Seasonal influenza vaccination in Europe.
Overview of vaccination recommendations and coverage rates in EU Member States from 2007-08 to 2014-15


On behalf of VENICE Project

14th June, 2017
Leuven, Belgium
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
  - 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
Influenza surveys conducted by VENICE, 2008-2016

EU recommendation
Dec 2009

Season 2006-07*
Season 2007-08
Pandemic 2009-10
Season 2008-09, 2009-10
Season 2010-11
Season 2011-12
Season 2012-13
Season 2013-14, 2014-15

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

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 healthy children and adolescents (n=30)

- No recommendation
- ≥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**

In Malta vaccine is recommended for those ≥6 months – <5 years
Countries recommending seasonal influenza vaccine for older age groups (n=30)

Data refers to 2014-15 influenza season

In Ireland NITAG recommends vaccine for ≥ 50 years but programme focus on ≥ 65 years only
Chronic medical conditions recommended seasonal influenza vaccine

- Respiratory (pulmonary) diseases*
- Cardiovascular diseases**
- Renal diseases
- Haematologic /metabolic disorders
- Immunosuppression due to disease or treatment
- HIV/AIDS
- Hepatic diseases
- Children on long-term aspirin therapy
- Morbid obesity ***

% Member States recommending vaccine

- 2014-15
- 2012-13
- 2011-12
- 2010-11
- 2009-10****
- 2007-08

*Respiratory (pulmonary) diseases, e.g. chronic obstructive pulmonary disease, cystic fibrosis, asthma
** Cardiovascular diseases, e.g. congenital heart disease, congestive heart failure and coronary artery disease, except hypertension
***Morbid obesity is defined as having a body mass index of ≥40kg/m². This information was not collected before/during A(H1N1)pdm09
****Data refers to seasonal influenza vaccine recommendations in 2009-10 pandemic influenza season
Pregnancy related seasonal influenza vaccine recommendations

<table>
<thead>
<tr>
<th>Year</th>
<th>Any pregnancy trimester*</th>
<th>Pregnant women</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014-15</td>
<td>85%</td>
<td>85%</td>
</tr>
<tr>
<td>2012-13</td>
<td>70%</td>
<td>70%</td>
</tr>
<tr>
<td>2011-12</td>
<td>60%</td>
<td>60%</td>
</tr>
<tr>
<td>2010-11</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>2009-10</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>2007-08</td>
<td>30%</td>
<td>30%</td>
</tr>
</tbody>
</table>

* % 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

- HCWs
- Essential services (police & firemen)
- Military
- Poultry industry
- Families that raise poultry, pigs or waterfowl
- Educational
- Public transport
- Energy sector
- Veterinary services
- Border control/Immigration/custom staff

% Member States recommending vaccine

- 2014-15
- 2012-13
- 2011-12
- 2010-11
- 2009-10*
- 2007-08

*Data refers to seasonal influenza vaccine recommendations in 2009-10 pandemic influenza season
Household contacts and RLTCF of those at risk for influenza recommended seasonal influenza vaccine

Residents of long-term care facilities

Household contacts of:

Imunosuppressed individuals

Individuals belonging to the risk groups

Older population (e.g. >65 years)

Children <6 months of age


*Data refers to seasonal influenza vaccine recommendations in 2009-10 pandemic influenza season
Reported seasonal influenza vaccination coverage in children in seven EU/EEA MSs
Reported seasonal influenza vaccination coverage in older population in 26 EU/EEA MSs

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

*Czech republic - coverage results calculated for those ≥65 and clinical risk groups together
Reported seasonal influenza vaccination coverage among those with chronic medical conditions in nine EU/EEA MSs

*Norway- 2008-09 and 2009-10 and Czech Republic 2014-15 coverage results calculated for those ≥65 and clinical risk groups together
Reported seasonal influenza vaccination coverage among HCWs in 17 EU/EEA MSs

*Health care workers in GPs practice/ Outpatient health care settings.

* *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 into 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.
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  – Robert Koch Institute, Berlin, Germany
Thank you for your attention!
Back-up slides
Funding mechanism for seasonal influenza vaccine in targeted population groups in EU MSs

Data refers to 2014-15 influenza season

Some countries have several funding mechanisms
Number of purchased doses expressed as vaccine doses potentially available for those aged 65 and over

*Purchased doses were assumed as number of purchased doses by country by public procurement.*