

Pandemic influenza (H1N1) 2009

Issue 14
Monday, 12 October 2009

Meetings and events

28–30 September 2009: Vaccine working party, EMEA, London

ECDC participated as an observer at the Scientific Committee's vaccine working party, which provides scientific evidence to the Committee for Medicinal Products for Human Use (CHMP) at EMEA, on 28–30 September.

Weekly digest on pandemic influenza (H1N1) 2009 from ECDC's Daily Updates and from the Weekly Influenza Surveillance Overview

Aggregate numbers of pandemic (H1N1) 2009 cases and deaths in EU and EEA countries are presented in the Weekly Influenza Surveillance Overview on Fridays. The following statistics are from 09 October 2009:

- The cumulative number of reported cases since the beginning of the pandemic in EU/EEA Member States totals 44 068, of which 56 are known to have died.

Discrepancies with the ECDC daily pandemic (H1N1) 2009 update are due to unsynchronised reporting related to the ongoing transition to TESSy.

ECDC Daily Updates are produced by 09.00 every morning from Monday–Friday and will include information on pandemic (H1N1) 2009 epidemiology in EU and EFTA countries. The Monday Daily Update includes information from the weekend.

ECDC has now stopped publishing numbers of confirmed cases reported from EU and EEA Member States – as well as from other countries around the world – in its Daily Update. This is due to the fact that most European countries are now recommending laboratory confirmation only for certain population groups, such as the risk groups. The World Health Organization has also recommended that countries verify only the first few hundred cases; after that exhaustive sampling is not recommended any more.

ECDC will continue to monitor the evolution of the pandemic within Europe as reflected by the number of fatal cases by country and through the Weekly Influenza Surveillance Overview, which is published on Fridays. For countries outside of Europe, ECDC will monitor the number of fatal cases by country and monitor the surveillance reports of selected non-European countries. It must be emphasised that the numbers of fatal cases per country associated with pandemic influenza are likely to be gross underestimates. Access to healthcare, the quality of the

laboratory network in the country, the quality of the surveillance system and the case definition used for identifying fatal cases all affect these figures and will vary from country to country.

12 October 2009

Weekly overview of selected non-EU countries

The [Daily Update](#) on Mondays includes the weekly overview of selected non-EU countries, including Chile, Brazil, Australia, New Zealand and South Africa.

9 October 2009

Two studies published in New England Journal of Medicine (NEJM) online review some of the aspects of hospitalisations in the USA, Australia and New Zealand. The first article describes the Australian and New Zealand Intensive Care (ANZIC) study, which is an inception-cohort study of the first 722 patients admitted to ICUs in the two countries. The authors conclude that the pandemic (H1N1) 2009 had a substantial impact on ICUs during the winter in Australia and New Zealand. The second article is written by the 2009 Pandemic Influenza A(H1N1) Virus Hospitalizations Investigation Team and describes the clinical characteristics of all patients hospitalised with pandemic influenza in the USA from April 2009 to mid-June 2009. The authors of this study conclude that nearly three quarters of hospitalised patients had one or more underlying medical conditions and few severe illnesses were reported among persons older than 65 years of age.

The two articles can be found at: <http://content.nejm.org/cgi/content/full/NEJMoa0908481?query=TOC> and <http://content.nejm.org/cgi/content/full/NEJMoa0906695?query=TOC>

The ECDC Weekly Influenza Surveillance Overview

The ECDC Weekly Influenza Surveillance Overview is published on Friday afternoons and is available at: http://www.ecdc.europa.eu/en/activities/surveillance/EISN/Pages/EISN_Bulletin.aspx

8 October 2009

Microsoft launched a web-based pandemic influenza self-assessment tool. The tool is based on 'The Strategy for Off-Site Rapid Triage (SORT™)' and 'Real-time Epidemiological Assessment for Community Health (REACH™),' materials that were created and developed at Emory University.

The full tool is available at: <https://h1n1.cloudapp.net/default.aspx>

7 October 2009

Preliminary evidence from a study from Mexico suggests some protection from seasonal influenza vaccine against pandemic influenza

Mexican researchers published results of a frequency-matched case-control study among patients of a specialty hospital in Mexico City. The results, published in the British Medical Journal (BMJ), suggest that the 2008–09 trivalent seasonal influenza vaccine had some protective effect against pandemic influenza infection, particularly severe forms of the disease. The study design adjusted for confounding by age and underlying diseases. As stated by the authors, the study 'is prone to limitations due to small sample size and the retrospective study design. Therefore the estimates for vaccine effectiveness could be inflated owing to a high prevalence of chronic conditions and vaccination in our control population.' More studies are needed to comprehensively understand the impact of the seasonal 2008–09 influenza vaccines on the risk of infection with pandemic A(H1N1) 2009 virus.

Read the full article at: http://www.bmj.com/cgi/content/abstract/339/oct06_2/b3928

6 October 2009

The Daily Update on Tuesdays includes a weekly update on the pandemic from USA and Canada.

Please see this week's updates at:

http://ecdc.europa.eu/en/healthtopics/Documents/091006_Influenza_AH1N1_Situation_Report_0900hrs.pdf

This week's media highlights

Much of the media this week has focused on the start of the US pandemic vaccination programme, with many global and European press considering the attitude of many US citizens towards the vaccine. Of particular interest to the media has been the re-assurance given by US Health Secretary that the vaccines that are being used are safe and have been rigorously tried and tested. This perspective has also been widely reported from statements made by the World Health Organization (WHO), which restated its confidence in the pandemic influenza (H1N1) vaccine, calling it the most important tool against the pandemic, and affirmed that mild adverse side effects are to be expected in some people but everyone who has access to the vaccine should still be inoculated. Other news coverage has focused on governments placing orders for the pandemic flu vaccine and, in parallel, the news that the European Commission has approved another pandemic vaccine for use, this time produced by Baxter.

Scientific advance

Why healthcare workers are a priority group for pandemic influenza (H1N1) vaccination?

Healthcare workers (HCWs) are often the first priority group for pandemic (H1N1) vaccination. There are three prime reasons for their being immunised: protecting their patients, personal protection and maintaining a service. Initial data from seasonal influenza vaccination campaigns and surveys of intentions of healthcare workers suggest vaccine coverage can be less than desirable. At the same time, vaccination needs to be made much easier for HCWs to achieve high coverage in order to protect their patients and themselves.

Link to the full Scientific Advice will be available at:

<http://ecdc.europa.eu/en/activities/sciadvicelists/ECDC%20Reviews/DispForm.aspx?ID=664>

N95 (FFP2) masks no more effective than surgical masks in protecting healthcare workers against human influenza – results of the Canadian RCT among nursing staff

A well-organised controlled trial with nurses in Canadian hospitals found that during seasonal influenza epidemics there was no advantage of the use of N95 respirators (equivalent to the FFP2 level) compared to ordinary surgical mask when laboratory-confirmed influenza infection was an endpoint. This is the first published trial involving healthcare workers and is especially powerful as randomisation took place at an individual (nurse) level. What masks to use in a pandemic or for protection against seasonal influenza has been a persistent source of controversy. Another recent unpublished study suggests that N95 respirators actually outperform surgical masks in protecting hospital workers from influenza viruses. One remarkable observation of the Canadian study was that only around 30% of the trial nurses had received seasonal vaccine that year.

Full ECDC review available at:

http://ecdc.europa.eu/en/activities/sciadvicelists/Pages/Scientific_Updates.aspx?filterItemsBy1=ECDC_Subject_what&filterItemsByValue1=Influenza

Updates from *Eurosurveillance*

Does viral interference affect spread of influenza?

It is a paper from Sweden that presents the hypothesis that a rhinovirus epidemic after the end of the summer holidays may have interfered with the spread of pandemic influenza during a period with warm and humid weather conditions that reduces spread of influenza by aerosol. Although the laboratory data supporting this hypothesis are limited, it is meant to stimulate research into the possibility that the interaction between different circulating viruses may affect influenza epidemiology. As a possible explanation, the authors note that rhinovirus transmission is not known to be climate-dependent. Thus the spread of rhinoviruses may have had an advantage over influenza in mild and moist climate. Rhinovirus infection will elicit an innate immune response in the infected cells, stimulating the production of interferons and other cytokines. This immune reaction causes the cells to enter an antiviral state that would to some extent protect them from further infections by other viruses.

Link to the article: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19354>

Google Flu Trends now includes several European countries

Google Flu Trends, a tool that estimates the level of influenza activity in near real time using aggregated search queries, has been released for 14 countries in Europe on 8 October 2009 by Google.org, the philanthropic arm of Google. In total, Google Flu Trends covers information for 20 countries worldwide and it is available in 37 languages.

Link to the article: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19352>

Link to Google Flu Trends: <http://www.google.org/flutrends/>

Upcoming events

12 October: ECDC will participate in an extra Council meeting with the EU Health Ministers entirely devoted to the influenza pandemic (H1N1) 2009. The meeting will take place in Luxembourg.

12–14 October: ECDC will hold its Competent Bodies meeting in Uppsala on Strengthening Europe's Defences against Communicable Diseases. The focus will be on the roles and responsibilities of the different parties, on Europe facing the influenza (H1N1) 2009 pandemic and on the challenge of preventing and controlling communicable diseases in an open Europe.

14–16 October: ECDC will participate in a meeting in Washington on the clinical aspects of influenza (H1N1) 2009.

15 October: an ECDC representative will be speaking on the pandemic (H1N1) 2009 at the World Health Congress in Berlin.