



# **HBV vaccination policies and recommendations in healthcare workers in Europe**

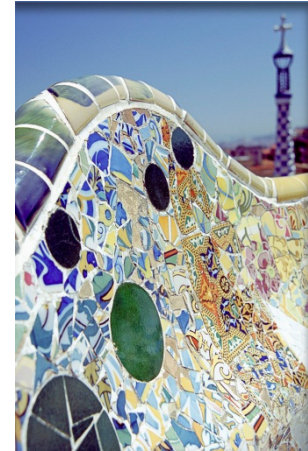
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on behalf of VENICE Consortium

Barcellona, 15 Novembre 2012

# The vaccine strategies in Europe

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- A “mosaic”
  - Schedules
  - Targets
  - Changes of strategies
  - Monitoring
  - Vaccine coverage
- Need to compare data, experiences
- Need to understand weakness and strengthens of different strategies
- Need to achieve adequate level of monitoring of the use of vaccination



# VENICE network



The VENICE (**V**accine **E**uropean **N**ew **I**ntegrated **C**ollaboration **E**ffort) project aims to collect, share and disseminate knowledge and best practice in field of vaccination through a network of European experts

- **VENICE I:** 2006- 2008, commissioned and funded by DG-SANCO
- **VENICE II:** since Dec 2008, commissioned and funded by ECDC

## ***Coordinator***

Istituto Superiore di Sanità (ISS) – CNESPS

## ***VENICE II Consortium Members***

HSE - Health Protection Surveillance Centre (Ireland), Istituto Superiore di Sanità (Italy), Institut de Veille sanitaire (France), PZH -National Institute of Hygiene (Poland), SSI- Statens Serum Institut (Denmark), CINECA (IT partner, Italy)

***Participating countries:*** 27 Member States + Iceland and Norway

# VENICE and VENICE II: general objectives

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- To **collect** information on the national and subnational immunization programs through a network of experts in the field of vaccination (mainly from National Public Health Institute)
- To **share** the collected information among countries to improve the overall performance of the immunization systems
- To **produce evidences, comparable data and recommendations** that can be useful for public health stakeholders
- To **promote good practice in vaccinology, priority setting and decision making**

VENICE website: <http://venice.cineca.org/index.html>

# Methodology

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- Experts in vaccinology from 27 EU MS+ 2 EEA (Norway and Iceland), mainly from the national public health institutes
- Cross sectional surveys with standardised on-line questionnaire and consensus documents
- Survey response rate: usually > 90%
- Reports validated by the same experts (for pandemic survey also by Health Security Members - Influenza Section)

# Explored topics

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- Seasonal Influenza (yearly)
- 2009 pandemic influenza
- Hepatitis B
- HPV and Rotavirus
- Tick borne encephalitis
- Varicella
- Pneumococcal infections
- Pertussis
- Immunization strategies in adults
- MMR and determinants for low coverage
- Methodology of vaccine coverage assessment in Europe
- Feasibility of vaccine coverage data collection from Member States
- Mandatory/Recommended vaccination in HCW

In the last 3 years 16 reports were produced by VENICE II of which 14 available on VENICE website

# Hepatitis B in HCW in Europe: what we know ?



- Survey VENICE 2009 on HBV in 27 countries

## Hepatitis B vaccination in Europe

November 2008 - March 2009

Occupational group	Countries		Total
	With routine immunisation program (n=20)	With selective immunisation program (n=7)	
<b>Healthcare workers (including students and trainees)</b>			
Recommended	BE,BG,CZ,CY,EE,FR,DE,HU,IE,IT,LV,LT,LU,PT,RO,SK,SI,ES,MT,PL (n=20)	DK,FI,IS,NL,NO,SE*,UK (n=7)	27
<b>Laboratory staff</b>			
Recommended	BE,BG,CY,EE,FR,DE,HU,IE,IT,LV,LT,LU,PT,RO,SK,SI,ES,MT,PL (n=19)	DK,FI,IS,NL,NO,SE*,UK (n=7)	26
Not recommended	CZ (n=1)		1



# Survey by H.C. Maltezou et al. 2011 on the main VPDs in HCW

**Table 1**  
National policies for vaccination of HCWs per vaccine and per country.

Country	Influenza	Mumps	Measles	Rubella	Varicella	Hep A	Hep B	Diphtheria	Tetanus	Pertussis	Polio	Men C	Men A,C,W135,Y	BCG
Austria	R	spR	spR	spR	spR	spR	R	spR	spR	spR	spR	nMnR	spR	nMnR
Belgium	R	R	R	R	R	nMnR	hM	R	R	R	nMnR	nMnR	nMnR	nMnR
Bulgaria	R	nMnR	nMnR	nMnR	nMnR	R	R	nMnR	nMnR	nMnR	nMnR	nMnR	nMnR	nMnR
Cyprus	R	R	R	R	nMnR	nMnR	R	R	R	nMnR	R	nMnR	nMnR	nMnR
Czech Republic	R	nMnR	nMnR	nMnR	nMnR	nMnR	R	nMnR	nMnR	nMnR	nMnR	nMnR	nMnR	nMnR
Denmark	spR	nMnR	nMnR	nMnR	nMnR	nMnR	spR	nMnR	nMnR	nMnR	nMnR	nMnR	nMnR	nMnR
Estonia	R	nMnR	nMnR	nMnR	spR	nMnR	R	nMnR	nMnR	nMnR	nMnR	nMnR	nMnR	nMnR
Finland	spR	M	M	M	spR	nMnR	spR	R	R	spR	R	nMnR	nMnR	nMnR
France	R	nMnR	spR	nMnR	spR	nMnR	spM	M	M	spR	M	nMnR	nMnR	spM
Germany	R	spR	R	spR	spR	R	R	nMnR	nMnR	R	spR	spR	spR	nMnR
Greece	R	nMnR	nMnR	nMnR	nMnR	spR	R	nMnR	nMnR	nMnR	nMnR	nMnR	nMnR	nMnR
Hungary	R	nMnR	nMnR	nMnR	spR	spR	nMnR	nMnR	nMnR	nMnR	nMnR	spR	nMnR	nMnR
Ireland	R	R	R	R	R	spR	R	spR	nMnR	nMnR	spR	nMnR	nMnR	R
Italy	R	nMnR	R	R	dHCW	spR	R	nMnR	nMnR	nMnR	nMnR	nMnR	nMnR	spM
Latvia	R	nMnR	nMnR	nMnR	nMnR	nMnR	hM	R	R	nMnR	nMnR	nMnR	nMnR	nMnR
Lithuania	R	R	R	R	R	R	R	R	R	nMnR	R	nMnR	nMnR	nMnR
Luxemburg	R	R	R	R	R	nMnR	hM	R	R	R	R	nMnR	nMnR	nMnR
Malta	R	R	R	R	spR	spR	spR	R	R	nMnR	R	nMnR	nMnR	R
Norway	R	nMnR	nMnR	spR	spR	nMnR	R	nMnR	nMnR	spR	nMnR	spR	spR	R
Poland	R	nMnR	nMnR	nMnR	nMnR	nMnR	hM	nMnR	nMnR	nMnR	nMnR	nMnR	nMnR	nMnR
Portugal	R	nMnR	nMnR	nMnR	nMnR	nMnR	R	nMnR	nMnR	nMnR	nMnR	nMnR	nMnR	nMnR
Rumania	R	nMnR	nMnR	nMnR	nMnR	nMnR	R	nMnR	nMnR	nMnR	nMnR	nMnR	nMnR	nMnR
Russia	R	nMnR	R	R	nMnR	nMnR	R	R	R	nMnR	nMnR	nMnR	nMnR	nMnR
Slovakia	R	nMnR	nMnR	nMnR	nMnR	spM	M	nMnR	nMnR	nMnR	nMnR	nMnR	nMnR	spM
Slovenia	R	nMnR	nMnR	nMnR	nMnR	nMnR	M	nMnR	nMnR	nMnR	nMnR	nMnR	nMnR	nMnR
Spain	R	R	R	R	R	nMnR	R	R	R	nMnR	nMnR	nMnR	nMnR	nMnR
Sweden	nMnR	nMnR	nMnR	nMnR	R	nMnR	R	nMnR	nMnR	nMnR	nMnR	nMnR	nMnR	dHCW
Switzerland	R	R	R	R	R	spR	R	R	R	nMnR	R	spR*	spR*	nMnR
The Netherlands	R	nMnR	nMnR	nMnR	nMnR	nMnR	hM	nMnR	nMnR	R	nMnR	nMnR	nMnR	hM
United Kingdom	spR	R	R	R	spR	nMnR	spR	R	R	R	R	nMnR	nMnR	spR

HCWs: health-care workers; M: mandatory; spM: mandatory for specific groups of HCWs or health-care settings; R: recommended; hM: mandatory to get hired; spR: recommended for specific groups of HCWs or health-care settings; nMnR: not mandatory-not recommended; dHCW: decision per HCW following risk assessment.

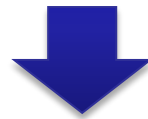
\* Microbiology laboratory HCWs should receive 1 dose of meningococcus group C conjugate vaccine followed by tetravalent meningococcal polysaccharide vaccine or conjugate vaccine when available.



# Hepatitis B in HCW in Europe: What we know ?

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- Survey VENICE 2009 on HBV
- Survey by H.C. Maltezou et al. 2011 on the main VPDs in HCW



- Survey VENICE on recommended/mandatory vaccination in HCW under request of ECDC (in progress)

# Why ECDC and VENICE decided to update the surveys

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- Different study objectives:
  - To understand more on possible implementation of “mandatory vaccination”
- Difference in HCW definition
  - Only clinicians
- A stable groups of respondents
- New situation in some countries
- Some differences between the previous results
- To solve possible problems with definition of «recommended»

## Some aggregated data (provisional)

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- 9 Mandatory
- 20 Recommended

	Count
Mandatory for all	7
Mand for spec groups	2
Recomm. to all	16
Recomm. to spec groups	4
Total	29

## Serologic testing of vaccine recipients. Hepatitis B vaccination survey in Europe, January 2009. (n=27)

Serologic testing	Countries		Total
	With routine immunisation program (n=20)	With selective immunisation program (n=7)	
<b>POST-VACCINATION SEROLOGIC TESTING</b>			
Health care workers who have contact with patients or blood			
Recommended	BE,CY,FR,DE,IE,IT,LU,PT,SI, ES,MT,HU,PL (n=13)	FI,NL,NO,SE,UK (n=5)	18
Not recommended	CZ,EE,LV,LT,SK,BG (n=6)	DK,IS (n=2)	8
Not known	RO (n=1)		1

# Payment and administration for hepatitis B vaccine.

## Hepatitis B vaccination VENICE survey in Europe, January 2009. (n=27)

Health care workers			
	With routine immunisation program (n=20)	With selective immunisation program (n=7)	With routine immunisation program (n=20)
Vaccine and administration free for all recipients	BE,CZ,CY,EE,DE,IE, IT, LV, PT, RO, SK, SI, ES, MT, FR, BG, HU, PL (n=18)	FI, NL, SE, UK, NO (n=5)	23
Vaccine and administration free for some recipients	LU (n=1)	DK (n=1)	2
Partial subsidy for vaccine and administration (below cost to recipient) for all recipients			0
Partial subsidy for vaccine and administration (below cost to recipient) for some recipients			0
Full vaccine and administration cost paid by all recipients		IS (n=1)	1
Full vaccine and administration cost paid by some recipients	LT (n=1)		1

# Payment and administration for hepatitis B vaccine.

## Hepatitis B vaccination VENICE survey in Europe, January 2009. (n=27)

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- EE, DK, LV, NO, SK, SI, BG- **paid by employer.**
- FI - Paid by the work instance, some refund - for the work -by insurance. In any case, free for the worker.
- LU - For employees' vaccine and administration paid **by employer; for liberal doctors and other health professionals, vaccine to be paid by them**, administration paid by sickness fund.
- BE - Vaccine paid by Fund for professional diseases administration is free of charge if done by occupational physician, otherwise not free of charge if done by GP.
- PT - For all recipients that have a risk to be infected (not administrative functions).
- MT - Free to those health care workers working in state hospitals and clinics.
- IE - Free for HCWs employed in national health services, private sector varies.

# Monitoring vaccine uptake. Hepatitis B vaccination survey in Europe, January 2009. (n=27)

Vaccine uptake	Countries		Total
	With routine immunisation program (n=20)	With selective immunisation program (n=7)	
Vaccine uptake measured by risk group (by occupation, lifestyle and/or other)±			
HCWs	FR±,RO,SK,BE (n=4)		4

± Refers to GPs, through surveys.

Country	Percentage	Year
HCWs		
CZ	100	2007
FR***	87	1999
RO	75	2008
SK	88.1	2007



# Discussion

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- All countries have a recommendation.
- Situation is not changed so much in the last 5 years: it is a slow process
- Not in all countries the vaccine is free of charge.

# Questions still open

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- Which approach (M vs R) is better? Making mandatory a vaccination could increase the uptake ? Is it feasible?
- What kind of impact do the cost of vaccine for the HCW have?
- What the better way to monitor the uptake? Ad hoc studies are enough or we need better tools?
- How much do the implementation have impact on the programme? How much the organisation of the vaccination services?

A detailed analysis is possible only at national level: too many differences!

# Vaccine strategies and vaccine coverage in Europe: the VENICE contribution



- Vaccine coverage is one of the pillars in vaccine preventable area
- Every vaccination strategy should be monitored through regular vaccination coverage assessment
- Good quality data at subregional level should be available not only at national but also at European level
- Data comparability among countries is important
  - ***Vaccine coverage data collection: a complex matter. Results from a VENICE survey (2007)*** Available at:  
[http://venice.cineca.org/Final\\_Report\\_I\\_WP3.pdf](http://venice.cineca.org/Final_Report_I_WP3.pdf)
  - **Consensus document on a feasible model for vaccination coverage data collection among EU/EEA countries (2011)**

# EVACO: European Vaccination Coverage Collection System

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- EVACO is a web-based tool, under development, aimed to collect vaccination coverage data from EU member states.
- Objective is to provide ECDC with reliable data on vaccination coverage from all the Member States
- Pilot experience will be finalised by March 2013



# Acknowledgements

**Prof. Emmanouil Galanakis (ECDC)**

**All the VENICE gatekeepers for their continuous support**

**You for your attention**

*<http://venice.cineca.org/index.html>*