I-MOVE network
Influenza Monitoring Vaccine Effectiveness in Europe

M. Valenciano, E. Kassling, A. Moren, on behalf of the I-MOVE network: sites.google.com/site/epiflu/about-i-move/study-sites

What is I-MOVE?

Influenza vaccine
- Reformulated each year
- Recommended in all Member States ofthe European Union / European Economic Area (EU/EEA) to
  - Groups at risk of complications
  - Certain professional categories

Until 2007: no routine evaluation of influenza vaccine effectiveness (IVE) in EU/EEA.
In 2007, ECDC developed a network composed of 18 European Public Health Institutes and EpiConcept, the coordinating hub, to monitor seasonal and pandemic IVE in the EU/EEA: I-MOVE (Influenza Monitoring Vaccine Effectiveness in Europe)

Preparation phases

2007/8
- Literature review
- Surveys of EU MS
- Expert consultations

I-MOVE: a consolidated network for measuring IVE
- Estimates from several countries, several designs
- Laboratory confirmed outcome
- Control for positive / negative confounders
- Early estimates in seasons or pandemics
- Influenza VE by age group, subtype, target group for vaccination
- Contribution to strengthen influenza surveillance in the EU
  - Use of ILI EU case definition
  - Systematic sampling – based on existing sentinel networks

Excellnt scientific exchanges
- Within Europe and with international experts (Canada, US, Australia)
- Annual scientific meeting
- Workshops

Communication
- 35 articles published
- I-MOVE results included in meta-analysis (Lancet Infect Dis. 2012 Jan;12(1))
- Since 2009/10, preliminary results communicated to EMA, WHO, ECDC
- Dedicated website: https://sites.google.com/site/epiflu/home

I-MOVE phases

Implementation phase 2008/9-2012/13: Multicentre case control (MCC), cohort using primary care databases and screening method studies

2008/9
- MCC in elderly (5 studies)
- 2 cohort studies
- 2 screening method studies

2009/10
- MCC all ages (7 studies)
- 4 cohort studies
- 3 screening method studies

2010/11
- MCC all ages (8 studies)
- 3 cohort studies
- 5 screening method studies

2011/12
- MCC all ages (8 studies)
- 3 cohort studies
- 5 screening method studies

2012/13
- MCC all ages (6 studies)
- 3 cohort studies
- 3 screening method studies

Key methods

Multicentre case control studies
- Based on influenza sentinel networks at GP level
- Systematic selection of influenza-like illness (ILI) patients to be swabbed (at study sites since 2010-11)
- Cases: ILI patients positive for influenza
- Controls: ILI patients negative for influenza
- Common covariates to adjust for positive and negative confounding
- Logistic regression including all potential confounding factors

Cohort studies
- Large electronic GP databases
- All ages
- Outcomes: ILI, all respiratory illness, hospitalisations, mortality, lab-confirmed influenza
- Adjustment for positive and negative confounding
- Poisson/Time dependent regression; Cox regression (person-time analysis)

Adjusted influenza vaccine effectiveness estimates 2008/9-2011/12 (multicentre case control study)

Discussion