



## Seasonal influenza vaccination in Europe.

# Overview of vaccination recommendations and coverage rates in EU Member States from 2007-08 to 2014-15

J.Mereckiene, S.Cotter, D.O'Flanagan, F. D'Ancona, K.Johansen, S.Tsolova, P. Penttinen

On behalf of VENICE Project

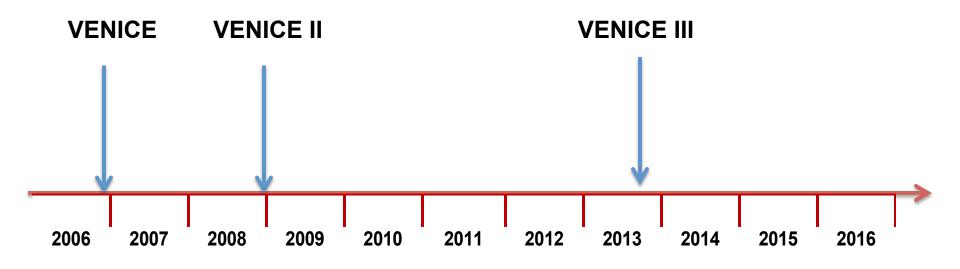
17<sup>th</sup> -18<sup>th</sup> June, 2017 Beijing, China

# Seasonal influenza vaccination recommendations

- European Council (EC) Recommendation 2009
  - To achieve 75% vaccination coverage by 2014-15
    - Older age groups
    - Chronic medical conditions
  - To improve vaccination coverage
    - Health care workers (HCWs)
- WHO recommendations 2012
  - Pregnant women
  - Children aged <5 years</li>
  - Older age groups
  - Chronic medical conditions
  - HCWs

#### **VENICE** Project

- VENICE Vaccine European New Integrated Collaboration Effort
- Network of experts working in immunisation programmes
- Involve all EU member states, Iceland, Liechtenstein and Norway
- Objective to promote and share knowledge and best practices in vaccination

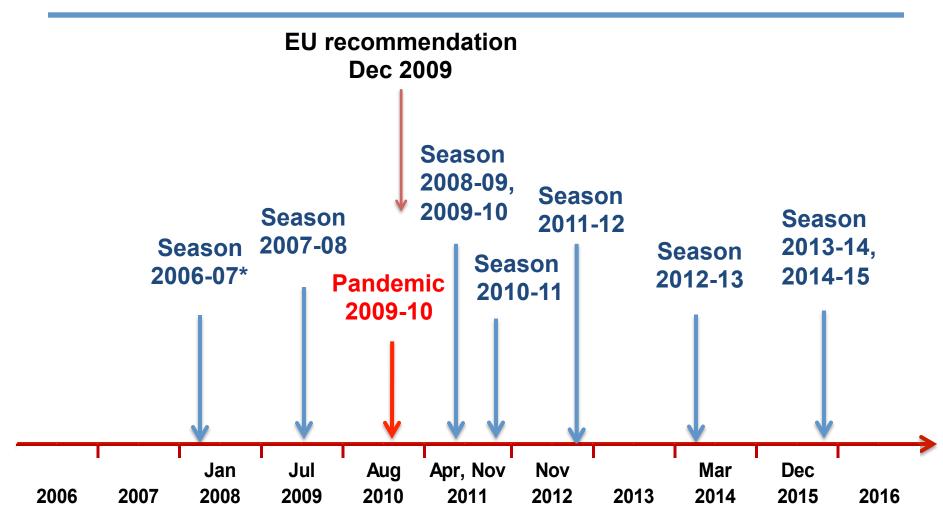


#### **EU/EEA Member States**

- EU: 28 Member States
- EEA: Lichtenstein, Iceland, Norway
- Population 2015:508 191 116



# Influenza surveys conducted by VENICE, 2008-2016



Some countries provided data for season 2003-04 or 2005-06; most countries provided dada for season 2006-07

# The same methodology for all surveys

- Collaborative studies
- Questionnaire administration
  - On-line on VENICE website
  - Limited access
- Completion
  - National experts in each MS
- In this presentation
  - Data combined from last seven surveys for seasonal influenza
  - Vaccination coverage in UK presented for England, Northern Ireland, Scotland, Wales
  - Vaccination coverage cover eight influenza seasons
  - Policy, recommendations, funding mechanisms refer to 2014-15 influenza season



https://venice.cineca.org

#### Objectives

- The first survey
  - To collect baseline information on seasonal influenza
    - Country specific vaccination recommendations for targeted and risk groups
  - To obtain
    - Available data on vaccination coverage
- The following surveys
  - To update
    - Country specific vaccination recommendations for targeted and risk groups
  - To obtain
    - Latest data on vaccination coverage
  - To identify
    - Changes and compliance with EC and WHO recommendations

among the EU/EEA countries during different influenza seasons

#### Results

# Countries recommending seasonal influenza vaccine for children and adolescents (n=30)



≥6 months - 2 years

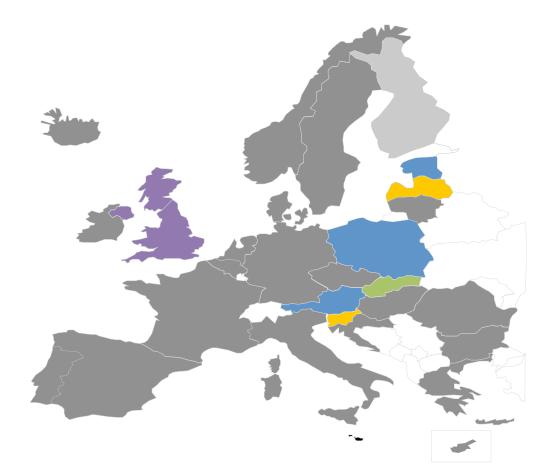
≥6 months - 3 years

≥6 months - 5 years

≥6 months - 12 years

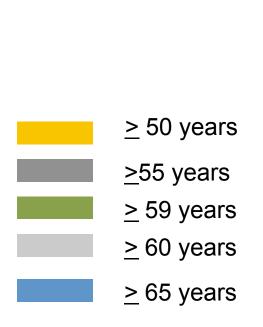
>6 months - 18 years

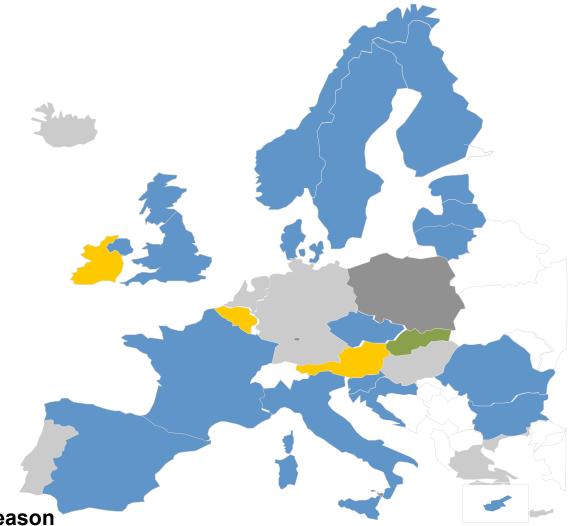
Different age groups between > 2- 11 years



Data refers to 2014-15 influenza season

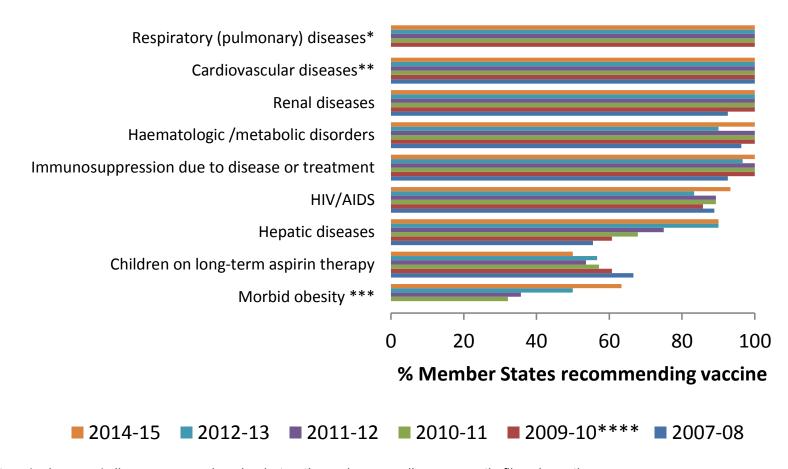
## Countries recommending seasonal influenza vaccine for <u>older age groups</u> (n=30)





Data refers to 2014-15 influenza season

## Chronic medical conditions recommended seasonal influenza vaccine



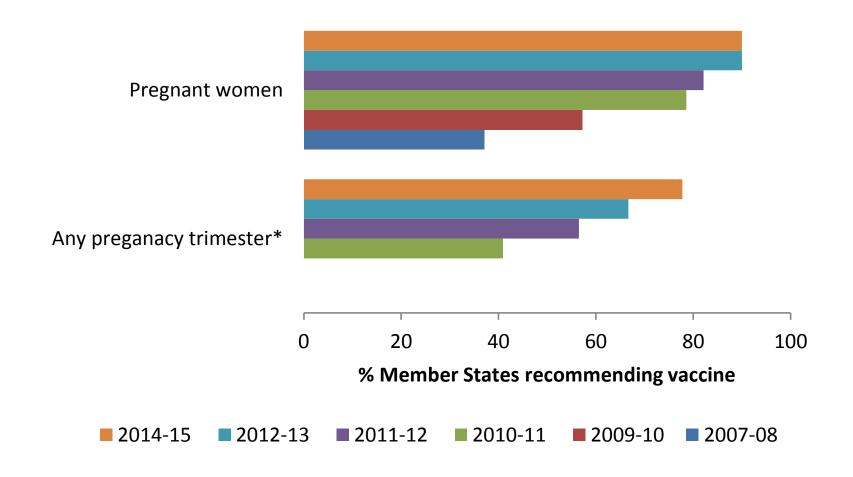
<sup>\*</sup>Respiratory (pulmonary) diseases, e.g. chronic obstructive pulmonary disease, cystic fibrosis, asthma

<sup>\*\*</sup> Cardiovascular diseases, e.g. congenital heart disease, congestive heart failure and coronary artery disease, except hypertension

<sup>\*\*\*</sup>Morbid obesity is defined as having a body mass index of ≥40kg/m². This information was not collected before/during A(H1N1)pdm09

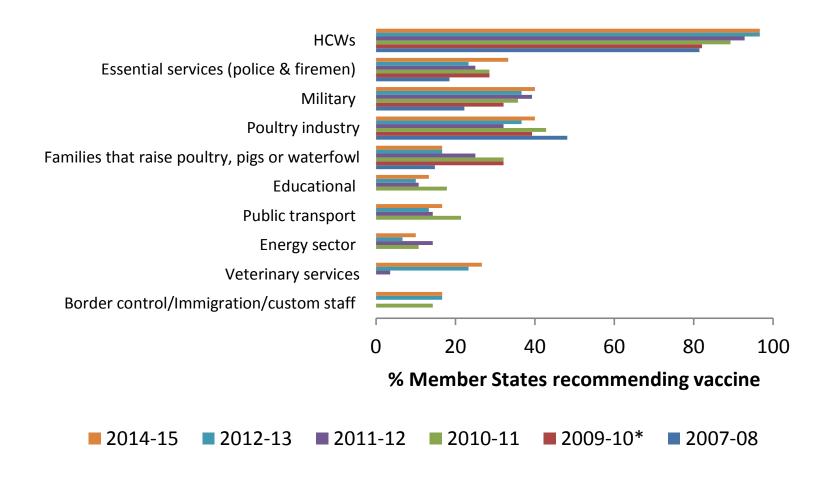
<sup>\*\*\*\*</sup>Data refers to seasonal influenza vaccine recommendations in 2009-10 pandemic influenza season

# Pregnancy related seasonal influenza vaccine recommendations

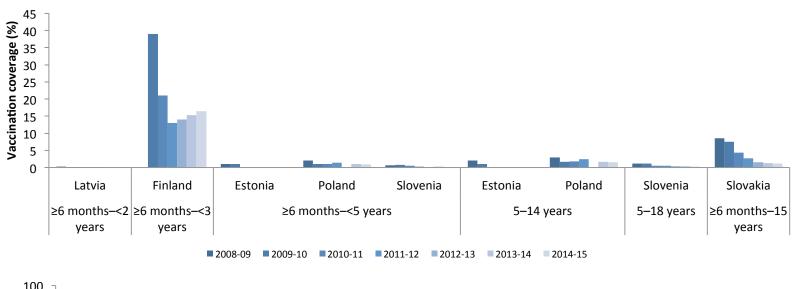


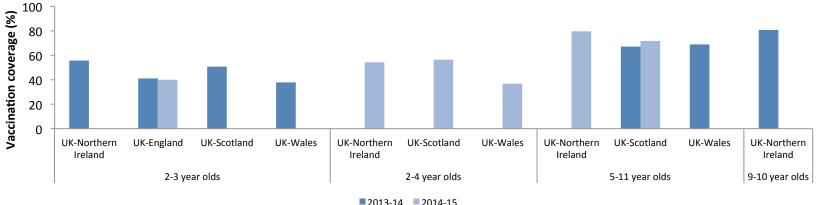
<sup>\* %</sup> calculated from those countries which recommend vaccine for pregnant women; data on recommendations for pregnancy trimester in 2007-08 and 2009-10 were not collected

# Occupational groups recommended seasonal influenza vaccine

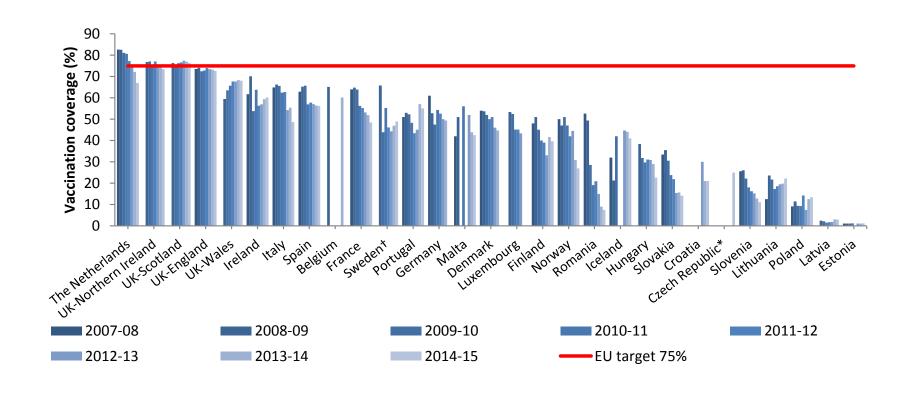


## Reported seasonal influenza vaccination coverage in <u>children</u> in <u>seven</u> EU/EEA MSs





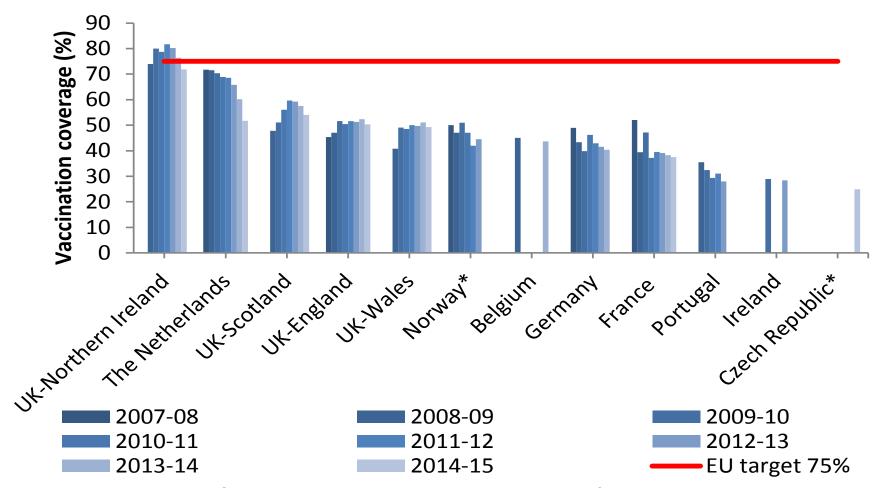
### Reported seasonal influenza vaccination coverage in <u>older population</u> in <u>26</u> EU/EEA MSs



<sup>†</sup> Sweden- reports were received for only around 60% of the population for 2009-10 influenza season

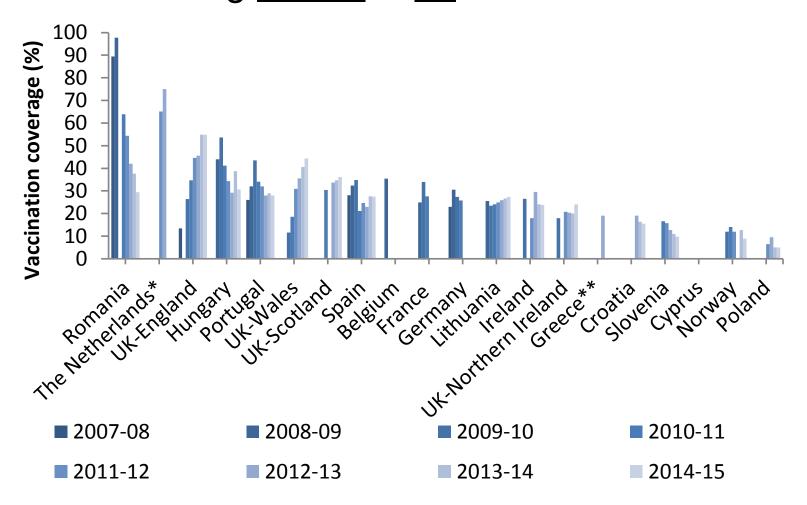
<sup>\*</sup>Czech republic - coverage results calculated for those >65 and clinical risk groups together

# Reported seasonal influenza vaccination coverage among those with <u>chronic medical conditions</u> in <u>nine</u> EU/EEA MSs



<sup>\*</sup>Norway- 2008-09 and 2009-10 and Czech Republic 2014-15 coverage results calculated for those <a>65</a> and clinical risk groups together

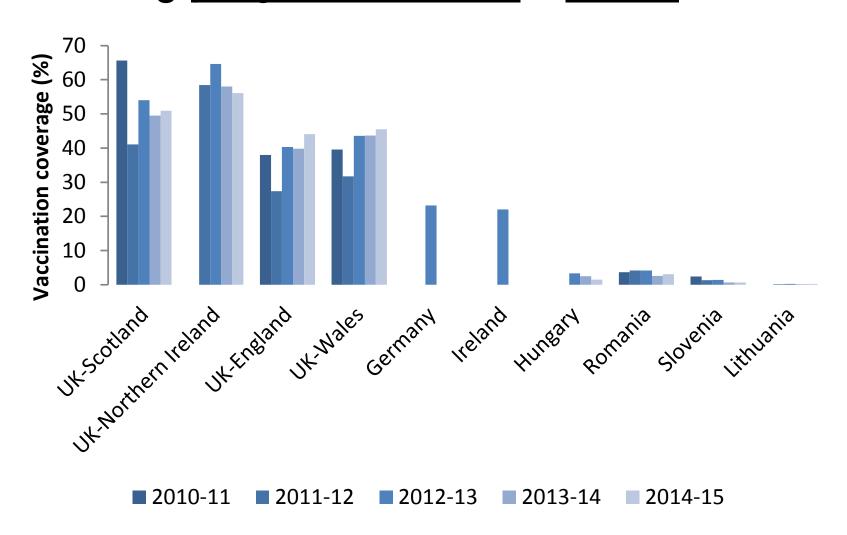
### Reported seasonal influenza vaccination coverage among HCWs in 17 EU/EEA MSs



<sup>\*</sup>Health care workers in GPs practice/ Outpatient health care settings.

<sup>\* \*</sup>Inpatient healthcare settings

## Reported seasonal vaccination coverage among pregnant women in seven MSs



#### Conclusions (1)

- Recommendations for influenza vaccination
  - Standard in most of the countries
  - Comply with EC and WHO recommendations
- Discrepancies between recommendations and vaccination coverage monitoring
  - Exist for clinical risk groups, pregnant women and HCWs
  - Some countries do not monitor vaccination coverage for older age groups

#### Conclusions (2)

#### Vaccination coverage

- For the older population
  - Lagging in most of the countries (except Netherlands and UK)
  - Did not increase in seven influenza seasons
  - Do not meet EU target by 2014-15

#### HCWs and those with chronic medical conditions

- Half countries monitor for HCWs
- One third countries monitor for chronic medical conditions
- Moderate or low for these groups of individuals
- Did not increase in seven influenza seasons

#### Pregnant women

- One third countries monitor vaccination coverage
- Moderate in UK, but low in the remaining countries

#### Children

Moderate in UK, but low in the remaining countries

#### Recommendations (1)

- All countries urged to strengthen and implement the influenza vaccination coverage monitoring systems in place
  - For most common population groups for whom vaccination is recommended
- Countries that do not monitor vaccination coverage among older population groups
  - Advised to implement vaccination coverage monitoring systems and collect these data on annual basis at the end of influenza season
- Vaccination coverage rates need to be improved in all targeted groups

#### Recommendations (2)

- As seasonal influenza vaccination coverage among pregnant women is monitored in only seven countries
  - Countries are advised to implement vaccination coverage monitoring systems and start to collect these data
- More research is needed to see how recommendations can be effectively translated in to higher vaccination coverage
  - Reasons for non-vaccination in countries with low vaccination coverage
  - Drivers for vaccination in countries that already achieved EU targets of 75%
- To make comparison of vaccination coverage at EU level
  - Annual population based surveys conducted using the same methodology may be useful

#### Acknowledgments

- Vaccine European New Integrated Collaboration Effort (VENICE)
  - Project gatekeepers/national experts
- HPSC colleagues: Dr. Suzanne Cotter and Dr. Darina O'Flanagan
- CINECA
  - Consortium of University, Bologna, Italy
- ECDC
  - European Centre for Disease Prevention and Control, Stockholm, Sweden
- VENICE collaborators
  - Istituto Superiore di Sanita', Rome, Italy
  - Institut de Veille Sanitaire, Saint-Maurice, France
  - National Institute of Public Health National Institute of Hygiene, Poland
  - Statens Serum Institut, Copenhagen, Denmark
  - Robert Koch Institute, Berlin, Germany

Thank you for your attention!