Seasonal influenza vaccination trends for at risk groups, the importance of data collection and reporting

J. Mereckiene, L. Domegan, P. O’Lorcan, S. Cotter
Fighting the Flu Together
24th April, Sligo, Ireland
Health Protection Surveillance Centre (HPSC)

- Surveillance
- Operational support
- Training
- Research
- Policy advice
- Public information
- International role
Information for Action

Surveillance:
- Collection
- Analysis
- Interpretation
- Dissemination

Public Health Action
Disease
- investigation
- control
- prevention
Planning and evaluation of programs
Policy making

An Roinn Sláinte
DEPARTMENT OF HEALTH
Surveillance activities in Ireland

• Routine surveillance
  – ID, location, age, sex, diagnosis, date onset/diagnosis, case classification
• Enhanced surveillance
  – More details: risk factors, outcome, treatment
• Outbreak surveillance
Health Care System

Event

Action

Public Health Authority

Reporting

Data

Analysis and interpretation

CIDR database

Information

Decision/feedback

CIDR - Computerised Infectious Diseases Reporting System
Infectious Disease Reporting in Ireland: Legal framework and list of notifiable diseases

http://www.hpsc.ie/
Sentinel GP ILI consultation rates & number flu positive specimens by week & season, 2013-2017

ILI rate per 100,000 population

Influenza A
Influenza B
ILI rate

Baseline ILI threshold
Medium intensity ILI threshold
High intensity ILI threshold
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
NIAC recommendations for influenza vaccination in Ireland

- Recommended for risk groups
  - People older than 50 years
  - Persons with chronic illness
  - Immunosuppressed due to disease or treatment
  - Patients with any condition that can compromise respiratory function
  - People with morbid obesity (BMI>40)
  - Those with Down syndrome
  - Children and teenagers on long-term aspirin therapy
  - Children with neurodevelopmental disorders
  - Pregnant women
- Health care workers (HCWs)
- Residents of long care stay facilities
- Out-of-home care givers and household contacts to at-risk persons
- People in contact with pigs, poultry or water fowl
How we monitor influenza vaccination coverage in Ireland

• Administrative method for those aged ≥65
  – Primary Care Reimbursement Scheme (PCRS) data
  – On a monthly basis from September to August
  – Monthly/Annual report

• Survey method for HCWs
  – Hospitals and Long Term Care Facilities (LTCF)
  – Mid/end season

• Telephone/Omnibus surveys
  – Every three years
  – Comparison with PCRS data
  – Collecting data for population groups not routinely monitored
Seasonal influenza vaccination coverage in card holders aged 65 and over attending GP and pharmacies, from 2004-05 to 2016-17 influenza season, Ireland

*Provisional data – September 2016- February 2017

Source: PCRS data
Seasonal influenza vaccination coverage in card holders aged 65 and over by CHO Area, September 2016 - February 2017, Ireland

*Provisional data – September 2016- February 2017
Source: PCRS data
Seasonal influenza vaccination coverage in hospital and LTCF staff, Ireland

*Provisional data

% Average Uptake

- Staff in hospitals
- Staff in LTCFs

*Provisional data
Population based surveys in Ireland

• Retrospective telephone surveys
  – CATI-Computer Assisted Telephone Interviewing
  – June 2006, April-May 2010, August -September 2013
  – Sample size
    • 1500-1700 respondents
  – Data collection
    • Standardised questionnaire

• Omnibus survey
  – Face to face interviews
  – December 2016, January and February 2017
  – Sample size
    • 1000 respondents each month
  – Data collection
    • Questions on influenza vaccinations included as part on-going omnibus survey
Estimated vaccination coverage for seasonal influenza vaccine by targeted population groups, Ireland

Data were not collected for 2004-05 influenza season for pregnant women.

Estimated vaccination coverage for seasonal influenza vaccine by targeted population groups, Ireland (n=2909)

Source: HPSC, Omnibus survey conducted in Dec 2016 - Jan, Feb 2017; provisional data
# Reasons for receiving and NOT influenza vaccine

<table>
<thead>
<tr>
<th>Reasons for receiving vaccine</th>
<th>Overall ≥18 years (%)</th>
<th>50-64 years (%)</th>
<th>≥65 years (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaccination decreases my risk of getting influenza</td>
<td>22.9</td>
<td>22.6</td>
<td>24.9</td>
</tr>
<tr>
<td>Doctor recommended it</td>
<td>34.9</td>
<td>31.6</td>
<td>44.4</td>
</tr>
<tr>
<td>Always get the vaccine</td>
<td>36.8</td>
<td>34.9</td>
<td>45.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reasons for NOT receiving vaccine</th>
<th>Overall ≥18 years (%)</th>
<th>50-64 years (%)</th>
<th>≥65 years (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No particular reason</td>
<td>40.4</td>
<td>36.9</td>
<td>32.7</td>
</tr>
<tr>
<td>Don't like vaccinations</td>
<td>15.1</td>
<td>16.0</td>
<td>20.8</td>
</tr>
<tr>
<td>Better to build natural immunity against influenza</td>
<td>13.5</td>
<td>14.6</td>
<td>15.5</td>
</tr>
<tr>
<td>Not offered vaccine</td>
<td>9.0</td>
<td>8.1</td>
<td>7.1</td>
</tr>
<tr>
<td>Don't have chronic medical condition</td>
<td>18.6</td>
<td>16.2</td>
<td>10.1</td>
</tr>
<tr>
<td>Influenza vaccine can cause influenza</td>
<td>6.6</td>
<td>5.8</td>
<td>12.5</td>
</tr>
</tbody>
</table>

Source: HPSC, Omnibus survey conducted in Dec 2016 - Jan, Feb 2017
VENICE Project surveys

- EU funded project
- The same methodology for all surveys
- Collaborative studies
- Questionnaire administration
  - On-line on VENICE website
  - Limited access
- Completion
  - National experts in each country

https://venice.cineca.org

Vaccine European New Integrated Collaboration Effort
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 \( \geq 65 \) 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.
Reported seasonal vaccination coverage among pregnant women in seven MSs
Summary and plans going forward

• Influenza vaccination coverage
  – Moderate among those aged 65 and over
  – Low in other vaccine targeted population groups (HCWs, clinical risk groups, pregnant women)

• Continue to strengthen influenza surveillance, with particular emphasis on severe influenza surveillance

• Monitor influenza vaccination coverage in vaccine targeted population groups

• Exploring feasibility of point prevalent survey on influenza uptake in LTCFs/ carers
Acknowledgments

• Hospitals
• Long Term Care Facilities
• Departments of Public Health
• PCRS staff
Thank you for your attention!