



# Talk by Prof Angus Nicoll CBE Head of ECDC Influenza Programme

1ST ECDC WORKSHOP ON SEASONAL INFLUENZA VACCINATION  
HOSTED BY MARINA YANNAKOUDAKIS MEP & KARIN  
KADENBACH MEP

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## Declaration of Interest

**I and the ECDC influenza team have no financial conflict of interests we are aware of.**

**see [ECDC Transparency](#) under ECDC's influenza programme team**

# Points covered by the talk

- What we might expect this coming European winter,
- Who will be particularly at risk,  
    who else should be offered immunisation
- The four ways of protecting people against influenza,
- The importance of vaccination – its effectiveness, its safety, but also its limitations,
- How Europe is doing with vaccination after the pandemic.



# ECDC Work is based on Scientific Work leading to Peer-Reviewed Publications

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PLoS one

## I-MOVE Multi-Centre Case Control Study 2010-11: Overall and Stratified Estimates of Influenza Vaccine Effectiveness in Europe

Esther Kissling<sup>1\*</sup>, Marta Valenciano<sup>1</sup>, Jean-Claude  
Caterina Rizzo<sup>6</sup>, Pawel Stefanoff<sup>7</sup>, Baltaz  
Daviaud<sup>2</sup>, Judit Krisztina Horvath<sup>12</sup>, Joa  
Stankiewicz<sup>7</sup>, Pedro Pechirra<sup>8</sup>, Alina Elen  
Christian Ciancio<sup>13</sup>, Alain Moren<sup>1</sup>

<sup>1</sup>EpiConcept, Paris, France, <sup>2</sup>GROG/Open Rome, Paris, France, <sup>3</sup>Centre for Epidemiology, Surveillance and Health Promotion, <sup>4</sup>Irish  
Ireland, <sup>5</sup>European Programme for Intervention Epidemiology Training  
Centre for Epidemiology, Surveillance and Health Promotion, <sup>6</sup>Instituto  
Nacional de Saude Dr Ricardo Jorge, Lisbon, Portugal, <sup>7</sup>National  
Romania, <sup>10</sup>University of Medicine and Pharmacy, Carol Davila, <sup>11</sup>  
<sup>12</sup>National Center for Epidemiology, Budapest, Hungary, <sup>13</sup>Euro

PERSPECTIVES

Risk groups and other target groups – preliminary  
ECDC guidance for risk and target groups – preliminary  
recommendations

H Nokleby (Hanne.Nokleby@ecdc.europa.eu)  
<sup>1</sup> European Centre for Disease Prevention

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### Abstract

**Background:** In the third season of I-MOVE multicentre case-control study based on sentinel general practices to estimate 2010/11 influenza vaccine effectiveness in Europe. Laboratory-confirmed as influenza.

**Methods:** Using systematic sampling, practitioners compared influenza-positive to influenza labor

Providing guidance on risk and target groups for seasonal influenza immunisation is difficult for the 2010-11 season since there is no experience with influenza A(H5N1) virus in its seasonal circulation. Existing target groups exist for offering immunisation to people at high risk of illness and older people, and also for other target groups including pregnant women. A new approach is being developed to provide evidence-based guidance on risk and target groups for influenza vaccination.

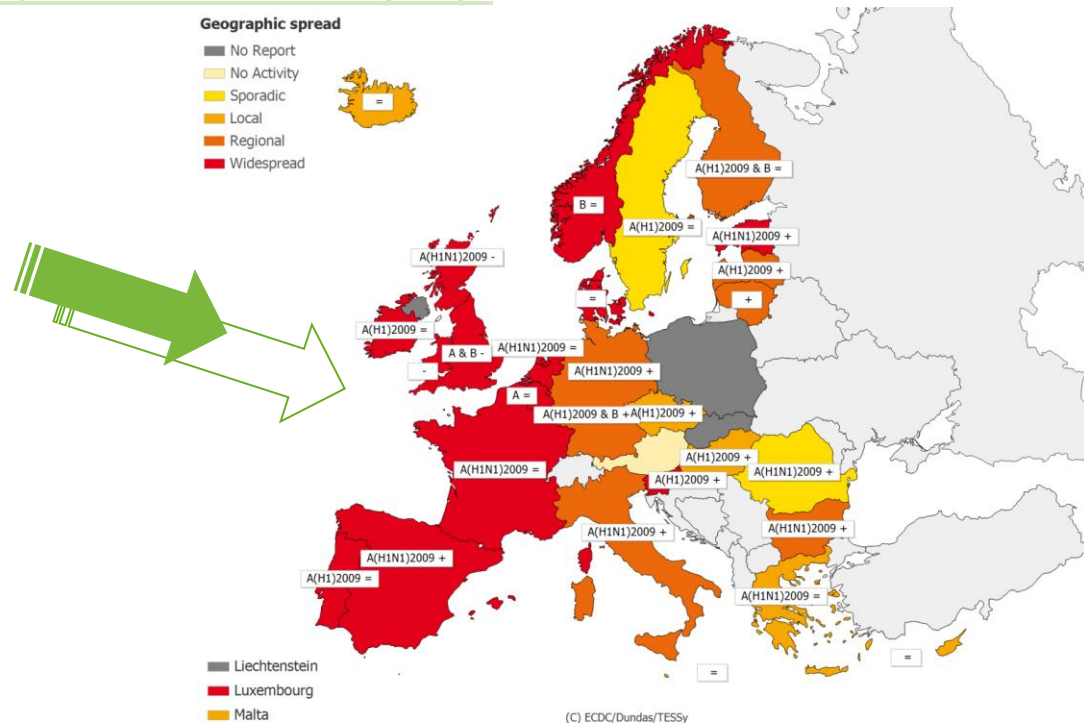
**National Seasonal Influenza Vaccination Survey in Europe, 2007/2008 Influenza season**

Collaboration between VENICE project and ECDC



# Influenza is coming – but how bad will it be this year? Data from EISN or Euroflu -

updates at [EU / EEA Influenza Activity Maps](#)



\* A type/subtype is reported as dominant when at least ten samples have been detected as influenza positive in the country and of those > 40 % are positive for the type/subtype.

Legend:

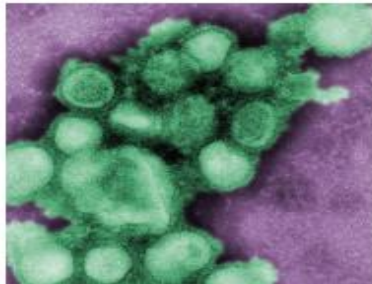
<b>No activity</b>	No evidence of influenza virus activity (clinical activity remains at baseline levels)	-	Decreasing clinical activity
<b>Sporadic</b>	Isolated cases of laboratory confirmed influenza infection	+	Increasing clinical activity
<b>Local outbreak</b>	Increased influenza activity in local areas (e.g. a city) within a region, or outbreaks in two or more institutions (e.g. schools) within a region (laboratory confirmed)	=	Stable clinical activity
<b>Regional activity</b>	Influenza activity above baseline levels in one or more regions with a population comprising less than 50% of the country's total population (laboratory confirmed)	A	Type A
<b>Widespread</b>	Influenza activity above baseline levels in one or more regions with a population comprising 50% or more of the country's population (laboratory confirmed)	A & B	Type A and B
		A(H1)2009	Type A, Subtype (H1)2009
		A(H1)2009 & B	Type B and Type A, Subtype (H1)2009
		A(H1N1)2009	Type A, Subtype (H1N1)2009
		B	Type B

**Flu is *Predictably Unpredictable!* – Last Winter it was unexpectedly stressful on some services in part of some countries (notably the UK & Greece) what will it be like this winter?? That is why each year ECDC undertakes a annual 'risk assessment' of this season's influenza**



## Surveillance of influenza and other respiratory viruses in the UK

2010-2011 report



### ECDC RISK ASSESSMENT

#### Seasonal influenza 2010–2011 in Europe (EU/EEA countries)

January 2011

#### Contents

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# Four ways that reduce the personal risk of transmitting or receiving influenza

1. Early self-isolation.
2. Good 'respiratory hygiene'.
3. Regular hand washing with soap and water, or hand-wash preparations.
4. Seasonal influenza vaccination.

***"Annual vaccination - the single most effective way of protecting you and your family from influenza"***



# For Immunisation Risk Groups and Target Groups in Europe

## From the VENICE Surveys

**'Risk Groups' – meaning those who if they get infected they are more likely to get very ill or die than other people infected. They are usually considered to be:**

- older people, usually meaning those aged 60 or 65 years and older,
- all adults (and children over six months of age) with chronic ill-health,
- most countries also recommend vaccinating pregnant women
- and a few recommend vaccinating all children over six months

# For Immunisation Risk Groups and Target Groups in Europe

## From the VENICE Surveys

Target Groups - Meaning other people, not at higher than average risk of getting sick themselves if they are infected

But still they are recommended immunisation

Largest Group – Health Care Workers with Patient Contact

Why? to keep them at work – no

to protect them – yes!

**to protect their patients – Yes!!**

Doctors and nurses with patient contact who do not accept the vaccines they are recommended put their patients at risk, and set a poor example

# How Effective are the Vaccines?

That depends. **Which of the following do you mean?**

- Effective for children, for young healthy adults, or older people, or people with chronic ill-health?
- When there is a good match of the vaccine and the circulating viruses or when the viruses 'drift'?
- ordinary vaccines or adjuvanted vaccines?
- In preventing anything that could be called 'flu' ?
- **In preventing laboratory confirmed infections?**
- In preventing flu putting you into hospital?
- In stopping flu killing you?

**I.e. It's not such a simple question as it first seemed**



# How Effective are these vaccines? A EU landmark publication this month!

**Kissling E , Valenciano M , Cohen JM , Oroszi B , Barret A-S , et al. 2011 I-MOVE Multi-Centre Case Control Study 2010-11: Overall and Stratified Estimates of Influenza Vaccine Effectiveness in Europe.**

**[PLoS ONE 6\(11\): e27622.](#)**

**[doi:10.1371/journal.pone.0027622](#)**

# How Effective are these vaccines? An EU landmark publication this month!

## I-MOVE Multi-Centre Case Control Study 2010-11: Overall and Stratified Estimates of Influenza Vaccine Effectiveness in Europe

Esther Kissling<sup>1\*</sup>, Marta Valenciano<sup>1</sup>, Jean Marie Cohen<sup>2</sup>, Beatrix Oroszi<sup>3</sup>, Anne-Sophie Barret<sup>4,5</sup>, Caterina Rizzo<sup>6</sup>, Pawel Stefanoff<sup>7</sup>, Baltazar Nunes<sup>8</sup>, Daniela Pitigoi<sup>9,10</sup>, Amparo Larrauri<sup>11</sup>, Isabelle Daviaud<sup>2</sup>, Judit Krisztina Horvath<sup>12</sup>, Joan O'Donnell<sup>4</sup>, Thomas Seyler<sup>1,6</sup>, Iwona Anna Paradowska-Stankiewicz<sup>7</sup>, Pedro Pechirra<sup>8</sup>, Alina Elena Ivanciuc<sup>9</sup>, Silvia Jiménez-Jorge<sup>11</sup>, Camelia Savulescu<sup>1</sup>, Bruno Christian Ciancio<sup>13</sup>, Alain Moren<sup>1</sup>

**1**EpiConcept, Paris, France, **2**GROG/Open Rome, Paris, France, **3**Office of the Chief Medical Officer, Budapest, Hungary, **4**Health Protection Surveillance Centre, Dublin, Ireland, **5**European Programme for Intervention Epidemiology Training (EPIET), European Centre for Disease Prevention and Control, Stockholm, Sweden, **6**National Centre for Epidemiology, Surveillance and Health Promotion, Istituto Superiore di Sanità, Roma, Italy, **7**National Institute of Public Health, Warsaw, Poland, **8**Instituto Nacional de Saúde Dr Ricardo Jorge, Lisbon, Portugal, **9**National Institute of Research - Development for Microbiology and Immunology, Cantacuzino, Bucharest, Romania, **10**University of Medicine and Pharmacy, Carol Davila, Bucharest, Romania, **11**National Centre for Epidemiology, Instituto de Salud Carlos III, Madrid, Spain, **12**National Center for Epidemiology, Budapest, Hungary, **13**European Centre for Disease Prevention and Control (ECDC), Stockholm, Sweden

### Abstract

**Background:** In the third season of I-MOVE (Influenza Monitoring Vaccine Effectiveness in Europe), we undertook a multicentre case-control study based on sentinel practitioner surveillance networks in eight European Union (EU) member states to estimate 2010/11 influenza vaccine effectiveness (VE) against medically-attended influenza-like illness (ILI) laboratory-confirmed as influenza.

**Methods:** Using systematic sampling, practitioners swabbed ILI/ARI patients within seven days of symptom onset. We compared influenza-positive to influenza laboratory-negative patients among those meeting the EU ILI case definition. A



# How Effective are the Vaccines?



## **In preventing laboratory confirmed infections in 2010-2011? I-MOVE vaccine effectiveness was:**

- Overall 52% (95% Confidence Intervals 30-67%)
- Against A(H1N1) 55% (95% CI 29-72%)
- Against influenza B 50% (95% CI 14-71%).
  - aged 0-14 years 66% (95% CI 15-86%),
  - aged 15-59 years 41% (95% CI -3-66%)
  - aged  $\geq 60$  years 60% (95% CI 17-81%)
- Among the target groups for vaccination
  - against A(H1N1) 59% (95% CI 32-75)
  - against flu B 63% (95% CI 31-81)

Kissling E , Valenciano M , Cohen JM , Oroszi B , Barret A-S , et al. 2011 I-MOVE Multi-Centre Case Control Study 2010-11: Overall and Stratified Estimates of Influenza Vaccine Effectiveness in Europe.



But unlike the other protection measures you just have to get immunised once a year – so **“Getting vaccinated is the single most effective thing that people can do to protect themselves, and others, from influenza”.**



But do not overstate that effectiveness. These vaccines are not as good as most childhood vaccines

**We need better vaccines**

**-Adjuvanted vaccines**

**-Broader protection**



# How safe are seasonal influenza vaccines?



How safe are seasonal influenza vaccines?

**Very safe**





How safe are seasonal influenza vaccines?

**Very safe - but there must be constant vigilance for possible real adverse effects following immunisation – and then prompt, independent investigation of those**

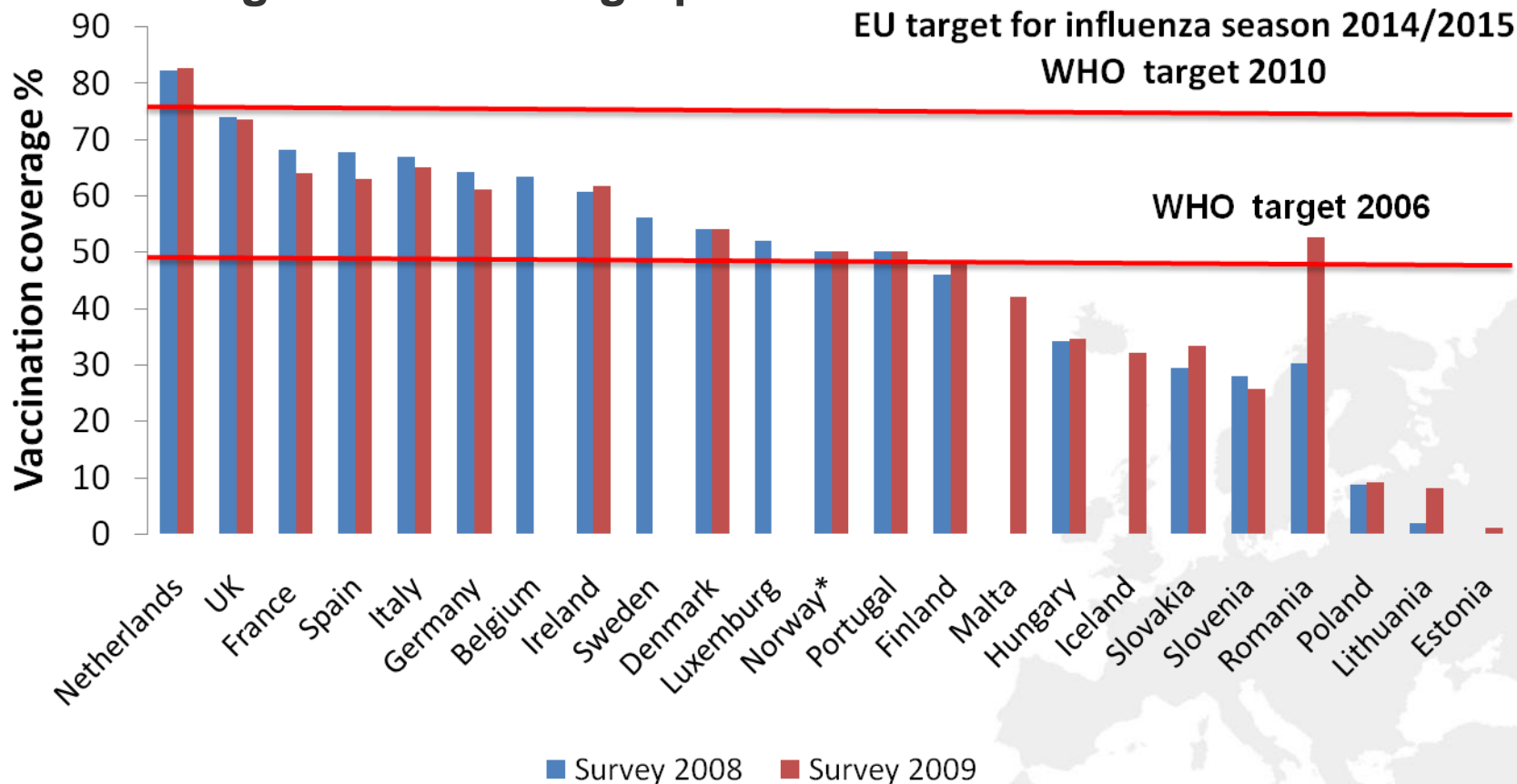


# How is Europe Doing in its Vaccine Coverage?

**There is good News and Bad News**

# Vaccination coverage for seasonal influenza vaccine in older people in EU/EEA countries (n=23) 2008 & 2009

Good news to the left countries with high coverage and the increase in Romania – bad news the 40 fold difference between the left and the right side of this graph!



\* Vaccine coverage calculated for over 65 and clinical risk groups together

"Survey 2008" - data refers to influenza seasons: Belgium - 2003/2004; Germany, Poland - 2005/2006; the remaining countries - 2006/2007  
"Survey 2009" - all countries data refers to 2007/2008 influenza season

# More good and not so good news on vaccine coverage

## **Background:**

There was negative publicity for pandemic influenza vaccine in some EU countries

## **Results:**

Despite that publicity coverage of influenza vaccine in older people in those countries has held up relatively well

Many countries still find it hard to monitor vaccine coverage apart from in older people

With some notable exceptions there has been little progress in seasonal vaccination coverage in 2009 and 2010.

# Conclusions

*"Getting vaccinated is the single most effective thing that people can do to protect themselves, and others, from influenza".*

*"We strongly advise that all those who are recommended or offered influenza vaccination should get themselves vaccinated."*

*Doctors and nurses need to think especially carefully before they decide not to get immunised in relation to the risk to their patients, and the example they are setting.*

*"Europe needs to do better, Romania and some other countries have demonstrated how Europe can do better when it comes to influenza immunisation"*



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**ECDC:** Amato Gauci AJ, Beaute J, Broberg E, Ciancio B, Johansen K, Kramarz P, Lopalco P, Nicoll A, Plata F, Snacken R, Zucs P,



Thank you - contact

[influenza@ecdc.europa.eu](mailto:influenza@ecdc.europa.eu)