H1N1 Flu Virus (Human Swine Influenza)
Information Resources
Current as of August 25, 2009 at 4pm

Highlights

The current epidemic of swine-origin H1N1 influenza A virus highlights the need for the rapid exchange of scientific results and ideas. PLoS Currents: Influenza aims to enable this exchange by providing an open-access online resource for immediate, open communication and discussion of new scientific data, analyses, and ideas in the field of influenza. All content is moderated by an expert group of influenza researchers.

First estimation of direct H1N1pdm virulence: from reported non consolidated data from Mauritius and New Caledonia

Fitness of Pandemic H1N1 and Seasonal influenza A viruses during Co-infection: evidence of competitive advantage of pandemic H1N1 influenza versus seasonal Influenza

The Contribution of the PB1-F2 Protein to the Fitness of Influenza A Viruses and its Recent Evolution in the 2009 Influenza A (H1N1) Pandemic Virus

Reducing influenza spreading over the airline network

Conditions Under Which Predispensing of Antiviral Drugs to Individuals at High Risk of Death from Pandemic Influenza Is Expected to Save Lives
Contents

Events

Updates by Jurisdiction

Ontario
   Ontario Ministry of Health and Long-Term Care (MOHLTC)
   Ontario Agency for Health Promotion and Protection (OAHPP)

Canada
   Public Health Agency of Canada (PHAC)

United States
   Centers for Disease Control and Prevention (CDC)
   Center for Infectious Disease Research & Policy
   Other US Sources

Europe
   United Kingdom’s Health Protection Agency (HPA)
   UK Department of Health
   European Centre for Disease Control and Prevention (ECDC)
   European Union

International
   World Health Organization (WHO)
   Pan American Health Organization (PAHO)
   Australia and New Zealand

Other Resources
   Consumer Health Information Resources
   Research Articles
   Clinical and Public Health Practice Tools
   Historical Resources
   Travel Advisories
Events

Current / Upcoming


   SPEAKERS: Georgina Peacock, MD MPH
            Pascale Wortley, MD MPH
            Lisa Barrios, DrPH MS
   DATE: Wednesday, August 26, 2009 TIME: 4:00 - 5:00 PM ET
   CALL-IN NUMBER: 888-283-2960      PASSCODE: 8193208
   There will be a PowerPoint Presentation for this call that will be available by Wednesday, August 26th: http://emergency.cdc.gov/coca/callinfo.asp

Archived

[AUG 25] Corporate preparedness for H1N1: How pressure-tested planners are bracing now for fall

[AUG 20] Maine H1N1 Influenza Preparedness Summit
   The goal of this Summit is to help Maine prepare for the fall and to plan for a statewide H1N1 vaccination campaign.

[AUG 13] Experts air practical PPE considerations to Institute of Medicine
   On the second and final day of an Institute of Medicine (IOM) task force meeting on how to protect healthcare workers from the novel H1N1 virus, experts focused on issues surrounding the effectiveness and practical use of masks and respirators in work settings.

[AUG 11-13] Workshop on personal protective equipment for healthcare workers in the workplace against novel H1N1 influenza A
   This workshop will examine the emerging science and clinical experience base associated with nH1N1, discuss criteria used to delineate infection control guidelines and assess risk to the healthcare workforce, and examine what's known about the effectiveness of masks, respirators, gowns, gloves, and eye protection in preventing H1N1 transmission.
Ministry of Health and Long-Term Care (MOHLTC)

The Influenza Bulletin provides information based on the surveillance period August 9 to August 15, 2009. Case counts from the previous week are submitted to the ministry by public health units every Tuesday. Data on hospitalizations and deaths is submitted daily and therefore is accurate as of August 19th.

For the surveillance period of August 9 to August 15, 2009:

- Influenza activity in Ontario similar compared to previous week.
- Ontario health units reported 22 new confirmed cases of influenza through iPHIS, including 14 laboratory confirmed cases of pH1N1
- During week 32, new laboratory confirmed cases of pH1N1 continued to be seen across the province, with Central West reporting most of these cases. No new institutional influenza outbreaks were reported.
- For week 32, North East health region reported ‘localized’ level activity while the remaining health regions reported ‘sporadic’ level activity.
- The rate of influenza-like illness (ILI) in patients seen by sentinel physicians was above the range that is expected for this time of the year based on the average ILI rate reported in week 32 for the past 3 years.

As of August 19:

- 22 deaths have been reported among confirmed H1N1 cases.
- Total of 4 007 cases
- 37 people who have the H1N1 flu virus were in hospital as of August 19, a number of whom have underlying medical conditions. 315 other people have been hospitalized and have since been discharged.
- A higher number of hospitalized cases were reported this week. One new death among cases were reported this week.

[ARCHIVED]  Previous MOHLTC updates and news conference video footage

Important Health Notices

Last H1N1 update was August 18

Ontario Agency for Health Protection and Promotion (OAHPP)

[AUG 18]  **H1N1 weekly synthesis of surveillance information, literature & government updates for week ending Aug 14, 2009**

[ARCHIVED]  Swine influenza outbreak page

Public Health Agency of Canada (PHAC)

PHAC issues national updates on H1N1-associated deaths on Tuesdays and Thursdays at 4 pm, and will report regularly on any unusual outbreaks or clusters of illness.

[AUG 25]  **Deaths associated with H1N1 flu virus in Canada**

No deaths reported since the previous update, for a cumulative total of 71 as of Aug 25
**FluWatch findings for Week 32 (week ending Aug 15)**

- Overall influenza activity decreased this week; the reported activity level (2 regions reported localized activity), the proportion of influenza positive tests (4.2%), the overall number of influenza outbreaks (1) are lower compared to last week. The national ILI consultation rate (15 consultations per 1,000 visits) remains similar to the previous week.
- As of August 15, 2009, a total of 1,422 hospitalized cases and 275 cases admitted to an intensive care unit (ICU) had been reported to the Public Health Agency of Canada. This week, four new deaths were reported for a total of 70 deaths since the beginning of the pandemic. 90% of the hospitalized cases and more than 85% of the deaths have been reported by only 4 provinces (Alberta, Manitoba, Ontario and Quebec).
- Overall Pandemic (H1N1) 2009 activity still decreasing across Canada
- Those under 15 have the highest rates of hospitalization. Mortality is highest in those 45 years and older (mortality also elevated in the population <1 yr)

**Previous PHAC documents and updates**

**Centers for Disease Control and Prevention (CDC) and US Department of Health and Human Services**

*CDC reports the total number of H1N1 hospitalizations and deaths each Friday.*

**2009 H1N1 Flu situation update**

- 7,983 hospitalizations
- 522 deaths

**Novel 2009 H1N1 Flu: International situation update**

- The 2009 H1N1 influenza virus is the predominant influenza virus in circulation worldwide.
- The epidemiology of the disease caused by the 2009 H1N1 influenza virus in the Southern Hemisphere is very similar to that described in the United States this past spring.
- There have been no significant changes detected in the 2009 H1N1 influenza virus isolated from persons in the Southern Hemisphere as compared to viruses isolated from persons in the Northern Hemisphere.

**Influenza A (H1N1) 2009 monovalent vaccine safety monitoring: CDC planning for state, local, tribal, and territorial health officials**

**Use of Influenza A (H1N1) 2009 monovalent vaccine**
Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2009. Use of Influenza A (H1N1) 2009 Monovalent Vaccine. MMWR. 2009; 58; Early Release.

**Preparing for the flu: A communication toolkit for institutions of higher education**
Federal guidelines encourage employers to plan now for upcoming influenza season: recommendations range from encouraging hand washing to allowing some employees to stay home

Previous CDC documents and updates

Other US Sources

Duncan, Sebelius Unveil Recommendations for Schools on How Learning Continues in Case of Flu Outbreak

President's Council of Advisors on Science and Technology (PCAST) releases report assessing H1N1 preparations

Agency for Healthcare Research and Quality: Home health care during an influenza pandemic: issues and resources

National Institute of Allergy and Infectious Diseases: First results of novel H1N1 vaccine trials—needed for determining the number and size of doses people will get—are expected in mid-September

Center for Infectious Disease Research and Policy

Presidential panel calls for planning czar, faster vaccine
A White House expert advisory group today released a report calling for the Obama Administration to accelerate novel H1N1 vaccination preparation for high-risk Americans and appoint a White House pandemic preparedness point person, among other recommendations.

Panel urges HHS to prepare for H1N1 vaccine safety concerns
An advisory committee today called on the Department of Health and Human Services (HHS) to be ready to respond quickly to safety concerns that may emerge during this fall's novel H1N1 influenza vaccination campaign.

Current overview and older updates from CIDRAP

Health Protection Agency (UK)

Weekly pandemic flu update
- Further reduction in the rates of flu-like illness and related activity
- Weekly GP consultation rates continued to decrease in England
- Majority of cases continue to be mild. No sign that the virus is changing (it is not becoming more severe or developing resistance to anti-virals)
- Interpretation of data to produce estimates on the number of new cases continues to be subject to a considerable amount of uncertainty. HPA modelling gives an estimate of 11,000 new cases in England last week (range 6,000 to 25,000). There has been a decrease in estimated number of
cases in all age groups and in all regions. *This estimate incorporates data from National Pandemic Flu Service and GP consultations.*

[AUG 20]  **Weekly National Influenza Report (Week 34)**

[ARCHIVED]  **Swine Influenza page**

**Department of Health (UK)**

[AUG 20]  **Pandemic flu: planning and responding to primary care capacity challenges**

[AUG 20]  **Advice concerning organ donation and H1N1**

[AUG 20]  **Swine Flu: Authorisation of the supply of antivirals**

[ARCHIVE]  **DH Pandemic Flu site**

**European Centre for Disease Prevention and Control (ECDC) and European Society for Clinical Microbiology and Infectious Diseases**


- 93 new cases reported in the EU and EFTA countries, reaching a total of 43245 cases; 1685 new cases including 22 fatal cases, were reported from non-EU and EFTA countries, reaching a cumulative total of 211702 cases;
- ECDC Scientific Advance review published;
- US president's advisors release report assessing pandemic influenza preparedness;
- ECDC summary of weekly media monitoring included.

[AUG 21]  **Weekly Epidemiological bulletin – Week 33**

[AUG 21]  **Sweden publishes recommendations for vaccination**

[AUG 21]  **ECDC publishes health education guidance on the use of influenza antivirals**

[ARCHIVED]  **Maps, surveillance summaries and previous ECDC updates**

**European Union**

[AUG 25]  **EU Health Security Committee (HSC) / Early Warning and Response System (EWRS) : HSC/EWRS Statement on Influenza A(H1N1) 2009: target and priority groups for vaccination**
[AUG 25] France launches a new communication campaign on Influenza A(H1N1) [in French]

[AUG 21] Ireland starts Pandemic H1N1 2009 public information campaign

[ARCHIVE] European Union Influenza H1N1 page

World Health Organization (WHO)

WHO no longer issues the global tables showing the numbers of confirmed cases for all countries. Regular updates describing the situation in the newly affected countries are provided.

[AUG 21] Pandemic (H1N1) 2009 - update 62 - REVISED

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<td>Total</td>
<td>Over 182166</td>
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</tbody>
</table>

*Given that countries are no longer required to test and report individual cases, the number of cases reported actually understates the real number of cases.

[AUG 21] WHO Recommended use of antivirals
Pandemic (H1N1) 2009 briefing note 8

[AUG 20] WHO Guidelines for Pharmacological Management of Pandemic (H1N1) 2009 Influenza and other Influenza Viruses

[ARCHIVED] WHO H1N1 Guidance Documents

[ARCHIVED] Older WHO Updates

Pan-American Health Organization (PAHO)

[AUG 25] Regional Update for Aug 21: Pandemic (H1N1) 2009
As of August 21, 2009, a total of 110,113 confirmed cases have been notified in all 35 countries in the Americas Region. A total of 1,876 deaths have been reported among the confirmed cases in 22 countries of the Region.
On July 21, 2009, Canada reported the first case of oseltamivir-resistant pandemic (H1N1) 2009 virus in the Americas Region. Since then, the United States reported on
August 14, 2009 the detection of oseltamivir-resistant pandemic (H1N1) 2009 virus in two immunosuppressed patients in the State of Washington.

[ARCHIVED] PAHO Influenza A (H1N1) Portal

Australia and New Zealand

[AUG 24] New Zealand Ministry of Health Situation Update 142
There are a total of 3106 confirmed cases of Pandemic Influenza (H1N1) 09 swine flu, up from 3090 on 21 August. These are people who have returned a positive laboratory test for pandemic influenza (H1N1) 09. The number of deaths from Pandemic Influenza (H1N1) 09 swine flu is 16.

- At noon Australia had 33,844 confirmed cases of pandemic (H1N1)
- The total number of Australian deaths associated with pandemic (H1N1) is currently 132
- There are currently 440 people in hospital around Australia with pandemic (H1N1), and 100 of these are in Intensive Care Units.

[ARCHIVED] New Zealand’s H1N1 page

[ARCHIVED] New Pandemic Phase Project - PROTECT Guidelines/Updates [Australia]

Research Articles (1 week backfile)

What's new today, plus a one week backfile. Articles with an asterisk (*) indicate that a subscription is required to view the full text.

Medline literature search on H1N1 (current as of today)

[AUG 25] New Research collection : PLoS Currents: Influenza [the following list of updates are the most recent in the collection]

First estimation of direct H1N1pdm virulence :from reported non consolidated data from Mauritius and New Caledonia. Flahault A.

The Contribution of the PB1-F2 Protein to the Fitness of Influenza A Viruses and its Recent Evolution in the 2009 Influenza A (H1N1) Pandemic Virus. Trifonov V, Rabada R, Racaniello.

Reducing influenza spreading over the airline network. Marcelino J, Kaiser M.


[AUG 24] Investment decisions in influenza pandemic contingency planning: cost-effectiveness of stockpiling antiviral drugs

[AUG 24] The public’s acceptance of novel vaccines during a pandemic: A focus group study and its application to influenza H1N1

[AUG 24] The Effect of Universal Influenza Immunization on Antibiotic Prescriptions: An Ecological Study

[AUG 24] Use of Animal Models to Understand the Pandemic Potential of Highly Pathogenic Avian Influenza Viruses

[AUG 24] Influenza at the 26th ICC

[AUG 24] Incidence of swine flu in England continues to fall, but winter surge is predicted
Siva N. Incidence of swine flu in England continues to fall, but winter surge is predicted. BMJ. 2009;339:b3421.

[AUG 24] Ethical Guidelines in Pandemic Influenza: Recommendations of the Ethics Subcommittee of the Advisory Committee of the Director, Centers for Disease Control and Prevention
Kinlaw K, Barrett DH, Levine RJ. Ethical Guidelines in Pandemic Influenza: Recommendations of the Ethics Subcommittee of the Advisory Committee of the
Clinical characteristics of paediatric H1N1 admissions in Birmingham, UK

Swine-origin influenza virus H1N1, seasonal influenza virus, and critical illness in children

Influenza vaccination and mortality: differentiating vaccine effects from bias.

A/H1N1 pandemic: Case definition is too loose*

Four at-risk groups will be first to be vaccinated against swine flu, says chief medical officer.*
Dinsdale P. Four at-risk groups will be first to be vaccinated against swine flu, says chief medical officer.* BMJ  2009;339:b3363

Use of revised international health regulations during influenza A (H1N1) epidemic, 2009.

ASID/TSANZ guidelines: treatment and prevention of H1N1 influenza 09 (human swine influenza) with antiviral agents

Optimizing Influenza Vaccine Distribution*
Medlock J, Galvani AP. Optimizing influenza vaccine distribution. Science DOI: 10.1126/science.1175570. Published Online August 20, 2009

Modelling the impact of an influenza A/H1N1 pandemic on critical care demand from early pathogenicity data: the case for sentinel reporting

Swine flu vaccination in patients with egg allergy

[AUG 21] Influenza A (H1N1) infections among healthcare workers: a cause for cautious optimism.*


[AUG 21] With reference to Mexican flu


[AUG 21] Diversity of influenza viruses in swine and the emergence of a novel human pandemic influenza A (H1N1)

[AUG 21] Initial human transmission dynamics of the pandemic (H1N1) 2009 virus in North America


[AUG 21] Invited commentary on David Fedson's article.

[AUG 20] Pandemic flu: will there be a second wave?
Godlee F. BMJ 2009;339:b3394

[AUG 20] Eurosurveillance  20 Aug 2009; 14(33)
Epidemiology of fatal cases associated with pandemic H1N1 influenza 2009
L Vaillant, G La Ruche, A Tarantola, P Barboza, for the epidemic intelligence team at InVS
This article describes the characteristics of 574 deaths associated with pandemic H1N1 influenza up to 16 July 2009. Data (except from Canada and Australia) suggest that the elderly may to some extent may be protected from infection
The importance of school and social activities in the transmission of influenza A(H1N1)v: England, April – June 2009
by I Kar-Purkayastha, C Ingram, H Maguire, A Roche
During the containment phase in the United Kingdom (April to June 2009), a cluster of influenza A(H1N1)v cases was identified prompting further investigation and public health action by the Health Protection Agency

Epidemiological and clinical characteristics of influenza A(H1N1)v infection in children: The first 45 cases in Cyprus, June – August 2009
by M Koliou, ES Soteriades, MM Toumasi, A Demosthenous, A Hadjidemetriou
Following the first imported case in a tourist in Cyprus on 2 June 2009, the influenza A(H1N1)v virus has spread on the island affecting mainly young adults and children.

Clinical and epidemiologic characteristics of 3 early cases of influenza A pandemic (H1N1) 2009 virus, People's Republic of China.

Nurses’ contacts and potential for infectious disease transmission.
Bernard H, Fischer R, Mikolajczyk RT, Kretzschmar M, Wildner M. Emerg Infect Dis. 2009 Sep; [Epub ahead of print]

Genomic diversity of oseltamivir-resistant influenza virus A (H1N1), Luxembourg, 2007–08 [letter].
Gerloff NA, Kremer JR, Mossong J, Opp M, Muller CP. Emerg Infect Dis. 2009 Sep; [Epub ahead of print]

Emergence of European Avian Influenza Virus-Like H1N1 Swine Influenza A Viruses in China

Modeling the effects of influenza vaccination of health care workers in hospital departments *

Safety and Immunogenicity of a Novel Influenza Subunit Vaccine Produced in Mammalian Cell Culture

Commentary: Influenza Vaccine Manufacture: Keeping Up with Change
Swine influenza (H1N1) pandemic: developing countries’ perspective

Business Resources

Harvard Health Publications

[ARCHIVED] Business Preparedness for Pandemic: Executive Briefing for Corporate and Governmental Decision-makers

[ARCHIVED] Link to report from U.S. Government Accountability Office re Pandemic Planning and funding

Canadian Business

[ARCHIVED] H1N1 virus: A Plan for the Worst

Consumer Health Information Resources

[ARCHIVED] Krames Patient Education Handouts - H1N1 Flu Virus

[ARCHIVED] MEDLINEplus - H1N1 Flu (Swine Flu)

[ARCHIVED] Specialized Information Service - National Library of Medicine

[ARCHIVED] Tufts University - (SPIRAL) Selected Patient Information in Asian Languages

Clinical and Public Health Practice Tools

[AUG 18] Infectious Disease Outbreaks: Tools and Strategies for Front-line Clinicians
Created in consultation with front-line clinicians and infectious disease experts from across Canada, this course is evidence-based and focuses on the coordination between clinical care, public health and the laboratory.

[JUNE 15] Algorithms from 18 US States to Assist in Decisions Regarding Testing and Treatment of H1N1

Historical Resources

Swine flu of 1976: lessons from the past. An interview with Dr Harvey V Fineberg


Historical Perspective — Emergence of Influenza A (H1N1) Viruses. New England Journal of Medicine

Nonpharmaceutical Interventions Implemented by US Cities During the 1918-1919 Influenza Pandemic

The Swine Flu Affair: Decision-Making on a Slippery Disease

Travel Advisories
Public Health Agency of Canada no longer recommends Canadians postpone elective or non-essential travel to Mexico