



The State of Measles and Rubella in the WHO European Region



World Health
Organization

REGIONAL OFFICE FOR

Europe



Organisation
mondiale de la Santé

BUREAU RÉGIONAL DE L'

Europe



Weltgesundheitsorganisation

REGIONALBÜRO FÜR

Europa



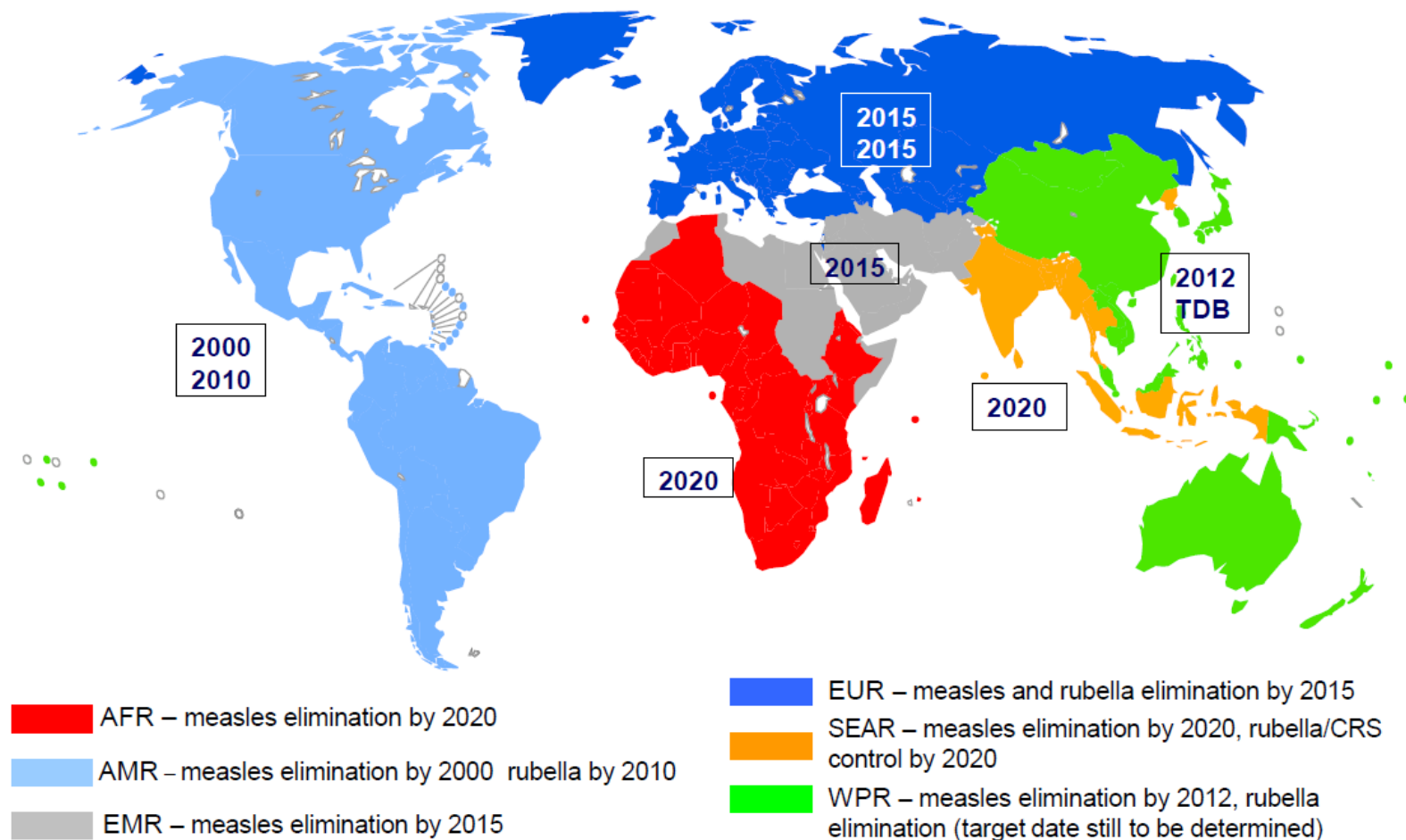
Всемирная организация
здравоохранения

Европейское региональное бюро

Mark Muscat
Vaccine-preventable Diseases and Immunization

Rome, Italy, 16-17 June 2016

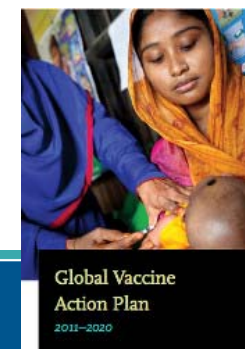
All six WHO Regions have measles elimination goals



Global Vaccine Action Plan (GVAP) goals:

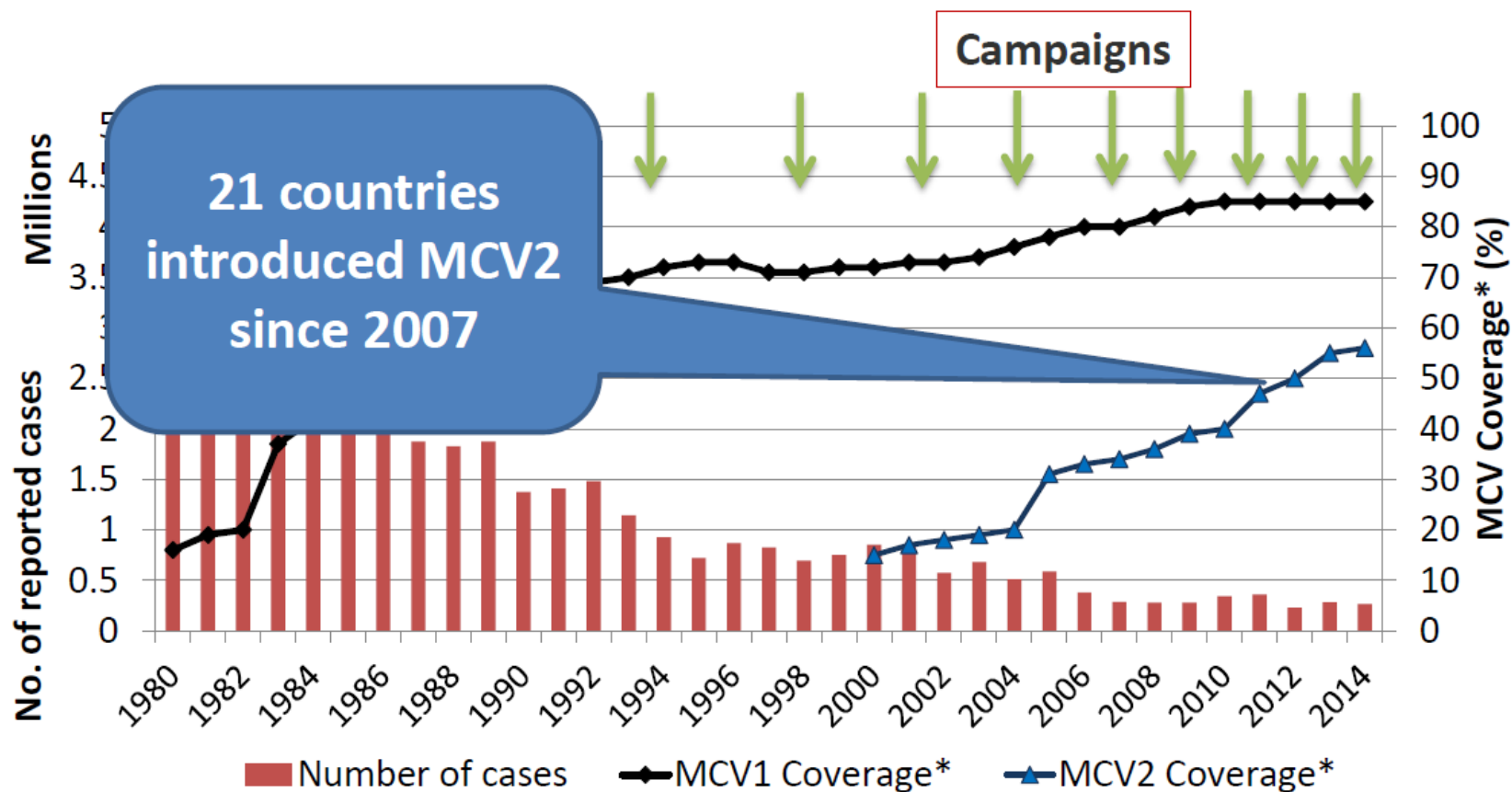
Measles elimination in 4 WHO regions by 2015 and 5 by 2020

Rubella elimination in 2 WHO regions by 2015 and 5 by 2020



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

94% reduction in reported measles cases

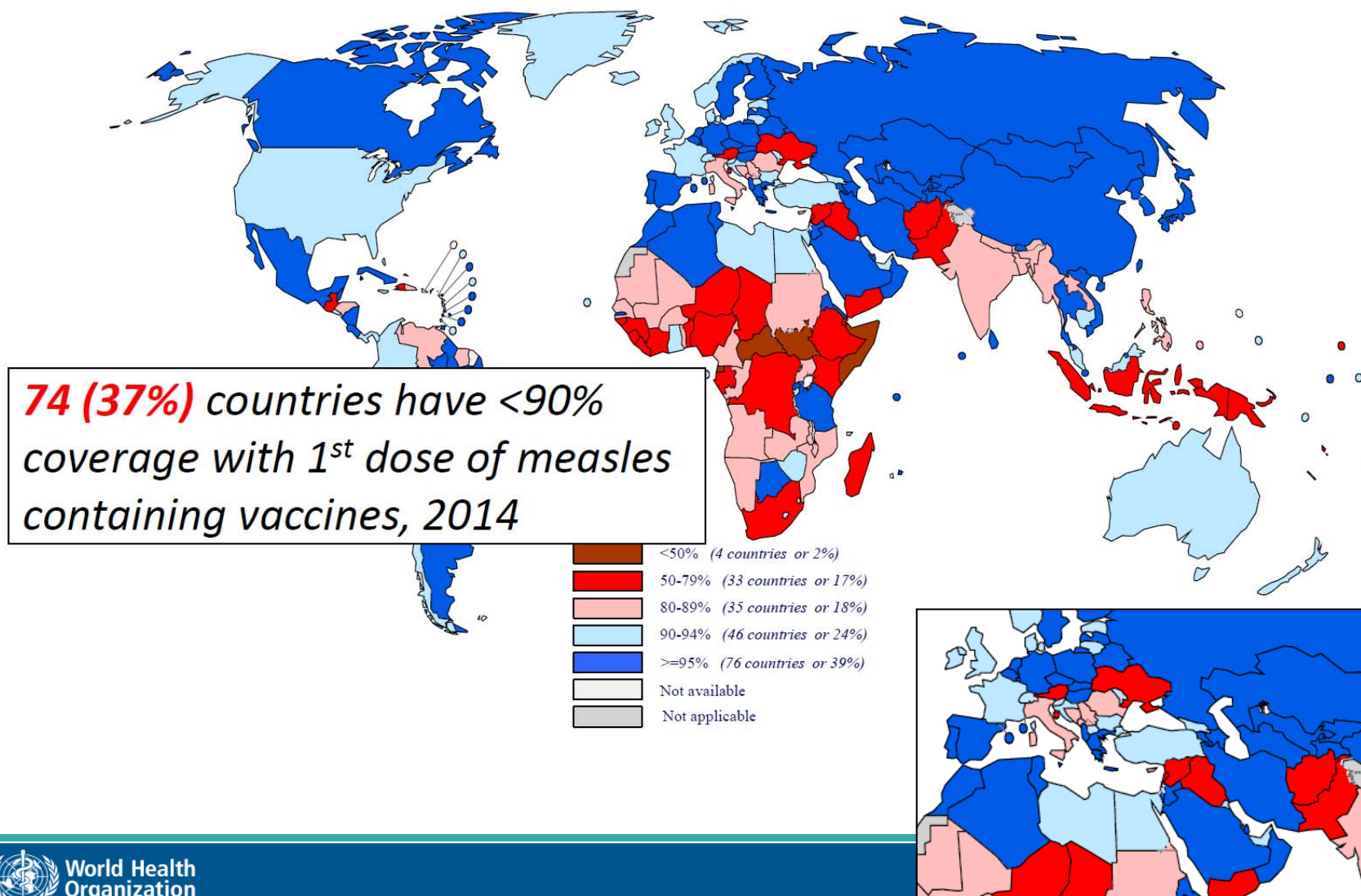


* MCV1 coverage: coverage with first dose of measles-containing vaccine as estimated by WHO and UNICEF.

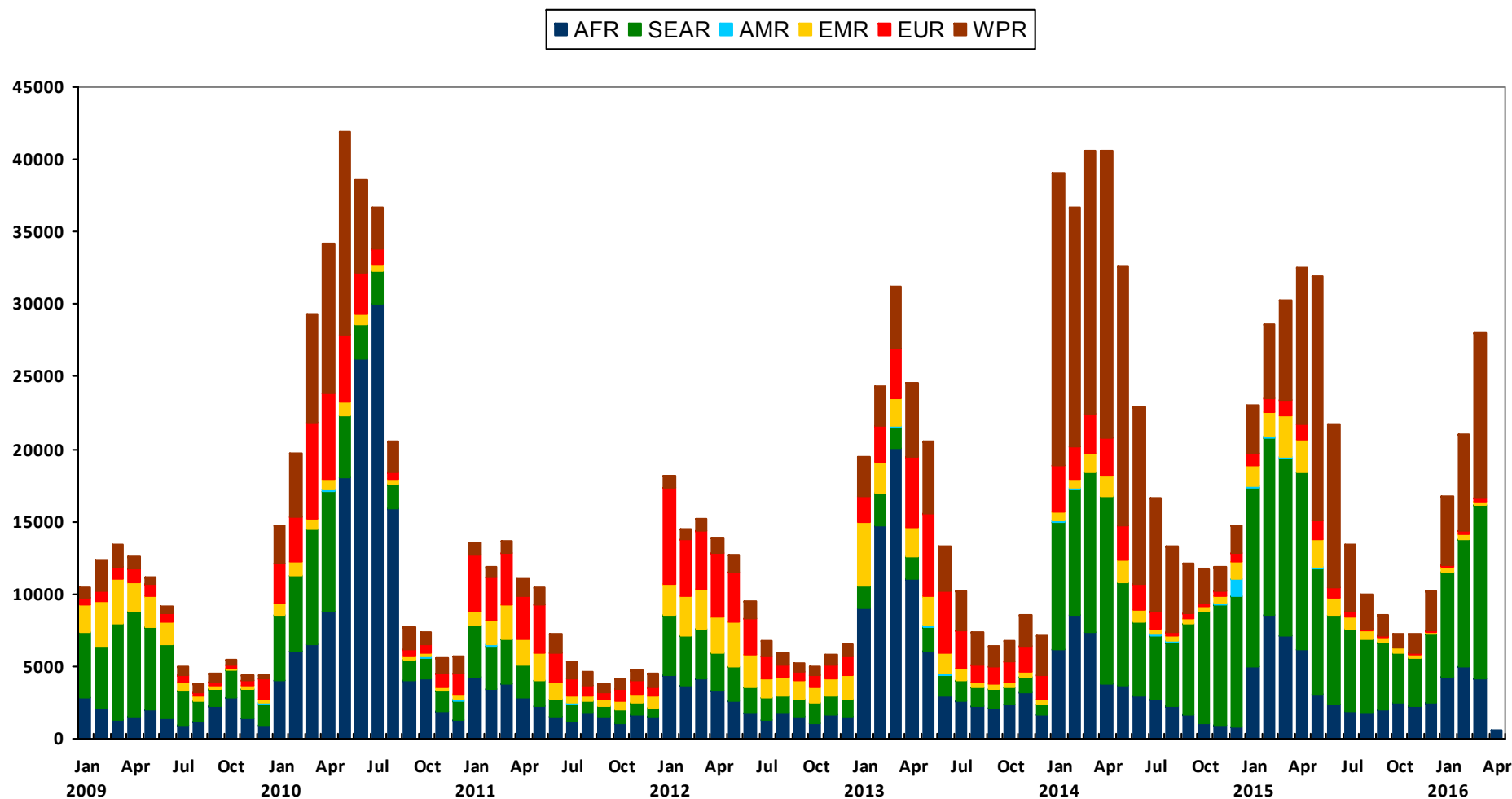
**MCV2 estimates are only available from 2000 when global data collection started; however, some countries have introduced the vaccine earlier.

WHO/UNICEF Estimates of MCV1 coverage, 2014

74 countries have low MCV1 coverage

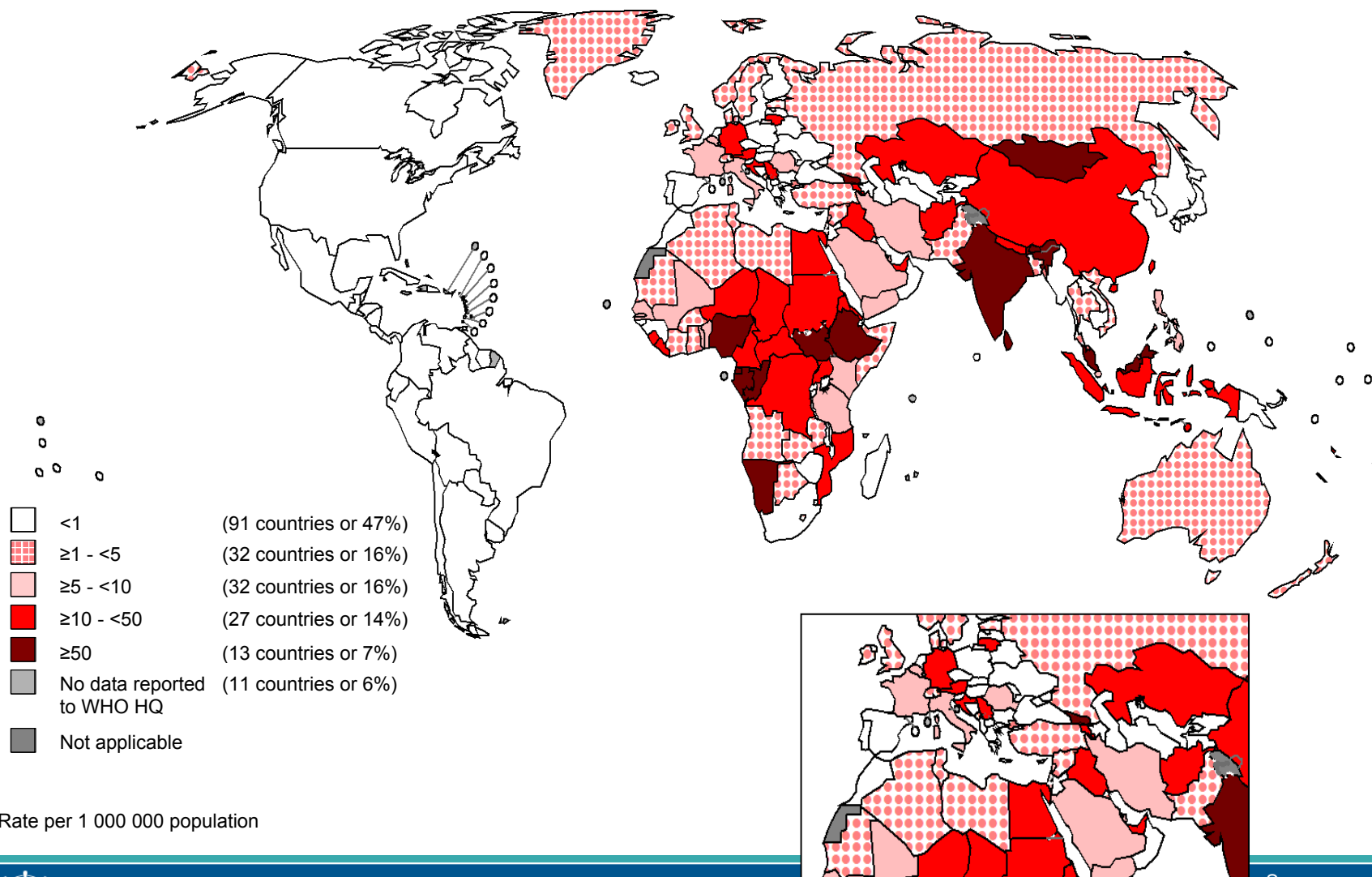


Measles case distribution by month and WHO regions, 2009-2016



Reported measles incidence rate* - April 2015 to March 2016 (12 month period)

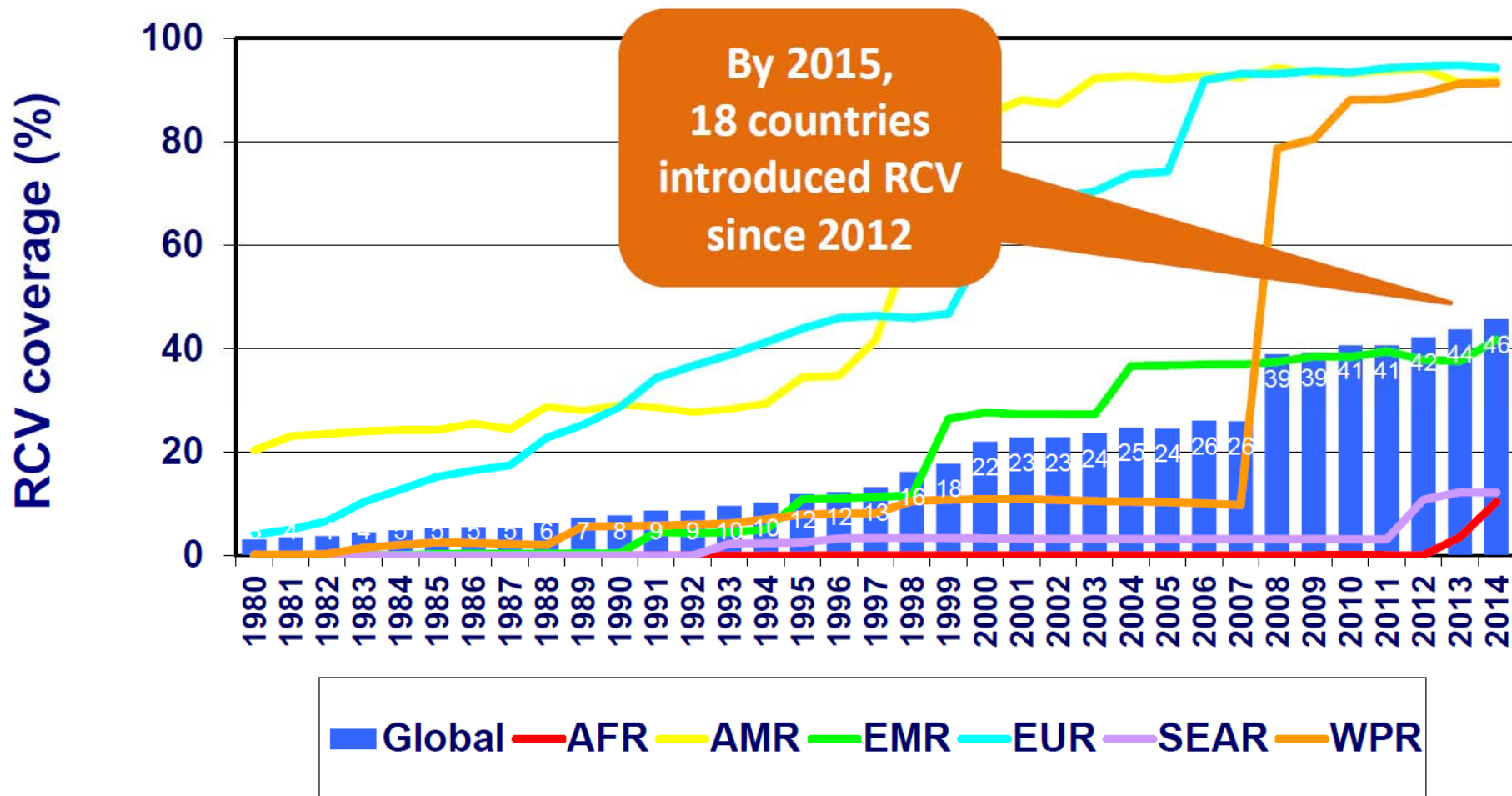
5 WHO Regions still endemic for measles



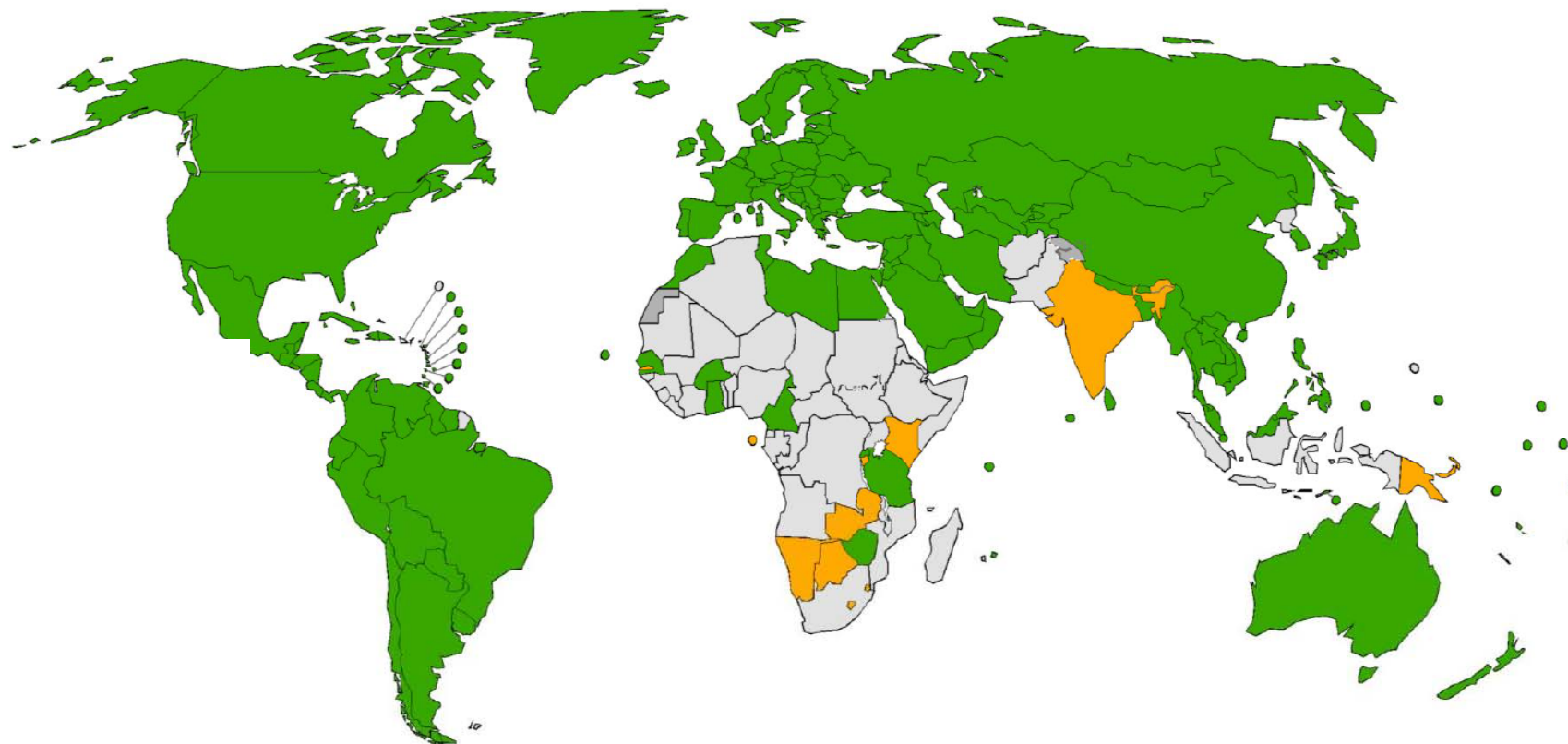
*Rate per 1 000 000 population





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

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

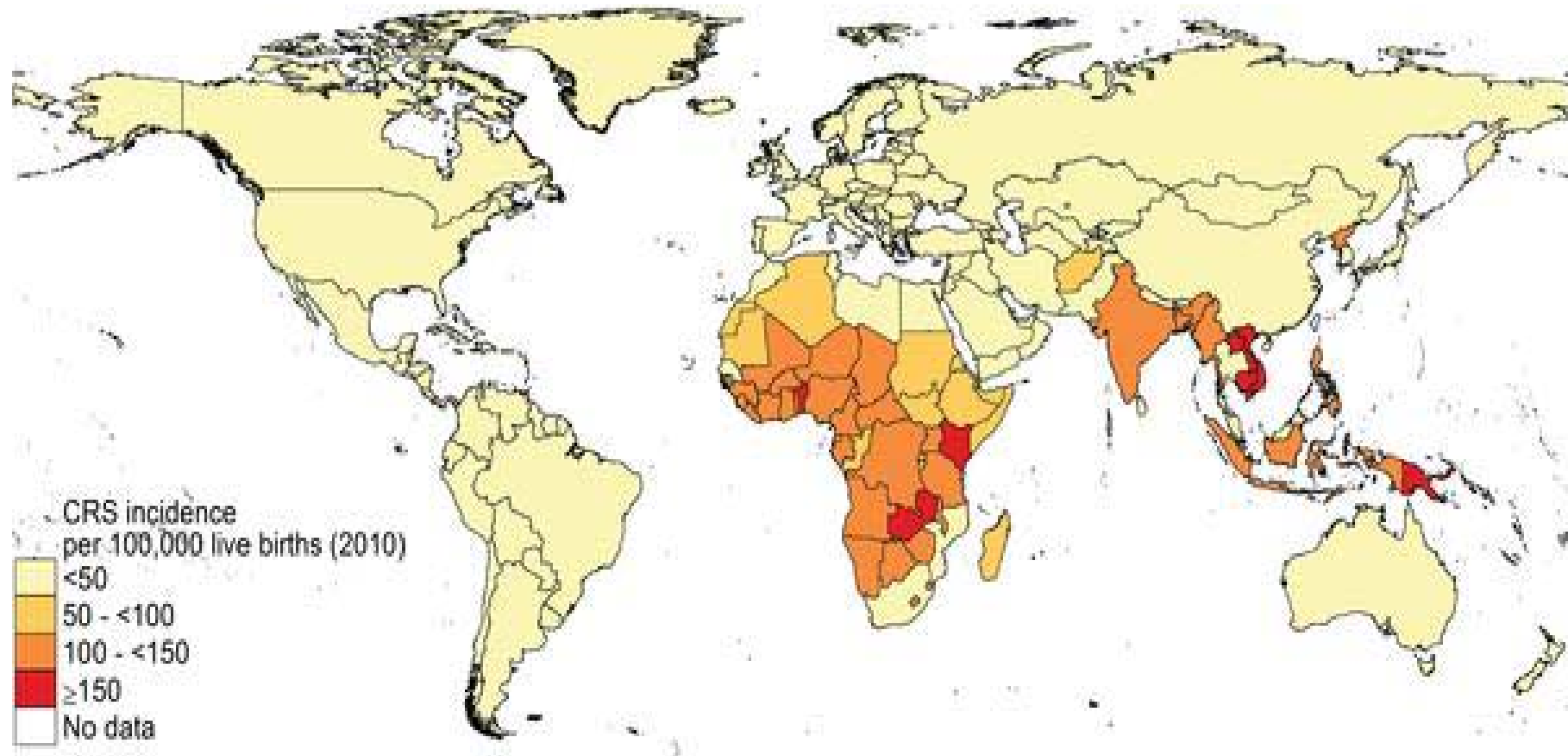


Countries with rubella vaccine in the national immunization programme and planned introductions in 2016



	Introduced to date	(148 countries or 76.3%)
	Planned introductions in 2016	(11 countries or 5.7%)
	Not Available, Not Introduced/No Plans	(35 countries or 18%)
	Not applicable	

Estimates of the median incidence of congenital rubella syndrome per 100,000 live births by country, 2016



WHO European Region

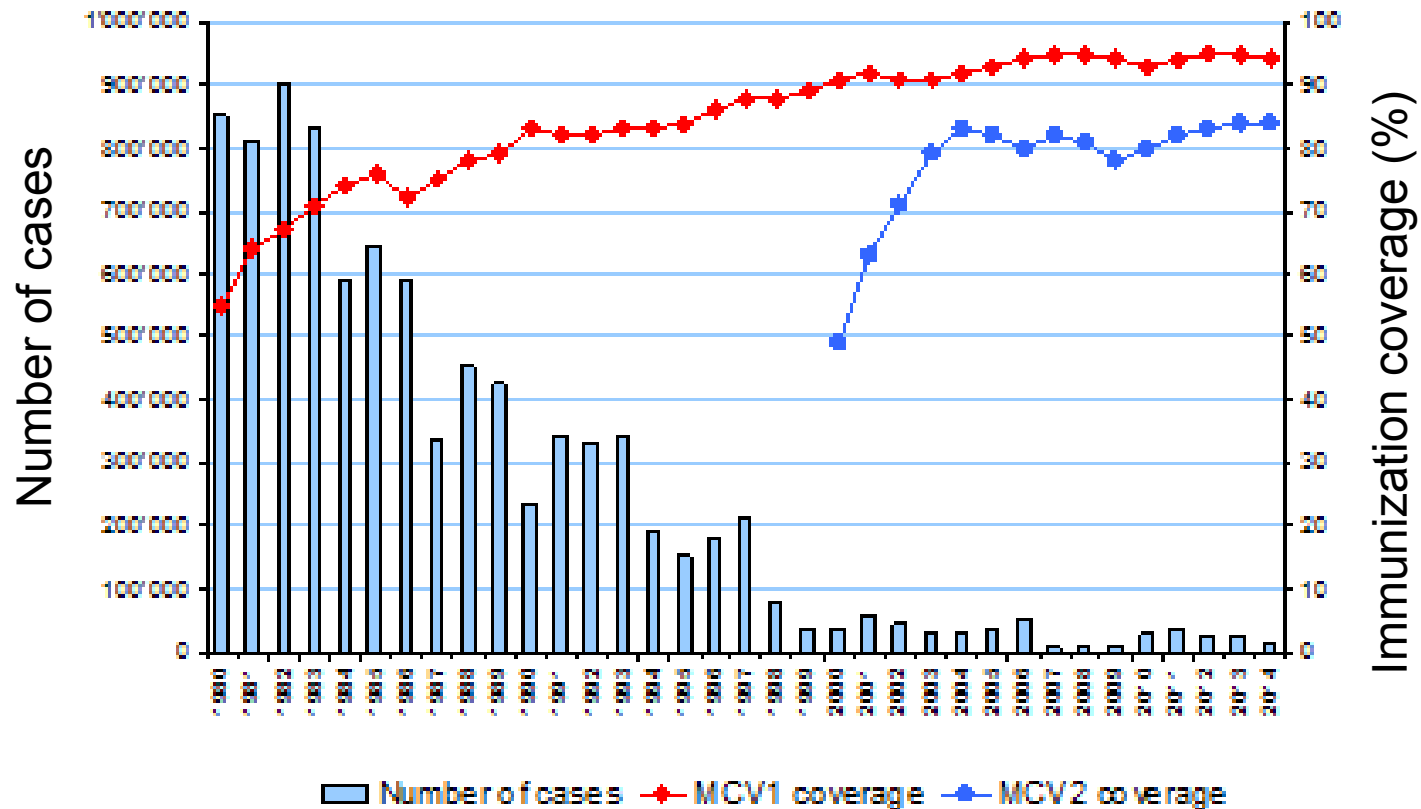


53 Member States

>900 million inhabitants

Large **cultural** and
social diversity

Number of measles cases and coverage with measles-containing vaccine, WHO European Region, 1980-2014



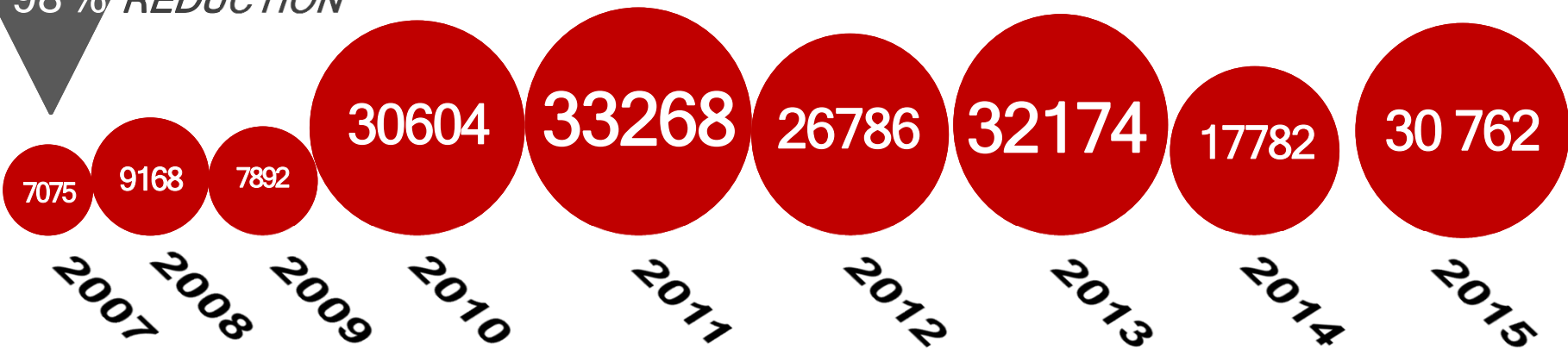
Measles in the WHO European Region, 1993, and 2007-2015*

341982

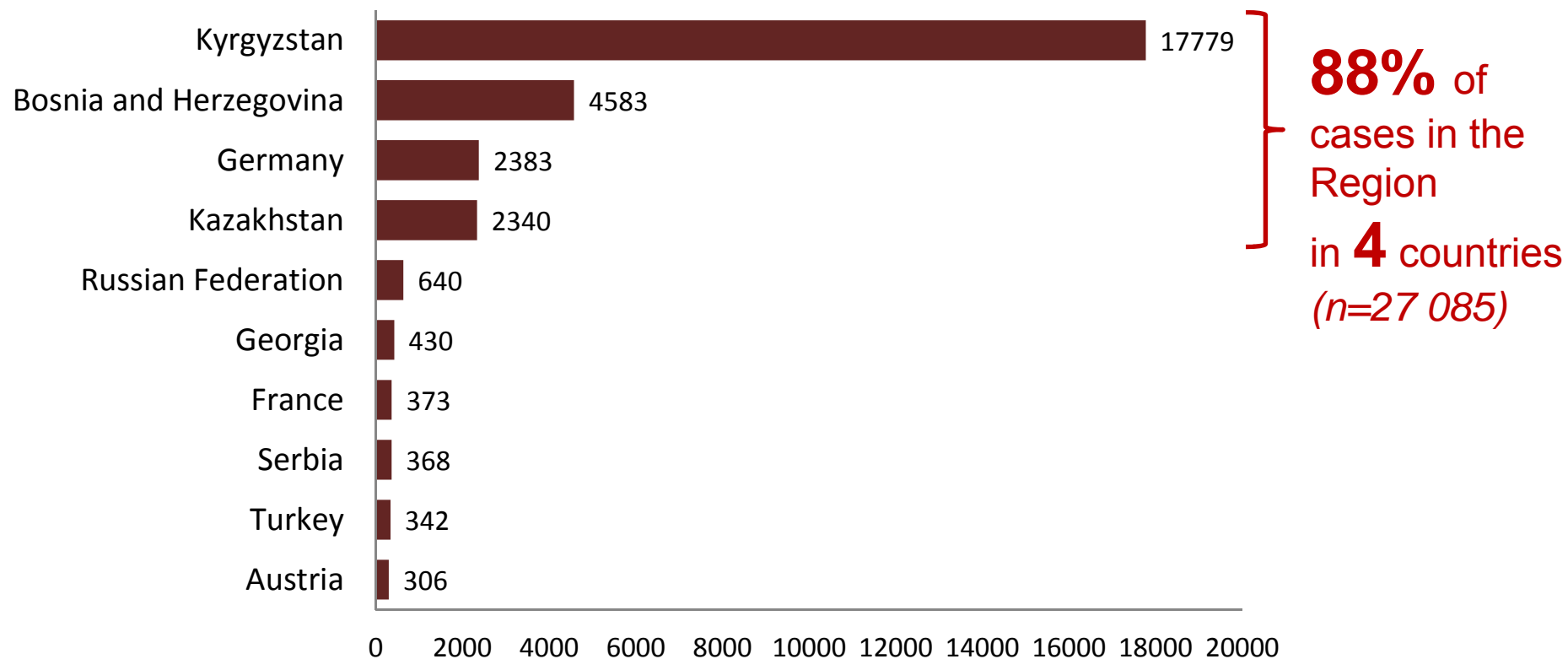
1993

Bulgaria	France	Ukraine	Georgia	Russian Federation	Kyrgyzstan
21 664	14 966	12 744	7868	3264	17 779

98% REDUCTION

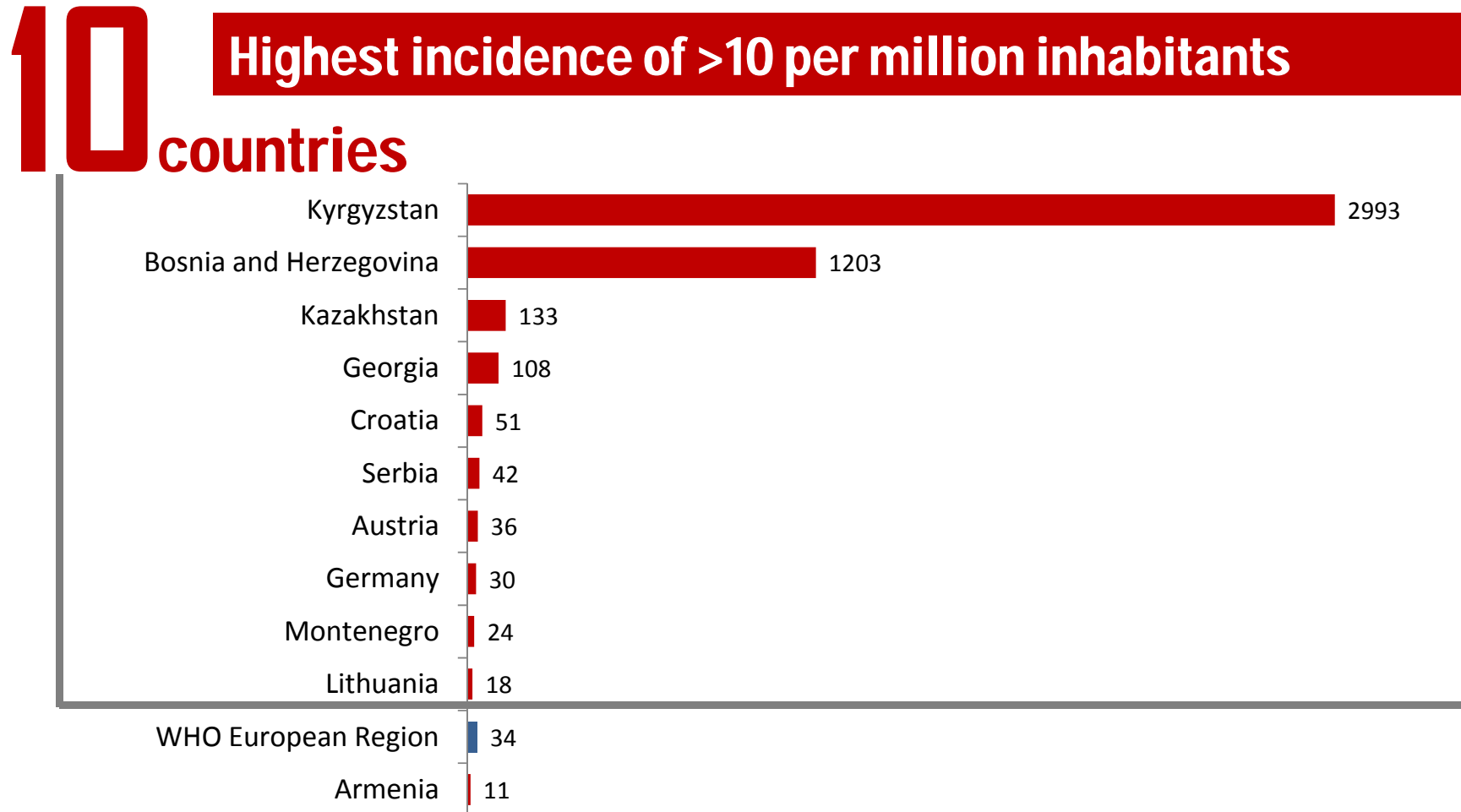


Top 10 countries with measles cases, WHO European Region, 2015*

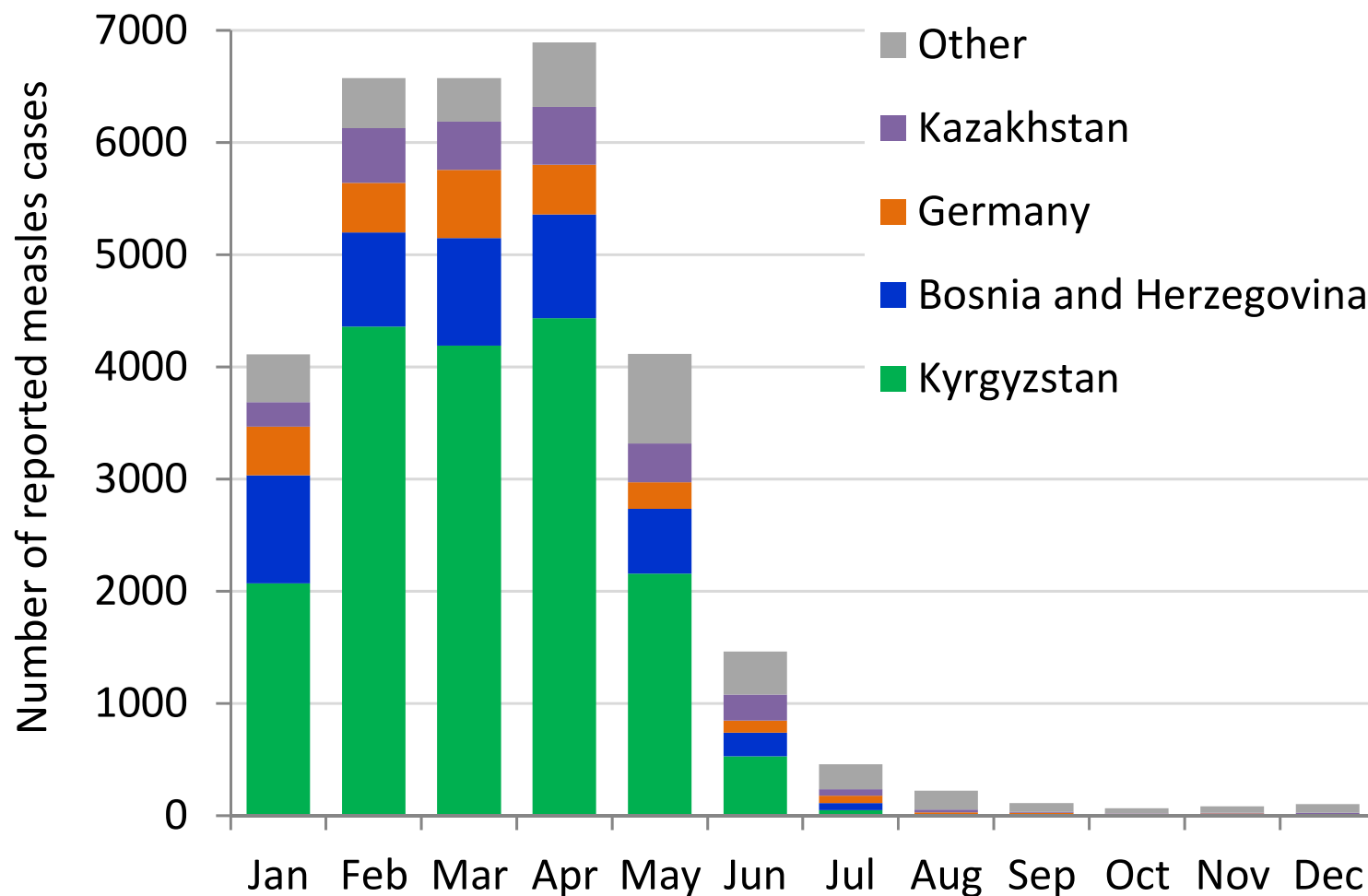


11 countries reported zero cases

Highest incidence countries for measles per million inhabitants WHO European Region, 2015*

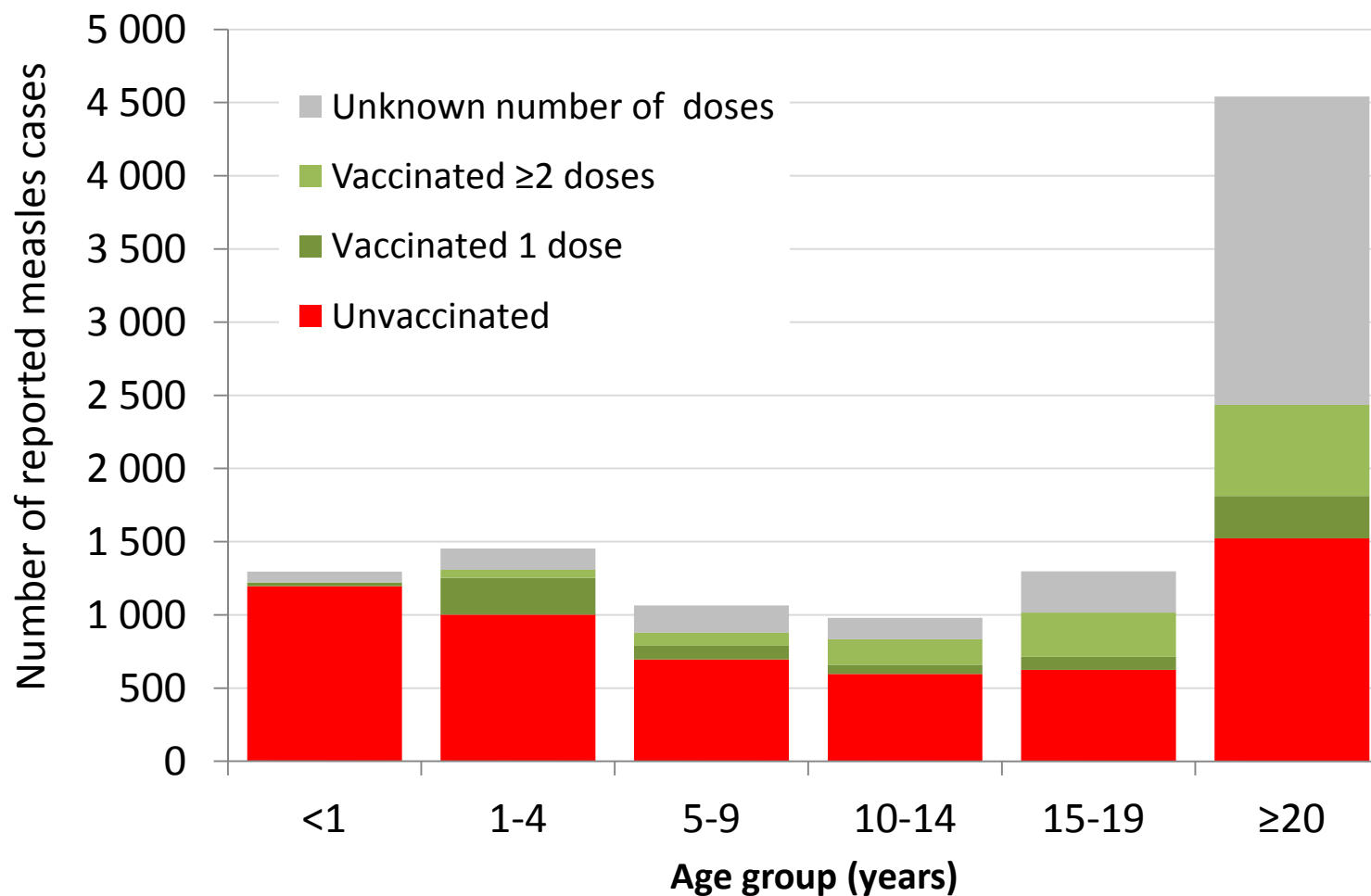


Monthly distribution of measles cases, WHO European Region, 2015*

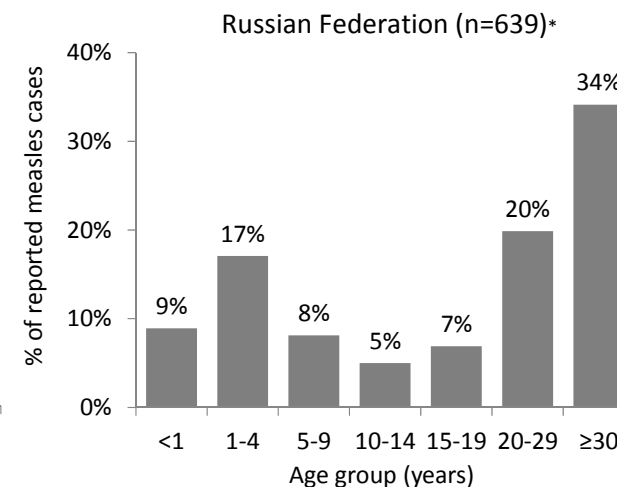
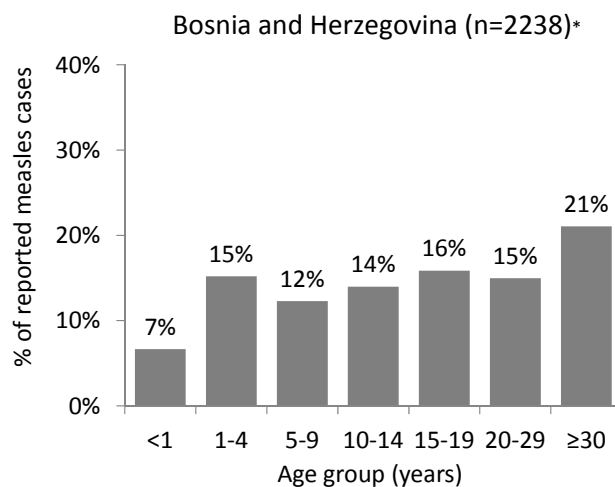
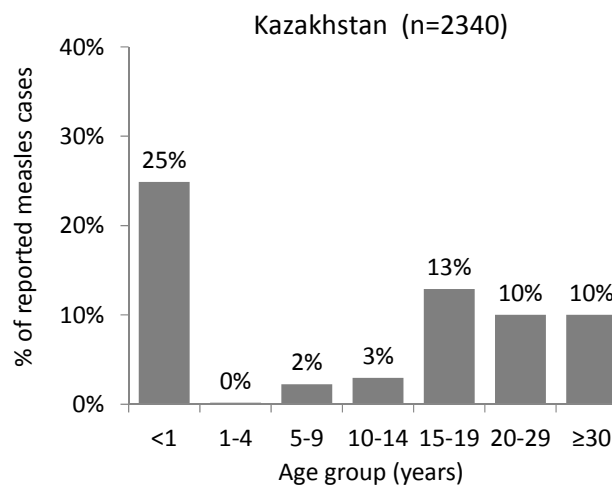
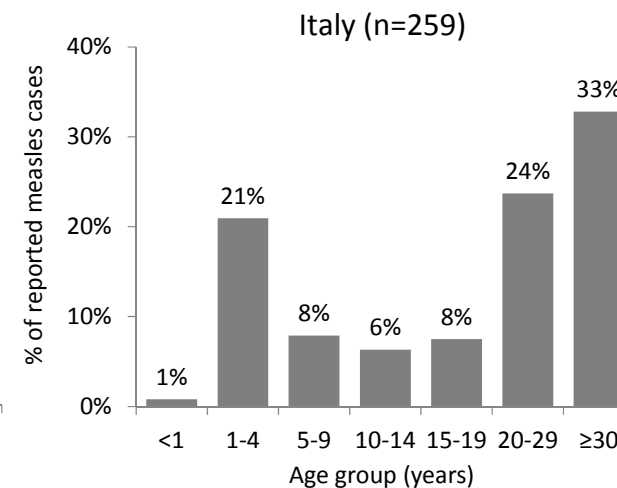
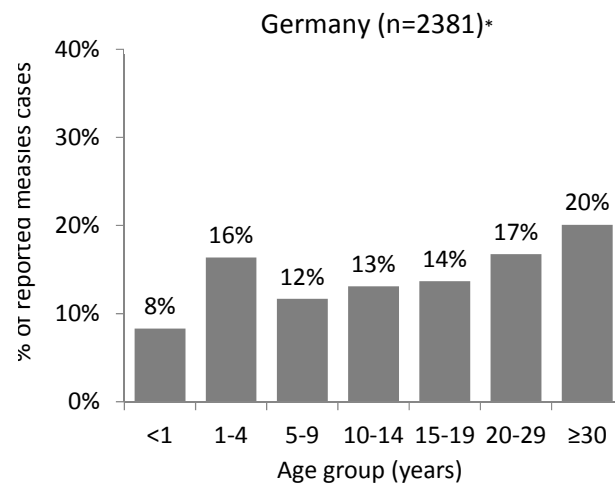
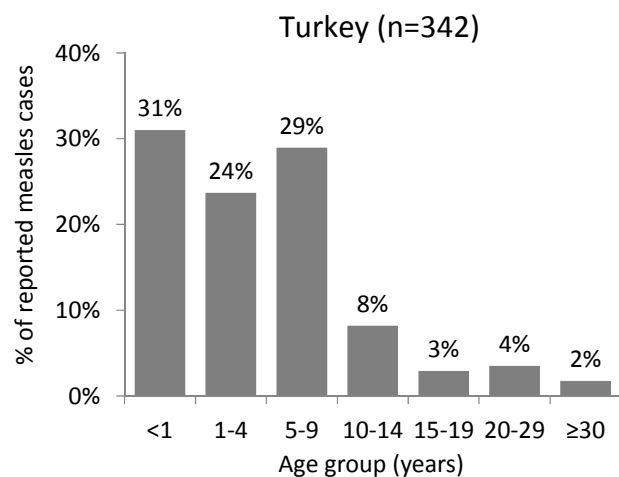


Age distribution and vaccination status of measles cases, 2015*

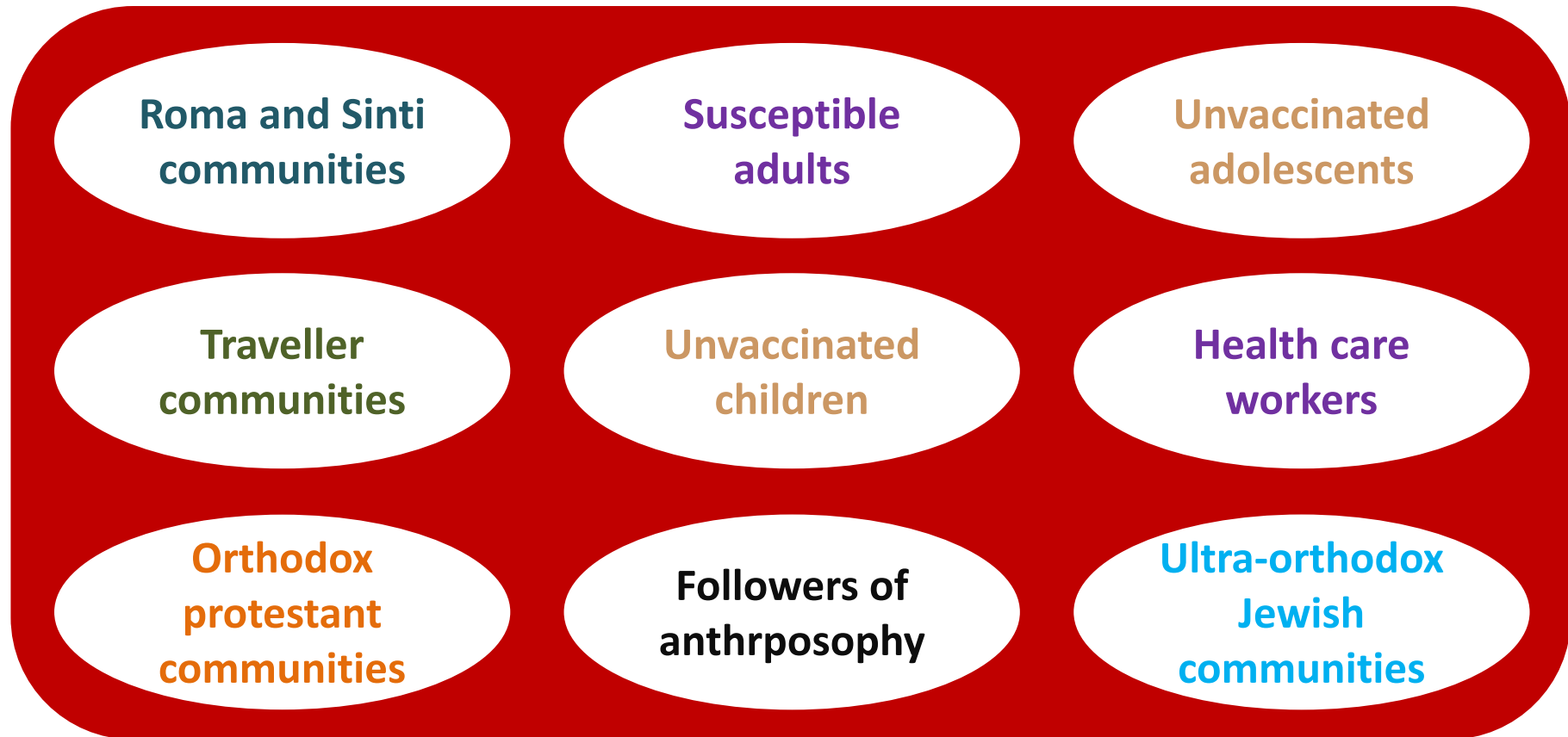
Age known in 10 630 cases (35%)



Age distribution of measles cases in the six selected countries in 2015 with data on age*



Measles outbreaks occurred in several susceptible populations



Main public settings for measles outbreaks

Health-care settings

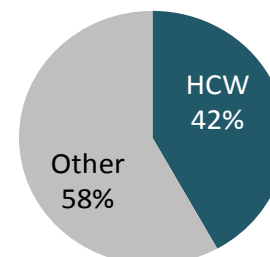


Bulgaria
Croatia
Czech Republic
Denmark
France
Greece

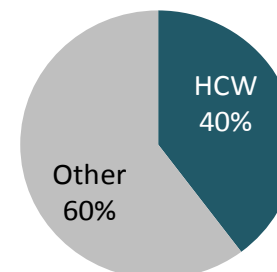
Latvia
Italy
Netherlands
Spain
Switzerland

Proportion of measles among health care workers in selected countries, 2014

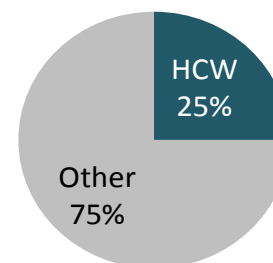
Laboratory -confirmed measles outbreak cases in Latvia (n= 31)



Measles outbreak cases in Czech Republic (n=171)



Measles outbreak cases in Spain (n=120)



Main public settings for measles outbreaks

Educational facilities



Austria
France
Germany
Ireland

Italy
Spain
Switzerland
UK

Universities

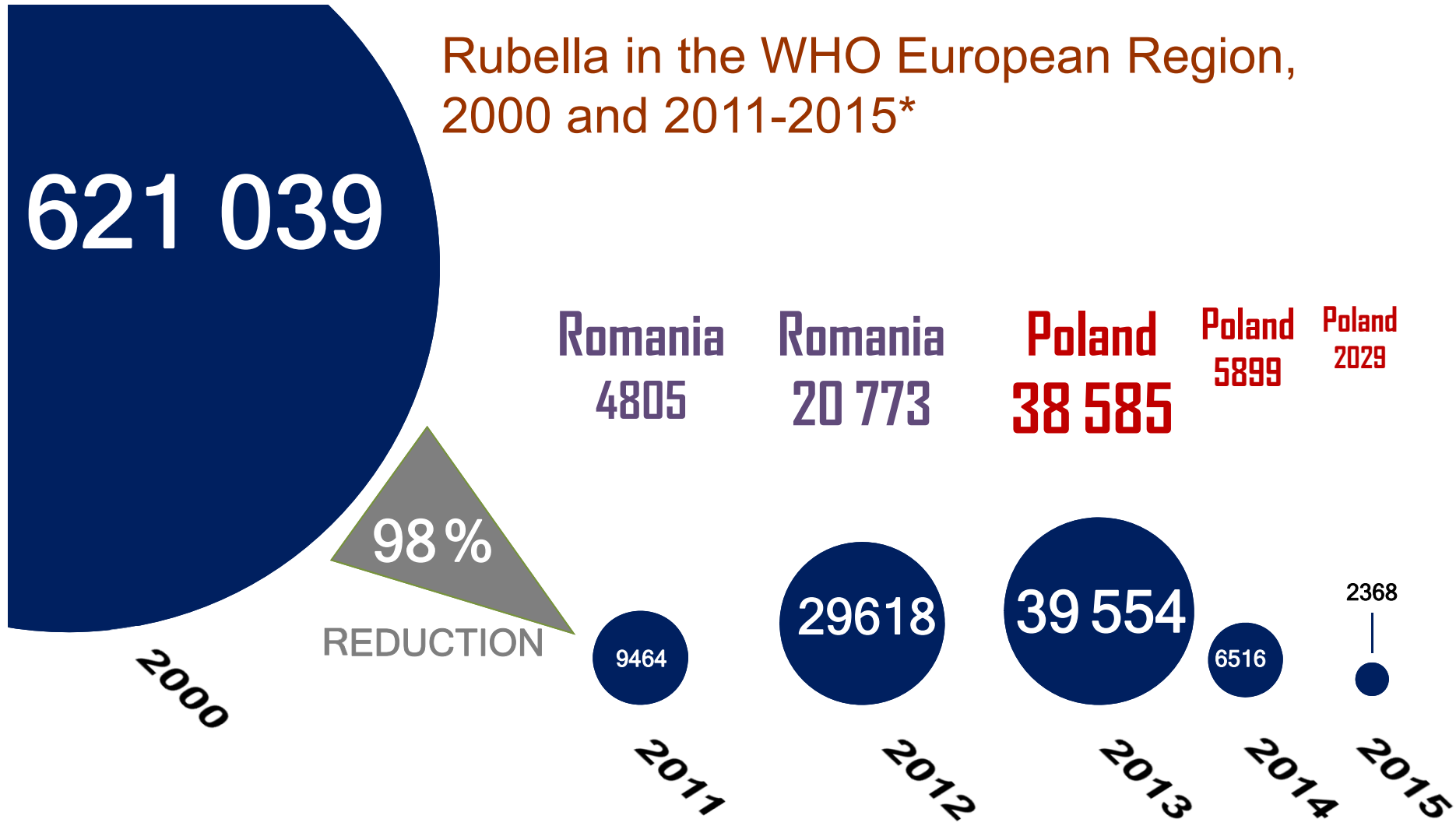
Anthroposophic
Schools

Schools

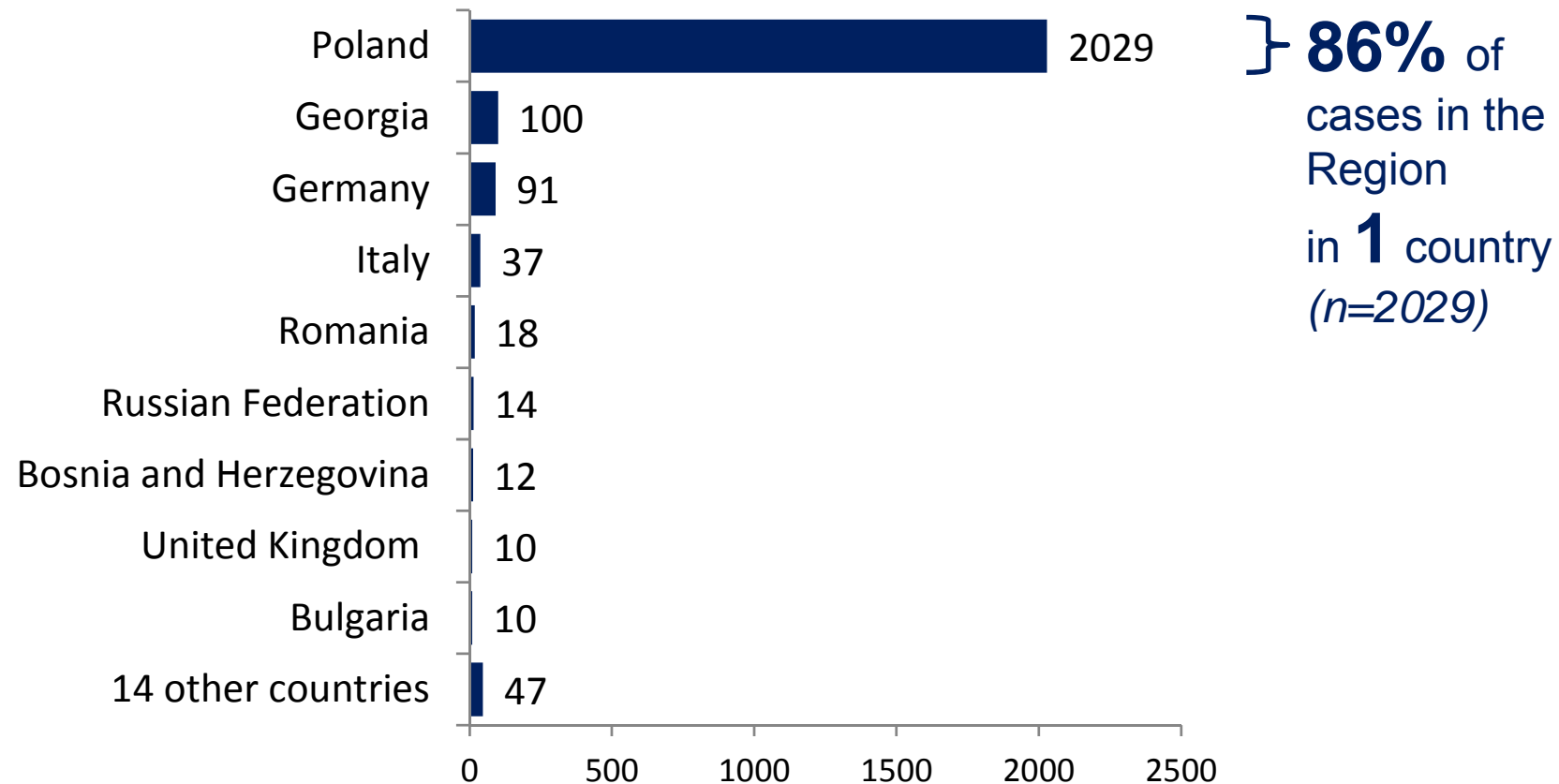
Kindergardens

Day care centres

Rubella in the WHO European Region, 2000 and 2011-2015*

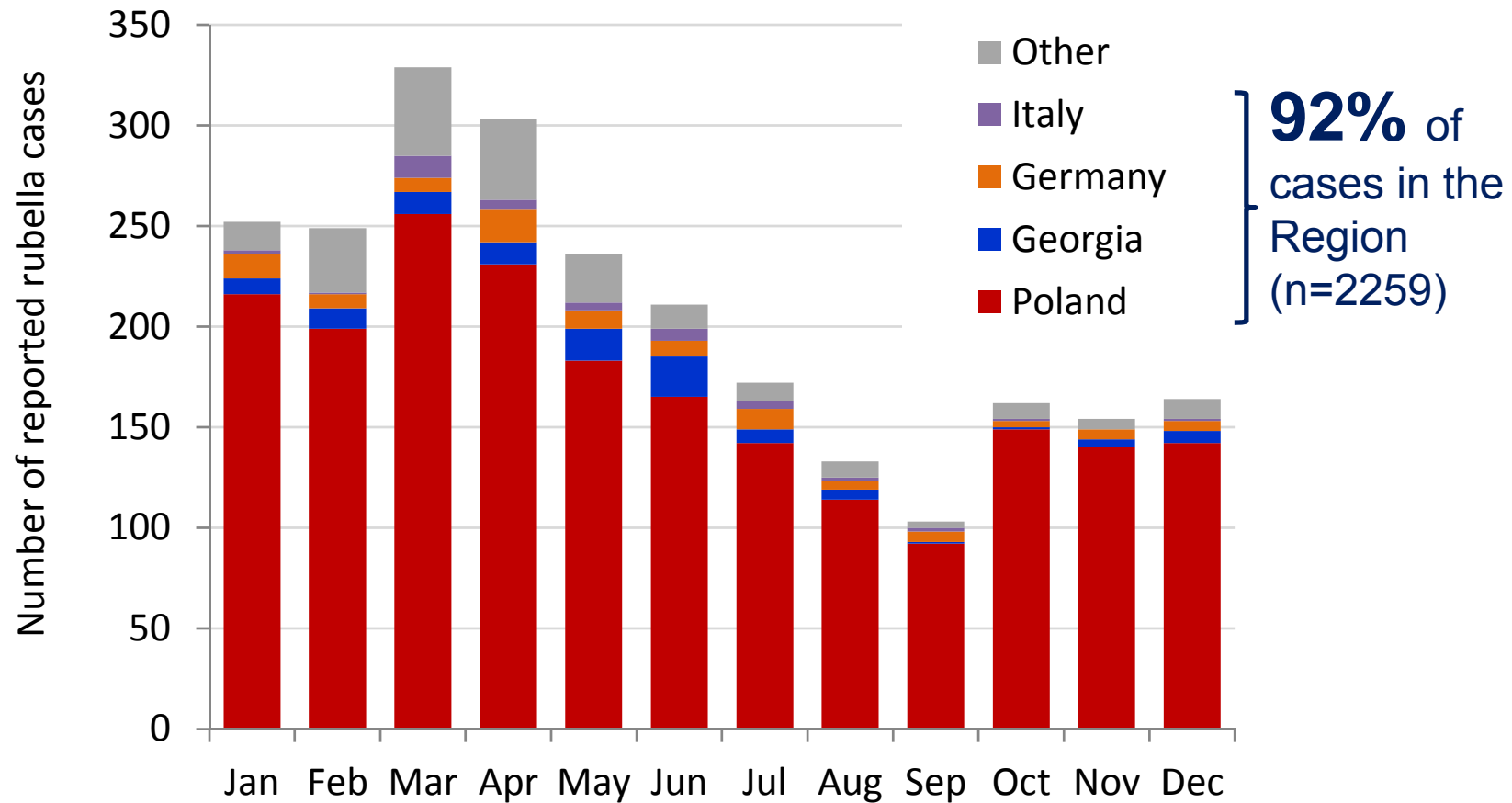


Countries with rubella cases, WHO European Region, 2015*

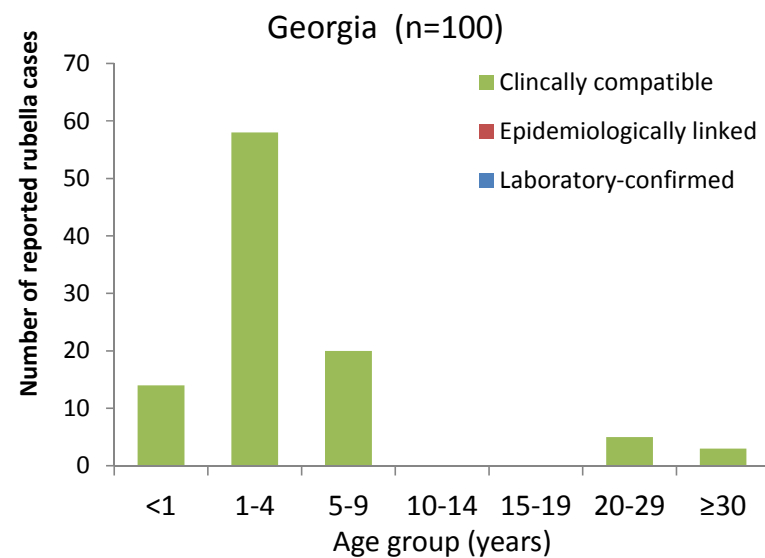
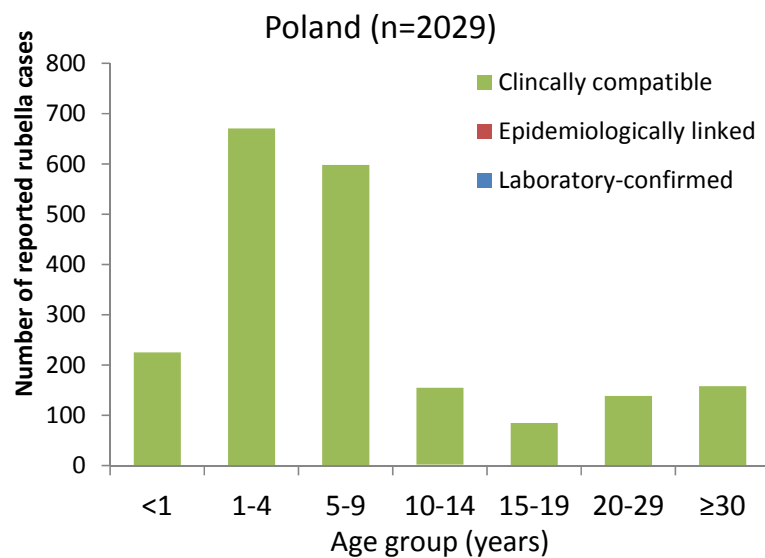
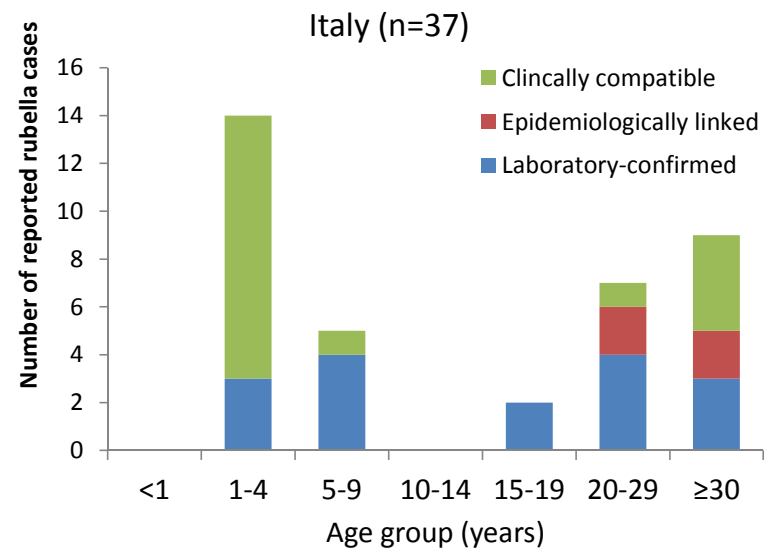
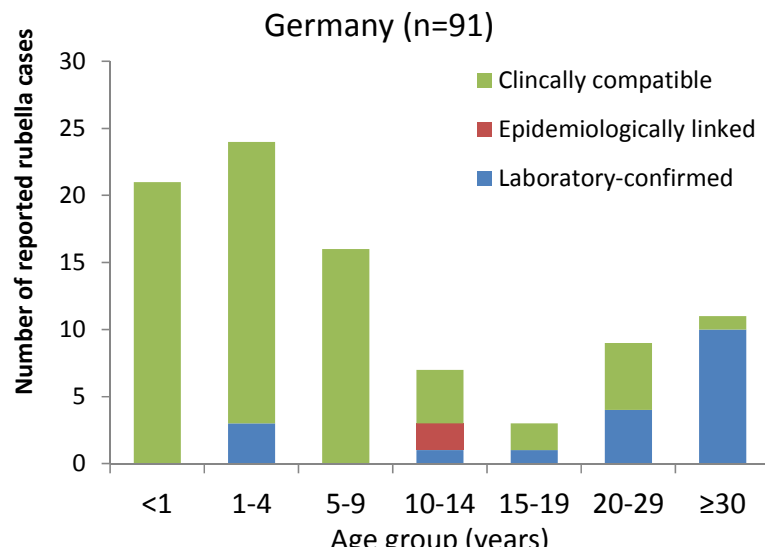


21 countries reported zero cases

Monthly distribution of rubella cases, WHO European Region, 2015

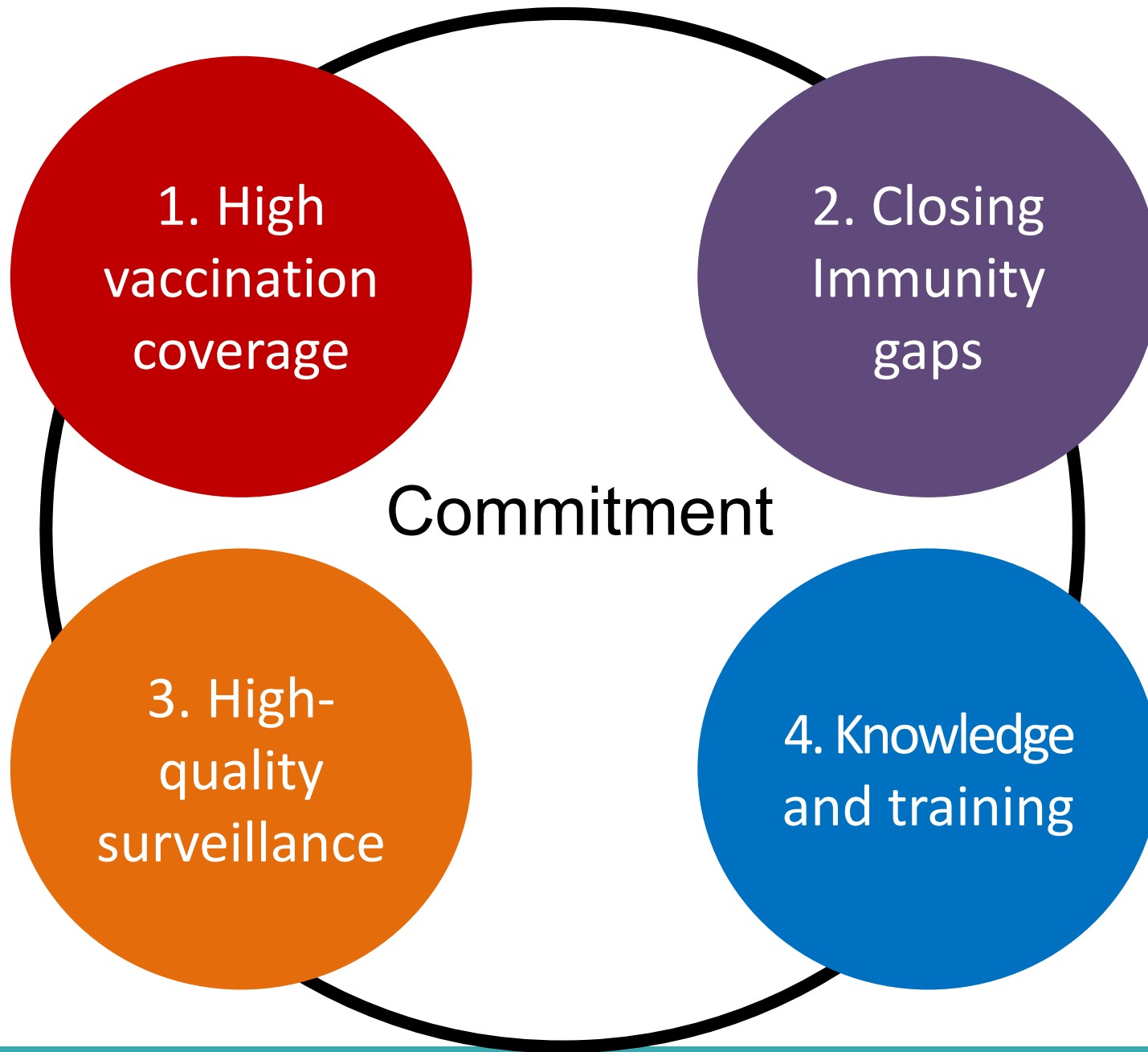


Diagnosis classification of reported rubella cases in top four countries, 2015



the challenges





Challenge 1

Reaching and maintaining high vaccination coverage

Delayed vaccination

Vaccine hesitants

Lost to follow up

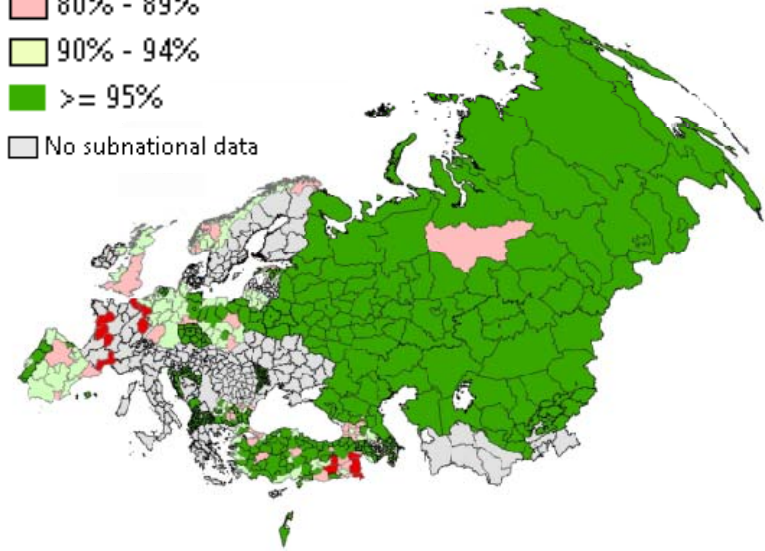
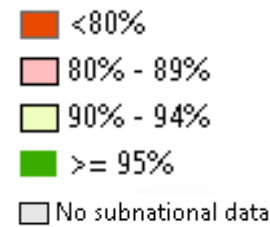
Vaccine refusals

Distrust in vaccines

Previously not targeted for vaccination

Distrust in health authorities

Lack of access



Addressing the challenge

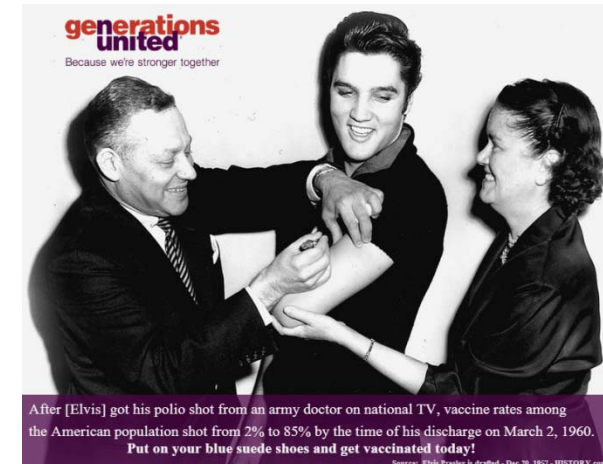
Reaching and maintaining high vaccination coverage

Strengthen immunization programmes

Electronic vaccination registry

Reminder and recall systems

Champions and experts as advocates



Challenge 2

Closing immunity gaps

Susceptible adults

Unvaccinated adolescents

Susceptible health care workers

Low coverage communities



Addressing the challenge

Closing immunity gaps

Supplementary immunization activities

Tailoring Immunization Programmes

Pre-school entry policies

Health care workers policies

Opportunity vaccination

Pre-travel vaccination


Personal Immunization Record
Fiche d'immunisation

Name/Nom _____

yyyy/aaaa m/m -dd/jj
Date of Birth/Date de naissance _____

Ontario Health Card Number
Numéro de carte Santé de l'Ontario _____

This is a permanent record. Please keep in a safe place.
Fiche d'immunisation permanente à conserver en lieu sûr.

 Ontario



Challenge 3

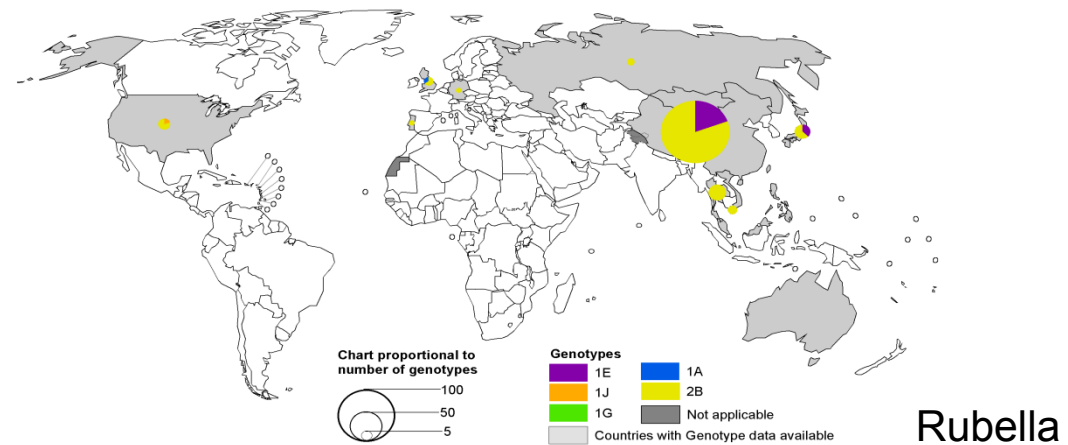
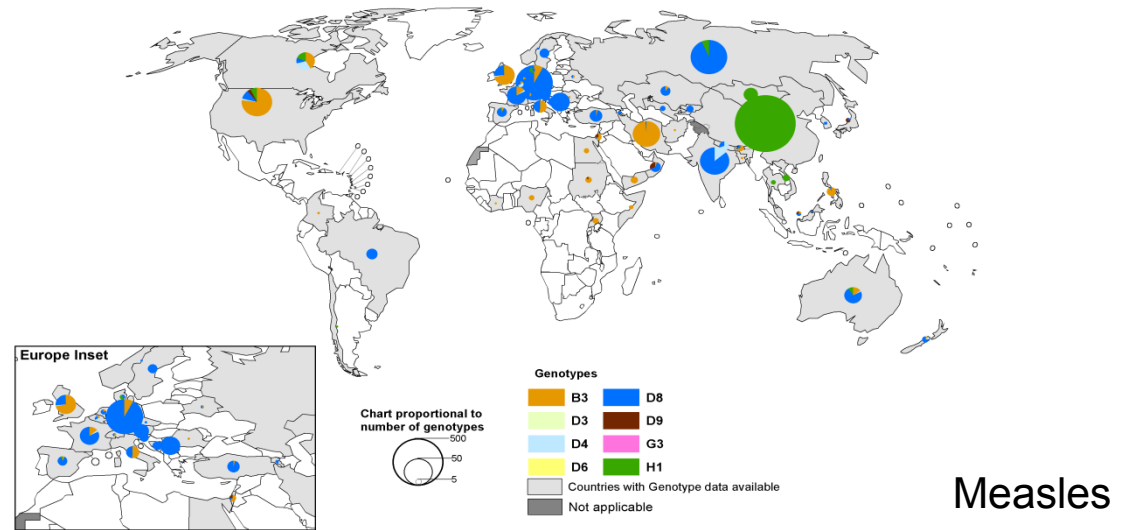
Performing high-quality surveillance

Inadequate reporting of suspected cases

Sub-optimal laboratory testing rate

Insufficient genotyping and sequencing

Lack of national operating procedures for epidemiological and laboratory investigations



Addressing the challenge

Performing high-quality surveillance

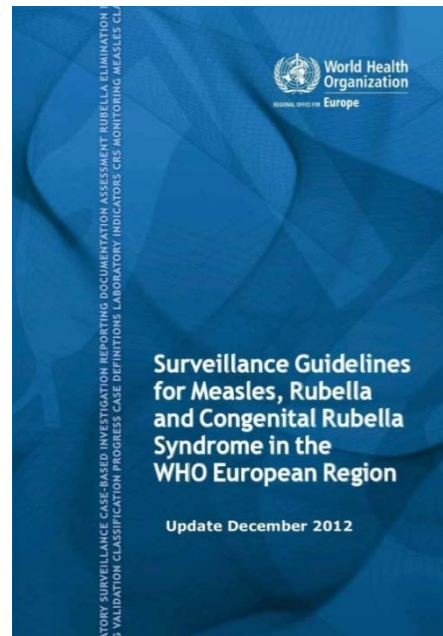
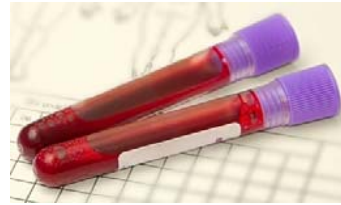
Reporting of suspected cases

Epidemiological investigation

Laboratory confirmation

Genotyping and sequencing

Establishing national operating procedures for epidemiological and laboratory investigation



Challenge 4

Knowledge and training

Widespread misinformation and myths

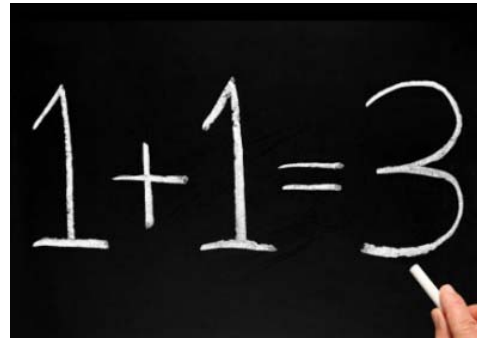
Lack of education and training on vaccines in medical curricula

False contraindications

Lack of information

Lack of personal knowledge and disease awareness

Sophistication of anti-vaccine lobbying and media skills



vaccine side-effects are worse than the actual disease

MYTH

The MMR vaccine causes childhood disorders, including autism

MYTH

Addressing the challenge

Knowledge and training

Web-based information on diseases and benefits of vaccines

Medical curricula

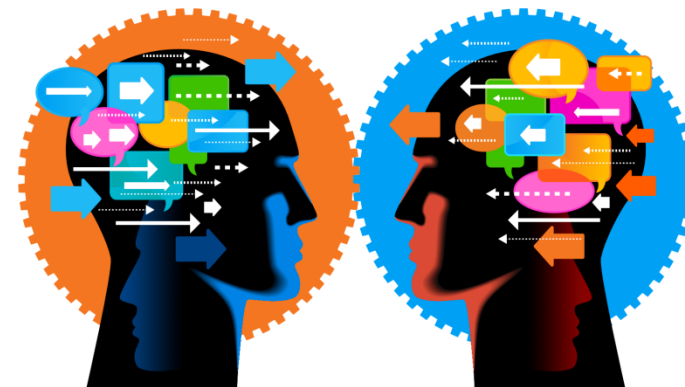
Continued medical education

Training in communication

School-based learning

Health care workers to promote vaccines

Champions and experts as advocates



Resource mobilization and partnerships



International pediatric association
 association internationale de pédiatrie
 asociación internacional de pediatría

One Shot, One Life: LCIF and Lions' Work to Stop Measles

MEASLES is caused by a virus and is highly contagious

9 of 10 unvaccinated people exposed to measles will become infected

Measles killed **14 people every hour** in 2012

Small children and some adults are at risk for severe complications including blindness and death

Lions are working to **STOP MEASLES** by supporting vaccination campaigns and routine immunization

Alongside our partners, we supported the vaccination of more than **200 million children** in 2012-2013

Vaccines prevent between **2 and 3 MILLION** deaths each year

For about **US\$1**, a safe and effective measles vaccination can help prevent this disease

Lions Clubs International Foundation will raise **US\$30 million** by 2017 for measles

Visit www.lcif.org/measles to learn more and make a donation to the One Shot, One Life: Lions Measles Initiative.

Eliminating measles and rubella saves lives and suffering



MEASLES

is a highly contagious and serious disease

Measles is **BOUNCING BACK** in the WHO European Region

2014: 15995 cases

2007: 7073 cases

DID YOU KNOW...

- Measles-containing vaccines are **safe and effective**. They undergo rigorous testing and have a very good safety record after 50 years of use.
- 1 IN 5 CASES** will develop complications such as ear infection, pneumonia, permanent deafness, encephalitis or even death.
- Measles is **6 TIMES** more infectious than flu.
- Children under age 5 and adults over age 20 are at most risk of serious complications.

Two doses of measles-containing vaccines provide nearly **100% protection** against measles.

YOU CAN STOP MEASLES

Protect yourself and many others by making sure you and your family are **fully vaccinated**

10 YEAR ANNIVERSARY European Immunization Week

Do your part to #immunizeEurope! #immunizeEurope #EW2015

<http://ew.euro.who.int>

Date as of February 2015

Free Europe from MEASLES AND RUBELLA

Approximate number of cases in the WHO European Region in 2013

measles: 31 000

rubella: 38 000

What can health care workers do?

Recommend vaccination

Patients follow their health care providers' advice. Health care workers who strongly recommend vaccination can overcome negative patient attitudes and double the rate of acceptance among hesitant patients.

Use every opportunity

Nine out of ten children needing a dose of measles-containing vaccine will not be vaccinated when they visit a medical facility for another reason.

www.euro.who.int/measles

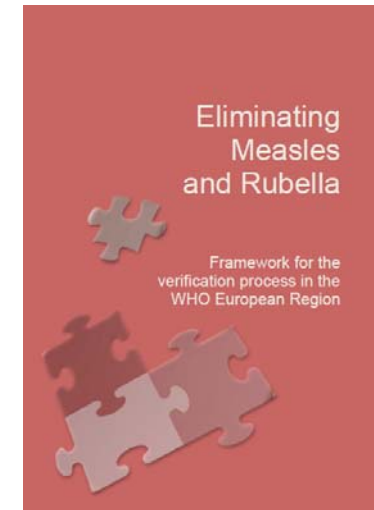
Verification of Measles and Rubella elimination

- Regional Verification Commission (RVC) established in 2012
- 4th RVC meeting, November 2015
- Evaluation of country Annual Status Updates and feedback to countries
- Meetings with National Verification Committees
- Modifications to verification process
- Updating of annual reporting form
- Messaging and communication

Status of Measles and Rubella Elimination

Update for the year 2013

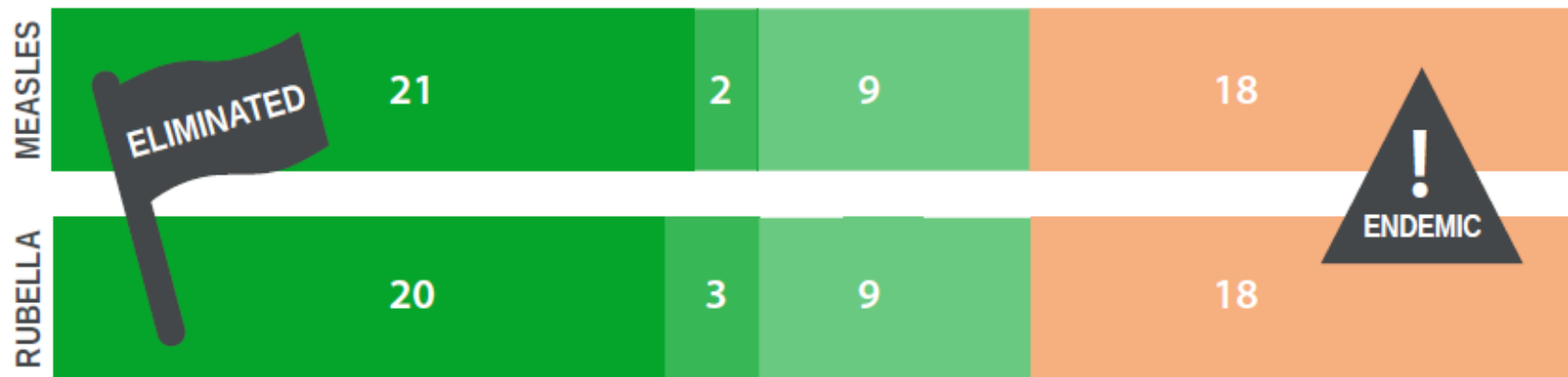
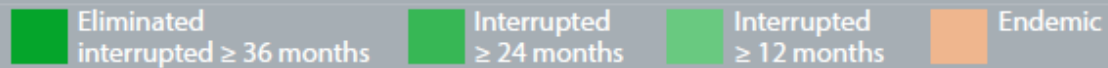
COUNTRY NAME



MEASLES AND RUBELLA

Europe is closer than ever to elimination

Number of countries
and their status*

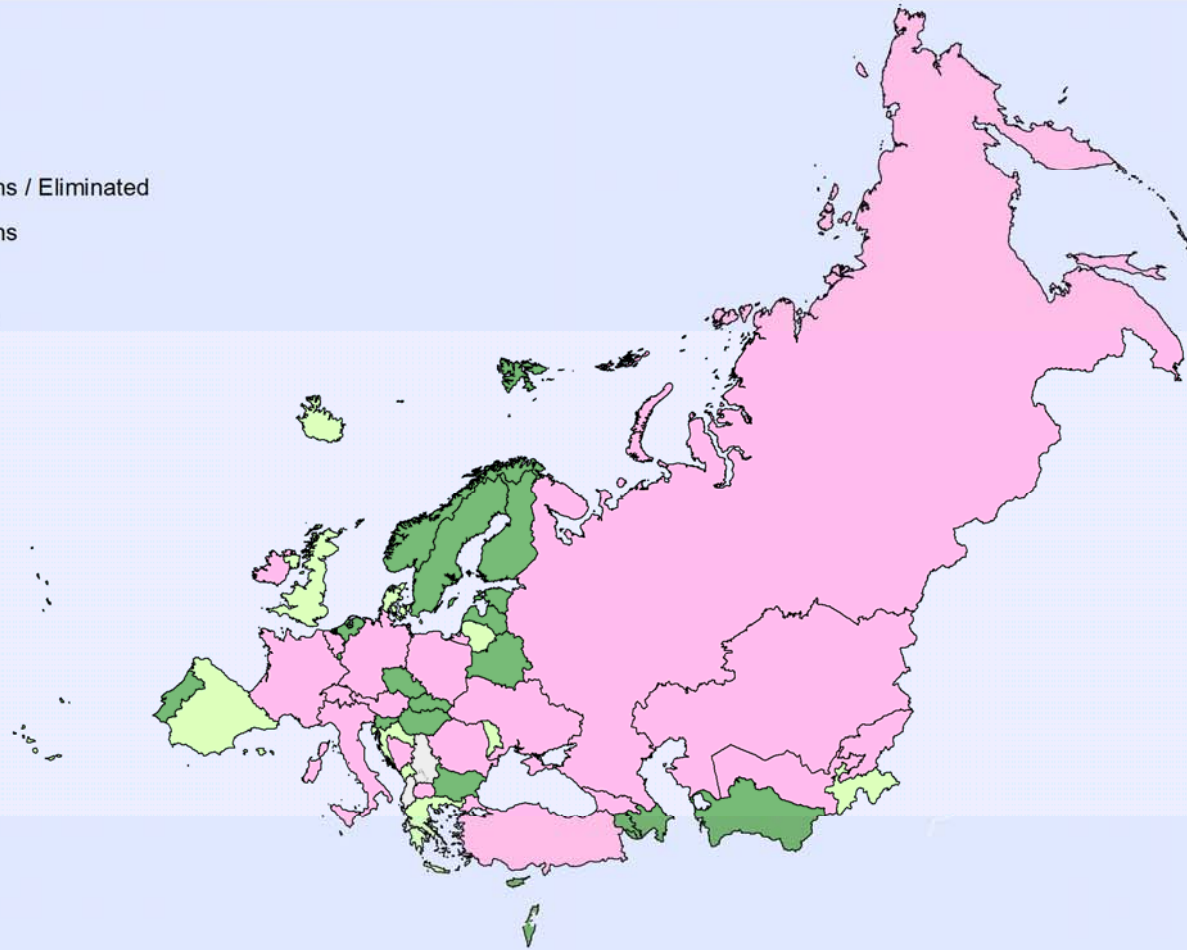


* Conclusions of the 4th Meeting of the European Regional Verification Commission for measles and rubella elimination, October 2015. Three countries have not yet started the verification process.

Measles Elimination Status 2012-2014

Status

- Interrupted - 36 months / Eliminated
- Interrupted - 12 months
- Endemic
- Follow-up / No report



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 and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Source: 4th meeting of the European Regional Verification Commission for Measles and Rubella Elimination (RVC), Measles and Rubella country updates for 2012, 2013, 2014.
Map Production: Vaccine-Preventable Diseases and Immunization (VPI), World Health Organization Regional Office for Europe.



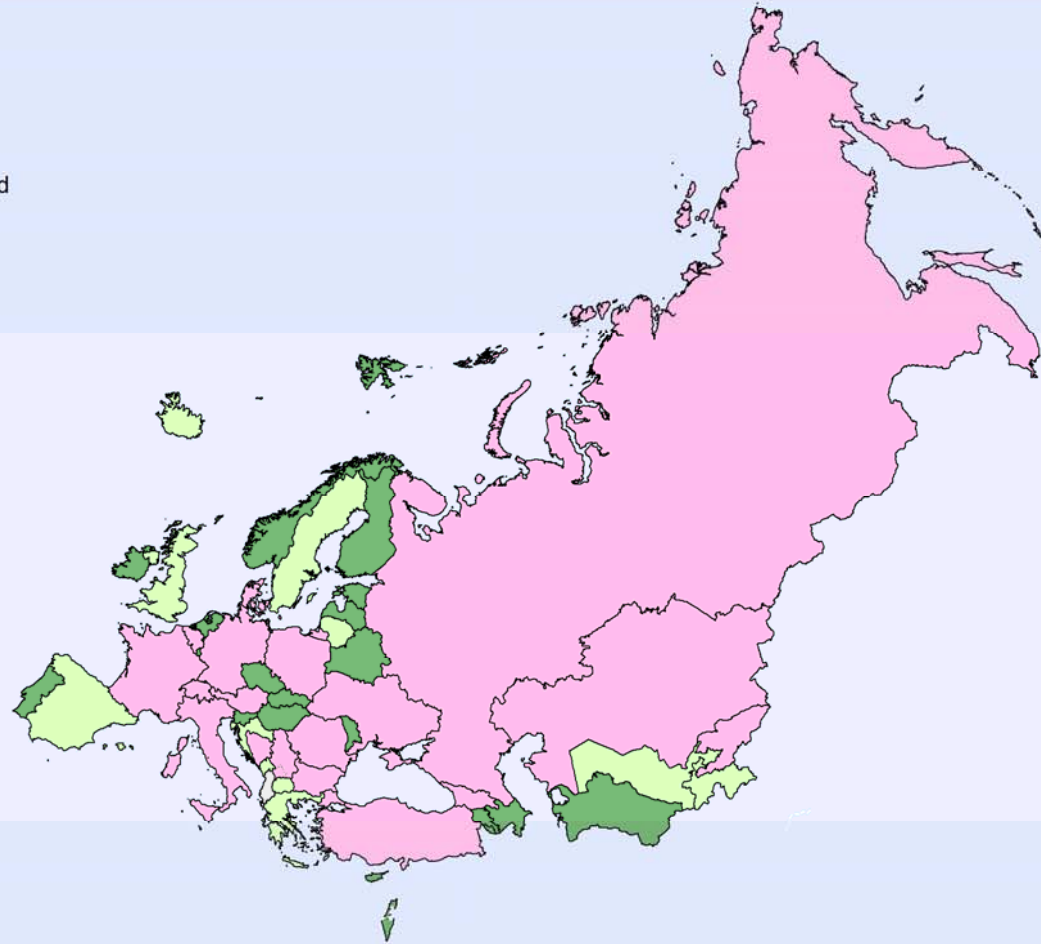
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Rubella Elimination Status 2012-2014

Status

- Interrupted - 36 months / Eliminated
- Interrupted - 12 months
- Endemic
- Follow-up / No report



Latest data available

0 1,150 2,300 4,600 km

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Map Production: Vaccine-Preventable Diseases and Immunization (VPI), World Health Organization Regional Office for Europe.



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Summary

- Progress has been made toward eliminating measles and rubella
- WHO European region “off track” for 2015 goal
- More action needed:
 - Commitment
 - Maintaining high vaccination coverage
 - Closing immunity gaps
 - High-quality surveillance
 - Fostering partnerships

Acknowledgements

Colleagues at Vaccine-preventable Diseases and Immunization Unit

- Myriam Ben Mamou
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- Theodoros Kaloumenos
- Patrick O'Connor
- Simarjit Singh