Rubella and congenital rubella syndrome (CRS) overview

WHO Regional Office for Europe

Progress Toward Rubella Elimination and CRS Prevention in Europe
February 8-10, 2012; Rome, Italy

Dragan Jankovic
Vaccine Preventable Diseases & Immunization
Division of Communicable Diseases, Health Security & Environment
WHO Regional Office for Europe
Copenhagen, Denmark
Measles and rubella goals in the European Region of the World Health Organization

- **Historical goals**
  - *Elimination of measles and reduction in the incidence of CRS to <0.01 per 1000 live births by 2010* (endorsed in 1998)
  - *Elimination of measles and rubella and prevention of congenital rubella infection by 2010* (endorsed in 2005)

- **Current goal**
  - *Elimination of measles and rubella and prevention of congenital rubella syndrome (CRS) by 2015* (endorsed in 2010)
Priorities for reaching measles and rubella elimination by 2015 in the European Region

- Strengthening **national immunisation programmes**
- Strengthening national **VPD surveillance systems**, including laboratory networks
- Increasing **demand for immunization**
- Sustaining **polio-free status** since 2002
Key strategies for measles and rubella elimination in the European Region

1. Ensure *high coverage (>95%)* with 2 doses of measles vaccine and 1 dose* of rubella vaccine
2. Provide *second opportunity* for immunization
3. Strengthen *surveillance*
4. Improve *information* of benefits and risks of immunization
Great progress made towards regional goal

National immunization coverage levels are overall high across the Region (95% with MCV1 in 2010)
- Pockets of low coverage (<95%)
- No or late vaccinations (especially 2nd dose)
- Susceptible adolescents and adults

Measles and rubella disease incidence is variable

Increasing momentum of vaccine refusals

Marginalized and vulnerable groups require tailored approaches
Rubella and rubella vaccine, Background information

- Introduction of vaccine against rubella in European Region initiated in 1970’s,
- Diversity of strategies and schedules (age cohorts, gender)
  - Only adolescent girls and WCBA
  - Wide-age campaigns
  - Introduction into routine program

<table>
<thead>
<tr>
<th>Years</th>
<th>No of countries</th>
<th>No of countries which introduced rubella vaccine in this period</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970-1974</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>1975-1979</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>1980-1984</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>1985-1989</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>1990-1994</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>1995-1999</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>2000-2004</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>2005-2009</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

Cumulative No of countries with rubella vaccine introduced
No of countries which introduced rubella vaccine in this period
Member States of the WHO/Europe by year of the rubella vaccine introduction

![Map showing the introduction of the rubella vaccine by year in various countries within Europe. The map uses different shades to indicate the year of introduction: ≤1975, ≤1985, ≤1995, ≤2005, ≤2009.](image)
Immunization coverage with MCV1 and MCV2, WHO/Europe, 2010

- No data
- <80%
- 80-89.99%
- 90-94.99%
- ≥95%

**MCV1**

**MCV2**

- No data for 2nd dose
- Suboptimal national and subnational coverage
Estimated 30 million immunized against rubella in supplemental immunization activities 2000-2010
Measles and Rubella cases, MCV1 Coverage and SIA in 1990-2011

Data Source: WHO/UNICEF Joint Reporting Form and monthly MR Reporting to CISID

Data as of Dec 2011

- SIA in selected countries
  - Rubella
  - Measles
  - MCV Coverage
  - DTP3 Coverage
Rubella cases reported by year, WHO/Europe and globally, 1999-2010
Rubella incidence 2010 and outbreaks 2008-2011 in the WHO European Region

- Austria
- Bosnia and Herzegovina
- Italy
- Kazakhstan
- Kyrgyzstan
- Malta
- Poland
- Romania
- Russian Federation
- Ukraine

Rubella outbreaks (2008-2011)

Source: WHO/UNICEF JRF 2010
25 Member States reported 737 clinical/suspected cases
Of these, 17 MS with 213 laboratory confirmed cases
Rubella cases by age and gender, WHO/Europe 2011

- Age in years: <1, 1-4, 5-9, 10-14, 15-19, 20-29, 30+
- Number of cases: M (316; 56%), F (247; 44%)
2010 - 2 CRS cases reported (Russian Federation and Poland)

In period 1990-2010

- 467 CRS cases reported from 24 Member States
- Russian Federation, Italy, France, Romania, United Kingdom, Germany, Greece, Poland
WHO European Regional Office
ongoing activities

Leadership and strategic direction

– Health 2020
– Measles and Rubella Strategic Plan 2012-2015 and elimination action plan
– Framework for verification of elimination process
– Assure commitment and eliminate gaps in resources

Technical support, advocacy and operational research

– European Technical Advisory Group of Experts on Immunization, Regional Verification Commission for MR Elimination, European Region Communication Working Group
– Guidelines and manuals; best practices
Partnerships and coordination

– ECDC
– Professional societies (reaching health care providers and population)

Global measles and rubella agenda of the World Health Organization and partners (ARC, UNF, UNICEF, GAVI, US CDC, ...)

– Based on global achievements by 2015 - decision on measles eradication
- Progress has been made
- Commitment = the cornerstone for the elimination
- To achieve the elimination - implement, achieve and maintain:
  - High routine immunization coverage
  - Immunization for susceptible - children, adolescents, adults and WCBA (especially for rubella)
  - Case-based surveillance
  - Evidence based information regarding benefits and risk of vaccine available and distributed