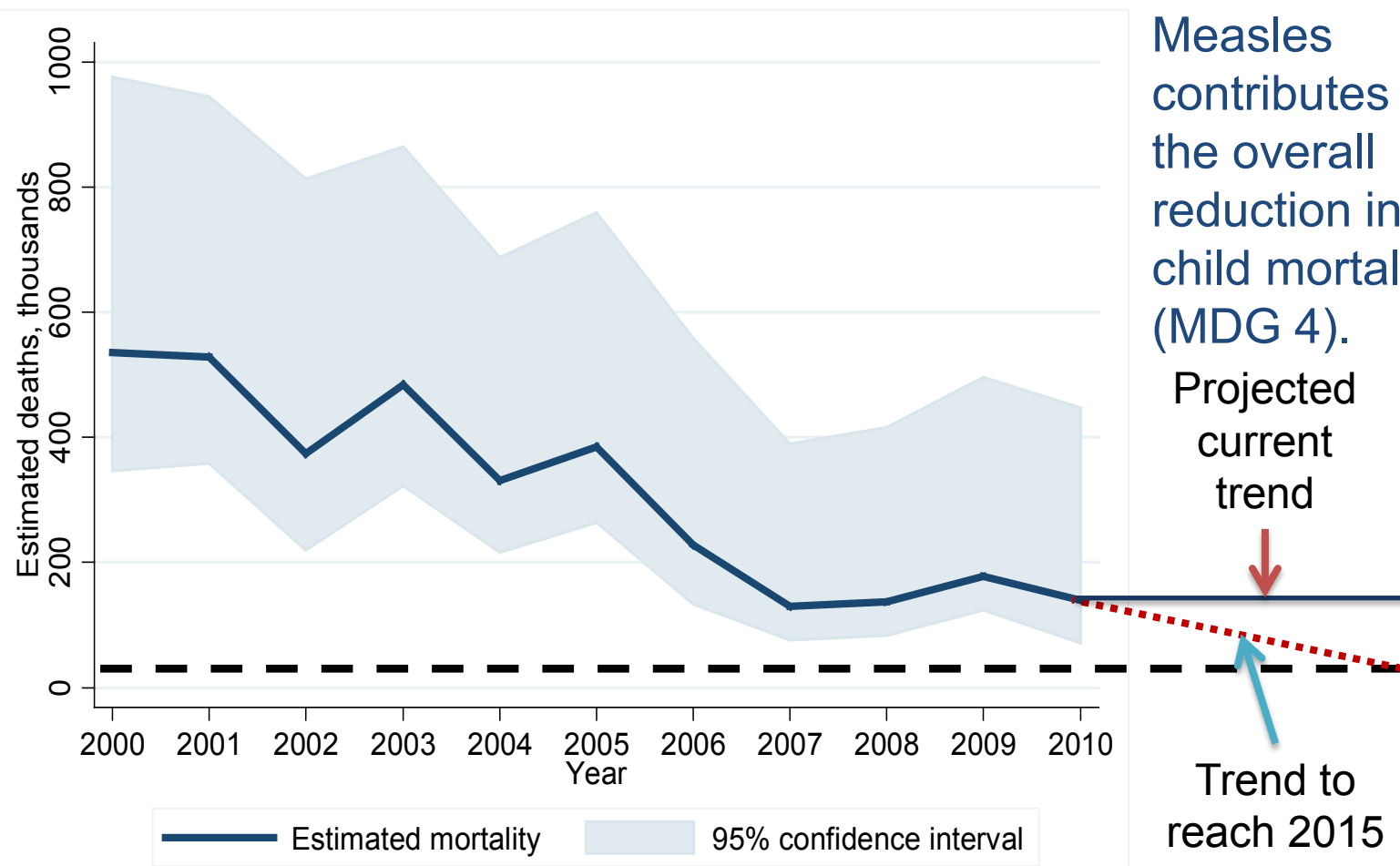


# The Measles & Rubella Initiative - Update



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**Deputy Branch Chief**  
**Disease Eradication and Elimination Branch**  
**Global Immunization Division**  
**Center for Global Health**

# 74% Reduction in Estimated Measles Deaths, 2000-2010



Measles contributes 20% to the overall reduction in <5 child mortality (MDG 4).

Projected current trend

Trend to reach 2015 goal

Source: Simons E et al. Assessment of the 2010 global measles mortality reduction goal: results from a model of surveillance data. Lancet 2012; 379(9832):2173-8



# What is the Measles & Rubella (MR) Initiative?



# Functions of the MR Initiative

- Coordination of global effort to eliminate measles and rubella
- Fundraising
- Advocacy
- Technical Assistance
- Research
- Monitoring, Evaluation & Reporting

# Background

- 2001: Success of measles elimination in PAHO and mortality reduction in southern Africa spurs founding of Measles Initiative
- 2010: Consultation on feasibility of measles eradication
- 2010: Estimated measles mortality reduced 74% from 2000
- 2012: Measles & Rubella Initiative

# Feasibility of Measles Eradication



- **July 2010 – Global Consultation**
  - Measles can and should be eradicated
  - In the context of strengthening immunization and primary health care systems
  - Opportunity to accelerate rubella control and the prevention of congenital rubella syndrome
  - *Target date of 2020 feasible if measurable progress*



**Contenu**  
 161 Rubella vaccines: WHO position paper

**Sommaire**  
 161 Note de synthèse: position de l'OMS concernant les vaccins antirubéoleux

In accordance with its mandate to provide guidance to Member States on health policy matters, WHO issues a series of regularly updated position papers on vaccines and combinations of vaccines against diseases that have an international public health impact. These papers are concerned primarily with the use of vaccines in large-scale immunization programmes; they summarize essential background information on diseases and vaccines, and conclude with the current WHO position on the use of vaccines worldwide.

**Note de synthèse: position de l'OMS concernant les vaccins antirubéoleux**

Conformément à son mandat qui est de fournir des recommandations aux États Membres sur les questions de politique de santé, l'OMS publie une série de notes de synthèse régulièrement actualisées sur les vaccins et les associations vaccinales utilisées contre des maladies qui ont des conséquences sur la santé publique internationale. Ces notes portent principalement sur l'utilisation des vaccins dans le cadre de programmes de vaccination à grande échelle; elles résument les informations générales essentielles dont on dispose sur les maladies et les vaccins et présentent en conclusion la position actuelle de l'OMS concernant l'utilisation de ces derniers dans le monde.

The papers have been reviewed by external experts and WHO staff, and since 2006 they have been reviewed and endorsed by the WHO Strategic Advisory Group of Experts (SAGE) on Immunization. The position papers are designed to be used mainly by national public health officials and managers of immunization programmes. They may also be of interest to international funding agencies, vaccine manufacturers, the medical community, the scientific media and the public.

Ces notes ont été examinées par des spécialistes extérieurs et par le personnel de l'OMS et, depuis 2006, sont examinées et approuvées par le Groupe stratégique consultatif d'experts (SAGE) de l'OMS sur la vaccination. Ces notes de synthèse sont principalement destinées aux responsables nationaux de la santé publique et aux administrateurs des programmes de vaccination, mais elles peuvent également présenter un intérêt pour les organismes internationaux de financement, les fabricants de vaccins, le monde médical, les médias scientifiques et le grand public.

This document replaces the first rubella vaccine position paper published in the Weekly Epidemiological Record in May 2001. It incorporates two more recent developments in the field of rubella vaccines, in order to provide updated guidance on the introduction and use of rubella-containing vaccines in national immunisation schedules.

Le présent document remplace la première note de synthèse sur les vaccins antirubéoleux publiée dans le *Relevé épidémiologique hebdomadaire* en mai 2001. Il incorpore les avancées les plus récentes dans le domaine afin d'offrir des informations mises à jour quant à l'introduction et l'utilisation des vaccins antirubéoleux dans les calendriers nationaux de vaccination.

Recommendations on the use of rubella vaccines were discussed by SACG at its meeting in April 2011. Evidence presented at the meeting can be accessed at <http://www.who.int/immunization/ageprevalence/index.html>.

Les recommandations relatives à l'utilisation des vaccins antirubéoleux ont été examinées par le SACG lors de sa réunion d'avril 2011. Les données présentées lors de cette réunion peuvent être consultées à l'adresse suivante: <http://www.who.int/immunization/ageprevalence/index.html>.

# Rubella as the "Game Changer"

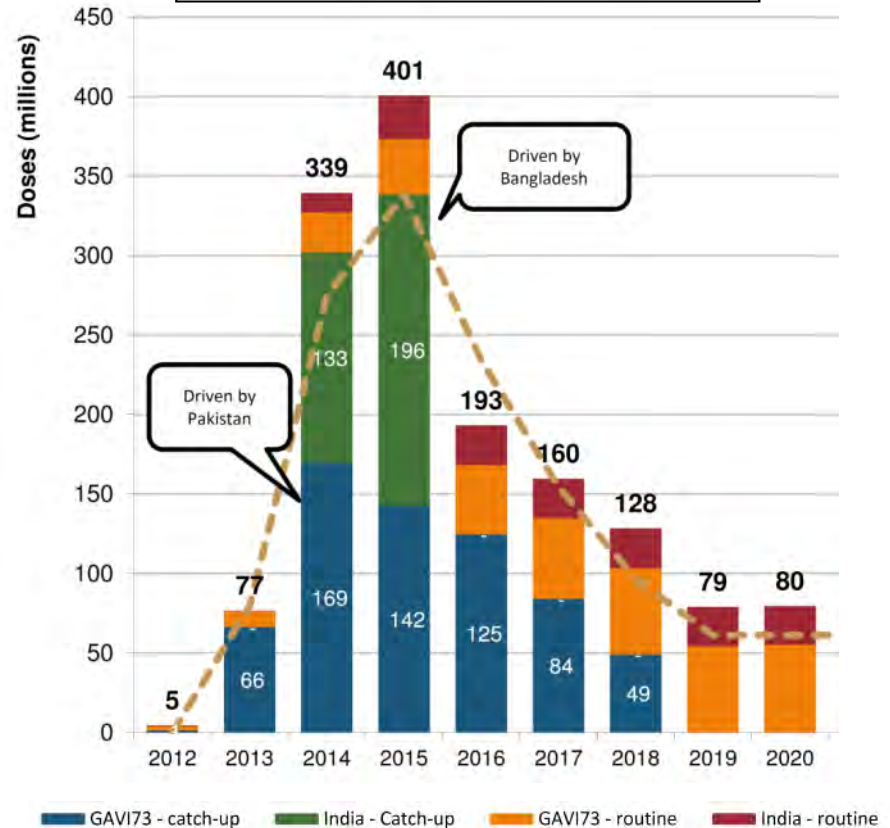
## 2011 WHO Rubella vaccine position paper:

- *"In light of the remaining global burden of CRS and proven efficacy and safety of RCVs, WHO recommends that countries take the opportunity offered by accelerated measles control and elimination activities to introduce RCVs."*
- The **preferred approach** is to begin with MR vaccine or MMR vaccine in a wide-age range campaign followed immediately with introduction in the routine programme.
- Countries introducing RCV should **achieve and maintain immunization coverage of 80%** or greater with RCV delivered through **routine services and/or regular SIAs**.

# GAVI Support for Measles and Rubella >\$750 million through 2018

- **Rubella** introduction:
  - MR catch-up SIA (9m-14y)
    - Bundled vaccine
    - \$0.65 / child for operational costs
  - Introduction grant
  - Cost to GAVI \$554 million
- **Performance-based funding** for 1st dose measles coverage
- Continue support for grants to introduce **MCV2 in routine**
- Support for **measles follow-up SIAs** in 6 large countries
- Support for measles **outbreak response** immunization (\$55 million)

**Demand for MR vaccine**





# 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**



# Goals

## By end 2015:

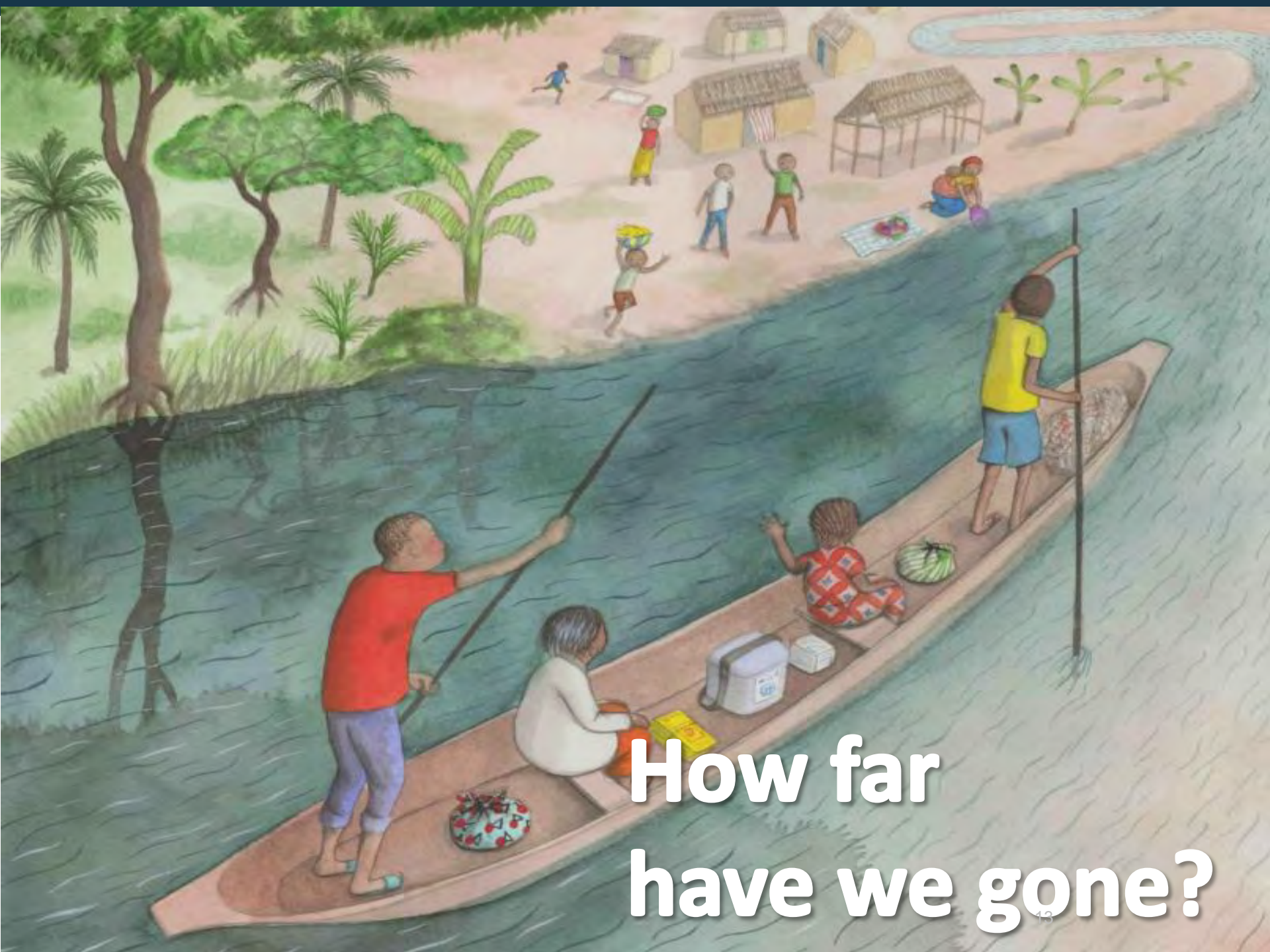
- Reduce global measles mortality by at least 95% compared with 2000 estimates.
- Achieve regional measles and rubella/CRS elimination goals.

## By end 2020:

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

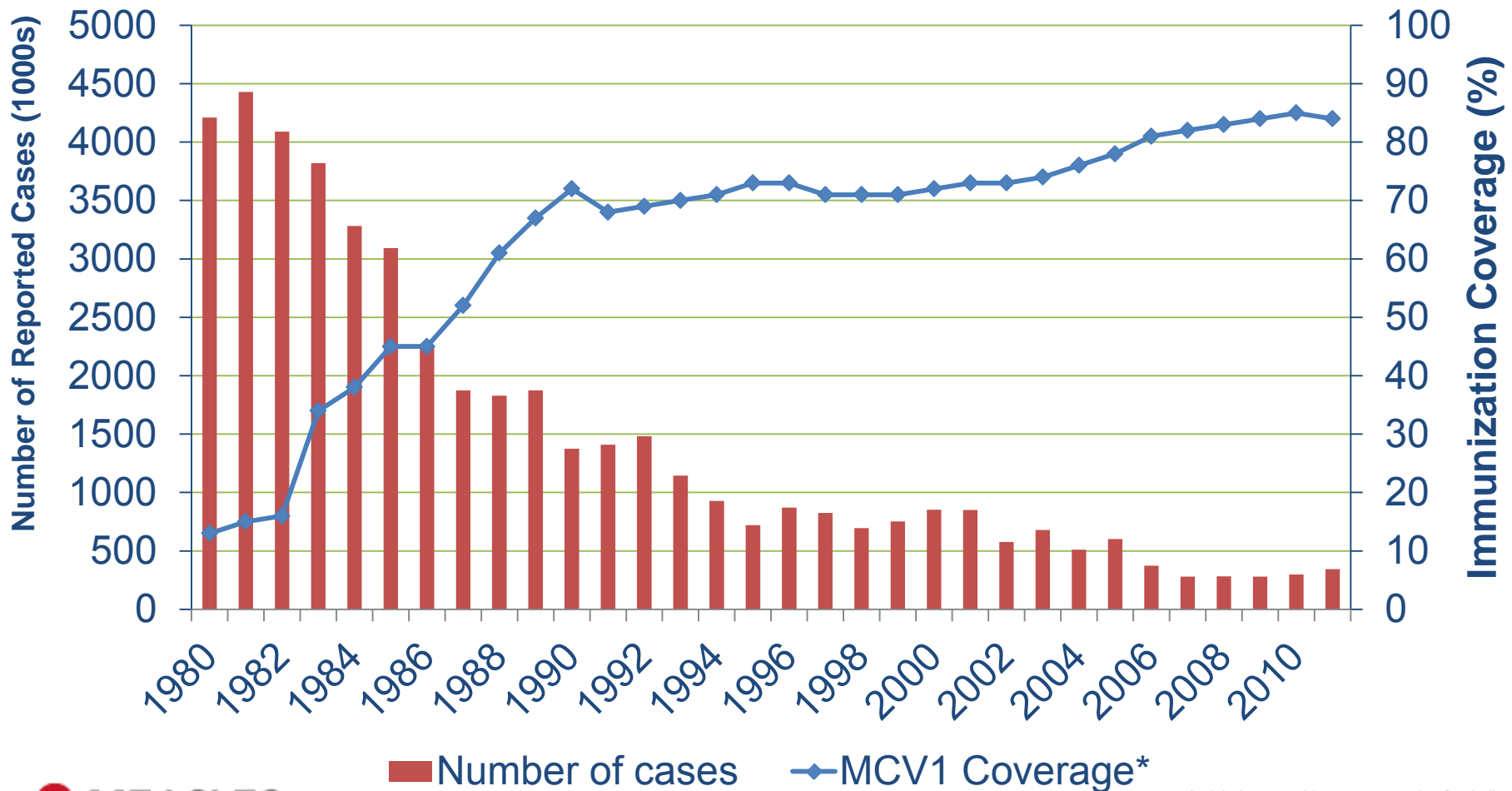
# Measles and Rubella Targets

- **World Health Assembly 2015 Global Targets**
  - Measles mortality reduction of 95% vs. 2000
  - Measles reported incidence <5 cases per million
  - Measles vaccination coverage
    - national level 90%
    - every district 80%
- **Regional Measles Elimination Goals**
  - 2000 AMRO
  - 2012 WPRO
  - 2015 EURO, EMRO
  - 2020 AFRO
  - No SEARO elimination goal
- **Regional Rubella Elimination Goals**
  - 2010 – AMRO, 2015 – EURO
- **GVAP Goal**
  - 2020 Measles and rubella elimination in 5 WHO regions



**How far  
have we gone?**

# Measles Global Annual Reported Cases and MCV1 Coverage\*, 1980-2011



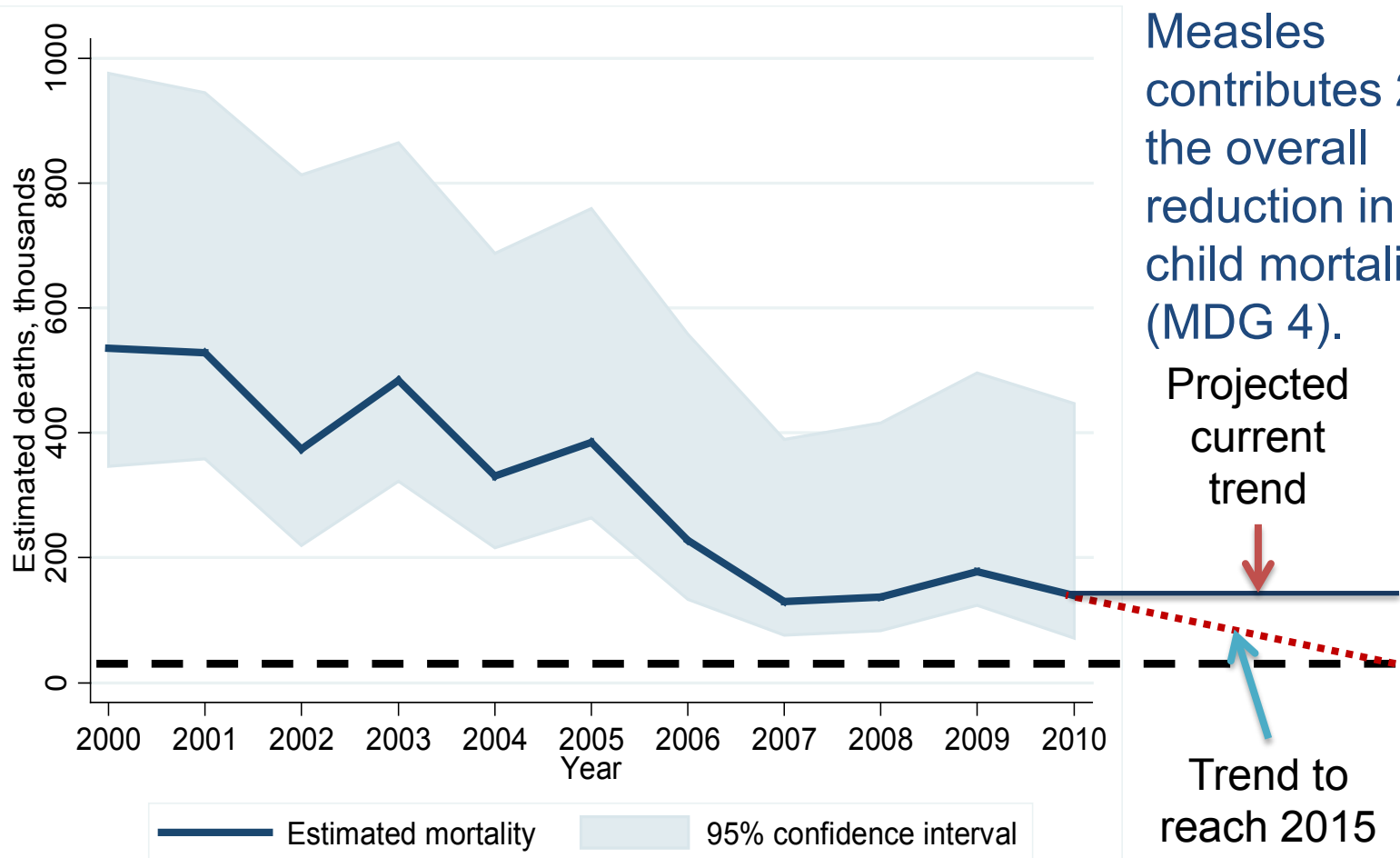
A global partnership to stop measles & rubella

American Red Cross CDC unicef World Health Organization UNITED NATIONS FOUNDATION

\* coverage with first dose of measles-containing vaccine as estimated by WHO and UNICEF



# 74% Reduction in Estimated Measles Deaths, 2000-2010



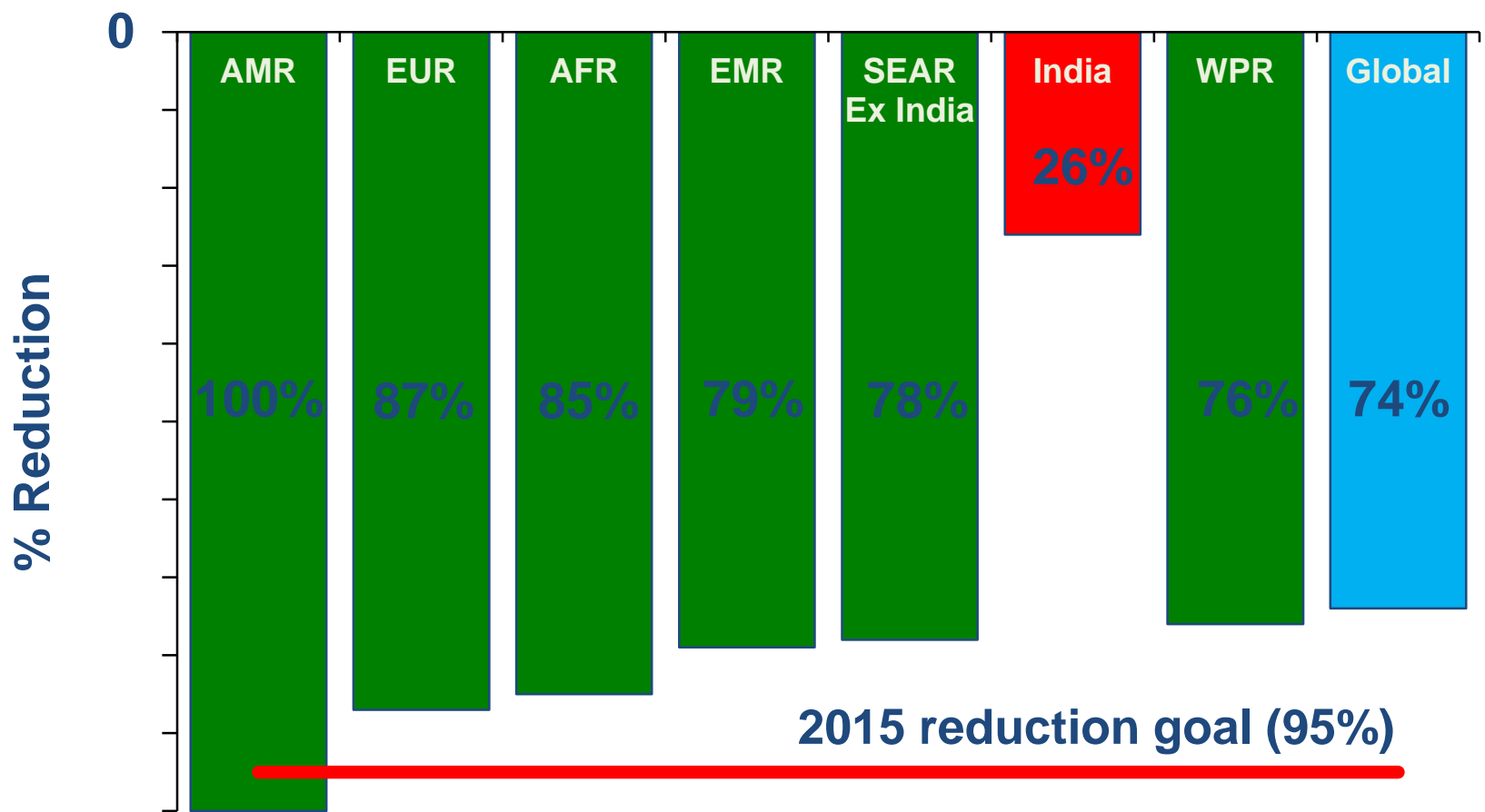
Measles contributes 20% to the overall reduction in <5 child mortality (MDG 4).

Projected current trend

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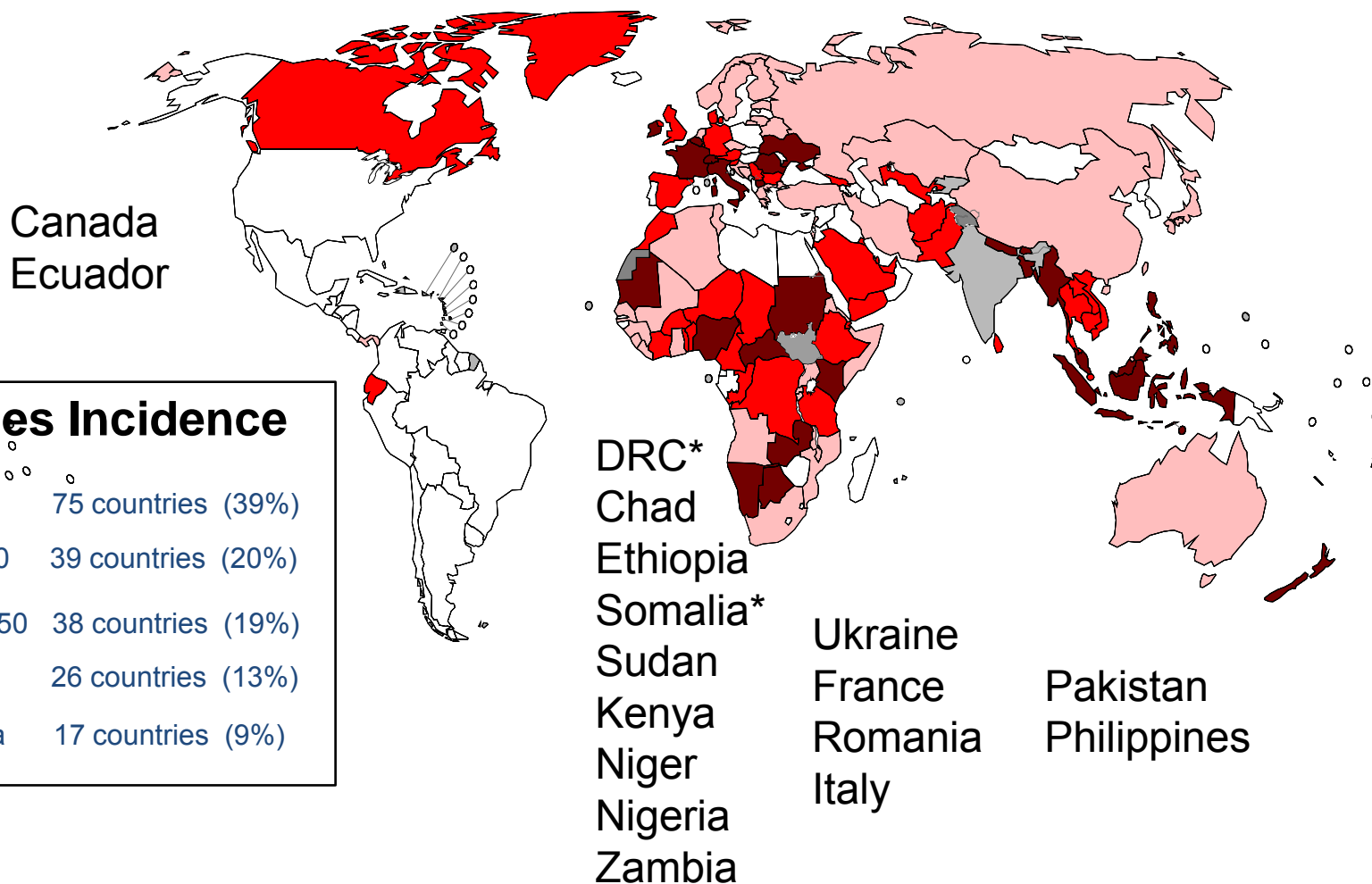
Source: Simons E et al. Assessment of the 2010 global measles mortality reduction goal: results from a model of surveillance data. Lancet 2012; 379(9832):2173-8

# Reduction in Estimated Measles Deaths by WHO Region, 2000-2010

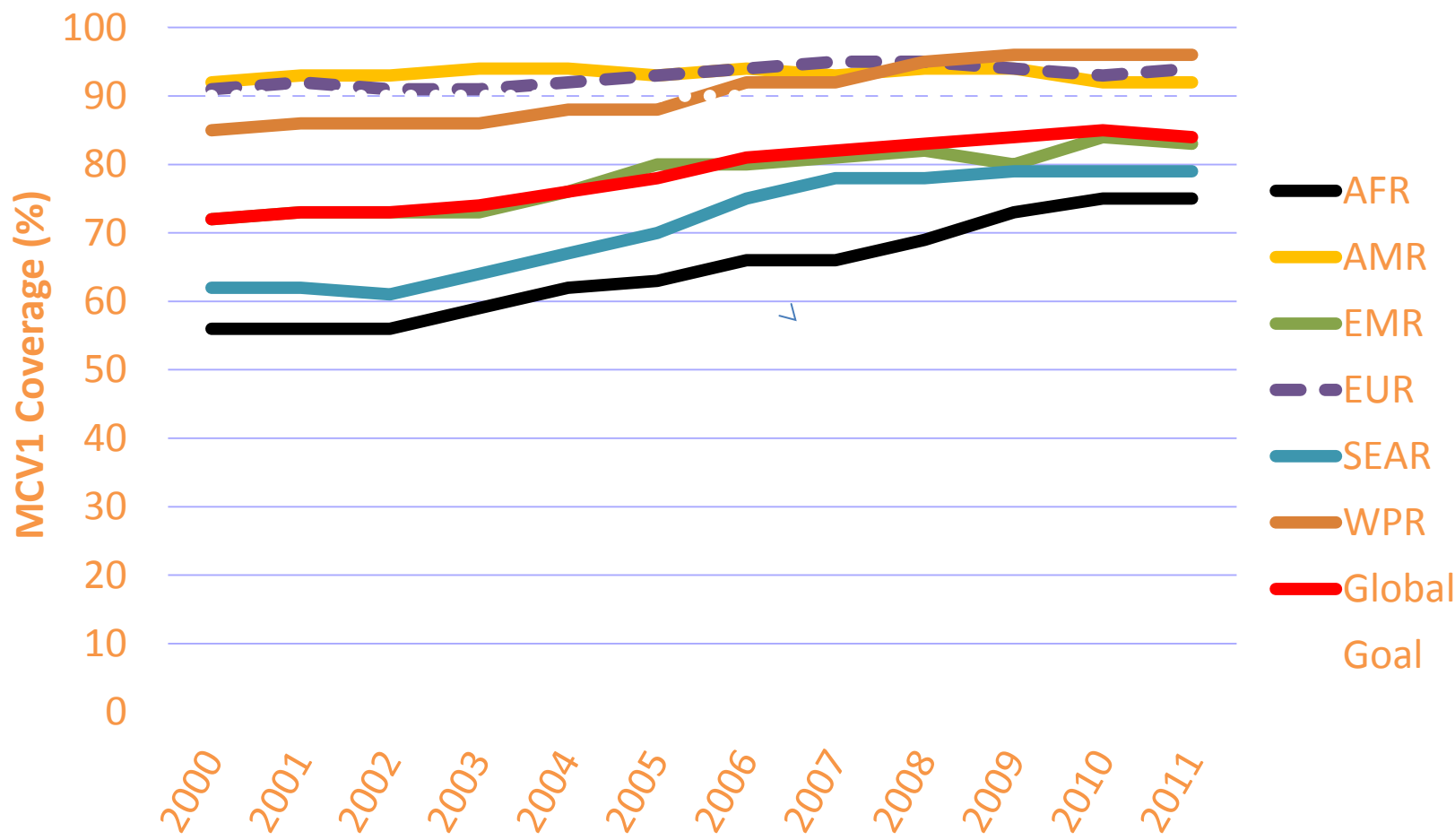


Source: Simons E et al. Assessment of the 2010 global measles mortality reduction goal: results from a model of surveillance data. Lancet 2012; 379(9832):2173-8

# Reported Measles Incidence (cases/million pop.) and Countries with Large Outbreaks, 2011



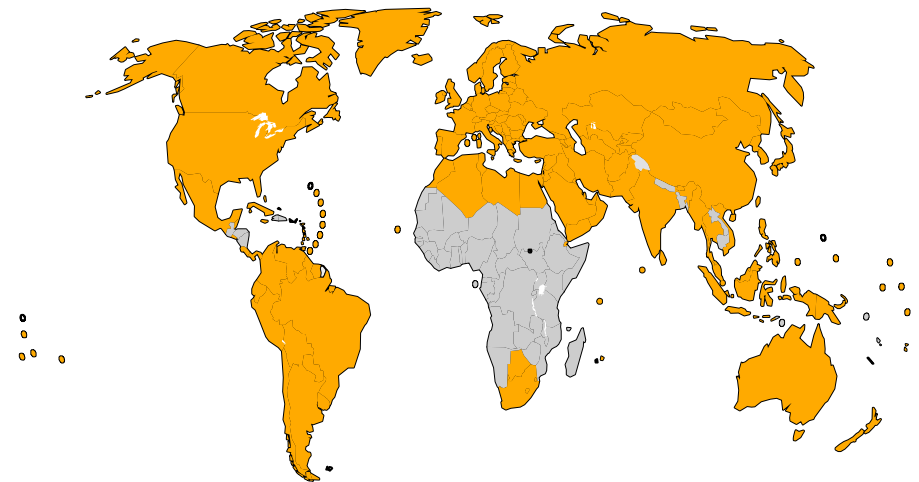
# MCV1 Coverage by WHO Region, 2000-2011



# Expansion of Measles 2<sup>nd</sup> Dose

- 2nd dose now used in all countries
- 141 countries have introduced MCV2 in routine by 2011
- SIAs reached 146 million in 28 countries in 2011, 17 (61%) reaching >95% coverage

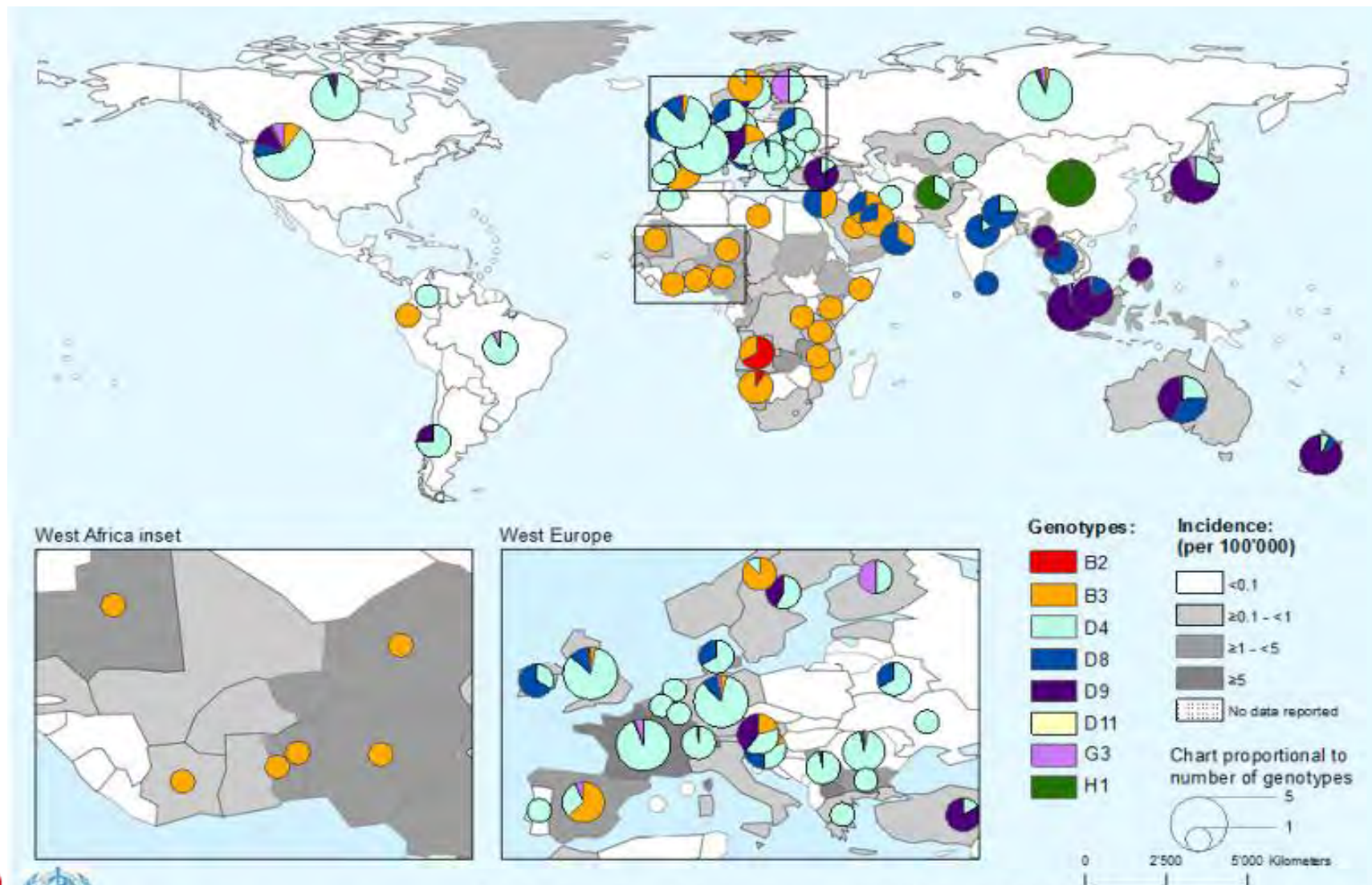
**Countries Giving 2 Doses of Measles Vaccine in their Routine National Immunization System, 2011**



■ No (53 countries or 27%)  
■ Yes (141 countries or 73%)

# Distribution of Measles Genotypes, 2011

(data as of 06/02/2012)



Acknowledgement: WHO Measles LabNet.

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 2011. All rights reserved.



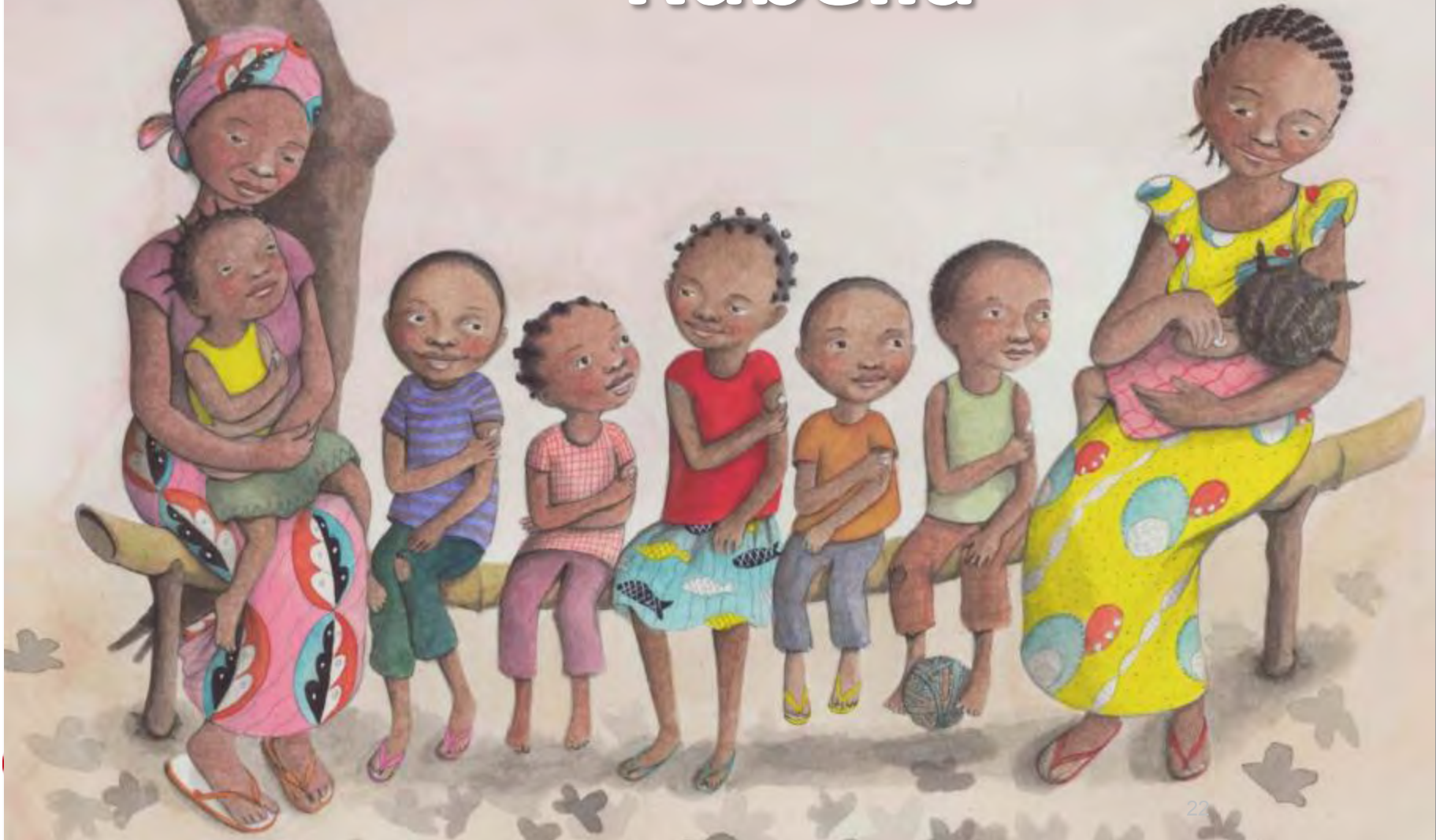
# Key Challenges by WHO Region

- Americas – risk of importations
- Africa – weak immunization & health systems
- E. Med – security limiting access
- Europe – vaccine hesitancy
- SE Asia – large federalized countries (e.g. India)
- W. Pacific – sustained transmission in China

## All regions

- Achieving and sustaining MCV2 coverage >95%
- Susceptibility gaps in the population including older age groups
- Lack of human and financial resources

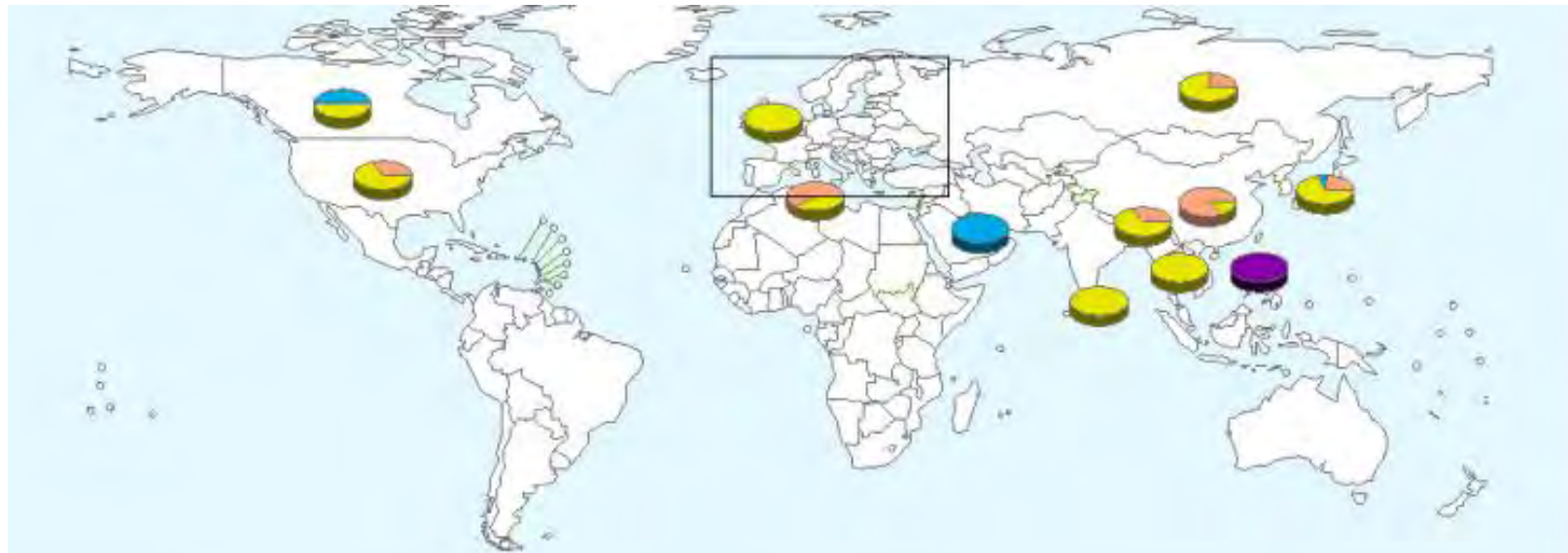
# Rubella



# Estimated Burden of CRS Globally\*† compared to Reported Cases

Region	Estimated numbers of CRS Cases**		Reported No. of CRS cases in 2011	Member states reporting CRS in 2011	
	1996	2010	No.	No.	%
AFR	31 133	40 680	0	16	35%
AMR	9 701	3	2	34	97%
EMR	9 265	5 720	2	9	43%
EUR	9 509	12	6	40	77%
SEAR	50 637	47 527	3	4	40%
WPR	10 098	9 127	201	18	67%
GLOBAL	120 342	103 068	214	121	63%

# Distribution of Rubella Genotypes, 2011 (data as of 03/08/2012)



West Europe



2011

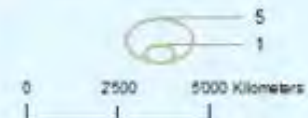
120 countries reporting laboratory confirmed rubella

12 countries reporting genotype information

### Legend

- 1a
- 1E
- 1j
- 2B

Pie slice size proportional to the number of years each genotype was reported 2005-2011.

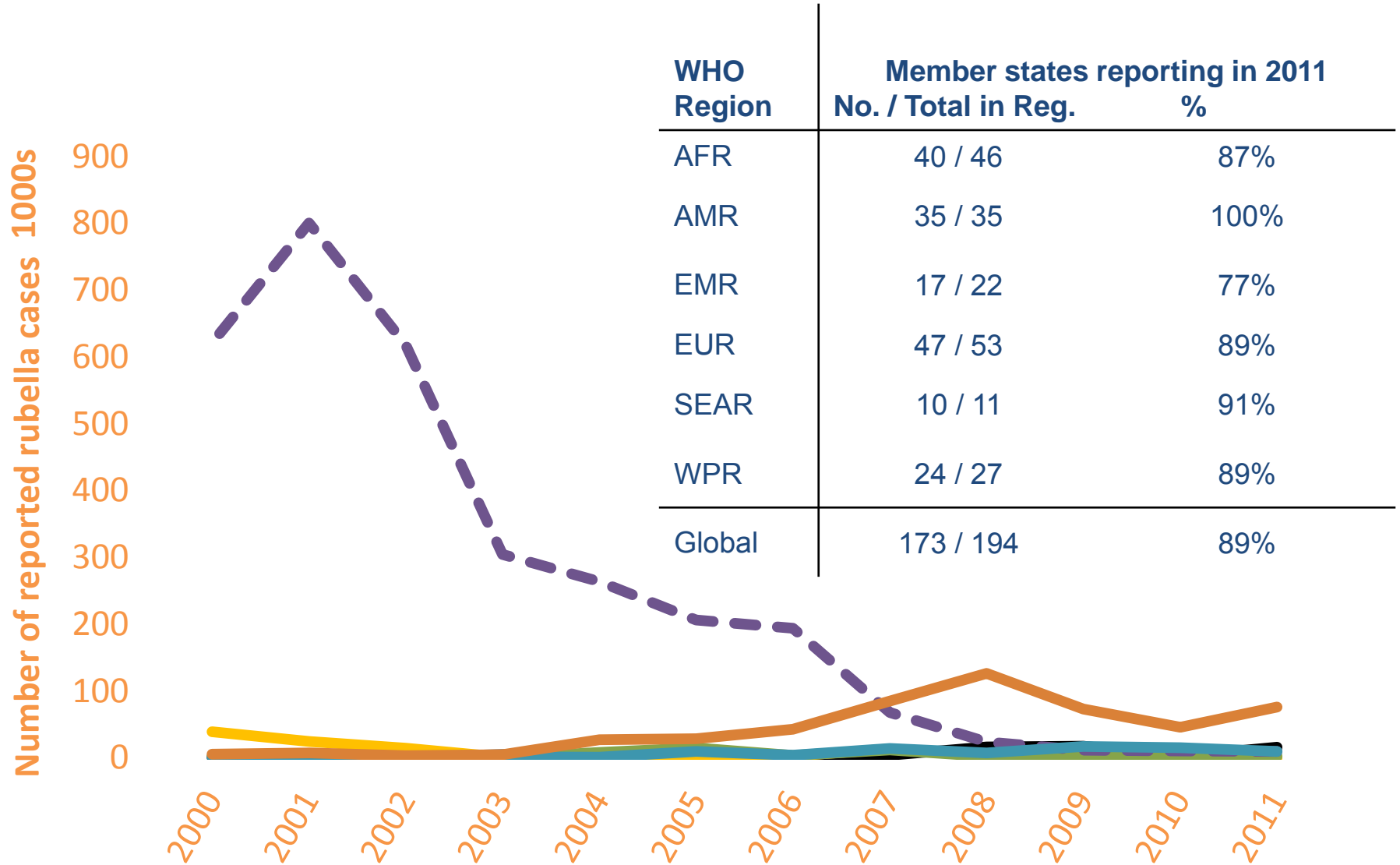


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# Rubella Cases Reported to WHO, 2000-2011



# Countries with RCV in the National Childhood Immunization Program

**1996**  
83 countries  
13% of global birth cohort



**2011**  
130 countries  
41% of global birth cohort

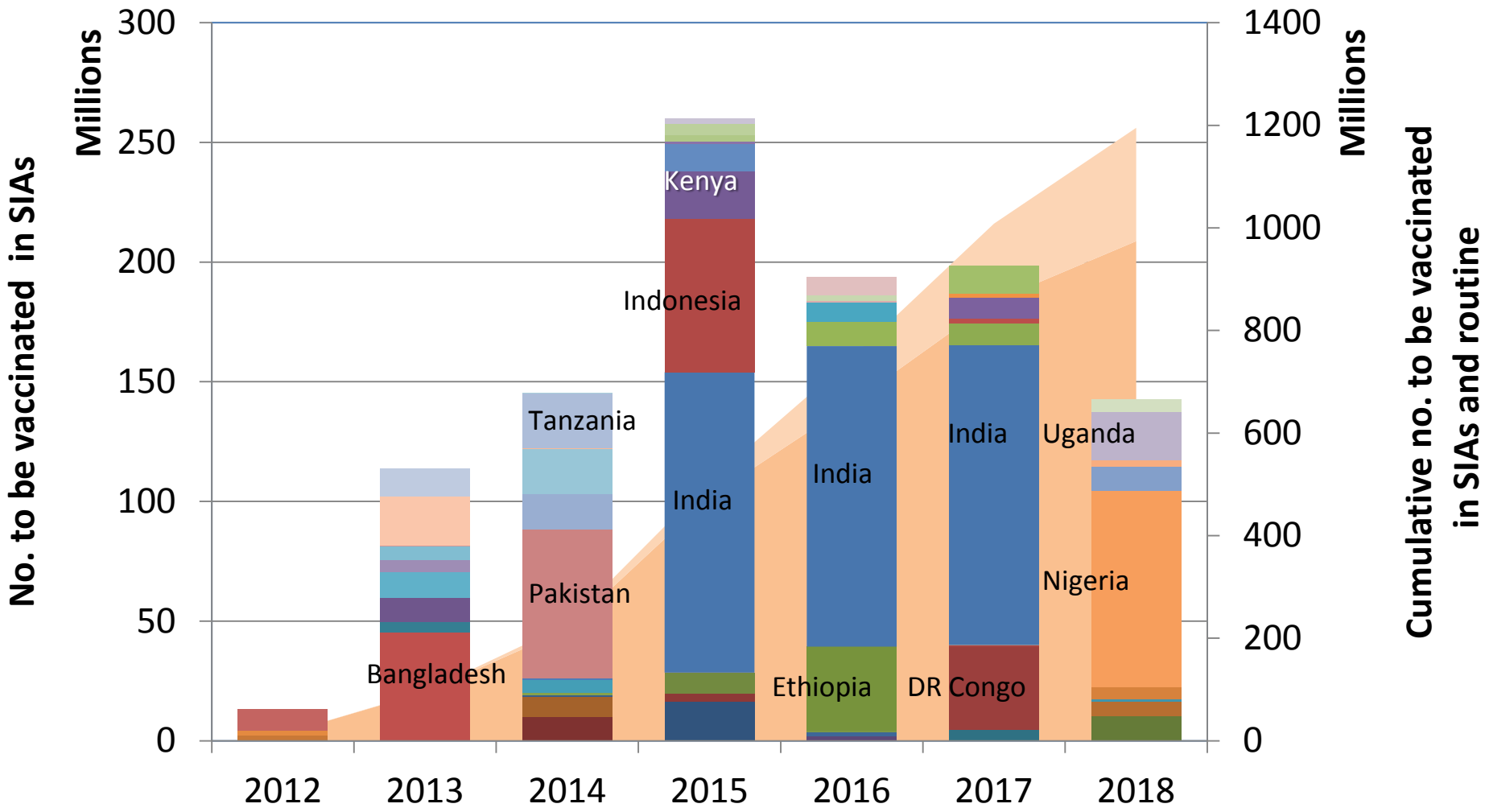


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# Projected RCV Introductions - No. to be vaccinated by year and country, 2012-2018



# Research Agenda



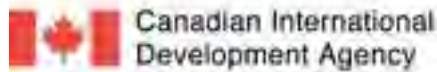
- Information gaps/barriers to elimination/research questions (Vaccine 2012)
- Sub-group of WHO SAGE working group on measles and rubella
  - Criteria for prioritization
    - Appropriateness, relevance, chance of success and impact
  - Short-term (2 years) and long-term (5 years) research questions with study designs and potential funders.

Vaccine , Volume 30, Issue 32, 6 July 2012, Pages 4709–4716



# Summary: Measles and Rubella

- **Remarkable progress**
  - $\frac{3}{4}$  reduction in measles deaths and reported incidence rate globally
  - Elimination of measles and rubella in the Americas
- **Progress in India and China**
- **New tools for diagnosis**
- **New resources from GAVI and other partners**
- **Challenges:**
  - Levelling off of coverage, incidence, deaths
  - Weak immunization systems
  - Conflict and emergency settings
  - Socio-political will



Anne Ray Charitable Trust



A global partnership to stop measles & rubella





Thank you!