INFLUENZA SURVEILLANCE DURING A PANDEMIC

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Surveillance Unit
A Working Group set up

- WG set up by ECDC in 2006
- First meeting WG, 15-17 January 2006
- Uppsala Workshop, May 2006
- Second meeting WG, 3-4 May 2007
Requirements of surveillance during a pandemic will be greater than during a normal influenza season.

Expectations will run ahead of what can be delivered.

Many conventional influenza surveillance systems will be compromised.
First WG meeting, January 2006

- Set of surveillance objectives and needs during an influenza pandemic
- Objectives proposed for the different WHO pandemic phases and EU alert levels
- Revision of which surveillance systems can cover each objective
- Some areas for further development were identified
- First draft paper
Second WG meeting, May 2007

Focus on what?

- Phase 6
- What surveillance activities and outputs should be expected of all EU and EEA countries
- What can be done by a few countries or at an EU level

Second draft paper

- Resource for EU countries and ECDC to identify surveillance activities for a pandemic and to guide the planning
- To seek agreement on technical developments and data sharing

## Surveillance objectives in phase 6

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1. Early detection of pandemic influenza virus activity in European countries

- Year-round surveillance
- Surveillance of outbreaks
- Rapid expert viral testing (CNRL and NICs)
Year-round surveillance, inter-season
Electronic Bulletin

- Published since week 23/2006 (N=18)
- Published every two weeks
- Only VIROLOGICAL data is included in the Bulletin
- Reporting completeness needs to be improved (e.g. only 12 (41%) countries reported 5 or more weeks of data in 2006)
Outbreak surveillance

2. Collection of virus isolates

- Development/refinement of diagnostics
- Genotypic characterisation and assessment of evolution
- Vaccine development
- Antiviral susceptibility
3. Collation of key clinical and epidemiological data on the impact of the pandemic virus

- Assess clinical severity
- Case fatality and health care needs
- Assess epidemiological parameters of transmission including $R_o$ and age distribution
- Assess occurrence of complications including bacterial super-infection and antibiotic resistance
Investigation of first few hundred cases, UK approach
4. Provision of data for nowcasting and forecasting using real time modelling

- Provide information on near future levels of activity, estimates on persons
  - Infected with the pandemic strain
  - Requiring care (hospitalisation, antivirals)
  - Dying

- Adjusting for
  - Assumptions about the behaviour of the new pandemic strain
  - Available surveillance and monitoring data
5. Evaluation of effectiveness and safety of interventions

- Antivirals
- Vaccines (pre-pandemic and pandemic specific)
- Public health and social distancing measures
Suggested Developments
(Draft work plan 2008)

- Work under the Group to continue
- Agreement on core data to be gathered from first cases and how to do it
- Agreement on share protocols and outputs, through ECDC
- Mechanism for monitoring vaccine effectiveness (ECDC call for tender)
- Protocols for determining and monitoring antiviral effectiveness (ECDC call for tender)
- Project on the interface between real time modelling and surveillance
- List of minimum requirements for laboratory (WHO) and clinical surveillance for all MS
- More work with WHO, CDC and other partners
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Thank you!

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