

Measles and Rubella

Session Agenda

1. Update on global measles and rubella
 - Peter Strebel (15 mins)
2. Refinements to the vaccination strategies for measles and rubella control and elimination
 - Peter Figueroa, (30 mins)

Discussion (45 mins)

3. Measles revaccination of HIV-infected children on anti-retroviral therapy
 - Bill Moss, (15 mins)

Discussion (15 mins)

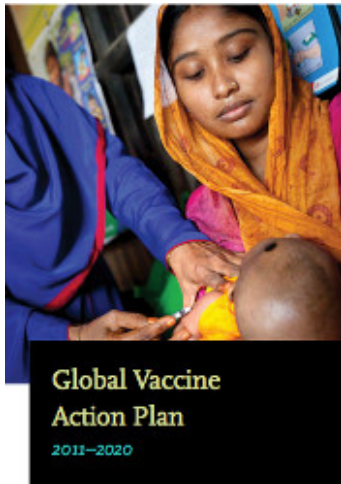
Measles and Rubella Targets



Global: World Health Assembly, 2010

By 2015:

- MCV1 coverage $\geq 90\%$ national and $\geq 80\%$ in every district
- Measles reported incidence < 5 cases/million
- Measles mortality reduction of 95% vs. 2000



Regional:

By 2015:

- Elimination of measles in 4 WHO Regions
- Elimination of rubella in 2 WHO Regions

By 2020:

- Elimination of measles & rubella in 5 WHO Regions

Update on global measles and rubella control and regional elimination

SAGE Meeting, 21 October 2015,

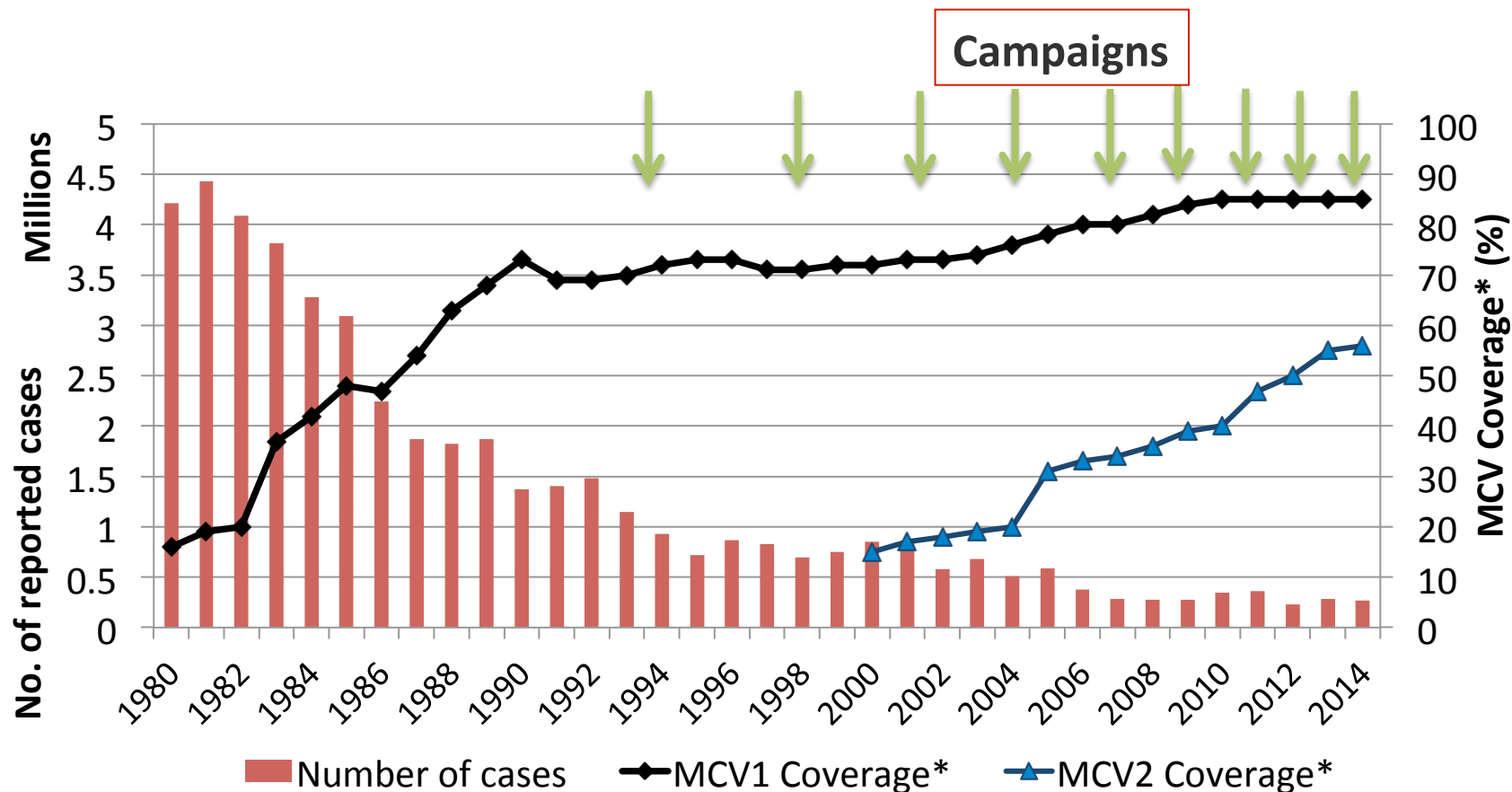
Peter Strebel, WHO, IVB/EPI

Main Points

- High level measles control being maintained and over a million measles-related deaths averted each year
 - Large outbreaks continue and progress has slowed
- Rubella elimination verified in the Americas and gradual increase in global rubella vaccine coverage
 - Over half of the world's children not being vaccinated
- Global 2015 measles control milestones will not be achieved on time and regional measles and rubella elimination targets are off-track (except for Americas)
- Midterm review to understand why and what can be done

94% Reduction in reported measles cases

Annual reported cases and MCV1* and MCV2** coverage, 1980-2014

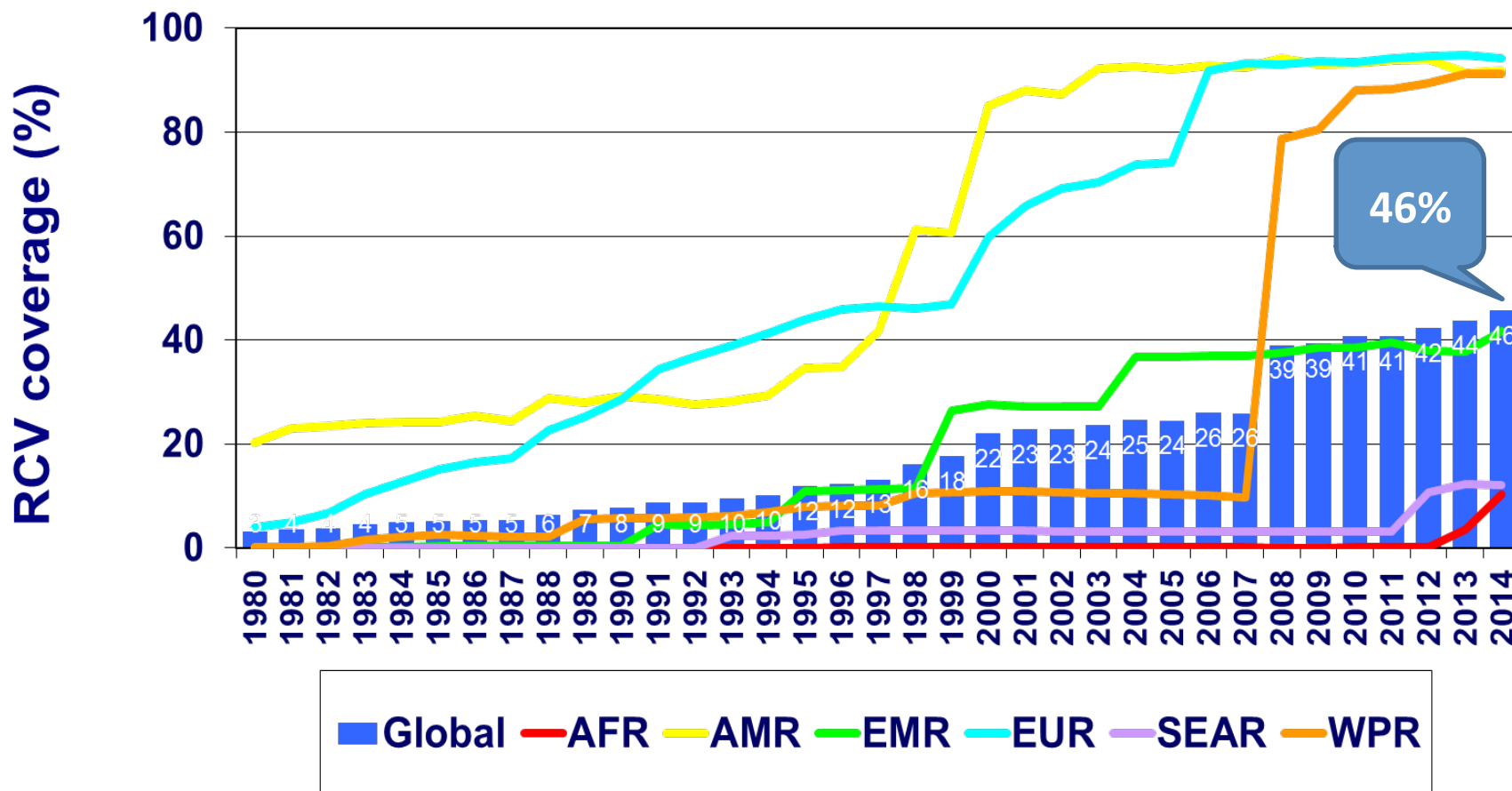


* MCV1 coverage: coverage with first dose of measles-containing vaccine as estimated by WHO and UNICEF.

** MCV2 estimates is only available from 2000 when global data collection started, however some countries have introduced the vaccine earlier.

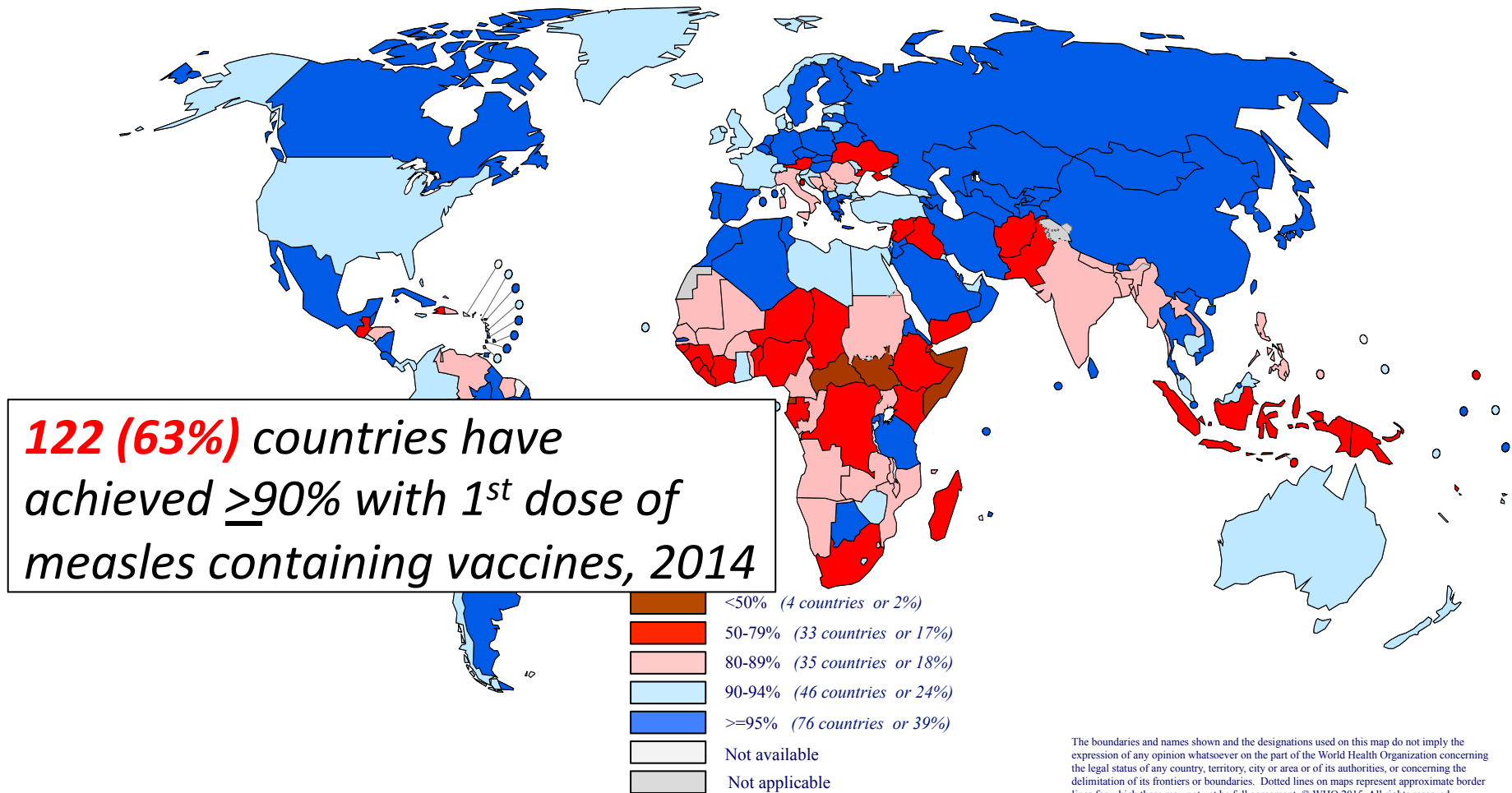
Over half the world's children are not vaccinated against rubella

Rubella containing vaccine coverage* by WHO region, 1980-2014



Global Milestone #1

>90% MCV1 Vaccination Coverage in Every Country

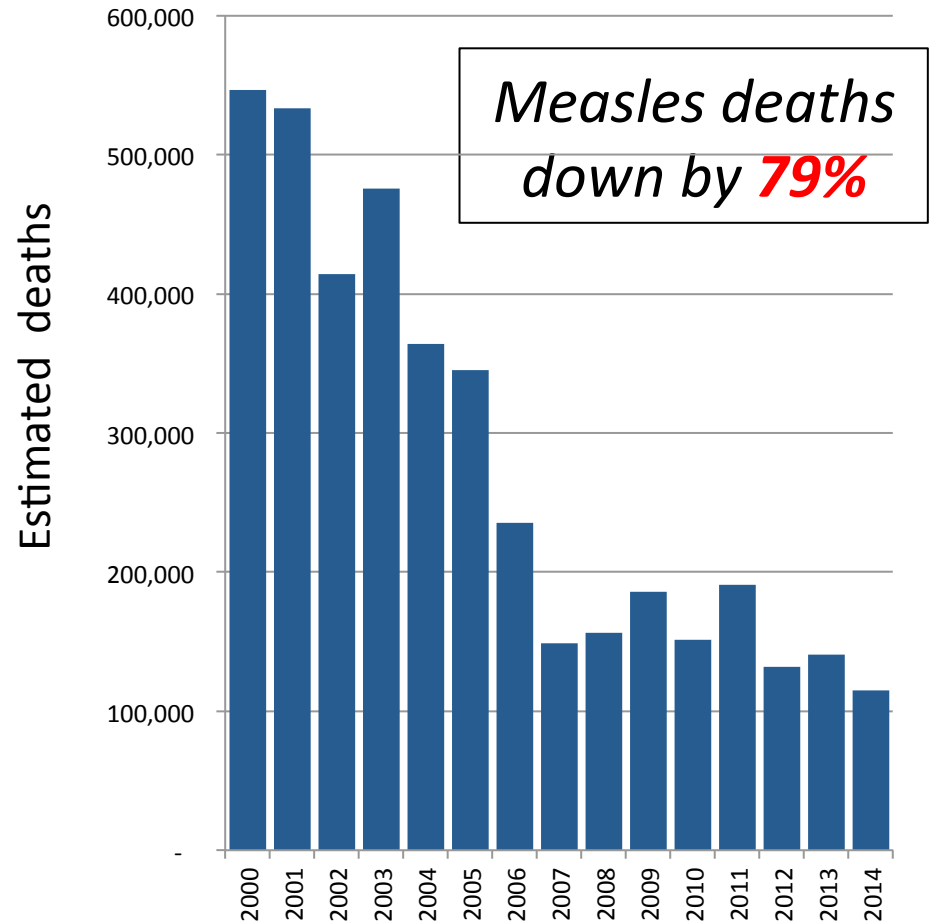
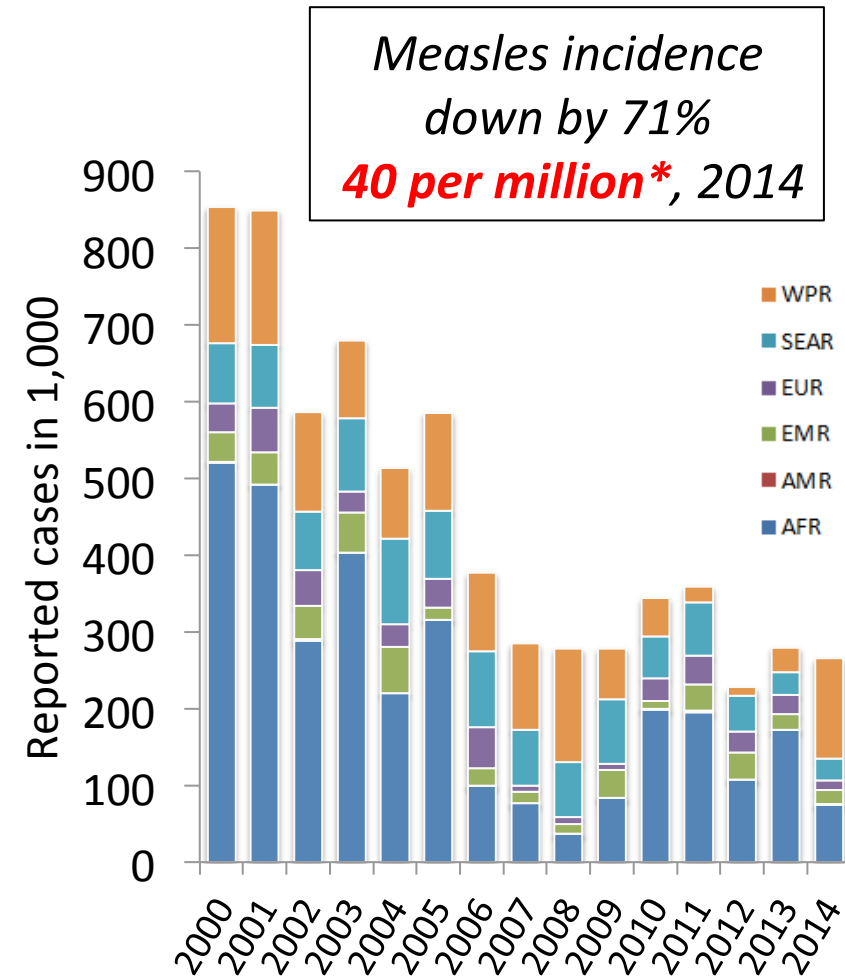


Milestone #2

Measles Incidence **<5 cases/million**

Milestone #3

95% Reduction in Measles Deaths



* Based on the 169 countries reporting to WHO
measles incidence data in 2014

Progress by Region

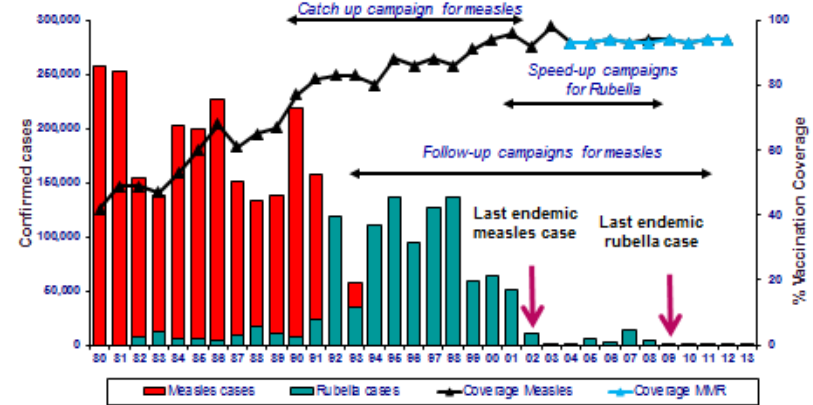
The Americas (PAHO)

Achievements:

- Proof of concept for measles and rubella elimination
- **Declared as free of rubella and CRS**
- Aiming at verification of measles in 2016

Challenges:

- Maintaining elimination and ongoing importations
- Outbreak in Brazil
 - Pernambuco and Ceará States (19 March 2013 – 6 July 2015)
 - Outbreak is being interrupted
- Outbreaks in the US
 - 648 confirmed cases in 2014
 - 189 cases in 2015
 - Intensive response efforts with large financial costs



The Comprehensive Family Immunization Unit (FGL/IM) – Pan American Health Organization

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Bye-bye, rubella! ¡Adiós rubéola!

Media coverage on rubella elimination | April 29-30, 2015
Cobertura de prensa sobre la eliminación de la rubéola | 29-30 de abril de 2015



W. Pacific Region

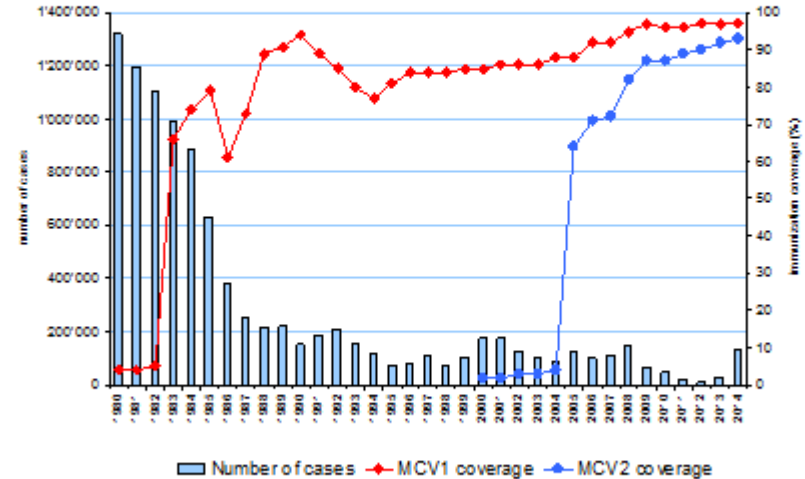
Achievements:

- High MCV1, MCV2 and MCV-SIA coverage
- TAG recommends a 2020 rubella elimination goal
- Lowest measles incidence in 2012

Challenges:

- Resurgence in China and Philippines
- Large-scale measles outbreaks following importation in Viet Nam, Papua New Guinea, Solomon Islands and Mongolia
- Revising Regional Strategies and Plan of Action for the years 2016-2020

Measles WPR annual reported cases and MCV1 and MCV2* coverage, 1980-2014

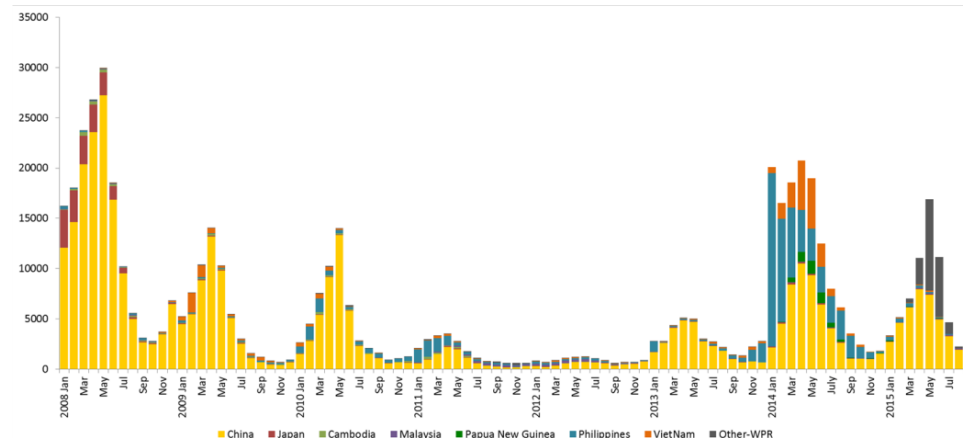


Source: WHO/WHE database, 2015
194 WHO Member States
Data as of September 2015

*MCV2 estimates are only available from 2000 when data collection started, however some countries have introduced the vaccine earlier.

Date of slide: 09 September 2015 WHO

Measles Cases Distribution by Month WPR Region, 2008-2015 (Aug)



European Region

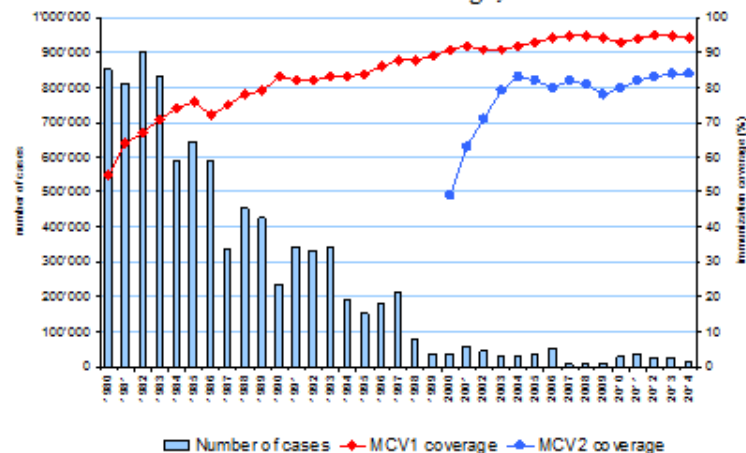
Achievements:

- High coverage with 2 doses of MCVs
- Interrupted endemic transmission of measles (22 MS) and rubella (23 MS)

Challenges:

- Low commitment to elimination in some member states
- Unimmunized and susceptible population: adolescent and adults, migrants, religious groups
- Mass immunization campaigns are not accepted in many countries
- Suboptimal vaccine demand
- Disruption caused by polio in Ukraine and influx of refugees into Europe

Measles EUR annual reported cases and MCV1 and MCV2* coverage, 1980-2014

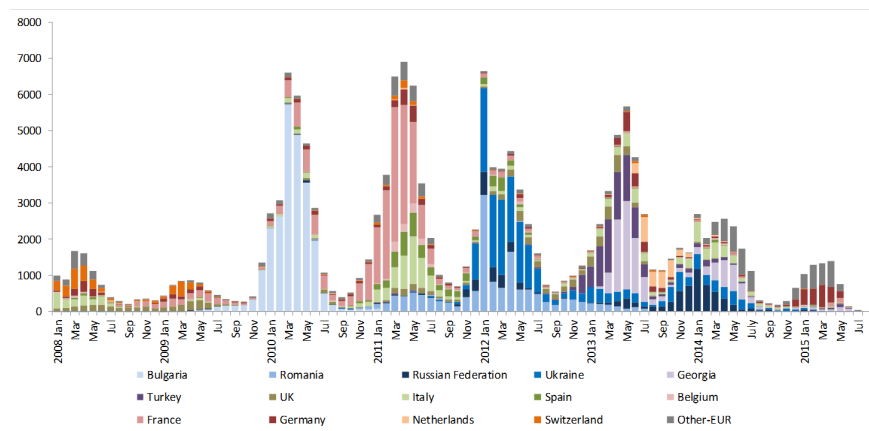


Source: WHO/GVS database, 2015
194 WHO Member States
Data as of September 2015

*MCV2 estimates are only available from 2000 when scheduled on national calendar. However some countries have introduced the vaccine earlier.
Date of slide: 09 September 2015



Measles Cases Distribution by Month
EUR Region, 2008-2015 (Aug)



S.E. Asian Region

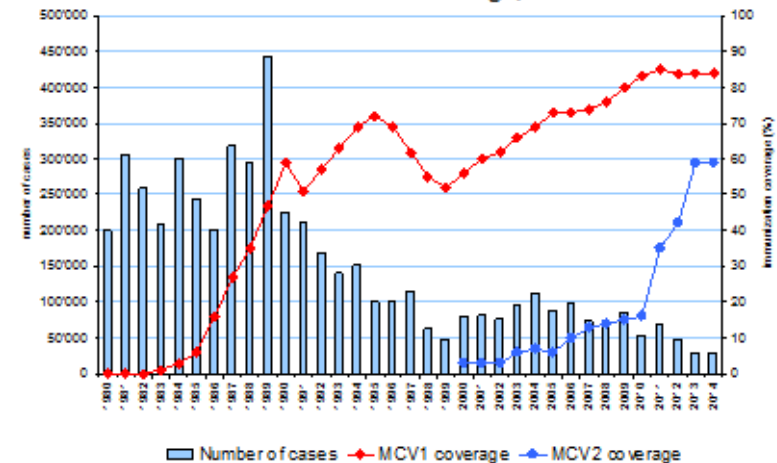
Achievements:

- In 2013, established a measles elimination goal by 2020
- MCV1 at 84% (India at 83%)
- India planning to introduce RCV 2016-2018
- India started reporting monthly case data

Challenges:

- Need to increase routine immunization and strengthen surveillance (India and Indonesia)
- Outbreaks in some high coverage countries (Sri Lanka, Thailand)
- MR vaccine supplies

Measles SEA annual reported cases and MCV1 and MCV2* coverage, 1980-2014



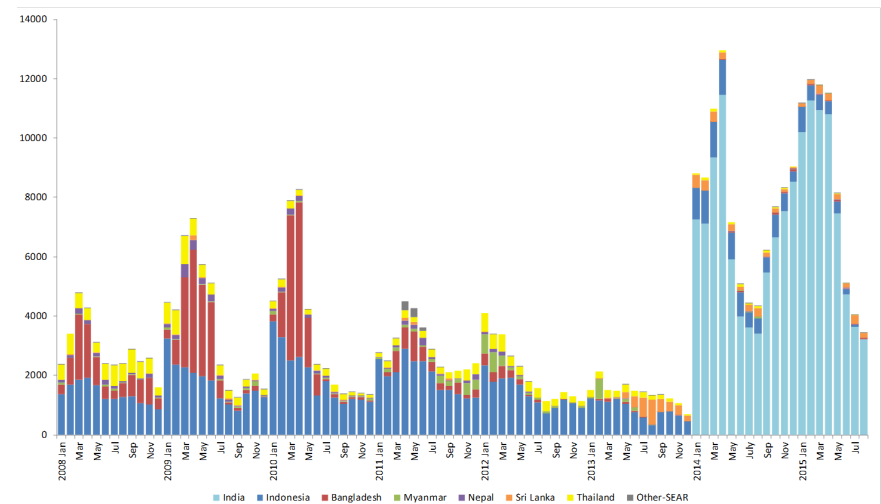
Source: WHO/TN database, 2015
194 WHO Member States
Data as of September 2015

*MCV2 estimates are only available from 2000 when child data systems started. In some countries, data introduced the vaccine earlier.

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Measles Cases Distribution by Month
SEAR* Region, 2008-2015 (Aug)



E. Mediterranean Region

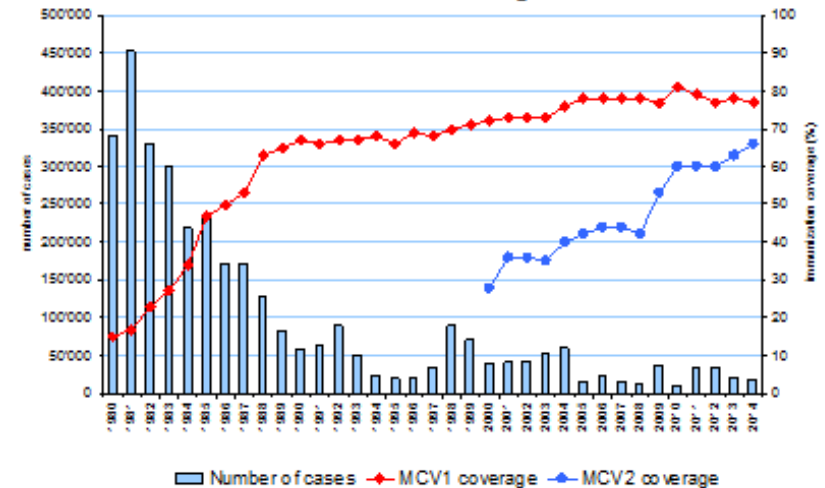
Achievements:

- High level of control achieved in 6 countries, 3 of them are ready to verify elimination

Challenges:

- Persistent low coverage in some countries (Somalia, Iraq)
- Many member states affected by civil unrest
- New strategies needed to deliver vaccination services in civil war settings
- Problem of measles cases <1 year and among adults

Measles EMR annual reported cases and MCV1 and MCV2* coverage, 1980-2014



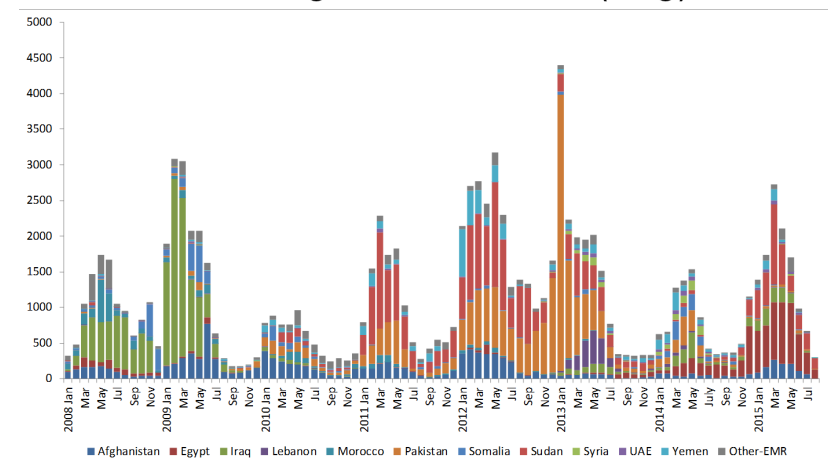
Source: WHO/EUE database, 2015
194 WHO Member States
Data as of September 2015

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Measles Cases Distribution by Month EMR Region, 2008-2015 (Aug)



African Region

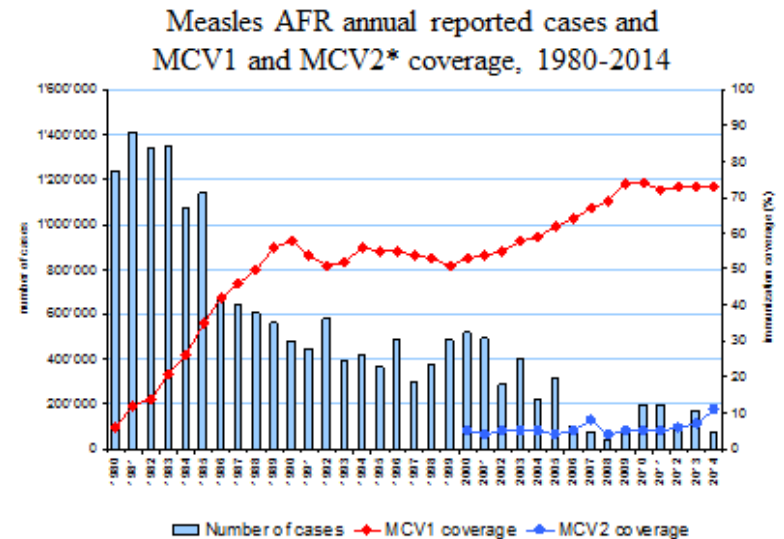
Achievements:

- 12 countries near elimination* and an additional 14 on track for the 2020 goal
- 19 countries with MCV2
- 7 countries with RCV

Challenges:

- Weak and fragile health systems in many countries
- Disruption caused by Ebola
- Need for periodic SIAs in most countries to reach children missed by routine immunization
- Measles outbreaks with age shift to older age groups

*Algeria, Burkina, Cap Verde, Rwanda, Eritrea, Gambia, Ghana, Mauritius, Senegal, Seychelles, Sao Tome, Zimbabwe



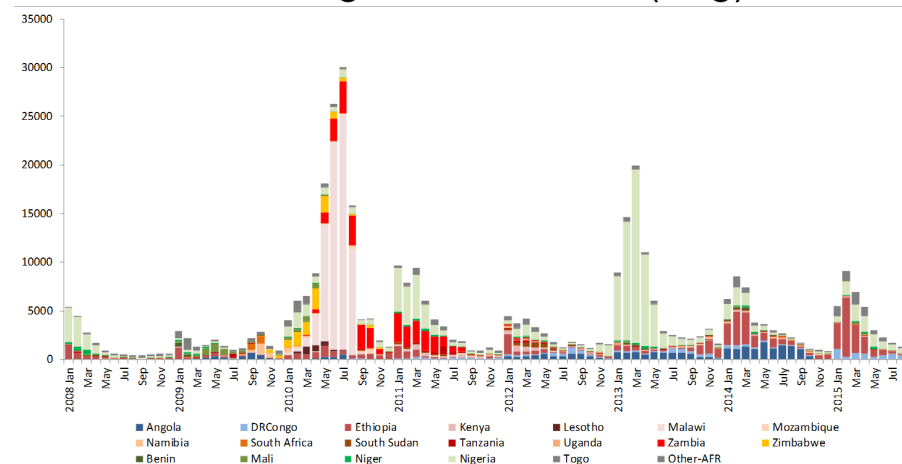
Source: WHO/EVS database, 2015
194 WHO Member States
Data as of September 2015

*MCV2 estimate is only available from 2000 when globalisation estimates started. However some countries have introduced the vaccine earlier.

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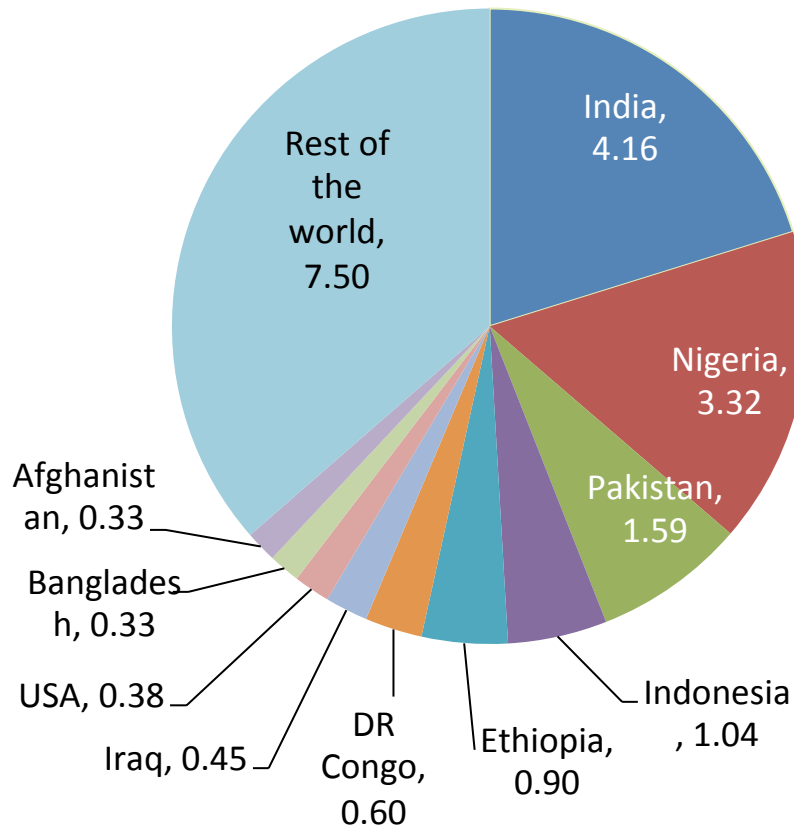
Measles Cases Distribution by Month AFR Region, 2008-2015 (Aug)



Problems and Solutions

#1 Increasing MCV1 to >90%

20.6 million. infants missed MCV1 in 2014



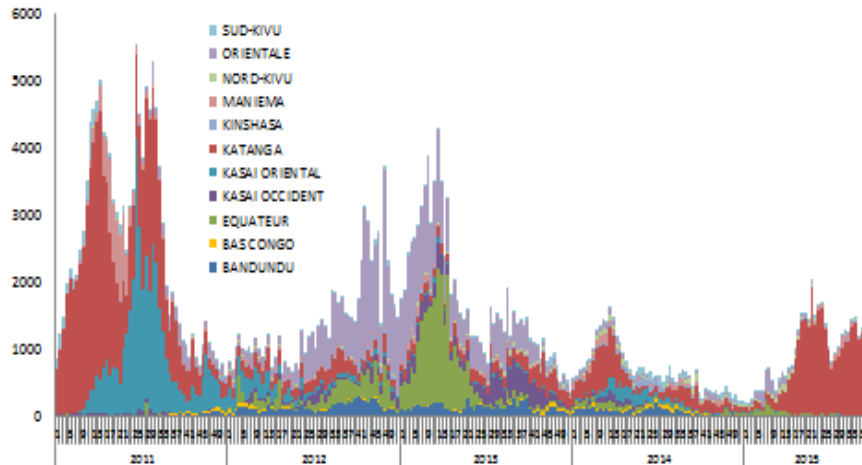
- **6 countries** account for 2/3 of unvaccinated infants and $\frac{3}{4}$ estimated measles deaths
- Stronger emphasis on **building health infrastructure** to sustain high routine immunization
- A **coordinated strategic approach** to support those countries most in need
- **GRISP** describes the 9 transformative investments needed

#2 Improving Quality of SIAs

Democratic Republic of Congo

- MCV1 77% (2014)
- Measles SIAs
 - <15y 2002-5 (>86%)
 - <5y 2007-9 (>95%)
 - <5y 2010-2 (98%)
 - <10y 2013-4 (>99%)
- Outbreak in Katanga (2015)

Evolution hebdomadaire des cas de rougeole par province, 2011-2015 (sem.37)



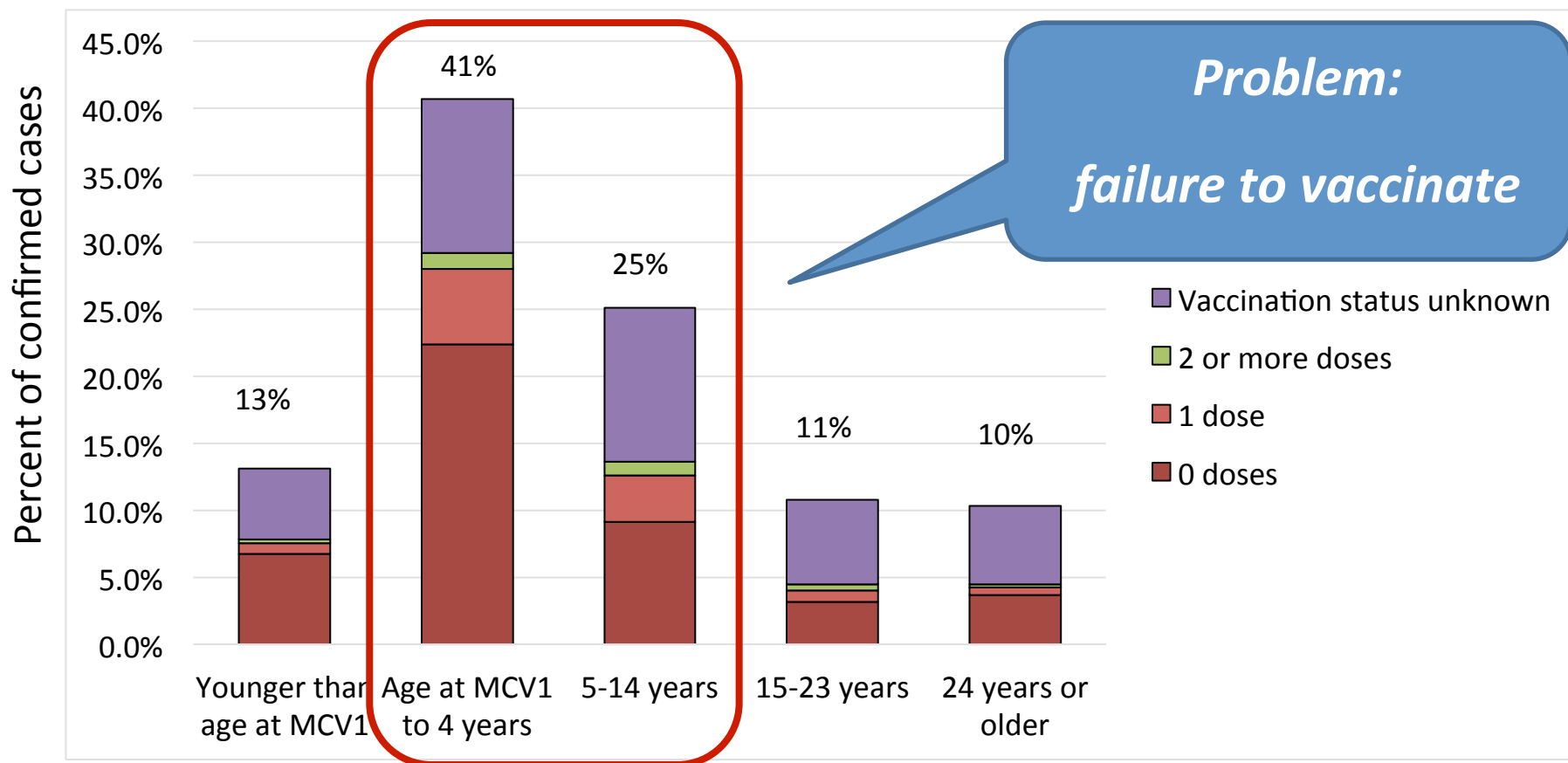
Source: DLM

Solutions:

- Political and financial
 - Country ownership
 - High level advocacy
 - Adequate funding
- Managerial
 - Advance planning
 - Focus on hard to reach
 - Monitoring & supervision
- Technical
 - Guidelines (pre, intra, post-SIA)
 - Technical support

#3. Strengthening laboratory-supported surveillance

Age and Vaccination Status of Confirmed* Measles Cases, 2010-2014 (n=356,632)

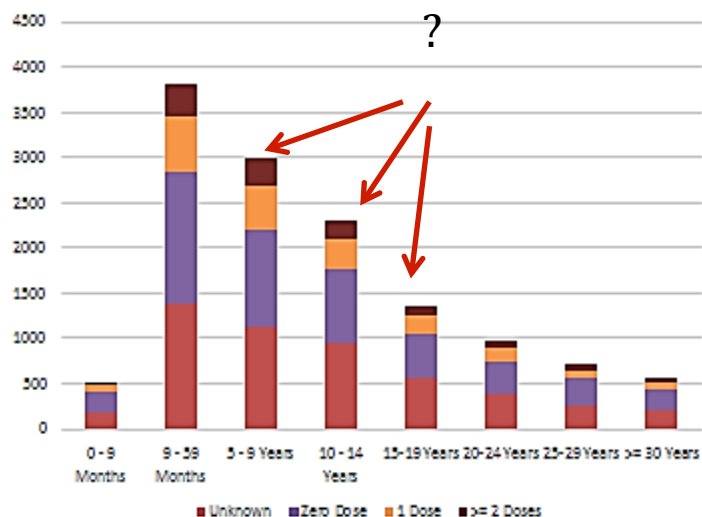


*Lab-confirmed or epi-linked.

Changing Epidemiology of Measles leading to policy questions

Improving control:

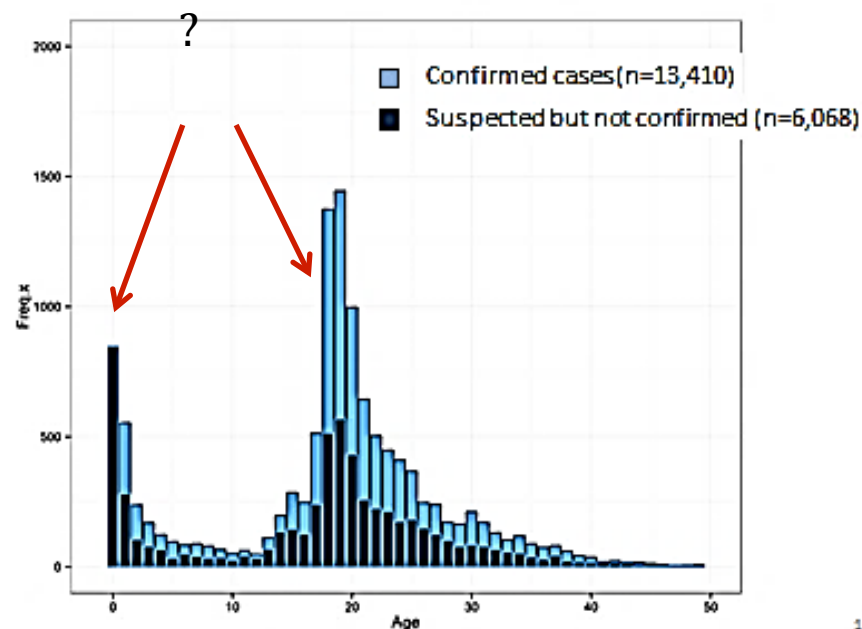
Vaccination Status of Confirmed Measles
Cases by Age – Ethiopia, 2014



Data source: case-based surveillance data from WHO / Ethiopia on 22/04/2015

Near elimination:

Age distribution of confirmed and not confirmed cases.
Mongolia, March 1 to August 31, 2015



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2015 Draft Assessment Report of GVAP

-- *on measles and rubella goals*

Conclusion:

- *The elimination strategies for maternal and neonatal tetanus, and for measles and rubella, and their implementation, are in urgent need of change and adequate resourcing.*

Recommendation:

- *Global, regional and national development partners support countries in securing the required resources and in implementing their measles and rubella elimination or control goals taking into account the results and recommendations of the midterm strategy review to be conducted in 2016.*

Midterm Review

Global Measles and Rubella Strategic Plan, 2012-2020

Objectives

1. **Review progress** and key reasons for not attaining global and regional targets
2. Assess **quality of implementation** of strategies and guiding principles
3. Based on existing work on economic modelling, make recommendations on the **human and financial resources** needed
4. Recommend **new possible milestones**, communication needs and target dates
5. **Align countries and donors** around a shared set of lessons learned, risks, and priorities for 2016-2020

Process

- Small team of external consultants (Team Lead: Dr Felicity Cutts)
- Oversight by SAGE
- Report back to World Health Assembly
- Partners group
- Final report April 2016

Acknowledgements

- Country programmes
- Partners:

