The impact of vaccines on public health and the role of ECDC

Marc Sprenger, Director ECDC
ESCMID conference, Prague, 1 April 2011
The success of vaccination programmes
Reported measles cases in the EU/EEA, 2005/2010

Source: EUVAC.NET
Sub-optimal vaccination coverage (especially in pockets)

**Figure 1**: Vaccination coverage for one dose Measles, Mumps and Rubella vaccine, average over the period 2005–2009

Only 17 out of 29 EU/EEA countries reached 95% MMR1 coverage over the last years.

Source: CISID
Sub-optimal vaccination coverage (especially in pockets)

Figure 2: Vaccination coverage for two doses Measles, Mumps and Rubella vaccine, average over the period 2005–2009

Only 15 out of 29 EU/EEA countries reached 90% MMR2 coverage over the last years.

![Map of EU/EEA countries showing vaccination coverage](image_url)

- **≥ 90% MMR2**
- **80–90% MMR2**
- **< 80% MMR2**
- **Not included or not reporting**
Size is not all that matters

The issue of geographical clustering and why disaggregating data is important.
Seasonal influenza vaccine uptake in the EU; >64 years old, season 2007/08

2010 EU target

Source: VENICE Project, available from: venice.cineca.org

* Data from other Member States not available.
Seasonal influenza vaccine uptake in the EU; at-risk population, season 2007/08

Source: VENICE Project, available from: venice.cineca.org

* Data from other Member States not available.
Measles outbreak in Bulgaria 2010

24000 cases (about 90% Roma), 21000 hospitalised, 25 deaths.
Challenges ahead: Reaching the under-vaccinated populations
Hard-to-reach groups

- Community involvement
- Involvement of community leaders
- Culturally sensitive approach
- Support of national health institutes

Photo: Zingaro, via http://www.flickr.com/people/30208099@N00/
Adolescents

Photo: http://www.flickr.com/photos/restlessglobetrotter/
Medical doctors and healthcare workers

Popular myths:
• 'Doctors don't get sick.'
• 'I can always treat myself.'
Seasonal influenza vaccine uptake in the EU; healthcare workers, season 2007/08

Source: VENICE Project, available from: venice.cineca.org

* Data from other Member States not available.
Anti-vaccination groups

Political, philosophical, religious or ideological reasons

Rudolf Steiner, 1861–1925: "In Steiner schools we do not recommend vaccination."
Measles is not a harmless disease. On the contrary: Infection of infants, in particular, can have dramatic consequences.
And this occurred in precisely the year the World Health Organisation (WHO) had intended to declare the elimination of measles in Europe!
Challenges ahead:
Linking microbiology and epidemiology
Linking microbiology and epidemiology

EUPHEM
EU Presidency meeting in Budapest: Conclusions from the Childhood Immunisation Conference in March 2011
1. Successes and challenges of childhood immunisation in the EU

- European immunisation programs are a success in communicable disease control.
- But, there are barriers to universal coverage.
2. Cross-border issues in childhood immunisation

- Ensuring equitable access to vaccination is crucial and reaching migrant populations within the EU is particularly challenging.

- Health service providers need better access to information on the different vaccines and national schedules.
3. Monitoring of vaccination coverage

• Assessing the risk of outbreaks in Europe requires reliable and timely availability of vaccination coverage data at sub-national, national and EU levels.

• Data for action is paramount.
4. Special efforts to improve immunisation in general and in underserved population groups

• It is important to identify and address population groups at increased risk of vaccine-preventable diseases, with particular emphasis on the Roma populations.

• Vaccines scares negatively impact on vaccine uptake.
What can ECDC do?
What is ECDC committed to do?

• Continuously monitor diseases.
• Provide sound and clear information to the decision makers.
• Provide evidence based information to the healthcare professionals.
• Provide convincing and transparent information to the public.
• Help EU Member States to reach the under-vaccinated populations
• Help EU Member States improve the impact of vaccination programmes in a joint effort and across borders
Vaccination certificates

EU pet passport

Photo via http://www.flickr.com/photos/9541469@N05/
What can we do together?

• ESCMID: Promote dialogue between microbiologists and epidemiologist

• Establish link between sophisticated microbiological diagnostics and public health surveillance is paramount

• ESCMID: play an active advocacy role and contribute to spread confidence and trust in vaccination
Helping Europe and its Member States to save lives