

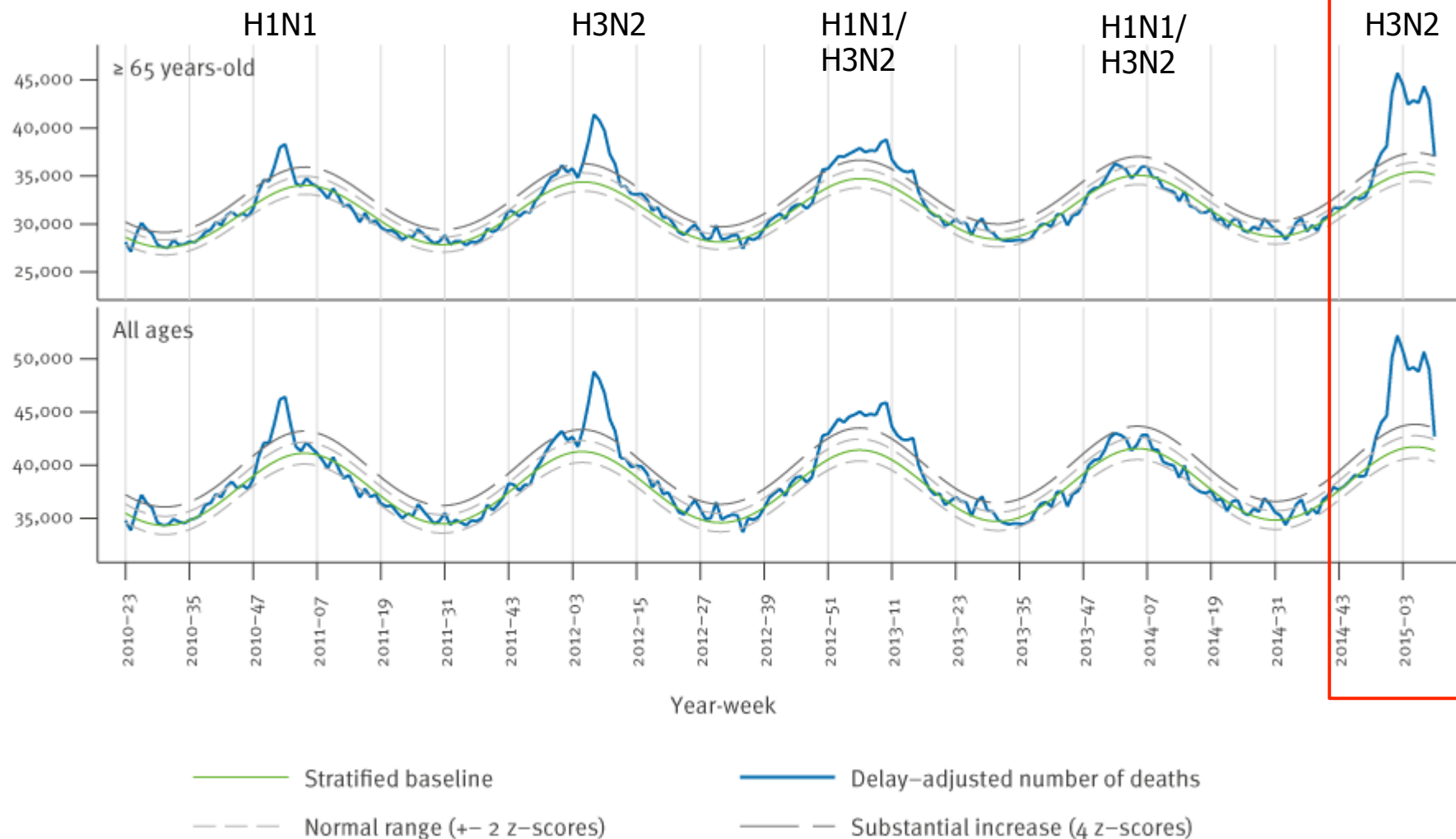


# National seasonal influenza vaccination programmes in Europe

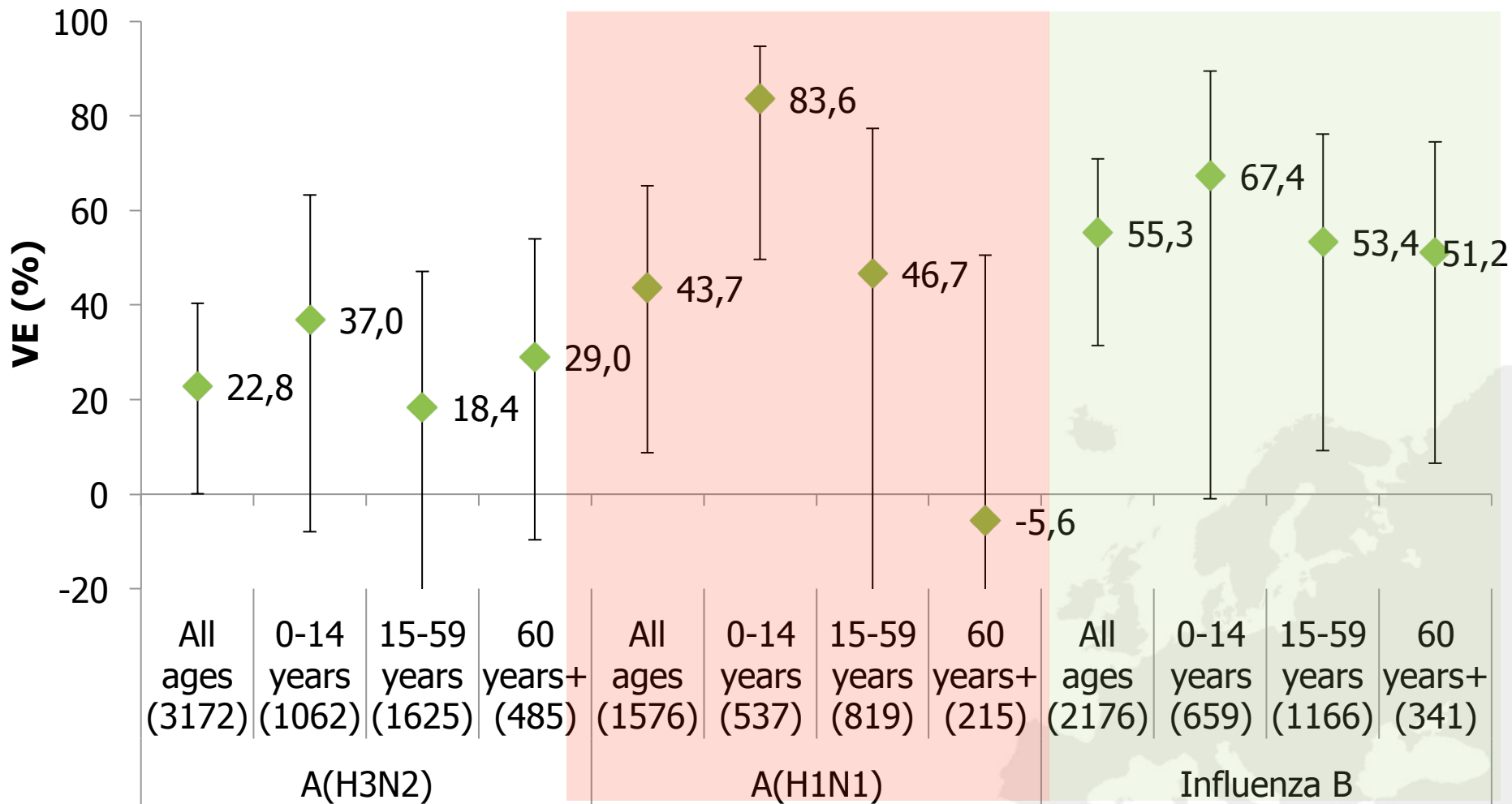
**Pasi Penttinen, head of disease programme (acting)  
Office of the Chief Scientist  
European Centre for Disease Prevention and Control (ECDC)**

**Brussels, 31 September**

# Over 90 000 excess deaths among the elderly during winter 2014-2015



# Influenza vaccine effectiveness\*, by influenza subtype and age group, I-MOVE, week 47/2014 to week 9/2015



No heterogeneity  $I^2 \geq 50.0\%$  or  $p < 0.05$ ; based on crude country-specific VE.

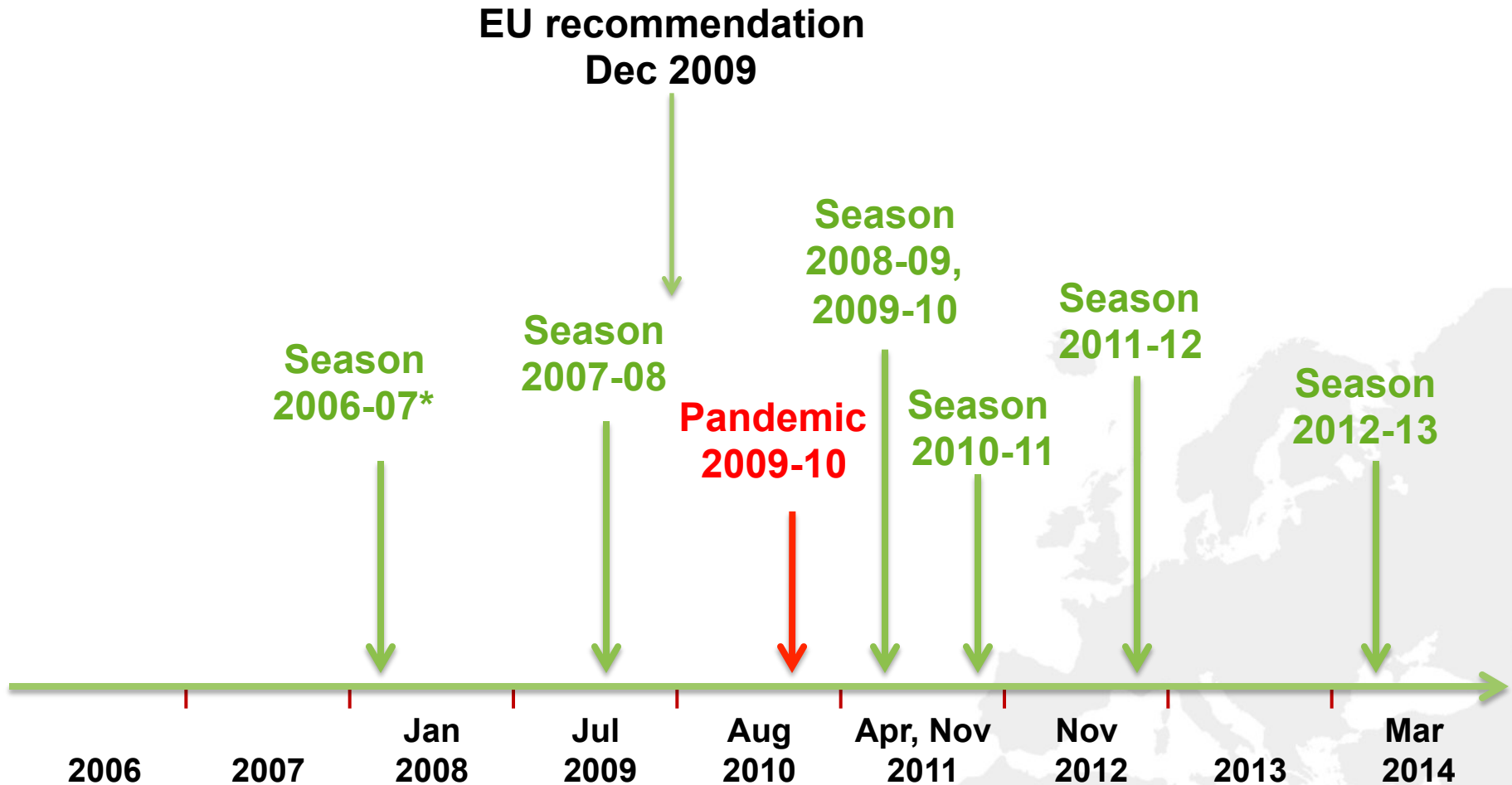
\* 1-stage pooled estimate adjusted for age (RCS), onset date (RCS), chronic condition, sex. Exceptions are for A(H1N1) among elderly where crude is used and for influenza B among elderly where adjusted for age (RCS) and onset date (RCS) only.

# Seasonal influenza vaccination recommendations

	Older age groups	Chronic medical conditions	Health-care workers	Children	Pregnant women
European Council Recommendation 2009	<input checked="" type="checkbox"/> *	<input checked="" type="checkbox"/> *	<input checked="" type="checkbox"/>		
WHO recommendations 2012	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

\*Target 75% coverage by 2015

# Influenza vaccine coverage surveys conducted by VENICE, 2008-2014



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 five surveys for seasonal influenza
- Liechtenstein and Croatia participated in the survey in 2014 for first time
- Vaccination coverage in UK presented for England, Northern Ireland, Scotland, Wales



The screenshot shows a Firefox browser window displaying the Venice III website. The address bar shows 'venice.cineca.org'. The page features a navigation menu on the left with items like 'The Project', 'Participating Countries', 'Project Outputs', 'Links', 'Search', 'MESSAGE tool', 'EVACD data collection', 'Members Area', and 'Contact Us'. The main content area has a header with the title 'Vaccine European New Integrated Collaboration Effort' and a sub-header 'Venice III'. Below this, there are several paragraphs of text describing the project's goals and the importance of vaccination. A 'News' section at the bottom lists recent updates, including a paper on seasonal influenza immunisation in Europe and a meeting in Warsaw. The Windows taskbar at the bottom shows the date as 04/06/2014 and the time as 17:18.

# Objectives of VENICE survey

---

## 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

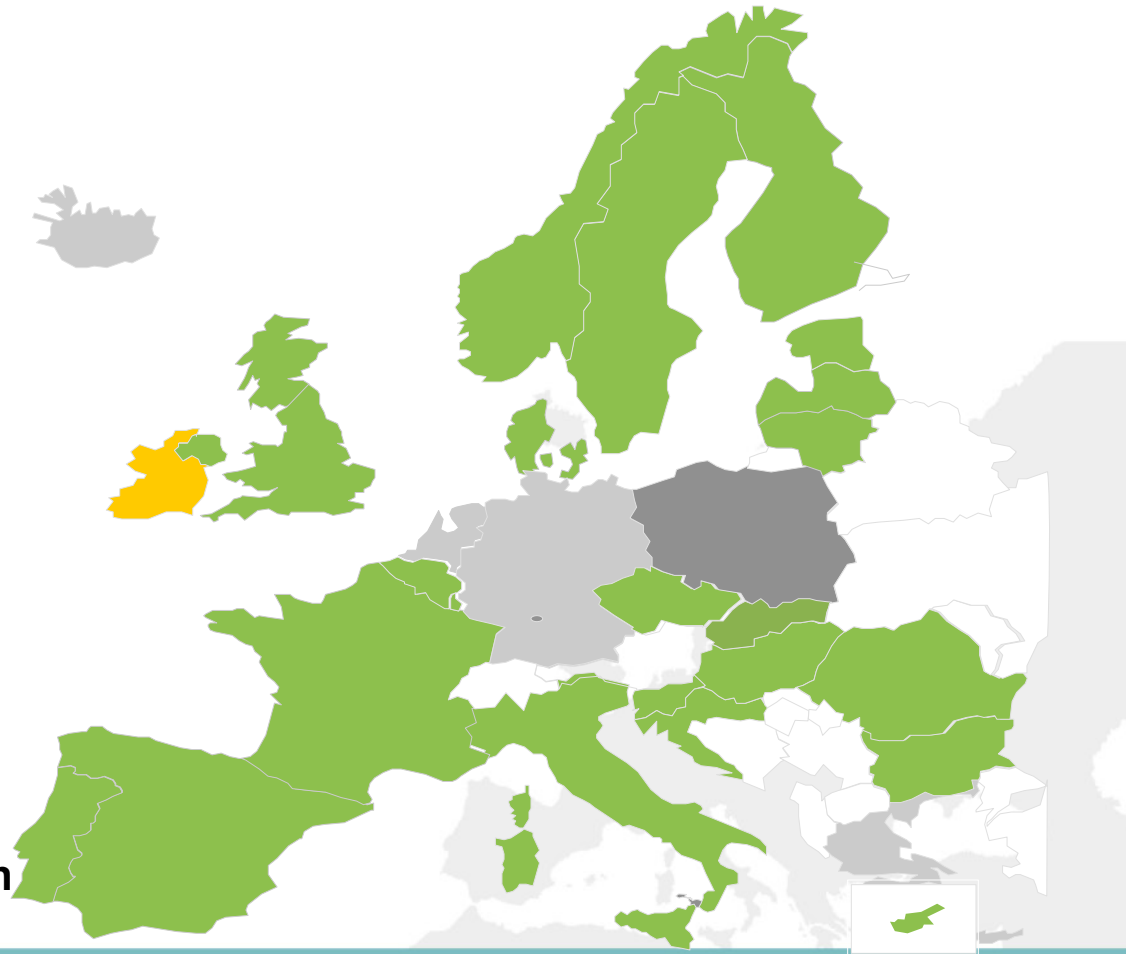
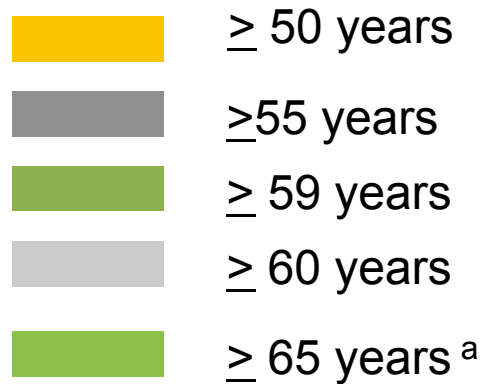
- To update
  - Country specific vaccination recommendations for targeted and risk groups
- To obtain
  - Latest data on vaccination coverage
- To identify
  - Changes and compliance with EC and WHO recommendations

among the EU/EEA countries during different influenza seasons



# Results

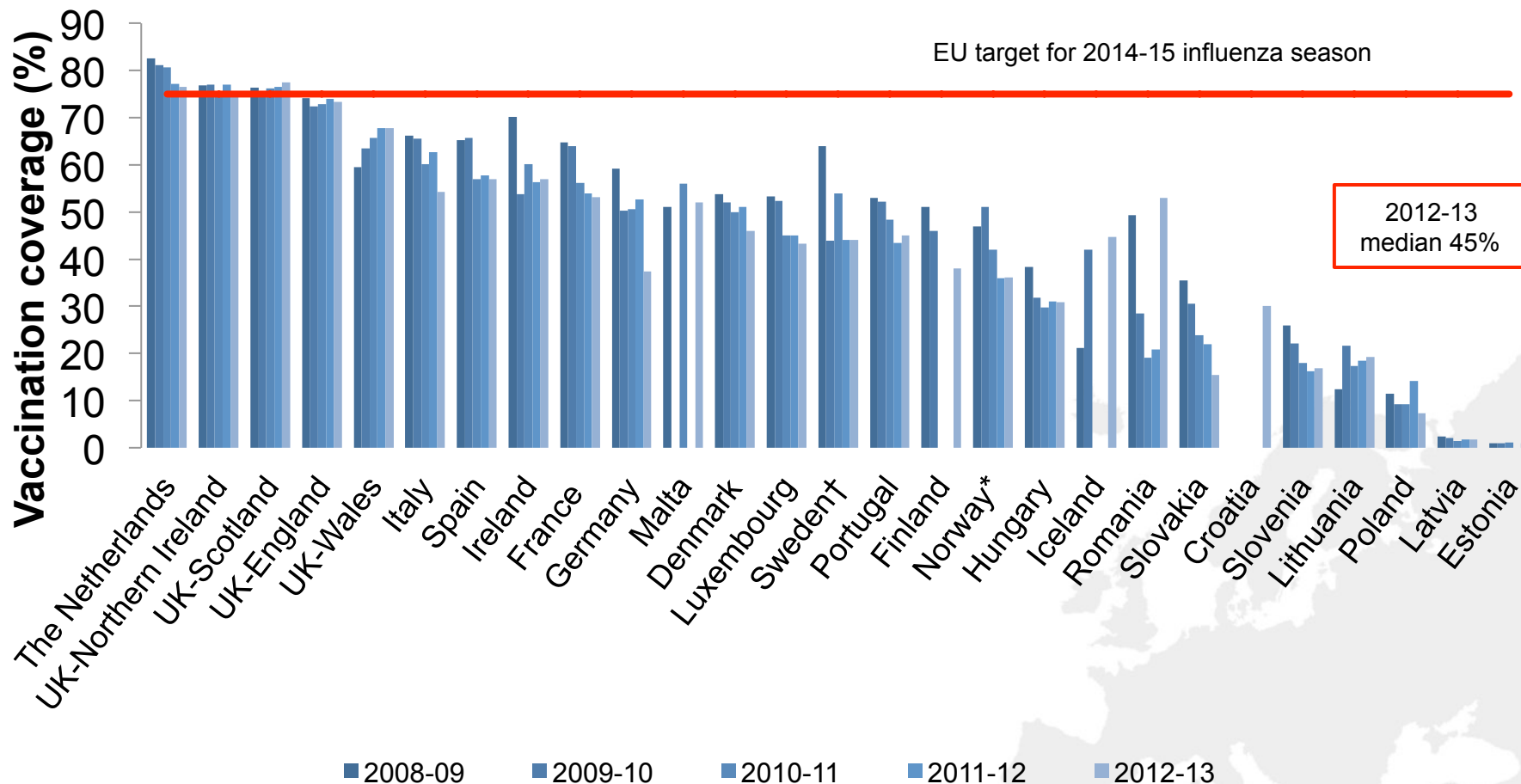
# Seasonal influenza vaccine recommendation for older age groups in EU/EEA MS (n=30)



Data refers to **2012-13 influenza season**

In Ireland NITAG recommends vaccine for > 50 years but programme focus on ≥ 65 years only  
<sup>a</sup> In Liechtenstein vaccine is recommended for those ≥ 65 years

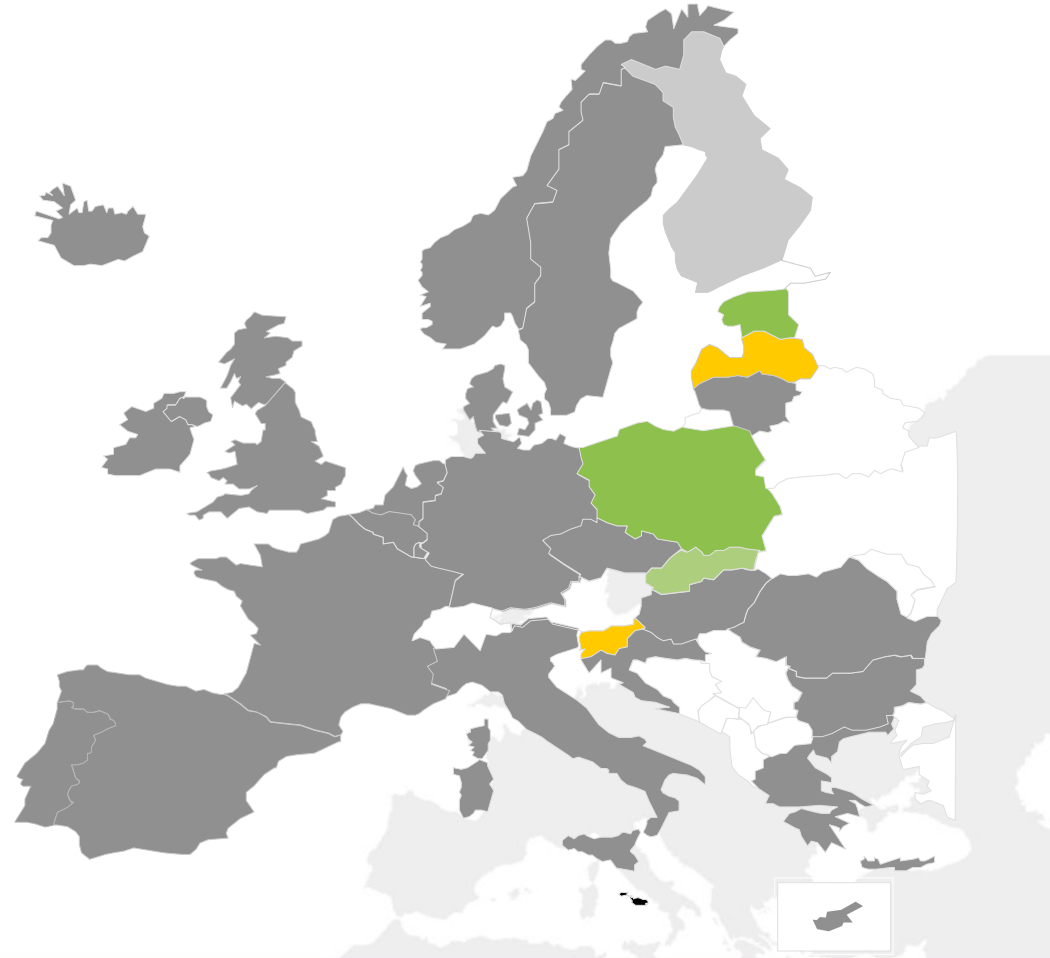
# Seasonal influenza vaccination coverage in older age groups in EU/EEA MSs (n=24)



† Sweden- reports were received for only around 60% of the population for 2009-10 influenza season  
 \*Norway- 2008-09 and 2009-10 coverage results calculated for those  $\geq 65$  and clinical risk groups together

# Seasonal influenza vaccine recommendations for children and adolescents in EU/EEA MSs (n=30)

-   $\geq 6$  months - 2 years
-   $\geq 6$  months - 3 years
-   $\geq 6$  months - 12 years
-   $\geq 6$  months - 18 years
-  No recommendation



Data refers to **2012-13 influenza season**

In Malta vaccine is recommended for those  $\geq 6$  months –  $< 5$  years  
In Liechtenstein there is no recommendation to vaccinate healthy children and adolescents

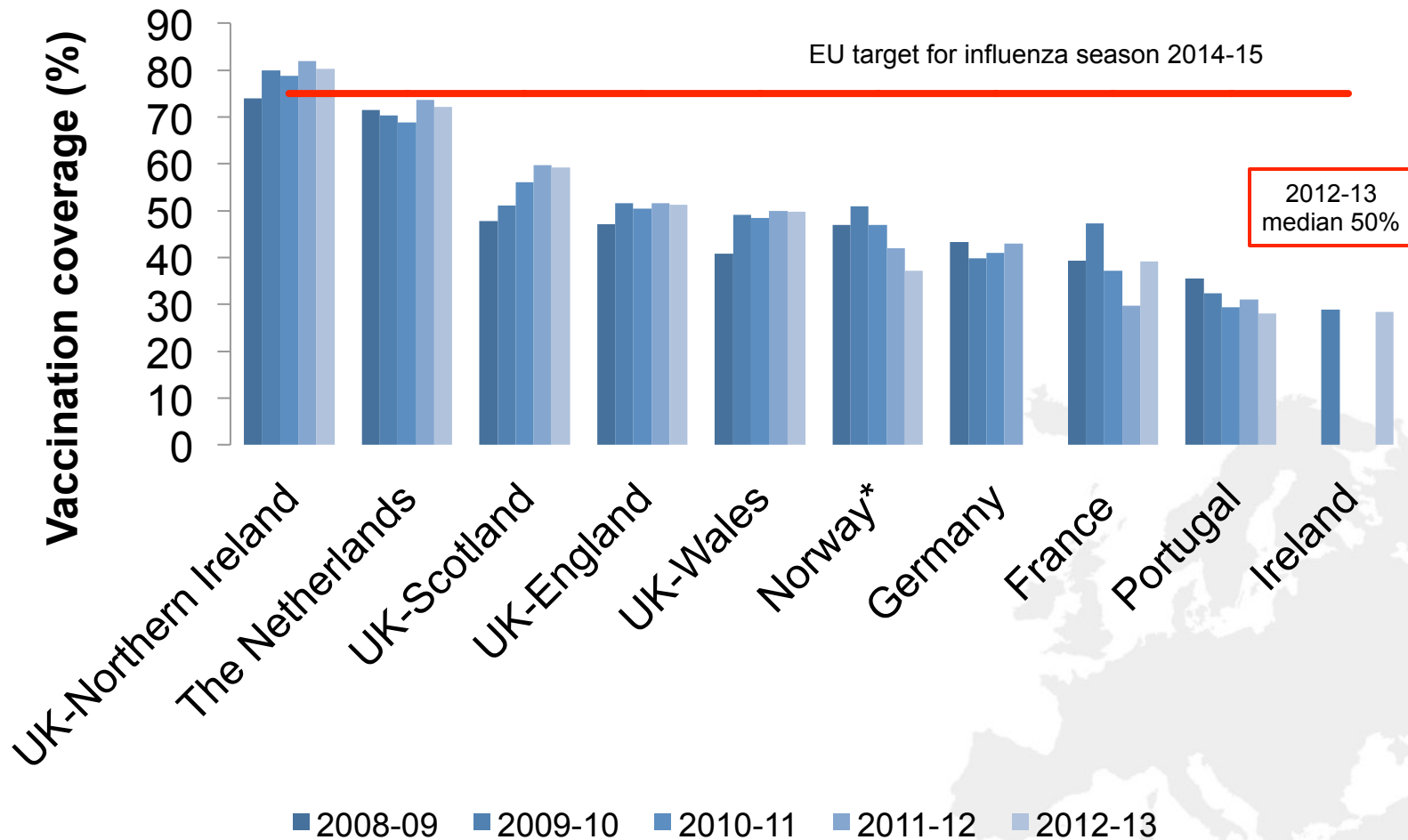
# Seasonal influenza vaccine recommendations for Chronic medical conditions in EU/EEA

Chronic medical conditions	Influenza season				
	2008-09 (n=27)	2009-10 <sup>a</sup> (n=28)	2010-11 (n=28)	2011-12 (n=28)	2012-13 (n=30)
Respiratory (pulmonary) disease	27	28	28	28	30
Cardiovascular disease	27	28	28	28	30
Renal disease	25	28	28	28	30
Immunosuppression due to disease or treatment	25	28	28	28	29
Hepatic diseases	15	17	19	21	27
Haematologic /metabolic disorders	26	28	28	28	27
HIV/AIDS	24	24	25	25	25
Children on long-term aspirin therapy	18	17	16	15	17
Morbid obesity <sup>b</sup>	-	-	9	10	15

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

<sup>b</sup> Body Mass Index  $\geq 40\text{kg/m}^2$

# Seasonal influenza vaccination coverage among those with chronic medical conditions in EU/EEA MSs (n=7)



\*Norway- 2008-09 and 2009-10 coverage results calculated for those  $\geq 65$  and clinical risk groups together

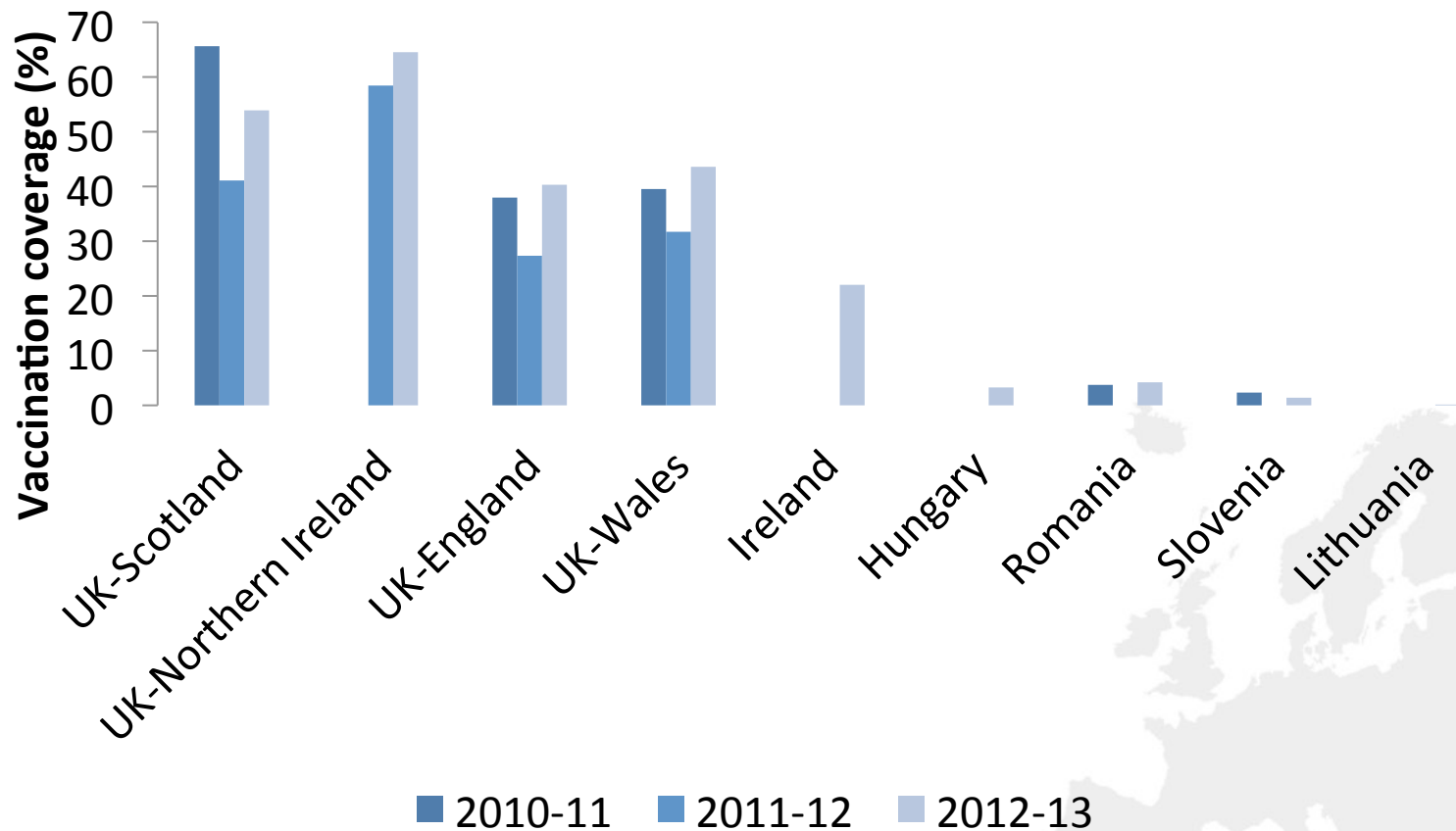
# Seasonal influenza vaccine recommendations for Pregnant women in EU/EEA MSs

Recommendations for pregnant women	Influenza season				
	2008-09 (n=27)	2009-10 <sup>a</sup> (n=28)	2010-11 (n=28)	2011-12 (n=28)	2012-13 (n=30)
Recommended	10	16	22	23	27 <sup>b</sup>
Any trimester	-	-	9	13	18
2 <sup>nd</sup> and 3 <sup>rd</sup> trimester	-	-	13	10	9
No recommendation	17	12	6	5	3

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

<sup>b</sup> For all pregnant women in 2012-13 in 25 countries; for those with additional clinical risk in two countries

# Seasonal vaccination coverage among pregnant women in EU/EEA MSs (n=6)

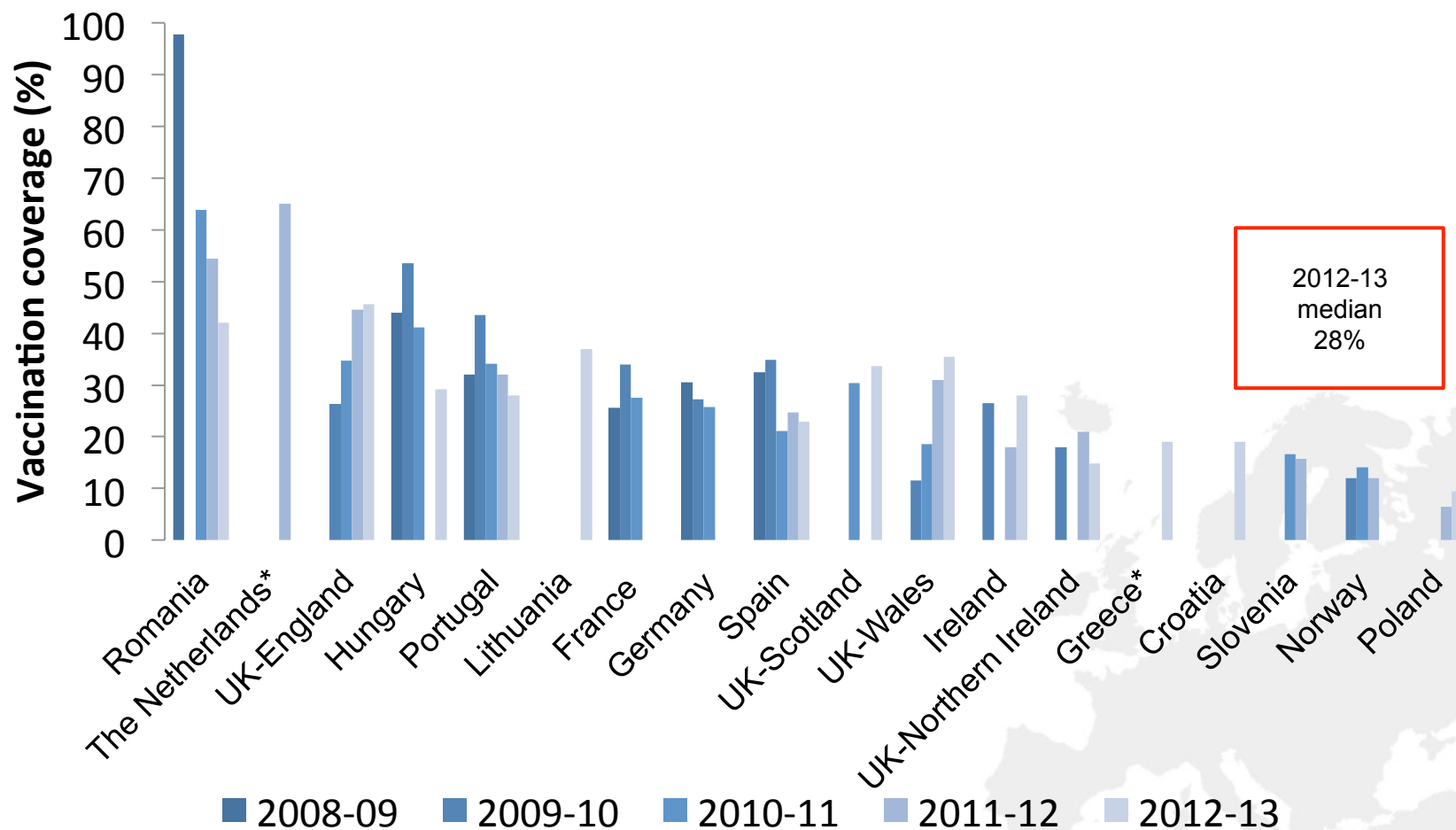


# Seasonal influenza vaccine recommendations for Occupational groups in EU/EEA MSs

Occupational groups	Influenza season				
	2008-09 (n=27)	2009 -10 <sup>a</sup> (n=28)	2010-11 (n=28)	2011-12 (n=28)	2012-13 (n=30)
HCWs	22	23	25	26	29
Essential services (police & firemen)	5	8	8	7	7
Military	6	9	10	11	11
Poultry industry	13	11	12	9	11
Families that raise poultry, pigs or waterfowl	4	9	9	7	5
Educational	-	-	5	3	3
Public transport	-	-	6	4	4
Energy sector	-	-	3	1	2
Border control/Immigration/custom staff	-	-	4	3	5

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

# Seasonal influenza vaccination coverage among HCWs in EU/EEA MSs (n=15)



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

---

## Comparison of vaccination coverage difficult

- Different methodologies to estimate vaccination coverage

## Data for clinical risk groups

- Difficult to estimate denominator and numerator

## Population surveys - variety of methodologies used

- Household, mail, face to face, telephone surveys



# Conclusions

- Recommendations for influenza vaccination

- Standard in most of the EU/EEA MS
- Comply with EC and WHO recommendations
- Implementation varies across countries

- Challenges in vaccination coverage monitoring

- For clinical risk groups, pregnant women and HCWs
- Some countries for older age groups



# Conclusions - Vaccination coverage

- For the older population
  - Suboptimal in most of the countries (except Netherlands and UK)
  - Did not increase in five influenza seasons
  - Do not meet 2009 council recommendation targets
- 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 five influenza seasons
- Pregnant women
  - One third countries monitor vaccination coverage
  - Moderate in UK, but low in the remaining countries

# Acknowledgments

---

## **VENICE Project gatekeepers/national experts**

### HPSC

*Jolita Mereckiene, Suzanne Cotter and Darina O'Flanagan*

### CINECA

- Consortium of University, Bologna, Italy

### 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

### ECDC

*Kari Johansen, Svetla Tsoлова*

# Thank you for your attention!



Queries: [IRV@ecdc.europa.eu](mailto:IRV@ecdc.europa.eu)