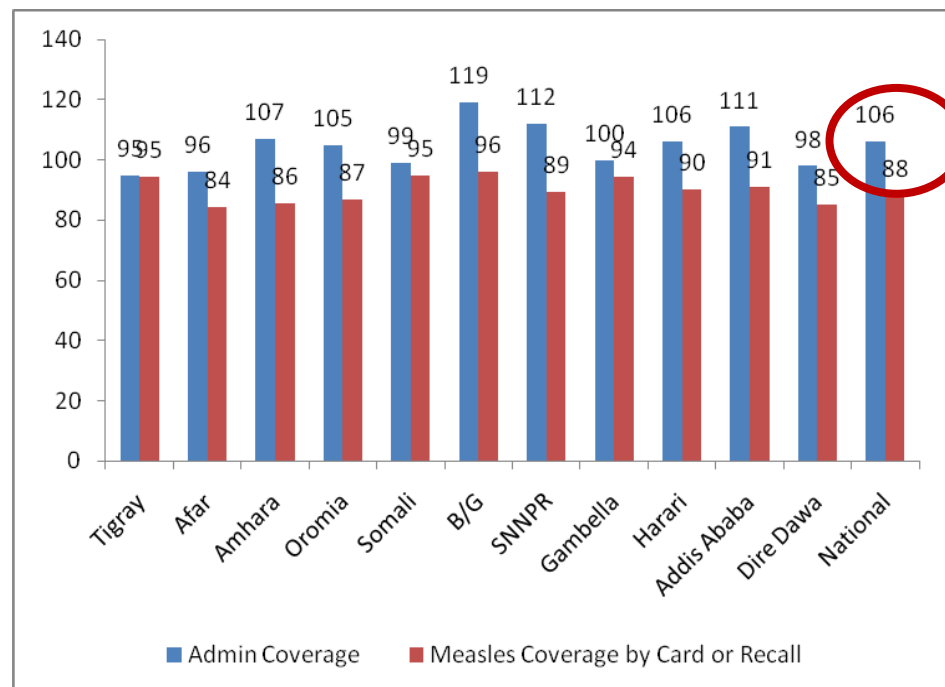
# How can SIAs strengthen routine immunization?

## Lessons Learnt from Ethiopia

### Key Areas in planning phase:

- Micro-planning
- Training
- Logistics Management
- Advocacy and social mobilization
- AEFI monitoring and management
- Surveillance
- Monitoring and Evaluation

Post SIA Coverage Survey, 2010-2011



Source: Dr Fiona Braka, WHO Ethiopia



# Strengthening Routine Services through Measles - Cambodia

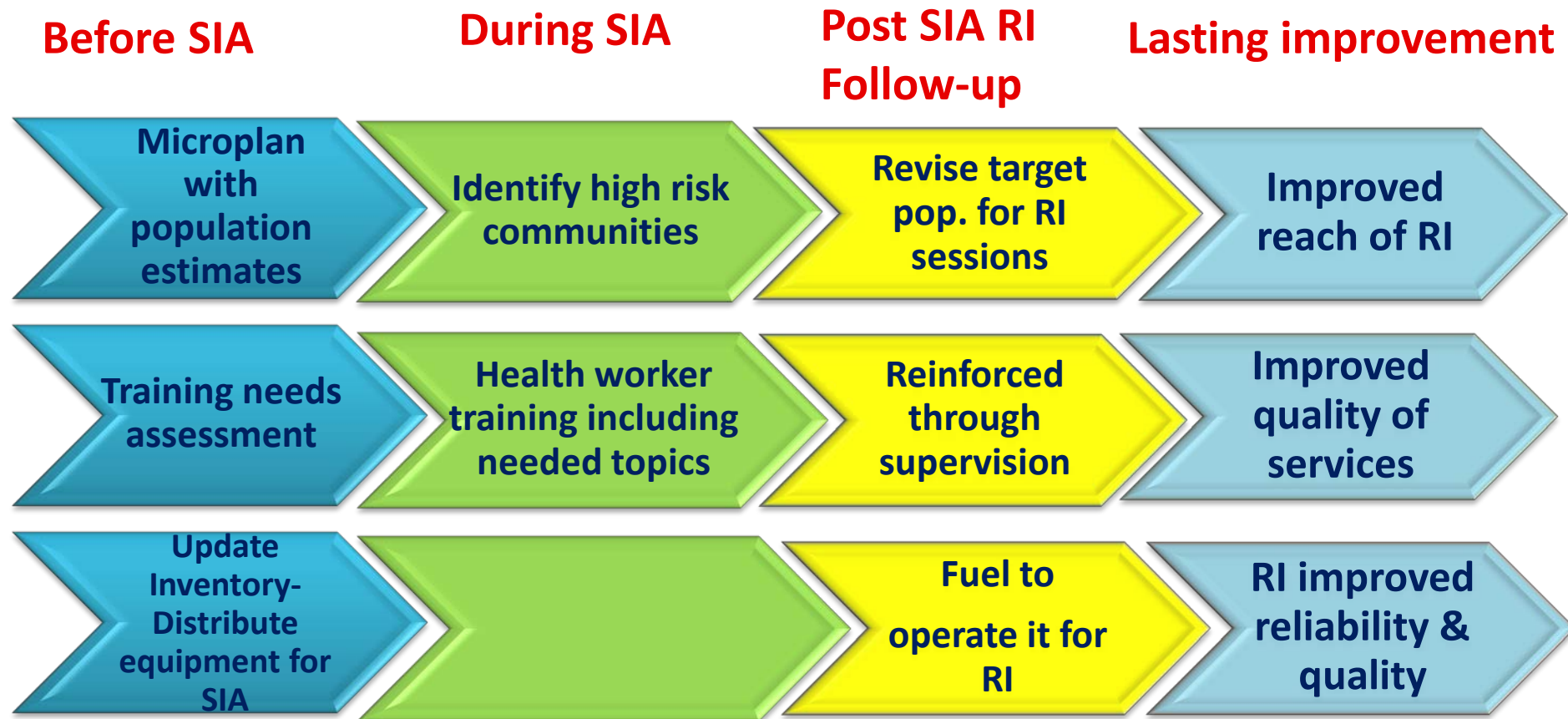
EPI Review in 2010



1. Focus on high risk communities
2. Used **measles SIA opportunity** to identify HRC by checking children's immunization cards [2011]
3. Improving EPI service delivery to HRCs [2012]
  - New micro-planning guidelines
  - Mobile phones for village volunteers
  - **Using measles 2<sup>nd</sup> dose introduction to monitor if child was fully vaccinated**

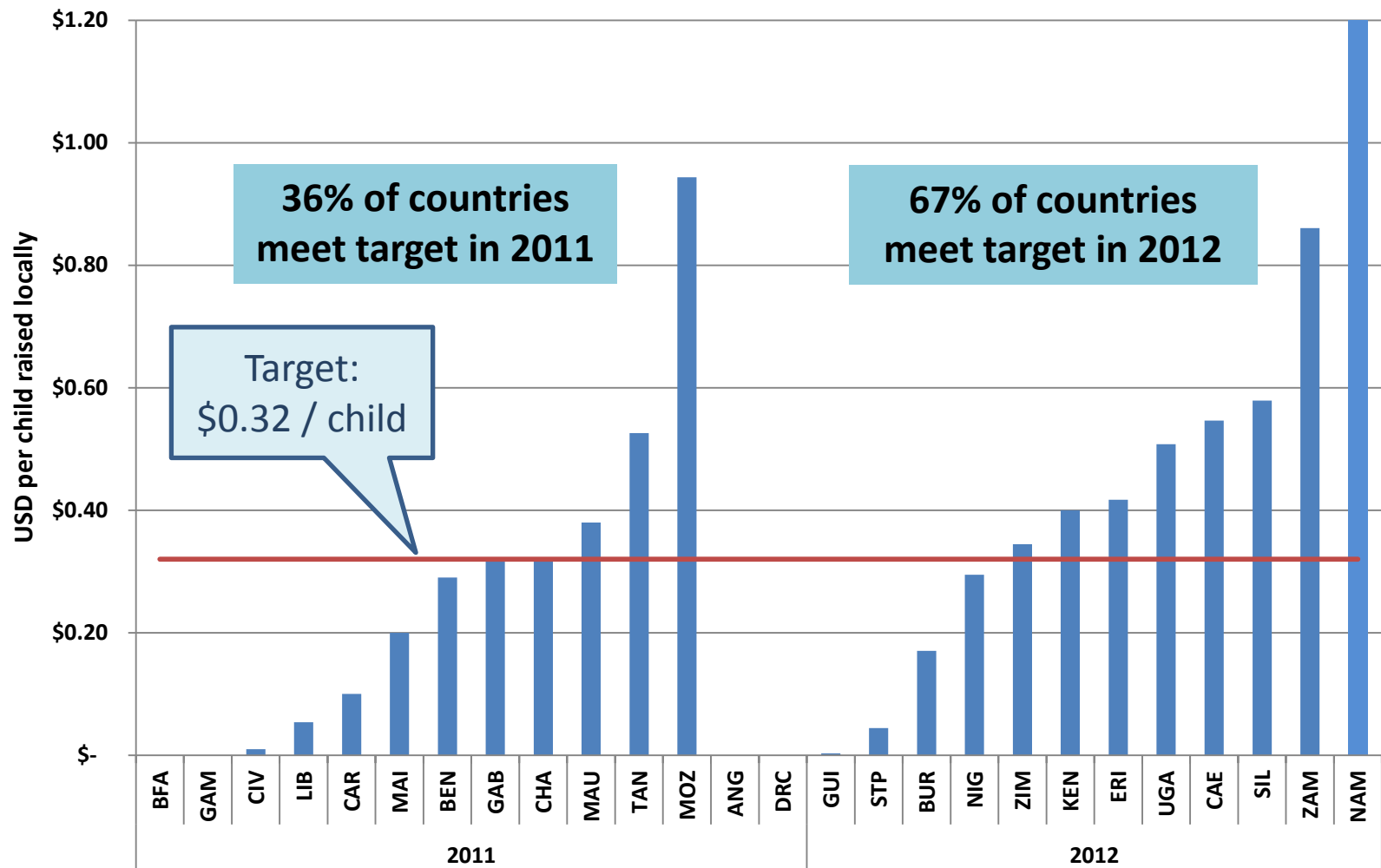
Source: Richard Duncan WHO/Cambodia

# To have an impact: *Plan, Fund, Supervise*



Source: Rebecca Fields, John Snow Inc.

# Funds raised locally (in USD / child) for measles SIAs. 2011 – 2012. African Region



Source: Dr Balcha Masresha, WHO African Region

# Projected Dates of Rubella introductions GAVI and non-GAVI countries, by end 2018

2013	2014	2015	2016	2017	2018
Bangladesh	Benin	Afghanistan	Central African Republic	Angola	Chad
Cambodia	Burkina Faso	Burundi	Comoros	Cote d'Ivoire	Equatorial Guinea
Cape Verde	Djibouti	Cameroon	Congo, DR*	Gabon	Guinea
Ghana	Gambia	Eritrea	Congo, Rep	Liberia	Guinea-Bissau
Kiribati	Korea, DPR	Kenya	Ethiopia	Mali	Sierra Leone
Rwanda	Lesotho	Myanmar	Madagascar	Mauritania	
Senegal	South Africa	Papua New Guinea	Malawi	Mozambique	
Samoa	Tanzania	Pakistan*	Niger	Nigeria*	
Vanuatu		Philippines	Somalia		
Vietnam		Sao Tome e Principe	Sudan: South		
Yemen		Sudan: North	Swaziland		
		Uganda	Timor Leste		
		Zambia	Togo		
		Zimbabwe			

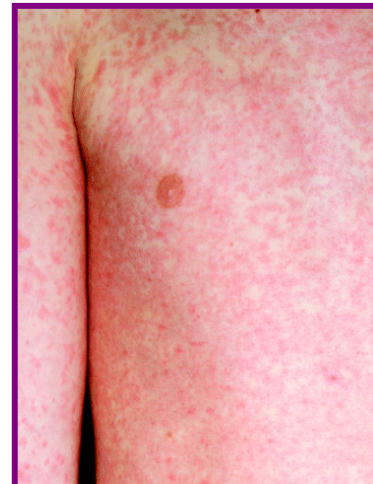
\* rolling SIAs

Based on WHO Regional Office, UNICEF SD and PD, and GAVI Strategic Demand Forecast, November 2012 (subject to change)  
India and Indonesia plans are uncertain

## Applied to GAVI

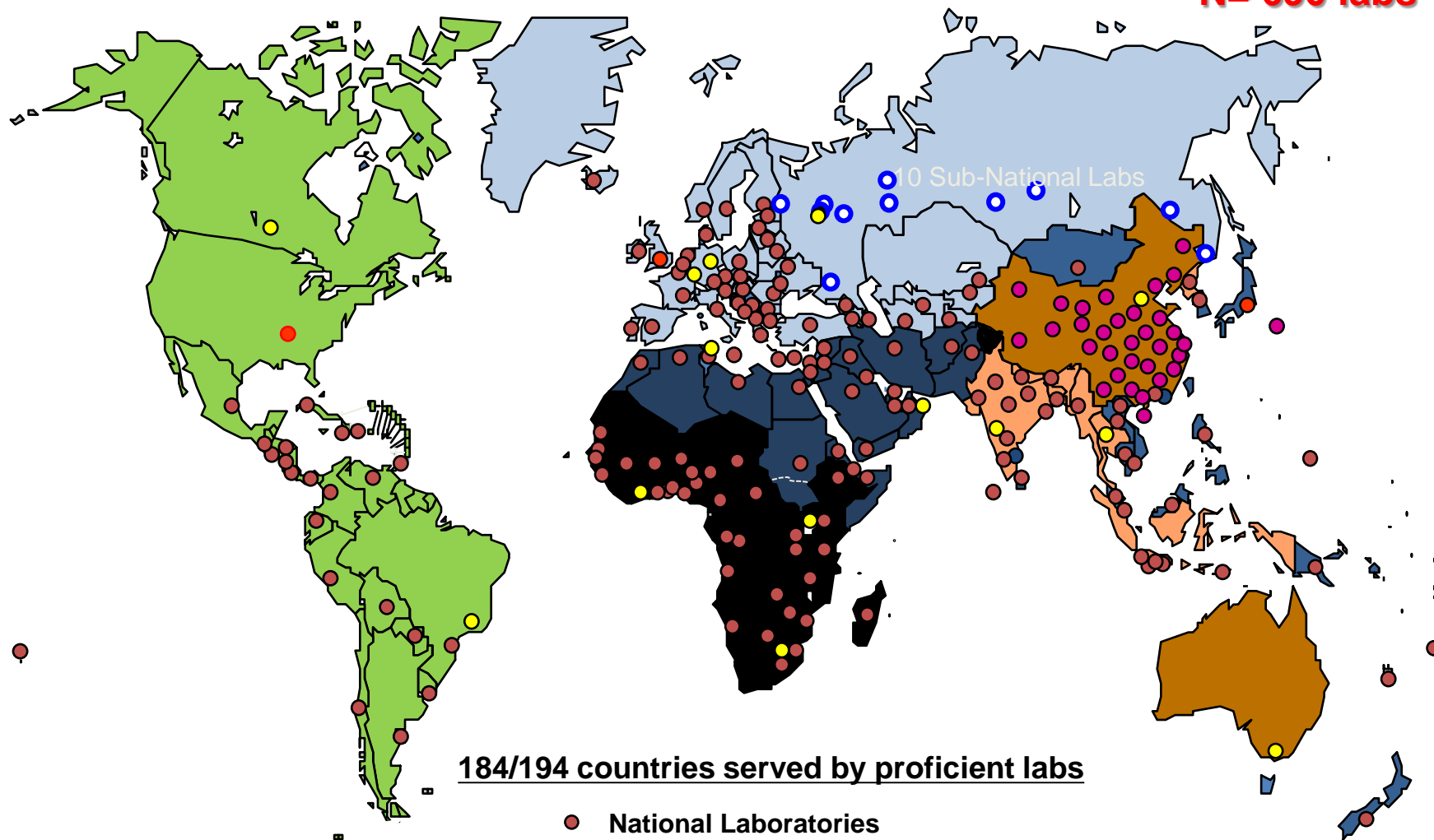
# Surveillance, Monitoring and Evaluation

- WHO/UNICEF coverage estimates
- Annual and monthly aggregate case reporting
- Annual estimates of measles mortality
- Regional initiative to verify elimination
- **WHO Measles-Rubella Laboratory Network**



# WHO Global Measles and Rubella Laboratory Network (LabNet): 2012

N= 690 labs

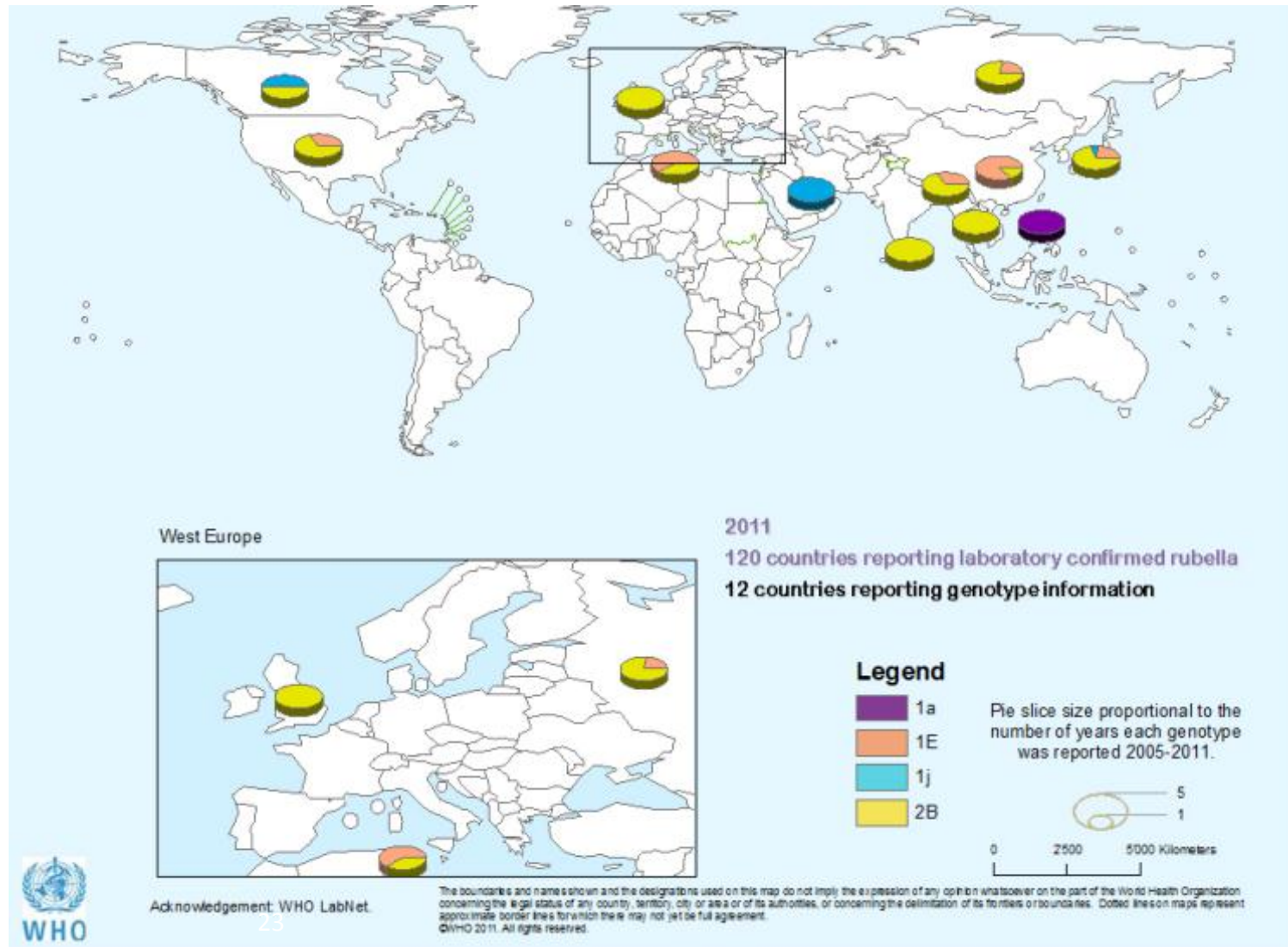


- National Laboratories
- Regional Reference Labs
- Global Specialised Labs
- Provincial Labs China
- Sub-National Labs Russia

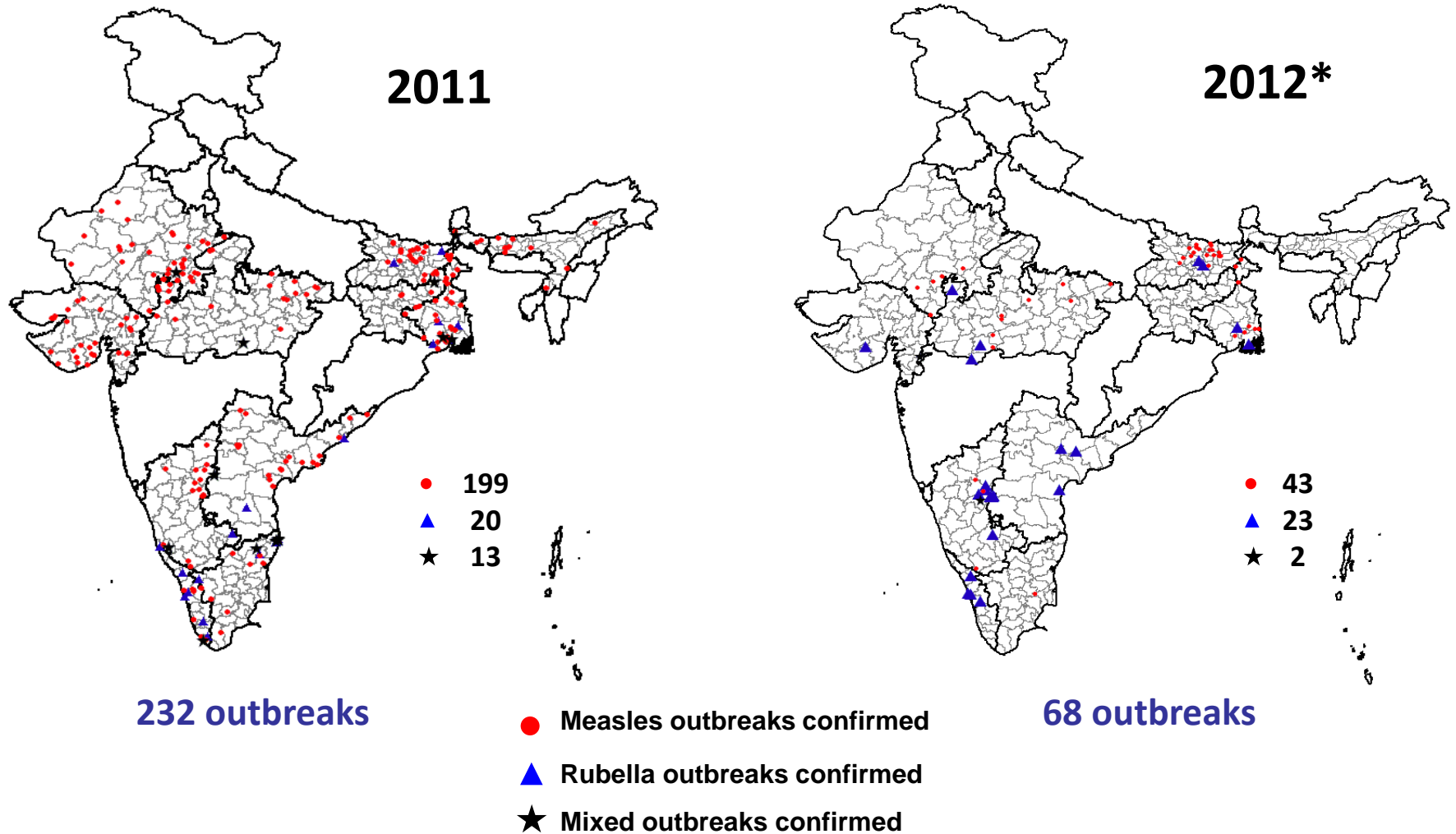


# Distribution of rubella genotypes, 2011

(data as of 03/08/2012)



# Polio Legacy: Measles Outbreak Surveillance in 11 States in India



\* data as on 15<sup>th</sup> October, 2012

# Outbreak confirmation for Measles:  $\geq 2$  cases IgM positive for measles, Similarly for Rubella  
@ Surveillance started from June, 2011 in Bihar and July 2011 in Assam and Jharkhand



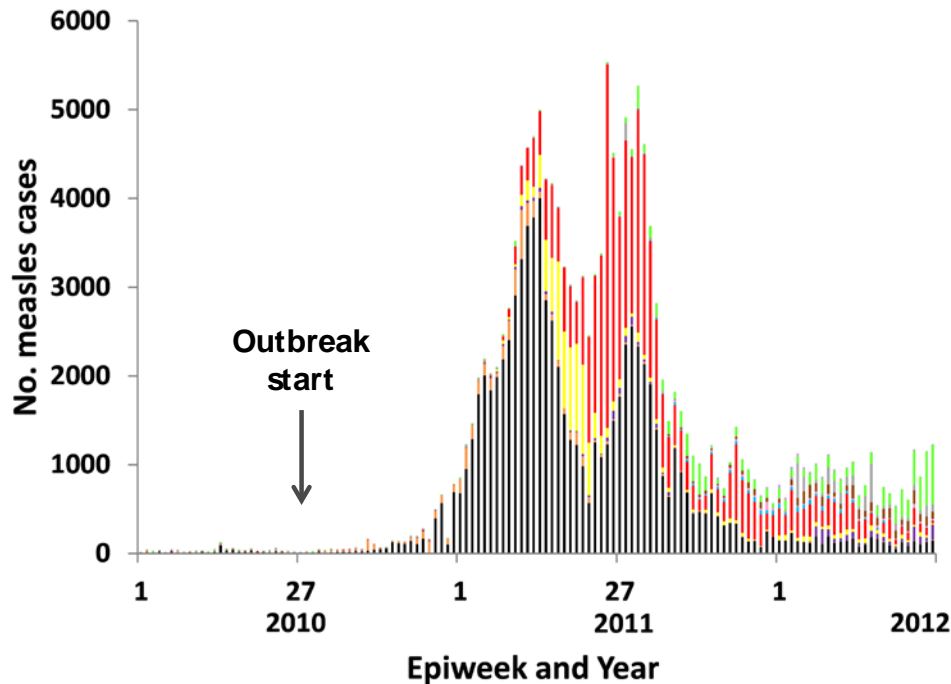
# Outbreak Preparedness and Response

*"Measles is the canary in the coal mine"*

..... Dr. Seth Berkley

- Use outbreaks to strengthen routine
- **Timely outbreak response**

# Timely Outbreak Response



Reported number of measles cases reported  
By week and province, DR Congo, 2011-2012

- GAVI Support (\$55 million)
- Purpose
  - To prevent measles deaths and limit spread
  - To enable rapid response
- Mechanism
  - To be managed by MR Initiative
  - Standard operating principles being developed
- Criteria
  - Confirmed outbreak of national or international public health importance
  - Field investigation/risk assessment
  - Plan to address causes
  - Government commitment

# Communication to build public confidence and demand

- Advocacy, risk communication, social mobilization, and community engagement
- Communications strategic plan (draft version)
- Understand the drivers of vaccine hesitancy
- **Initiatives in the European Region**

# Communications and Advocacy, WHO European Region

1. **Publications and PR materials:**  
(Monthly Epi Brief, Immunization Highlights (annual), Euro Immunization Monitor (quarterly))  
Web and internal communications
2. **European Immunization Week** (53 MS in 2012)
3. **Outbreak and crisis communications** support to MS  
Pandemic, polio and measles outbreaks, narcolepsy-pandemrix etc.
4. **Vaccine Safety Communications** : Manual (2013)and training for EPI Managers
5. **Social media** platform development, blogger mapping and outreach strategy
6. **Pilot projects** (positive deviance approach, cultural considerations related to vaccine safety comms, community entry methodologies)
7. **TIP Toolkit** - a new tool for **Tailoring Immunization Programme response**

# Research and Development

- Need for an active research agenda
- New tools for diagnosis
- New tools for vaccine delivery (e.g., aerosol)
- **SAGE Working Group on Measles and Rubella**

# Planned Products

## SAGE Working Group on Measles and Rubella

- **Update immunization strategies** (Dr Susan Reef, CDC/Atlanta)
  - Is vaccination of adults needed to achieve elimination?
  - Upper age range for MR and M campaigns
  - Guidance for outbreak response immunization
  - Booster doses for children on anti-retroviral therapy
- **Improve surveillance and monitoring** (Dr Natasha Crowcroft, HPA/Canada)
  - Broad area of work to strengthen field/lab surveillance
  - Verification framework (see next presentation)
- **Develop a research agenda** (Dr William Moss, JHU)
  - Methodology for prioritization
  - Short list of topics with highest priority

# Welcoming New Partners

## **GAVI**

>\$700 million in next 5 years



## **Lions Clubs International Foundation**

Advocacy and social mobilization



## **International Pediatric Association and American Academy of Pediatrics**

Mobilizing pediatricians

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™



international pediatric association  
association internationale de pédiatrie  
asociación Internacional de pediatria

## **Sabin Vaccine Institute**

Sensitizing parliamentarians to the value of vaccine



## **European CDC**

Increased focus on measles and rubella in Europe

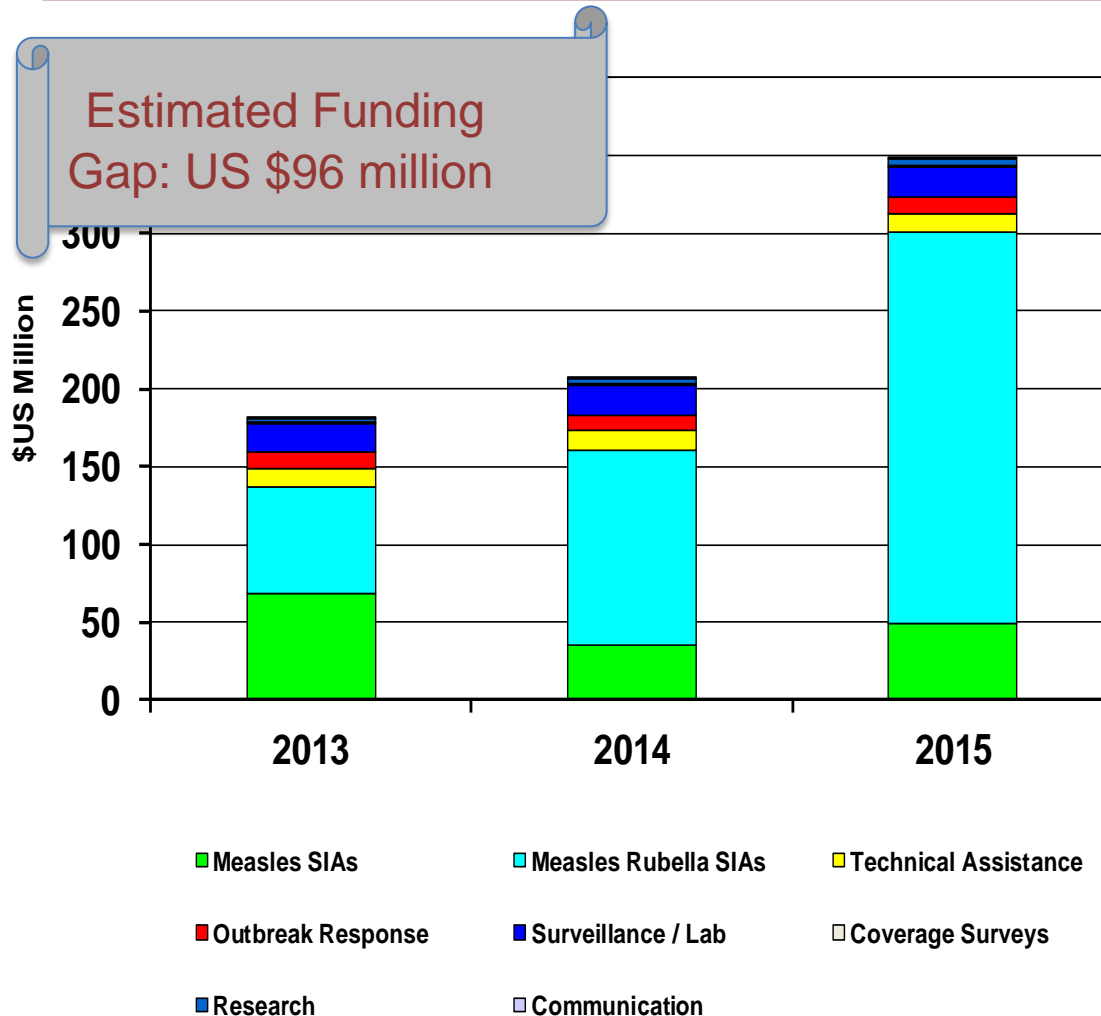


# GAVI support for measles and rubella

- **Objective:** *to strengthen the impact of the comprehensive package of support offered by the GAVI Alliance partners to sustainably prevent measles deaths and rubella/CRS*
  - strengthen health systems to deliver routine immunisations
  - improve the sustainability of national financing for measles immunization and other vaccines
- **MCV1** performance-based funding
  - Part of Health System Strengthening
- **MCV2** in routine (\$21m)
- **Rubella introduction** (\$554m)
  - MR catch-up SIA (9m-14y)
    - Bundled vaccine
    - \$0.65 / child for operational costs
  - Introduction grant
- **Measles follow-up SIAs** (\$107m)
  - in Afghanistan, Pakistan, Chad, DRC, Ethiopia, Nigeria
- **Measles outbreak response** (\$55m)



# Estimated Resource Requirements by Major Category of Activity, 2013-2015



- Adequately funded:
  - M, MR SIAs
  - Outbreak response
  - Technical assistance
- Shortfalls:
  - SIAs to strengthen routine
  - Surveillance/lab
  - Surveys
  - Research
  - Communications

# Summary

- New Strategic Plan provides the road map
- 5 key strategies provide opportunities to ***accelerate*** progress while ***strengthening systems***
- New resources and partners
- Components of the plan remain unfunded

# Acknowledgements

- SAGE Working Group on Measles and Rubella
- Partners in the Measles and Rubella Initiative
- WHO country, Regional and HQ staff

Thank You

# Questions to SAGE

- Is the programme on track to achieve global and regional targets?
- In areas where it is on track, what are the lessons to be learnt?
- In areas where it is not on track, what are the barriers and what can be done to overcome them?