Priorities of pediatric immunization in **C**entral **E**astern **E**uropean countries



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CEVAG

A voluntary association of private individuals and legal entities to promote the efficient and safe use of vaccines to prevent, control, and if possible, eradicate infectious diaseses



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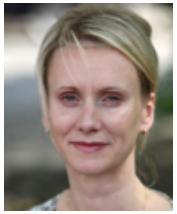
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CEE countries: similarities and distinctions

- Shared past history
  - the *so called* „socialist block" or „*post-soviet"* countries
  - each country has well established public health system
  - basically the National Immunization Programs /NIPs are
    - budget financed
    - exemptions are only allowed on medical ground
- Differ in
  - economical strength/wealth, population size – birth cohort
  - the structure of child care
    - pediatrician in primary care/GP system/mixed
    - organization of vaccine delivery
    - implementation of newer vaccines

The National Immunization Programs/NIPs in CEE

- **Each country traditionally has a well orgainzed NIP**
  - **basic schedule financed from budget, free for the families**
- Minor differences in basic schedules
  - BCG – birth dose
    - to all babies in Bulgaria, Estonia, Hungary, Lithuania, Latvia….
    - to high risk in Czech Republic and Slovakia,
  - DaPT-IPV-Hib
    - 2,3,4 and 18 mo; 3,4,5 and 24 mo; 2,4,6 and 12-15 mo….
  - DaPT-IPV-Hib ± HBV for infants
    - HBsAg+ mothers babies + adolescents
  - Timing of the two MMR doses
    - First dose 12-15 mo, second 6y-12y
  - PCV 13
    - in all except Bulgaria and Croatia(PCV10)

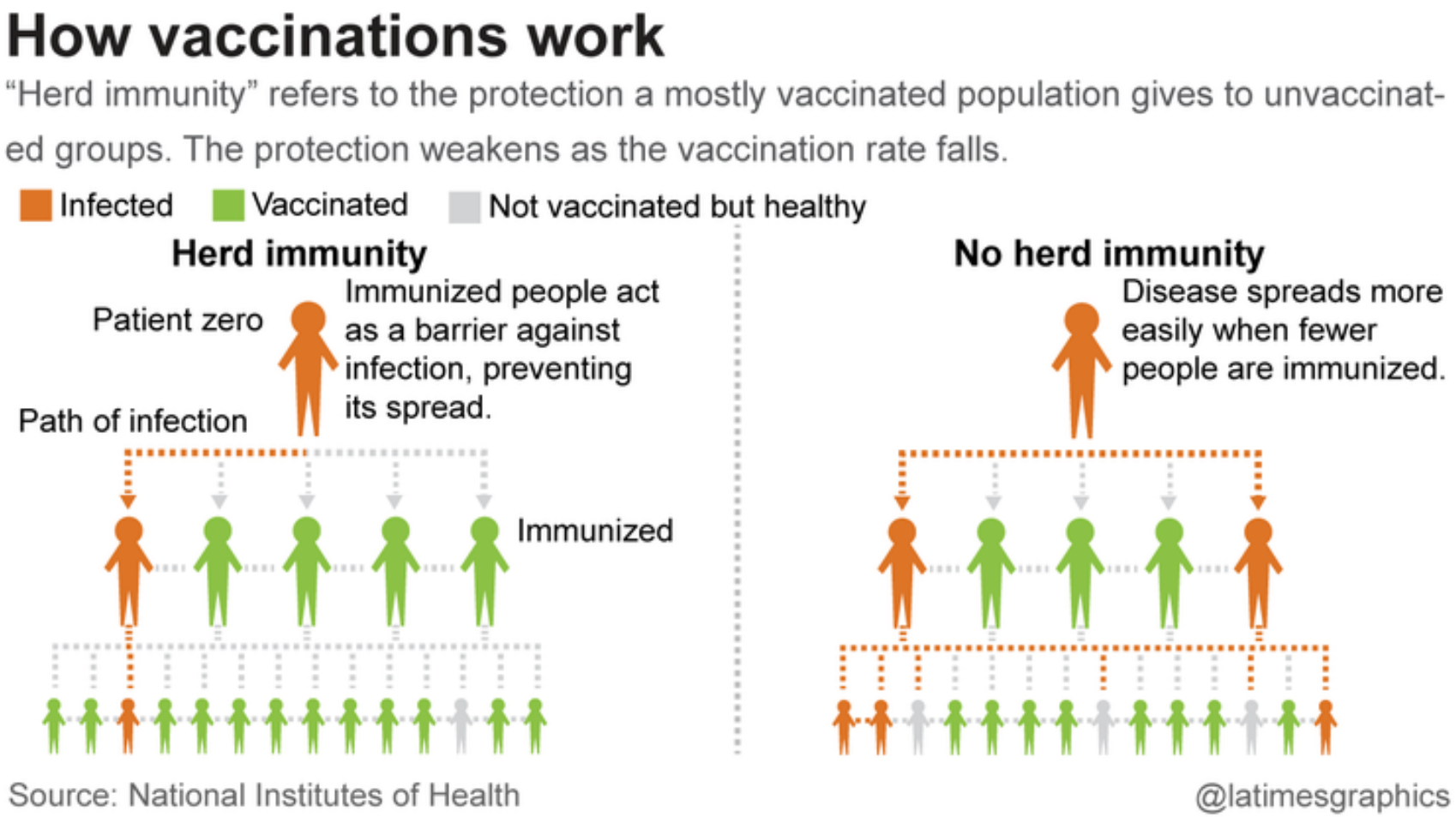
Immunization priorities in CEE countries I.

- **Achive and maintain high vaccination coverage**
  - some countries have obligatory schedules and recommended vaccines on private market
  - some countries have partially voluntary system
  - an obligatory system triggers „antivax” communications in social media – a great **communication challenge** in all CEE countries

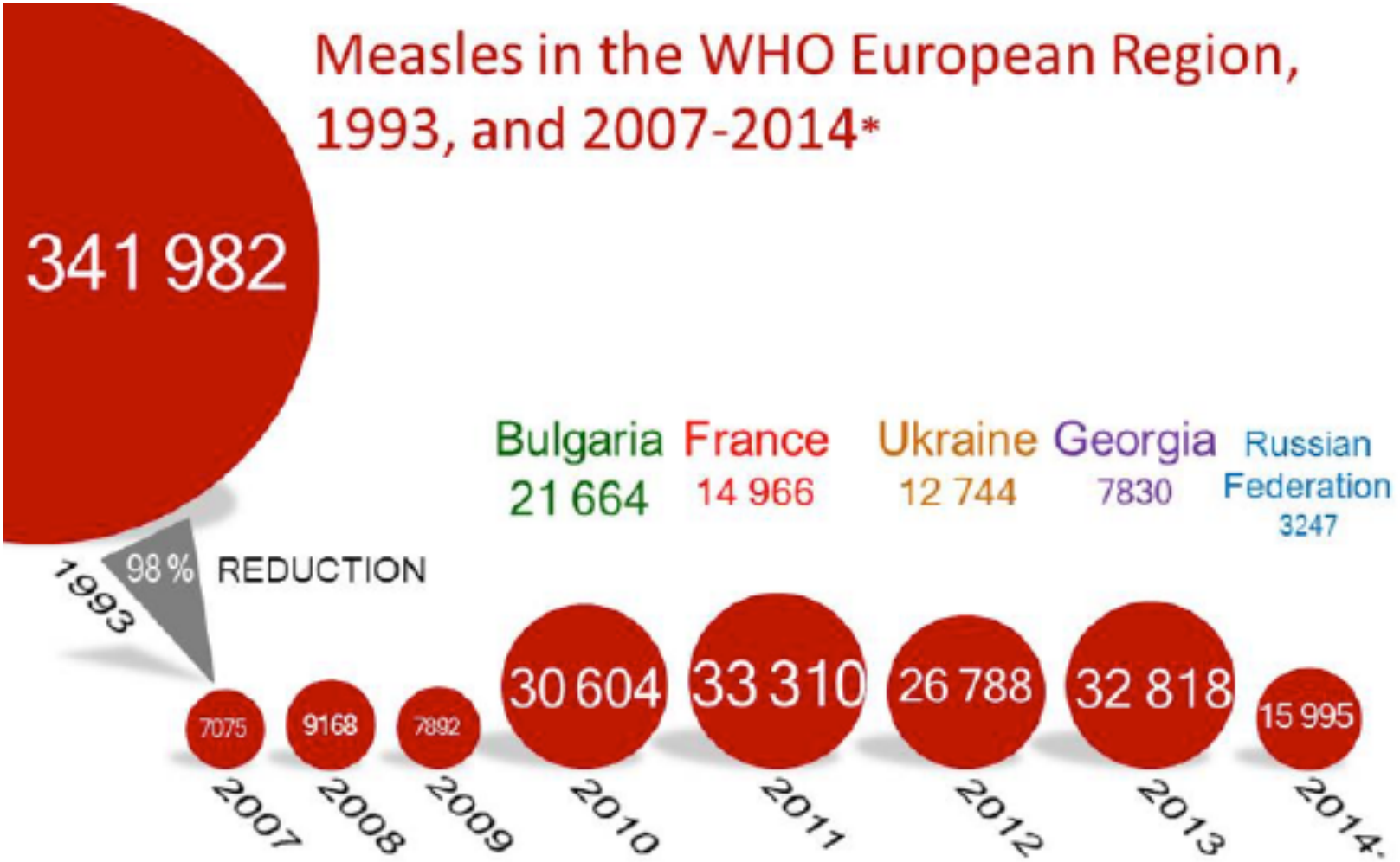


https://spitfiregals.wordpress.com/2013/07/17/jenny-mccarthy-and-the-anti-vaccine-movement-pseudoscience-at-its-worst/

By high vaccine coverage the goal is to achieve and maintain **HERD PROTECTION**

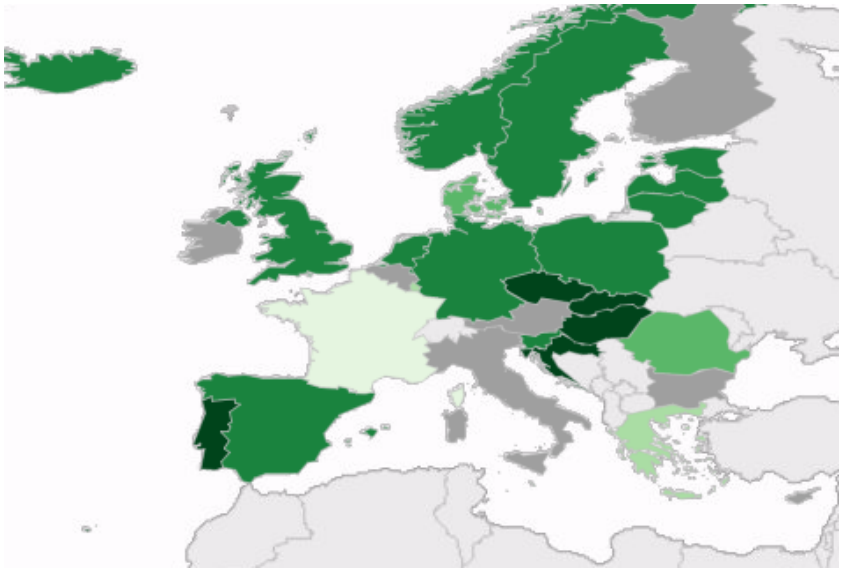


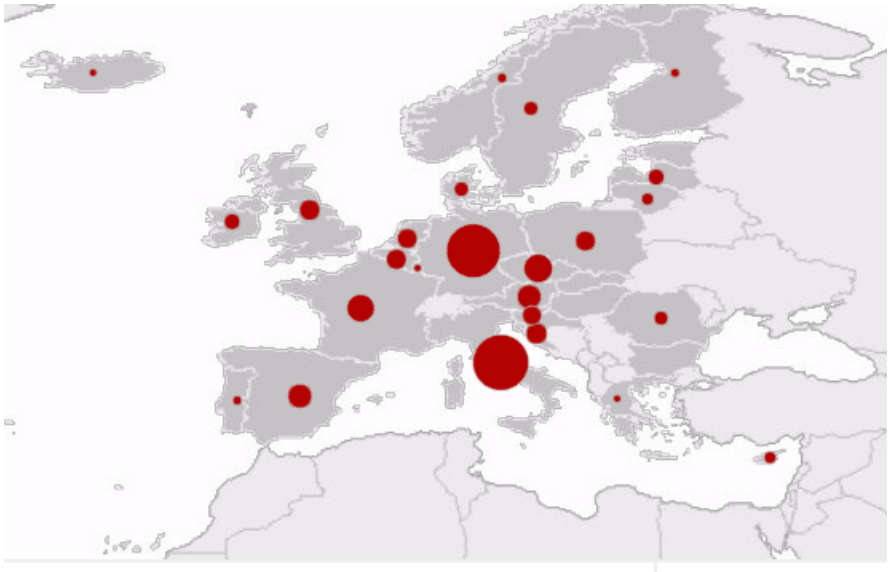
Measles in the WHO European Region, 1993, and 2007-2014*



*Provisional data for 2014

The higher the vaccine **coverage**, the lower the **case Nos**





atlas.ecdc.europa.eu/public/index.aspx?Header=None&Navigation

Measles - All cases - Reported cases previous 12 months
Data by Country and Month. Current time period: 2015-02

Immunization priorities in CEE countries II.

- **Maintain surveillance of vaccine preventable infections**
  - reports to ECDC-EU – voluntary/obligatory
  - case definitions may differ or change with time
    - e.g.pertussis
  - laboratory confirmed, clinical based cases
  - heterogenity of reporting and surveillance systems
    - passive *vs* active
  - data collection – aggregated
  - comparison can be problematic
  - time comsuming process – reports completed are available min. 1-2 years retrospectively

Immunization priorities in CEE countries II.

- **Monitoring of Adverse Events – safety**
  - **Each country has a reporting system**

EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

VAESCO

http://vaesco.net/vaesco.html

Vaccine Adverse Event Surveillance & Communication (VAESCO)

Immunization priorities in CEE countries III.

- **Implementation of newer vaccines**
  - according to countries epidemiology
  - WHO and ECDC recommendations
  - co-payment variations
    - PCV10 vs.PCV13 – e.g. Czech Republic, Slovakia, Poland
- **„what is possible is not always feasible”**
  - financially – no budget coverage as to menACYW-135, VZV, rota, HPV, menB
  - lack of public acceptance – e.g. HPV Romania
  - administration hurdle: e.g. VZV vaccines in Slovenia and Bulgaria not yet registered

The National Immunization Programs/NIPs in CEE

- **Implementation of newer vaccines**
  - Rota
    - fully reimbursed – Estonia, Latvia
    - recommended but not yet funded - Czech Republic, Poland
  - HPV-2/HPV-4
    - voluntary, in school program, girls, reimbursed
      - fully in Bulgaria, Croatia, Hungary, Romania, Slovenia
      - partially in Czech Republic, Slovakia,
  - VZV
    - Czech Republic, Latvia
  - Meningococcus
    - Recommended in Czech Republic, Poland
  - TBE
    - Latvia

NIP – Hungary 2015*

- [x] General recommendation
- [x] Recommendation for specific groups only
- [x] Catch-up (e.g. if previous dosed missed)
- [ ] Vaccination recommended but not funded by the National Health system

	Birth	Months						Years				
		2	3	4	12	15	18	6	11	12	13	≥ 60
tuberculosis	BCG											
diphtheria		D	D	D			D	D	d			
tetanus		TT	TT	TT			TT	TT	TT			
pertussis		acP	acP	acP			acP	acP	acp			
poliomyelitis		IPV	IPV	IPV			IPV	IPV				
Haemophilus influenzae type b infection		Hib	Hib	Hib			Hib					
hepatitis B	HepB[1]										HepB	
pneumococcal disease		PCV13[2]		PCV13[2]	PCV13[2]							PPSV23
measles						MEAS			MEAS			
mumps						MUMPS			MUMPS			
rubella						RUBE			RUBE			
human papillomavirus infection										HPV2[3]		
influenza												TIV

Schedule version date: 08.01.2015: HPV vaccination introduction

Footnotes

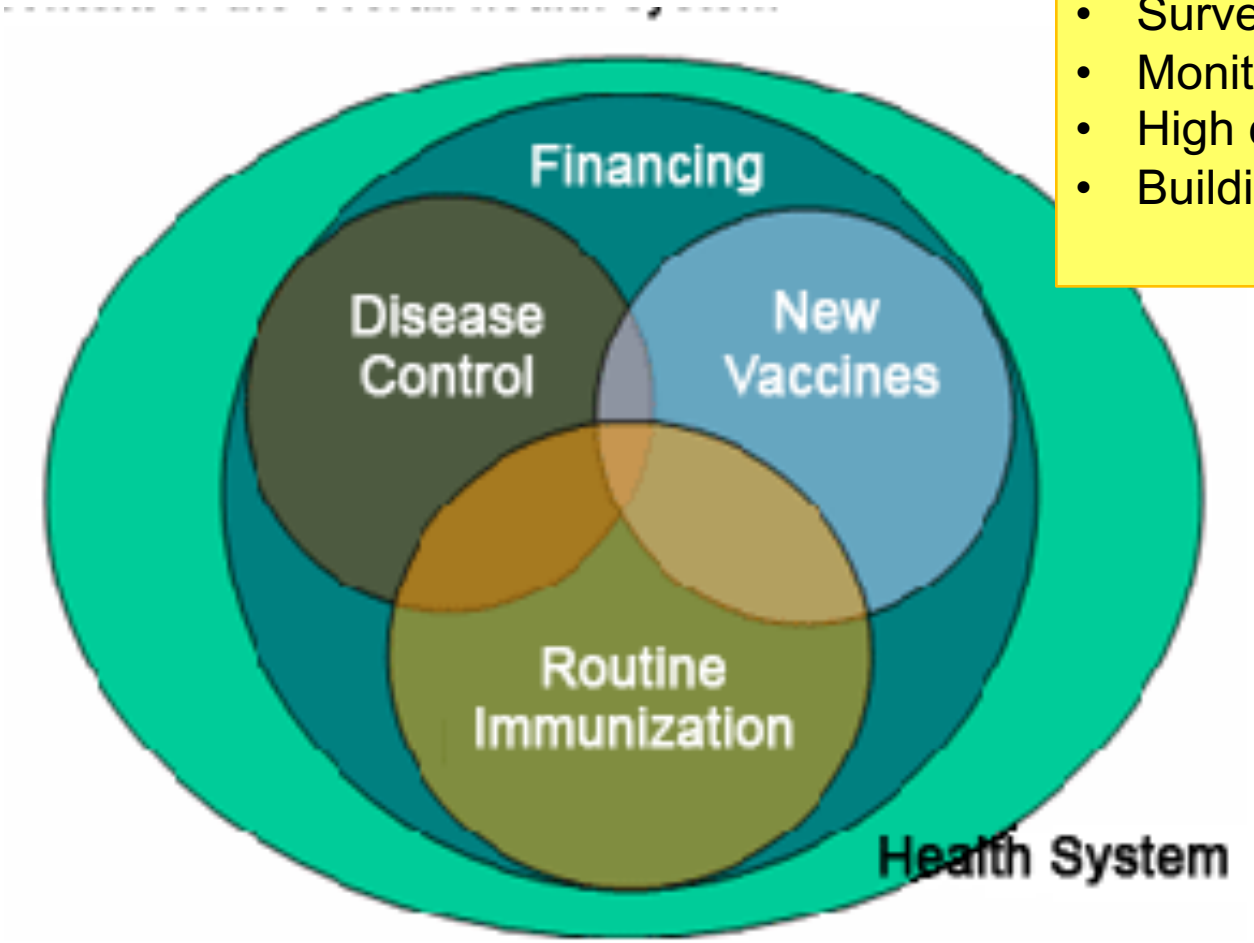
1: Babies born to a mother infected with hepatitis B or unknown immune status will be offered a first vaccine dose within 12 hours after birth and simultaneously with HB immunoglobulin in case of HbsAg positive mother. Following vaccine doses are given 1 month later and the third dose, 6 months after first dose.

2: mandatory for those born from 30.06.2014 (schedule 2, 4, 12 months)

3: school-based vaccination campaign. 7th grade girls

*http://vaccine-schedule.ecdc.europa.eu/Pages/Scheduler.aspx

Guiding principle: strengthen immunization within the context of the overall health system



- Equal access
- Surveillance
- Monitoring of Aes/safety
- High coverage
- Building of public trust in vaccines

Thank You for your attention!!



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