

Review of the Measles and Rubella Initiative

13th Annual Meeting

American Red Cross National Headquarters

September 9, 2014

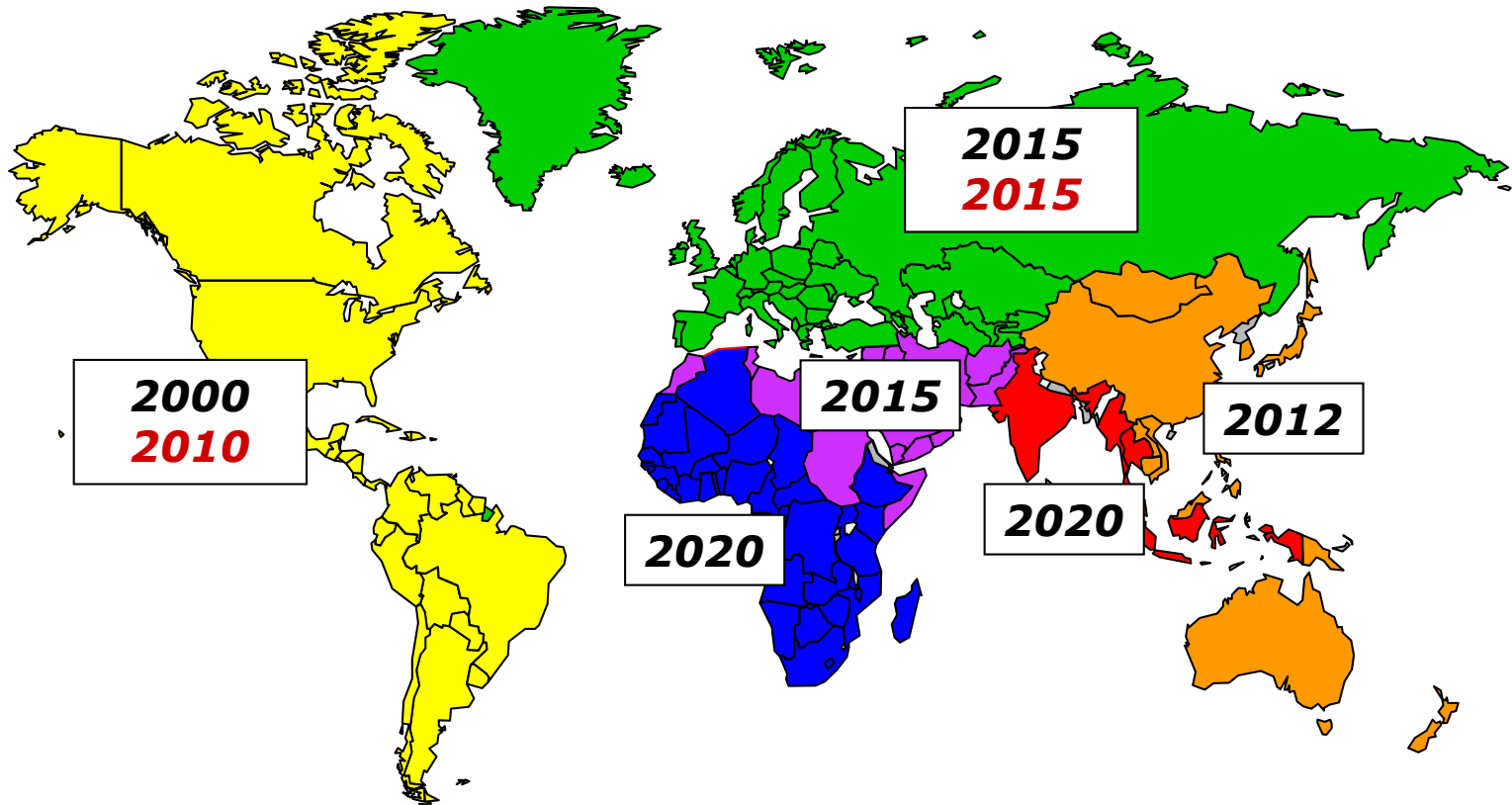
Dr Peter Strebel, WHO/EPI

Overview

- 4 Questions
 - What do we know?
 - What do we want?
 - What do we need?
 - How do we get there?

World Health Organization has 6 Regions

Measles and *Rubella* Elimination Goals, 2014



Q1: What do we know?

Measles & rubella move fast

MEASLES & RUBELLA INITIATIVE



The Measles & Rubella Initiative is a global partnership committed to ensuring no child dies from measles or is born with congenital rubella syndrome. Since 2001, the Initiative has been led by the American Red Cross, United Nations Foundation, U.S. Centers for Disease Control and Prevention, UNICEF and the World Health Organization.

Measles is a leading cause of death among children despite the fact that a safe and effective vaccine has been available for over 50 years.

More than 20 million people are affected by measles each year, particularly in parts of Africa and Asia.

Measles is life threatening in developing countries where children have limited or no access to medical treatment, and are often malnourished.

Measles costs money, time and lives. During outbreaks, public health authorities spend time tracing potential contacts, answering calls from the public and money treating people in hospital. Sick children stay home from school and parents stay home to care for them.

A household in Ethiopia can lose a month's income if one child is sick from measles.

Measles outbreaks are particularly deadly during emergency settings in communities experiencing, or recovering from conflict or natural disaster. Overcrowding in refugee or internally-displaced camps greatly increases the risk of measles transmission and complications.

Rubella is generally a mild illness but when pregnant women become infected, particularly during the first trimester of pregnancy, there is a 90% chance of the fetus having congenital rubella syndrome (CRS) – the baby can be born with multiple defects including heart disorders, blindness, deafness or brain damage.

Measles and rubella can be prevented with a safe, effective and inexpensive vaccine which can be delivered alone, combined, or as the measles, mumps and rubella vaccine.

By the Numbers

- 330** Children die from measles every day
- \$1** Cost to vaccinate a child against measles & rubella in low-income countries
- 1.1B** Children vaccinated in over 88 countries since 2001
- 78%** Reduction in measles deaths between 2000 and 2012
- 80%** of mass measles campaigns in 2013 included other child health interventions like polio vaccine, vitamin A and deworming medication
- 20%** Child deaths averted since 1990 are due to measles vaccination – an impressive contribution to MDG4
- 100K** Children born with congenital rubella syndrome each year

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2014 Fact Sheet is available at:
<http://www.measlesrubellainitiative.org/>



Disease Burden is High



Measles

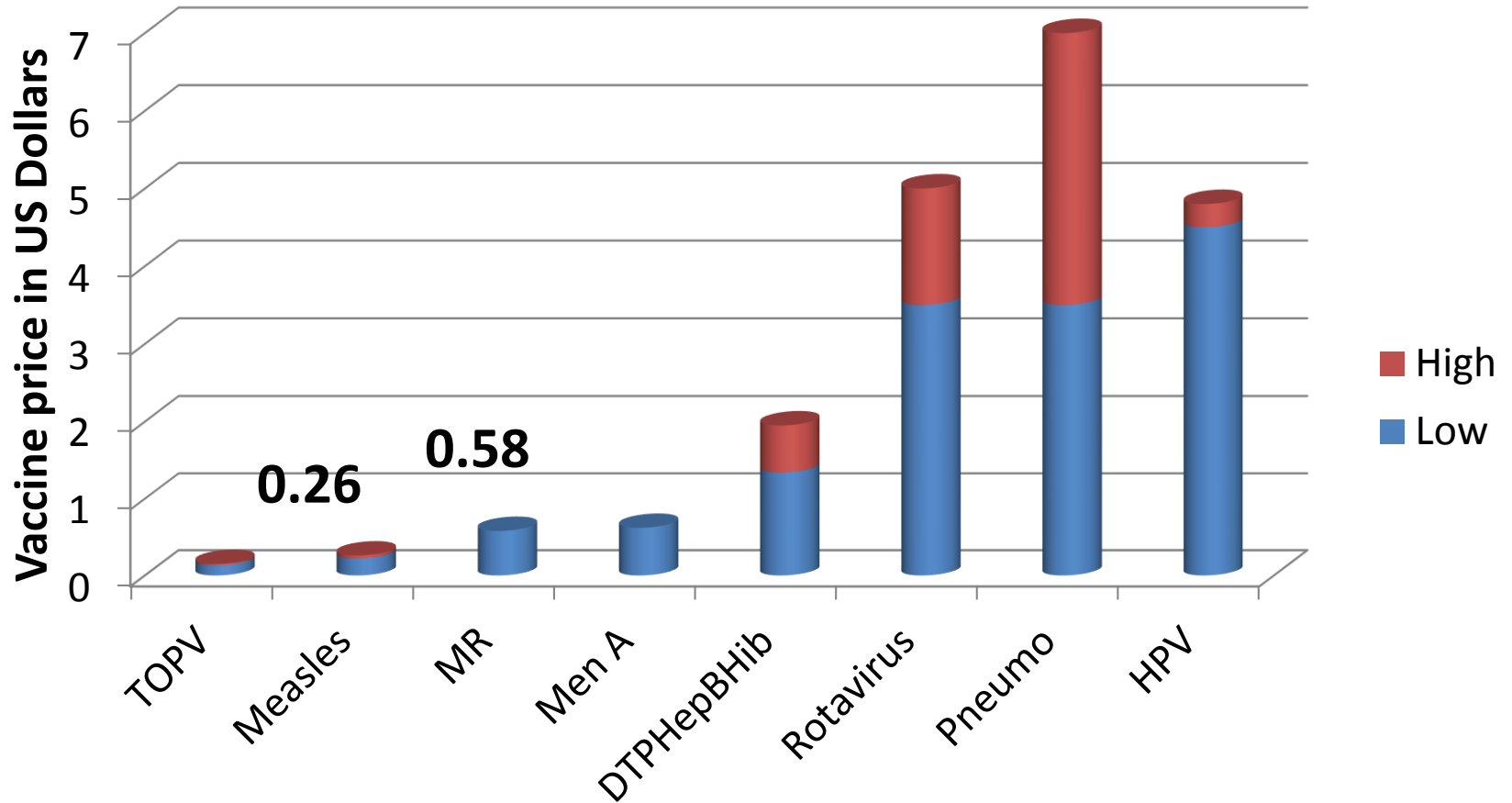
- 330 measles deaths per day
- Treatment costs:
 - 1 month's salary for a household in Ethiopia
- US outbreak cost*:
 - 107 cases in 2011
 - 16 outbreaks
 - \$2.7-\$5.3 million per outbreak

Rubella

- Congenital rubella syndrome (CRS):
 - Defects of the heart, blindness, deafness
- 100,000 CRS cases each year
- Treatment costs:
 - \$4,200 and \$57,000 per case annually in middle-income countries

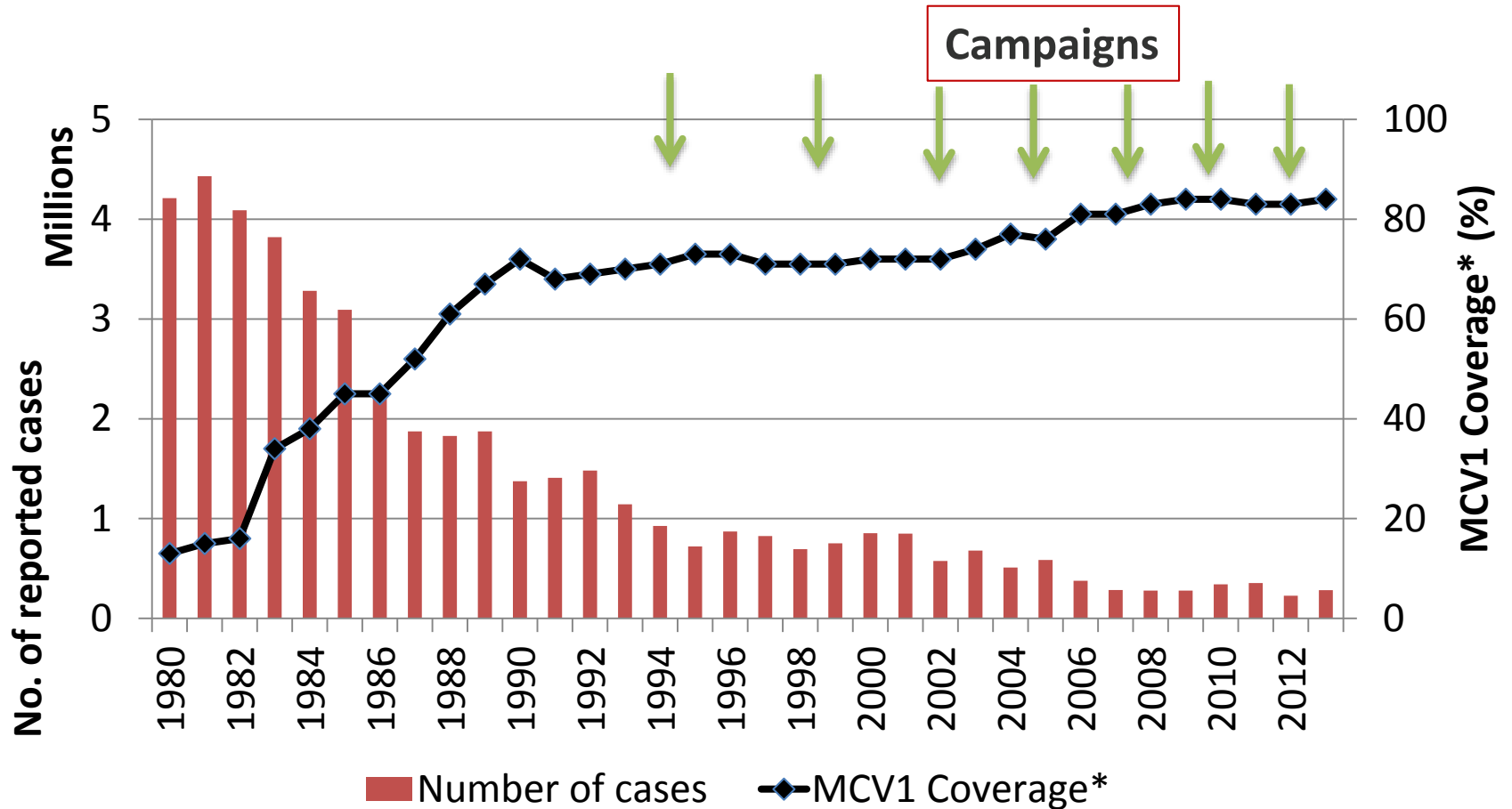
Cost of vaccine is low

UNICEF per dose vaccine prices in USD, 2014



93% Reduction in reported measles cases

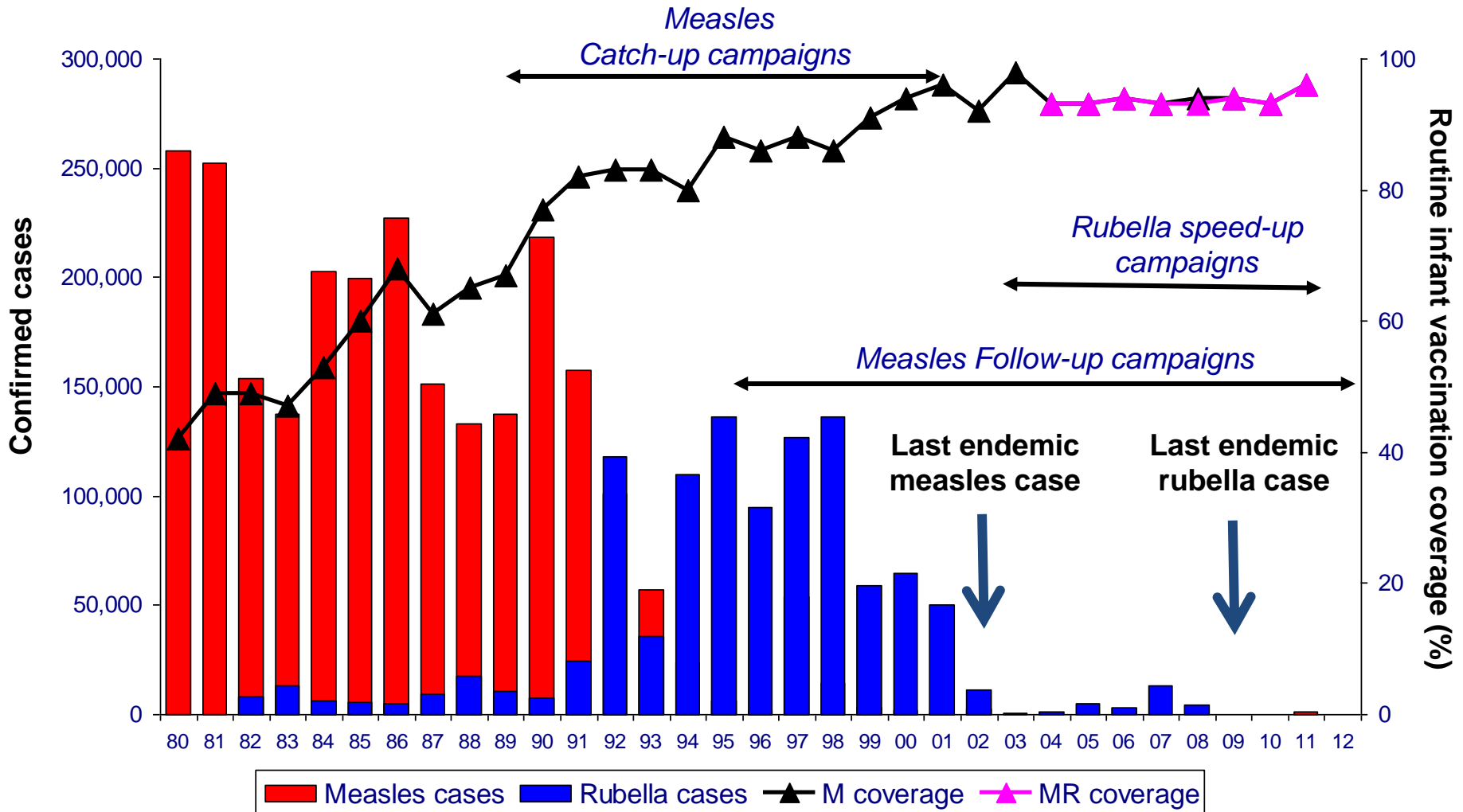
Measles global annual reported cases and MCV1 coverage*, 1980-2013



* MCV1 coverage: coverage with first dose of measles-containing vaccine as estimated by WHO and UNICEF

The Americas

Measles vaccination coverage among children <1 year of age* and reported measles and rubella cases, 1970-2012



*MR in children aged 1 year as countries introduced measles-rubella containing vaccines

Source: Country reports to FCH-IM/PAHO.

Q2: What do we want?



Vision

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



Targets and Goals

- Global targets

By 2015:

- Vaccination coverage $\geq 90\%$
- Measles incidence < 5 cases per million
- Measles deaths reduced by 95% (vs. 2000)

- Regional goals:

– By 2015:

- Measles elimination in 4 Regions
- Rubella elimination in 2 Regions

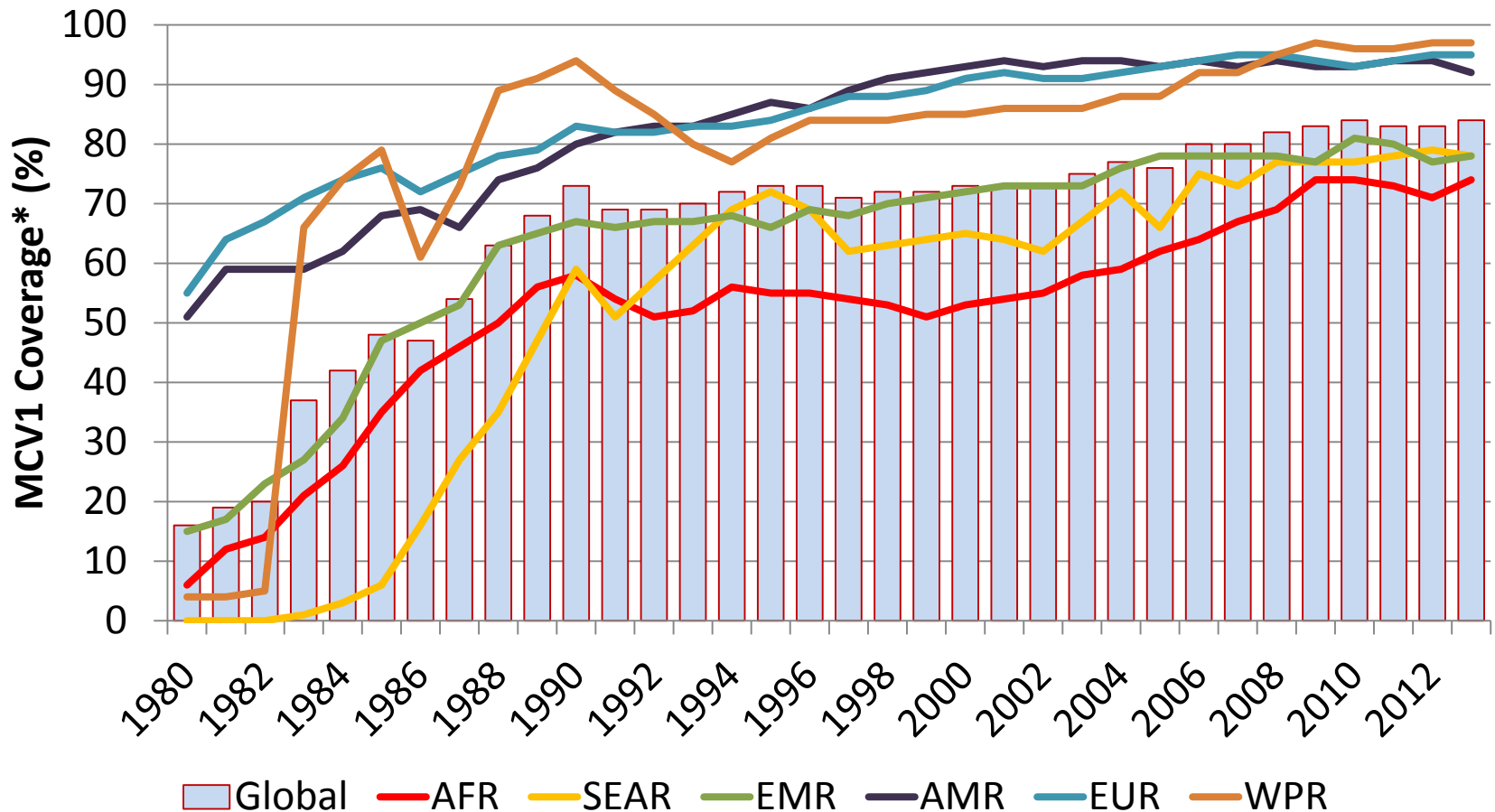
– By 2020:

- Measles and rubella elimination in 5 Regions

2015 Coverage Target: $\geq 90\%$

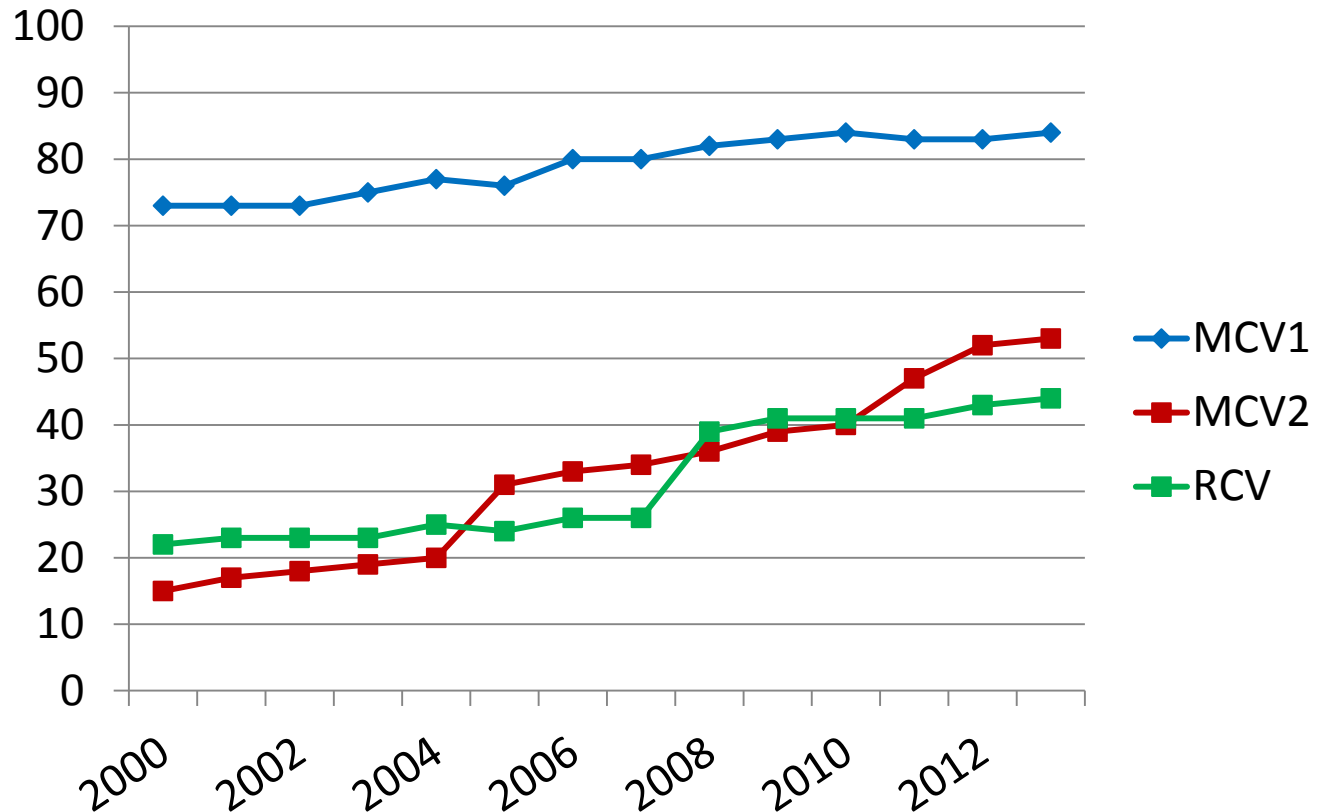
Global MCV1 coverage has reached 84%

1st Dose measles vaccine coverage by WHO region, 1980-2013



Narrowing the gap

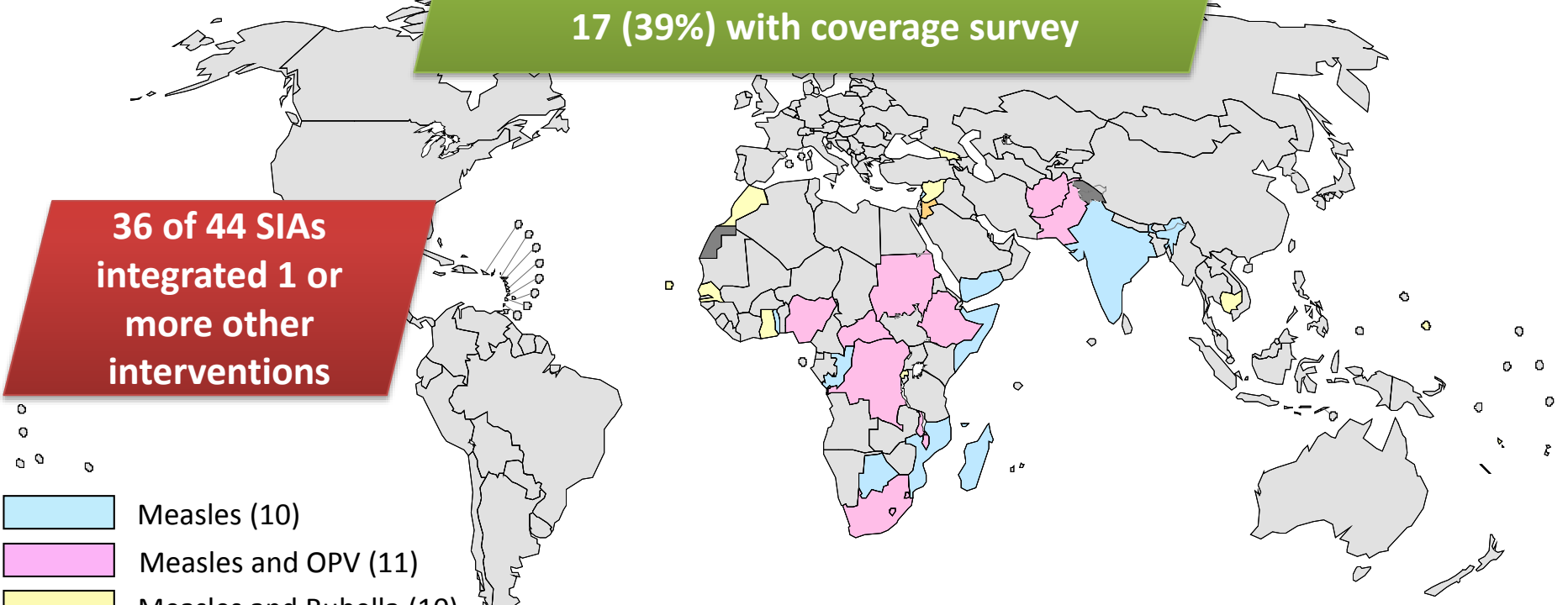
Global MCV1, MCV2 and RCV coverage, 2000-2013



44 Measles Campaign in 33 Countries in 2013

197 million children reached
 24 (55%) attained 95% coverage
 17 (39%) with coverage survey

36 of 44 SIAs integrated 1 or more other interventions

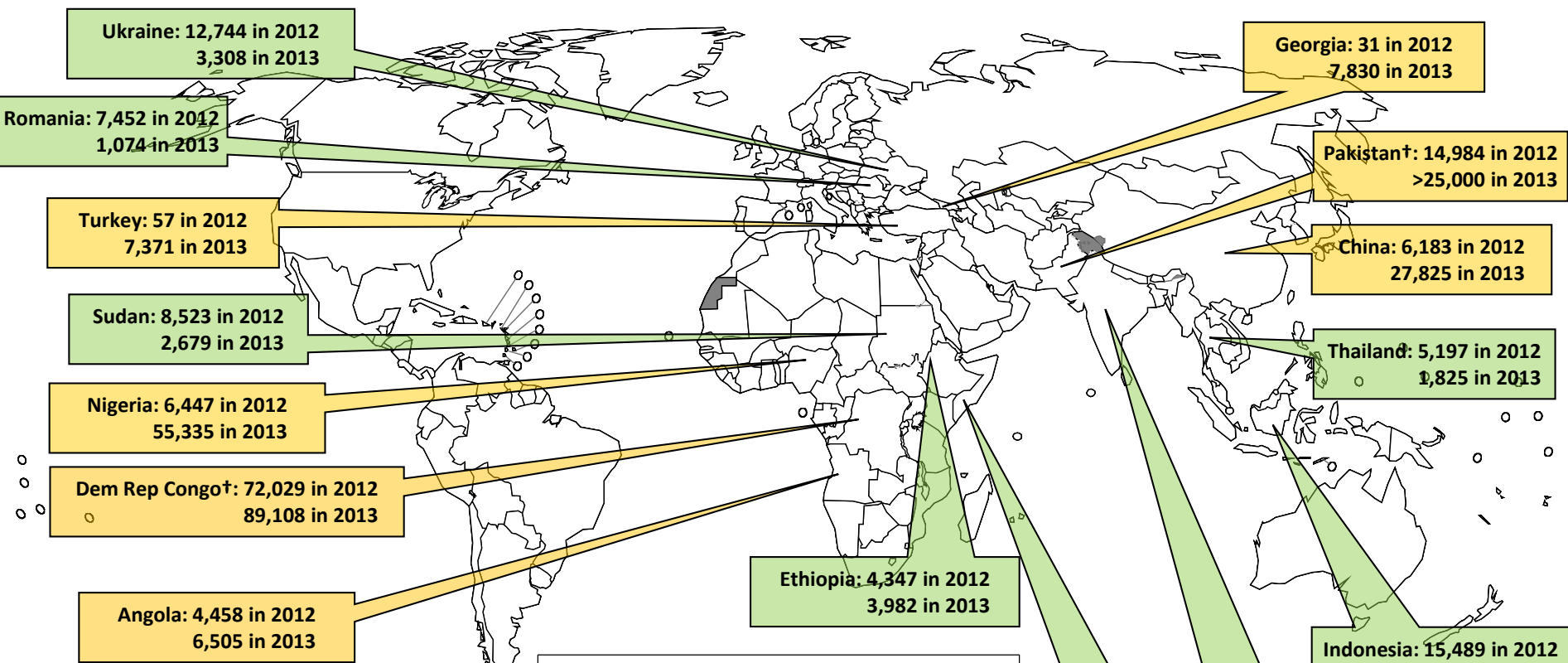


- Measles (10)
- Measles and OPV (11)
- Measles and Rubella (10)
- Measles, Rubella and OPV (2)
- Not Available
- Not Applicable

- Vitamin A – 14
- De-worming – 12
- Other interventions – 5

Reported Measles Incidence Rate* (Jan – Dec 2013)

Reported Measles Cases in 15 Large Outbreaks since Jan 2012



*Rate per 1'000'000 population
 Outbreaks represent cases reported to WHO through end Dec 2013 except where noted †:

- DRC through 18 Feb 2014
- Pakistan through end May 2013
- Somalia through 31 Dec 2013

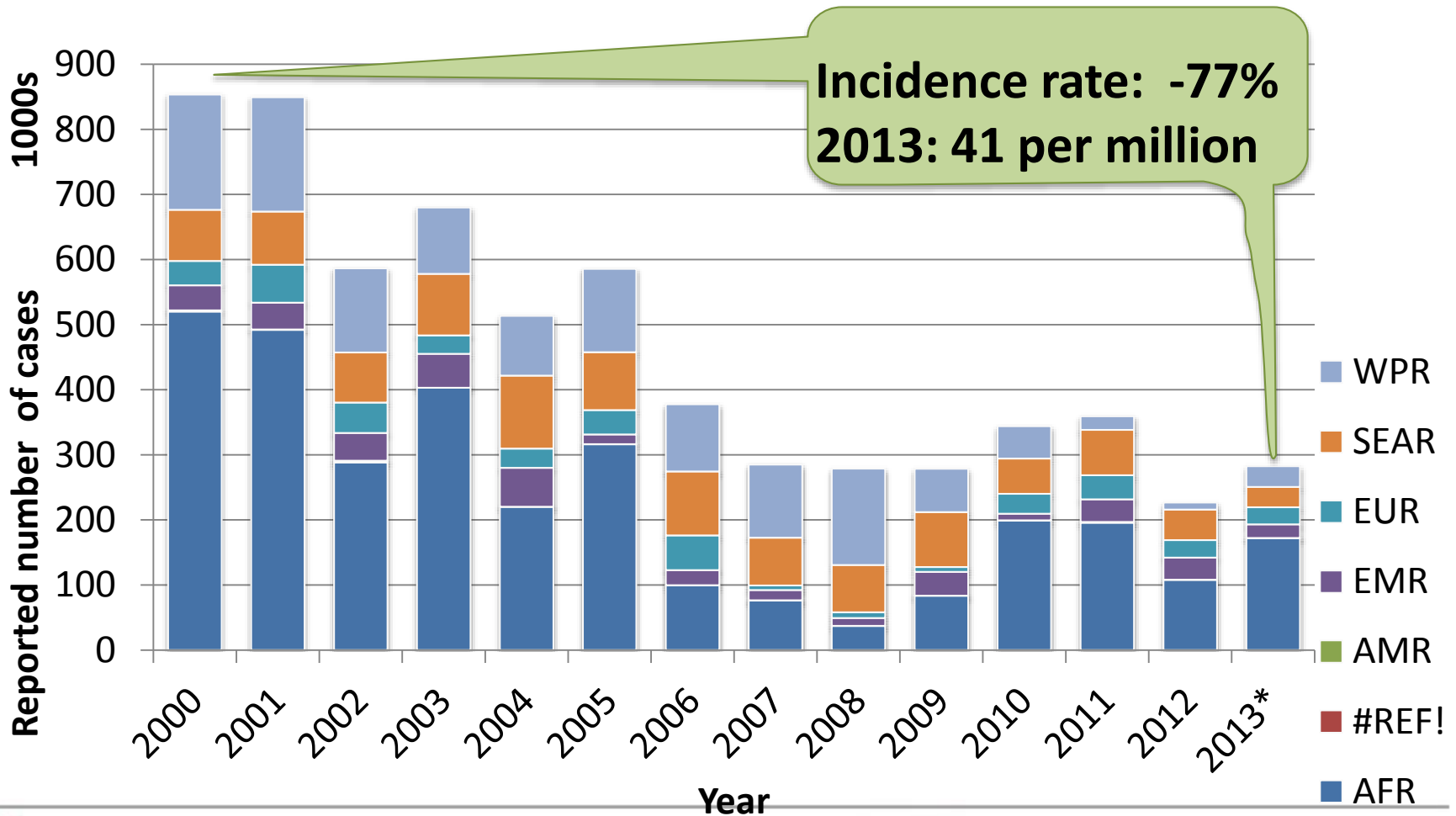
| Incidence Rate (per 1,000,000) | Number of Countries | Percentage of Countries |
|--------------------------------|---------------------|-------------------------|
| <1 | 86 countries | 44% |
| ≥1 - <5 | 28 countries | 14% |
| ≥5 - <10 | 11 countries | 6% |
| ≥10 - <50 | 33 countries | 20% |
| ≥50 | 15 countries | 8% |
| No data reported to WHO HQ | 15 countries | 8% |
| Not applicable | | |

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 2014. All rights reserved.



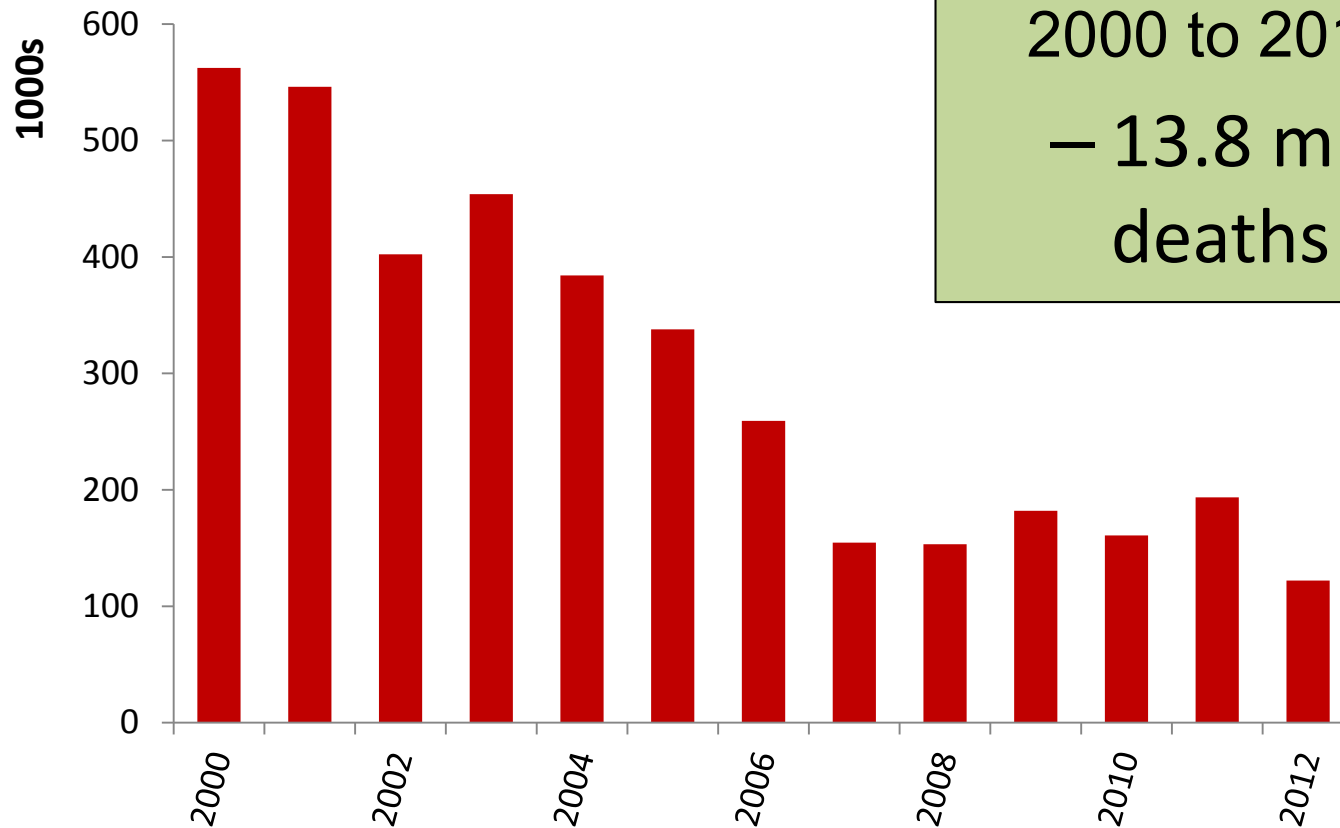
2015 Incidence Target: <5 per million

Reported measles cases by WHO Region, 2000-2013*



2015 Mortality Reduction Target: 95%

Estimated measles deaths, 2000-2012



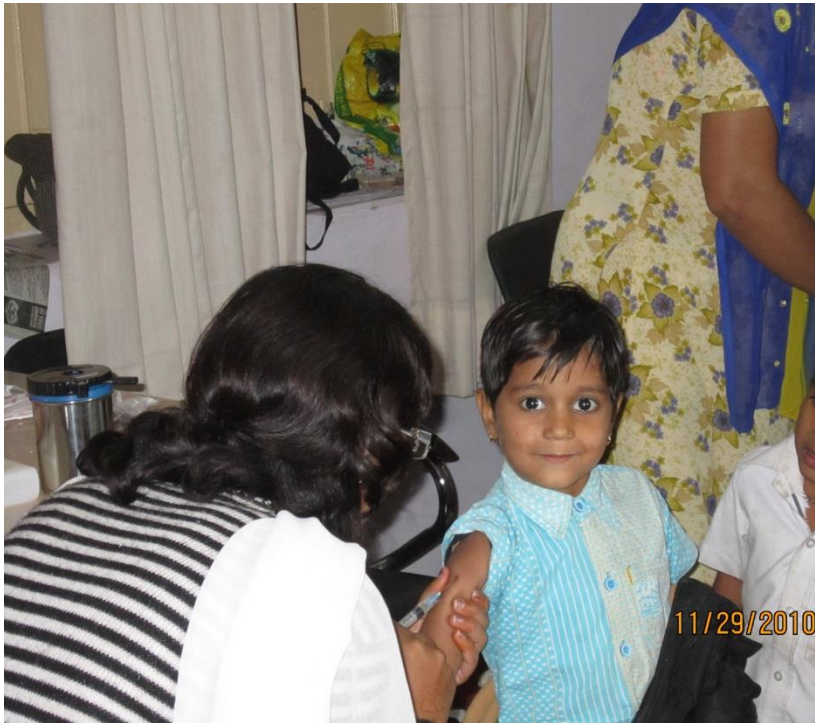
- 78% decline from 2000 to 2012
– 13.8 million deaths averted

Q3: What do we need?

- **High quality vaccine delivery**
- **Laboratory supported surveillance**
- **Strong management**

High Quality Vaccine Delivery

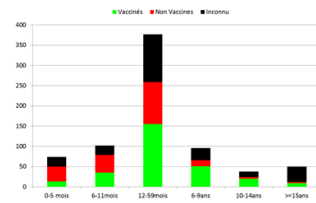
- Community that values vaccination
- Trained health workers
- Reliable vaccine supply



Laboratory-supported surveillance



Lab confirmed measles cases by vaxn status and age (Week 1 – 33, 2014). DR Congo. [N= 762]



- 74.9% of the confirmed cases < 5 years
- Only 33.6% of the confirmed cases are vaccinated

Number of Reported Measles Cases by WHO Regions, 2013-2014

| WHO Region | 2013 | | | | 2014 | | | | 2014 Current month | | Previous month | | DR in Suspected cases (Current and Previous months) |
|------------|----------------|------------|---------|------------|----------------|------------|---------|------------|--------------------|------------|----------------|------------|-----------------------------------------------------|
| | Reported cases | % of total | Total | % of total | Reported cases | % of total | Total | % of total | Reported cases | % of total | Reported cases | % of total | |
| Africa | 10,100 | 10.1 | 101,000 | 10.1 | 12,500 | 12.5 | 125,000 | 12.5 | 10,000 | 10.0 | 100,000 | 10.0 | 10,000 |
| AMRO | 1,000 | 1.0 | 10,000 | 1.0 | 1,000 | 1.0 | 10,000 | 1.0 | 1,000 | 1.0 | 10,000 | 1.0 | 1,000 |
| EMRO | 5,000 | 5.0 | 50,000 | 5.0 | 6,000 | 6.0 | 60,000 | 6.0 | 5,000 | 5.0 | 50,000 | 5.0 | 5,000 |
| EURO | 1,000 | 1.0 | 10,000 | 1.0 | 1,000 | 1.0 | 10,000 | 1.0 | 1,000 | 1.0 | 10,000 | 1.0 | 1,000 |
| SEARO | 1,000 | 1.0 | 10,000 | 1.0 | 1,000 | 1.0 | 10,000 | 1.0 | 1,000 | 1.0 | 10,000 | 1.0 | 1,000 |
| WPRO | 1,000 | 1.0 | 10,000 | 1.0 | 1,000 | 1.0 | 10,000 | 1.0 | 1,000 | 1.0 | 10,000 | 1.0 | 1,000 |

Strong Management



Recommendations

External Review of M&RI

1. Strengthen M&RI profile internally within partner agencies & enhance external recognition on all programmatic levels
2. Improve interaction with key global organizations
3. Develop transparent long-term FRRs
4. Increase available resources
5. Increase staff and map out HR needs

Response to the External Review

1. Leadership and management

- Regular briefing of Heads of Agency
- Formation of sub-groups reporting the management team

2. Interactions with other organizations

- GAVI, Bill and Melinda Gates Foundation, civil society

3. Financial planning and reporting

- Financial resource requirements updated 6-monthly

4. Resource Mobilization

- External assessment

5. Staffing

- Map needs and new staff recruited

Q4: How do we get there?

- **Build** partnerships
- **Collaborate**, communicate, coordinate
- **Engage** in countries

“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

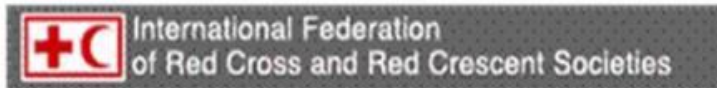
Gail J. McGovern, President & CEO, ARC

Thomas R. Frieden, Director, CDC

Summary

- **Know** MR vaccine is a "best buy"
- **Want** Accelerate progress
- **Need** Focus on quality
- **How** Learn through this meeting

Partners supporting measles and rubella:



Anne Ray Charitable Trust



Japan International Cooperation Agency



American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™

