

# H1N1 Flu Virus (Human Swine Influenza)

## Information Resources

(last updated July 10, 2009 at 5pm)

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### Overview

- Confirmed cases in Ontario as of **July 9**: 3,465
- Confirmed cases in Canada as of **July 8**: 9,429 (incl. 37 deaths)
- Confirmed cases worldwide as of **July 6**: 94,512 (incl. 429 deaths)  
**WHO pandemic level: 6**
  - [JUNE 11] World now at the start of 2009 influenza pandemic  
[http://www.who.int/mediacentre/news/statements/2009/h1n1\\_pandemic\\_phase6\\_20090611/en/index.html](http://www.who.int/mediacentre/news/statements/2009/h1n1_pandemic_phase6_20090611/en/index.html)
- Health Affairs: *How well did health departments communicate about risk at the start of the swine flu epidemic in 2009?* (US)  
<http://content.healthaffairs.org/cgi/reprint/hlthaff.28.4.w743v1.pdf>
- American College of Emergency Physicians: *National strategic plan for emergency department management of outbreaks of novel H1N1 influenza*  
<http://www.acep.org/WorkArea/DownloadAsset.aspx?id=45781>
- UK Department of Health reports: *Swine flu pandemic: from containment to treatment*  
<http://www.dh.gov.uk/en/Publichealth/Flu/Swineflu/InformationandGuidance/index.htm>

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## Events

### Current / Upcoming

- [JULY 29] Special Advisory Committee on Immunization Practices (ACIP) meeting on Novel Influenza A (H1N1).  
8:00a.m. - 3:00p.m (Atlanta, Georgia).  
Deadline for online registration for non-US Citizens: July 20, 2009  
<http://www.cdc.gov/vaccines/recs/acip/meetings.htm#register>
- [JULY 9] H1N1 Preparedness Summit (Bethesda, Maryland)  
All-day H1N1 Flu Preparedness Summit to further prepare the nation for the possibility of a more severe outbreak of H1N1 flu in the fall. Federal, state and local officials, emergency managers, educators and others will discuss lessons learned during the spring and summer H1N1 wave, and discuss best practices and preparedness priorities.  
<http://www.pandemicflu.gov/>

### Archived

- [JULY 1] Global Summit over Lessons Learned from Influenza (H1N1)  
Health representatives from forty countries, the WHO, and the Pan American Health Organization and the highest level specialists will be in attendance, from July 1st to 3rd, 2009 in Cancun.
- [JUNE 30] The Henry J. Kaiser Family Foundation: [Learning to live in a world with the H1N1 pandemic](#)
- [JUNE 24] The Ontario Hospital Association presents [The Pandemic Influenza: Where are we now?](#)

## Ministry of Health and Long-Term Care (MOHLTC)

### The MOHLTC posts case count updates on Friday



- [JULY 9] 3,465 cases
- [ARCHIVE] Previous MOHLTC updates and news conference video footage available at:  
[http://www.health.gov.on.ca/english/public/updates/archives/hu\\_09/swine\\_flu.html](http://www.health.gov.on.ca/english/public/updates/archives/hu_09/swine_flu.html)

### Important Health Notices

Last H1N1 update on June 11

## Ontario Agency for Health Protection and Promotion (OAHPP)

[ARCHIVE] Swine Influenza Outbreak page (no new resources since May 3)  
<http://www.oahpp.ca/SRI%20Bulletin.php>

## Public Health Agency of Canada (PHAC)

PHAC posts case count updates on Monday, Wednesday, and Friday

[JULY 7] Government of Canada identifies new strain of influenza (not H1N1)  
[http://www.phac-aspc.gc.ca/media/nr-rp/2009/2009\\_0707-eng.php](http://www.phac-aspc.gc.ca/media/nr-rp/2009/2009_0707-eng.php)


[JULY 3] As of 8 July, 2009, a total of 9,429 laboratory-confirmed cases of Pandemic (H1N1) 2009, including 878 hospitalizations and 37 deaths, have been reported in Canada from all provinces and territories.  
<http://www.phac-aspc.gc.ca/alert-alerte/swine-porcine/surveillance-eng.php>

[ARCHIVE] Previous PHAC documents and updates available from:  
[http://www.phac-aspc.gc.ca/alert-alerte/swine\\_200904-eng.php](http://www.phac-aspc.gc.ca/alert-alerte/swine_200904-eng.php)

## Centers for Disease Control and Prevention (CDC)

The CDC posts case count updates on Friday.

 [JULY 9] Obama Administration Calls on Nation to Begin Planning and Preparing for Fall Flu Season & the New H1N1 Virus  
<http://www.hhs.gov/news/press/2009pres/07/20090709a.html>

 [JULY 9] CDC Health Alert Network (HAN) Info Service Message: Three Reports of Oseltamivir Resistant Novel Influenza A (H1N1) Viruses  
<http://www.cdc.gov/h1n1flu/HAN/070909.htm>

[JULY 8] UPDATE: What to Do If You Get Flu-Like Symptoms  
<http://www.cdc.gov/h1n1flu/sick.htm>

[JULY 8] UPDATE: Interim Guidance for H1N1 Flu (Swine Flu): Taking Care of a Sick Person in Your Home  
[http://www.cdc.gov/h1n1flu/guidance\\_homecare.htm](http://www.cdc.gov/h1n1flu/guidance_homecare.htm)

[JULY 8] CDC Recommendations for State and Local Planning for a 2009 Novel H1N1 Influenza Vaccination Program  
<http://www.cdc.gov/h1n1flu/vaccination/statelocal/planning.htm>



[JULY 10] Cases: 37,246 Deaths: 211  
<http://www.cdc.gov/h1n1flu/update.htm>

[ARCHIVE] Previous CDC documents and updates available from:  
<http://www.cdc.gov/h1n1flu/guidance/>

## American College of Emergency Physicians

[JULY 6] National Strategic Plan for Emergency Department Management of Outbreaks of Novel H1N1 Influenza  
<http://www.acep.org/WorkArea/DownloadAsset.aspx?id=45781>

## Center for Infectious Disease Research and Policy

[ARCHIVE] Older updates from CIDRAP available at:  
<http://www.cidrap.umn.edu/cidrap/content/influenza/swineflu/index.html>

## Health Protection Agency (UK)



[JULY 9] HPA Weekly National Influenza Report (Week 28)  
[http://www.hpa.org.uk/web/HPAwebFile/HPAweb\\_C/1247125493338](http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1247125493338)

[ARCHIVE] Swine Influenza page:  
<http://www.hpa.org.uk/webw/HPAweb&Page&HPAwebAutoListName/Page/1240732817665?p=1240732817665>

## Department of Health (UK)

[JULY 2] UK Department of Health reports: *Swine flu pandemic: from containment to treatment*  
<http://www.dh.gov.uk/en/PublicHealth/Flu/Swineflu/InformationandGuidance/index.htm>

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



[JULY 10] ECDC Situation Report

- 2647 new confirmed cases reported from the EU and EFTA countries, including 2271 cases from the UK;
- The latest analysis of individual case reports in the EU/EEA countries is now available;

- 2199 new cases reported from non-EU and EFTA countries, reaching a total of 95,811;
- Two new non-EU/EFTA countries report their first cases: Tanzania and St Vincent;
- New Zealand reports on high influenza activity.

[http://www.ecdc.europa.eu/en/files/pdf/Health\\_topics/Situation\\_Report\\_090710\\_1700hrs.pdf](http://www.ecdc.europa.eu/en/files/pdf/Health_topics/Situation_Report_090710_1700hrs.pdf)



[JULY 9]

European Influenza Surveillance Network Weekly electronic bulletin Week 27: 29 June 2009 - 05 July 2009 Influenza A(H1N1)v detections across the European Union continue with high influenza activity in the community in the UK and baseline level activity in the other reporting countries

[http://www.ecdc.europa.eu/en/activities/surveillance/EISN/Newsletter/SUN\\_EISN\\_INFL\\_Bulletin\\_2009week27.pdf](http://www.ecdc.europa.eu/en/activities/surveillance/EISN/Newsletter/SUN_EISN_INFL_Bulletin_2009week27.pdf)



[JULY 9]

ECDC SURVEILLANCE REPORT Analysis of influenza A(H1N1)v individual case reports in EU and EEA countries

Latest developments :

- Individual data were reported on 7706 confirmed cases of influenza A(H1N1)v infection by 28 EU/EEA countries until 6 June 2009 (78 % reported by the United Kingdom)
- Travel-related cases account for 19% of the reported cases. The main areas to which cases had travelled were the USA (61%), Mexico and South American countries (20%) and other EU/EEA countries.
- Seventy-seven percent of cases are reported in children and young adults under 30 years of age.
- Among 1695 reported cases of A(H1N1)v cases, 165 (9.7%) were reported with at least one underlying condition.

[http://www.ecdc.europa.eu/en/files/pdf/Health\\_topics/090709\\_Influenza\\_A\(H1N1\)\\_Analysis\\_of\\_individual\\_data\\_EU\\_EEA-EFTA.pdf](http://www.ecdc.europa.eu/en/files/pdf/Health_topics/090709_Influenza_A(H1N1)_Analysis_of_individual_data_EU_EEA-EFTA.pdf)

[JULY 7]

ECDC Director Presents to Informal EPSCO Council meeting in Sweden on 2009-2010 Influenza Pandemic: future look as to what challenges that Europe was likely to face in the coming 12 months.

Presentation:

[http://www.ecdc.europa.eu/en/files/Ppt/ZJ\\_Presentation\\_on\\_the\\_2009\\_2010\\_Pandemics.ppt](http://www.ecdc.europa.eu/en/files/Ppt/ZJ_Presentation_on_the_2009_2010_Pandemics.ppt)

Speaking notes:

[http://www.ecdc.europa.eu/en/files/Ppt/ZJ\\_Pandemic\\_2009\\_2010\\_Future\\_Look\\_and\\_Risk\\_Assessment.pdf](http://www.ecdc.europa.eu/en/files/Ppt/ZJ_Pandemic_2009_2010_Future_Look_and_Risk_Assessment.pdf)

[JULY 6]

Influenza A (H1N1)v detections across the European Union continue but influenza activity in the community remains at baseline levels apart from in the UK. [European Influenza Surveillance Network Weekly electronic bulletin Week 26: 22 June 2009 - 28 June 2009]

[http://www.ecdc.europa.eu/en/Activities/Surveillance/EISN/Newsletter/SUN\\_EISN\\_INFL\\_Bulletin\\_2009week26.pdf](http://www.ecdc.europa.eu/en/Activities/Surveillance/EISN/Newsletter/SUN_EISN_INFL_Bulletin_2009week26.pdf)

[ARCHIVE] Maps, surveillance summaries and previous ECDC updates available from:  
<http://www.ecdc.europa.eu/en/Health%5Ftopics/novel%5Finfluenza%5Fvirus/2009%5FOutbreak/>

## World Health Organization (WHO)



- [JULY 8] Viruses resistant to oseltamivir (Tamiflu) identified  
[http://www.who.int/csr/disease/swineflu/newsbriefs/h1n1\\_antiviral\\_resistance\\_20090708/en/index.html](http://www.who.int/csr/disease/swineflu/newsbriefs/h1n1_antiviral_resistance_20090708/en/index.html)
- [JULY 7] WHO to ask countries to ease novel H1N1 testing  
Transcript of virtual press conference with Assistant Director-General ad Interim for Health Security and Environment  
[http://www.who.int/mediacentre/Pandemic\\_h1n1\\_presstranscript\\_2009\\_07\\_07.pdf](http://www.who.int/mediacentre/Pandemic_h1n1_presstranscript_2009_07_07.pdf)
- [JULY 6] **Pandemic (H1N1) 2009** Update 58: Cumulative total number of cases worldwide: 94,512 (incl. 429 deaths)  
*As of July 10 the most recent update is still Update 58.*  
[http://www.who.int/csr/don/2009\\_07\\_06/en/index.html](http://www.who.int/csr/don/2009_07_06/en/index.html)
- [ARCHIVE] WHO H1N1 Guidance documents available at:  
<http://www.who.int/csr/disease/swineflu/guidance/en/index.html>
- [ARCHIVE] Older WHO updates available at:  
<http://www.who.int/csr/disease/swineflu/en/index.html>

## Pan-American Health Organization (PAHO)



- [JULY 9] Influenza A (H1N1) Regional Report  
As of 9 July 2009, a total of **72,391 confirmed cases** of the pandemic H1N1 2009, including **430 deaths**, have been notified in **31 countries of the Americas**.  
[http://new.paho.org/hq/index.php?option=com\\_content&task=view&id=1573&Itemid=1167](http://new.paho.org/hq/index.php?option=com_content&task=view&id=1573&Itemid=1167)
- [ARCHIVE] PAHO Influenza A (H1N1) Portal  
[http://new.paho.org/hq/index.php?option=com\\_content&task=blogcategory&id=805&Itemid=569&lang=en](http://new.paho.org/hq/index.php?option=com_content&task=blogcategory&id=805&Itemid=569&lang=en)

## Australia



[JULY 8]

H1N1 Influenza 09 research projects fast tracked

<http://www.healthemergency.gov.au/internet/healthemergency/publishing.nsf/Content/news-080709-1>



[JULY 10]

Update bulletins: July 6 – July 12

July 10: 7933 cases, 18 deaths

<http://www.healthemergency.gov.au/internet/healthemergency/publishing.nsf/Content/updates-12july09.htm>

## Business Resources

### Harvard Health Publications

Business Preparedness for Pandemic: Executive briefing for corporate and governmental decision-makers

[https://www.health.harvard.edu/special\\_health\\_reports/Business-Preparedness-for-Pandemic?utm\\_source=twitter&utm\\_medium=tweet&utm\\_campaign=0526\\_tw](https://www.health.harvard.edu/special_health_reports/Business-Preparedness-for-Pandemic?utm_source=twitter&utm_medium=tweet&utm_campaign=0526_tw)

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

<http://www.gao.gov/new.items/d09760t.pdf>

### Canadian Business

H1N1 virus: A plan for the worst

[http://www.canadianbusiness.com/managing/strategy/article.jsp?content=20090615\\_10014\\_10014](http://www.canadianbusiness.com/managing/strategy/article.jsp?content=20090615_10014_10014)

## Consumer Health Information Resources

Krames Patient Education Handouts - H1N1 Flu Virus

<http://www.krames.com/swine-flu.html>

MEDLINEplus - H1N1 Flu (Swine Flu)

<http://www.nlm.nih.gov/medlineplus/h1n1fluswineflu.html>

Specialized Information Service - National Library of Medicine

<http://sis.nlm.nih.gov/enviro/swineflu.html>.

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

<http://spiral.tufts.edu/topic.shtml>



## Notable Research Articles



- [JULY 8] A rapid method to support the diagnosis of swine-origin influenza virus (S-OIV), by sequencing of real-time PCR amplicon from diagnostic assays. Hall RJ, Peacey M, Huang QS, Carter PE. J Clin Microbiol. 2009 Jul 8. [Epub ahead of print]. Abstract only. <http://jcm.asm.org/cgi/reprint/JCM.01000-09v1.pdf>
- [JULY 8] Use of Northern Hemisphere Influenza Vaccines by Travelers to the Southern Hemisphere. JAMA. <http://jama.ama-assn.org/cgi/reprint/302/2/140.pdf>
- [JULY 7] How Well Did Health Departments Communicate About Risk At The Start of The Swine Flu Epidemic In 2009 Health Affairs. <http://content.healthaffairs.org/cgi/reprint/hlthaff.28.4.w743v1.pdf>
- [JULY 7] Patients and doctors are asked to report antivirals' side effects as swine flu spreads. British Medical Journal Health Affairs. [http://www.bmj.com/cgi/content/full/339/jul07\\_3/b2780?view=long&pmid=19584111](http://www.bmj.com/cgi/content/full/339/jul07_3/b2780?view=long&pmid=19584111)
- [JULY 2] Pathogenesis and Transmission of Swine-Origin 2009 A(H1N1) Influenza Virus **in Ferrets**. Munster VJ, de Wit E, van den Brand JM, Herfst S, Schrauwen EJ, Bestebroer TM, et al. Science. 2009 Jul 2. [Epub ahead of print]. Abstract only. <http://www.sciencemag.org/cgi/content/abstract/1177127>
- [JULY 2] Transmission and Pathogenesis of Swine-Origin 2009 A(H1N1) Influenza Viruses **in Ferrets and Mice**. Maines TR, Jayaraman A, Belser JA, Wadford DA, Pappas C, Zeng H, et al. Science. 2009 Jul 2. [Epub ahead of print]. Abstract only. <http://www.sciencemag.org/cgi/content/abstract/1177238v1>
- [JULY 2] Public perceptions, anxiety, and behaviour change in relation to the swine flu outbreak: cross sectional telephone survey. Rubin GJ, Amlôt R, Page L, Wessely S. BMJ. 2009 Jul 2;339:b2651. doi: 10.1136/bmj.b2651. [http://www.bmj.com/cgi/content/full/339/jul02\\_3/b2651?view=long&pmid=19574308](http://www.bmj.com/cgi/content/full/339/jul02_3/b2651?view=long&pmid=19574308)
- [JULY 2] Influenza A (H1N1) infections among healthcare workers: a cause for cautious optimism. Sng J, Koh D, Koh G. Occup Environ Med. 2009 Jul 1. [Epub ahead of print]. Abstract only. <http://www.ncbi.nlm.nih.gov/pubmed/19574241?dopt=Abstract>
- [JULY 2] Modelling of the influenza A(H1N1)v outbreak in Mexico City, April-May 2009, with control sanitary measures. Cruz-Pacheco G,

Duran L, Esteva L, Minzoni A, Lopez-Cervantes M, Panayotaros P, et al. Euro Surveill. 2009 Jul 2;14(26). pii: 19254.  
<http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19254>

- [JULY 2] Swine flu reaches into the lungs and gut  
<http://www.nature.com/news/2009/090702/full/news.2009.617.html>
- [JUNE 30] Swine flu of 1976: lessons from the past. An interview with Dr Harvey V Fineberg  
<http://www.pubmedcentral.nih.gov/articlerender.fcgi?tool=pubmed&pubmedid=19565118>
- [JUNE 29] Pneumonia and Respiratory Failure from Swine-Origin Influenza A (H1N1) in Mexico. New England Journal of Medicine.  
<http://content.nejm.org/cgi/reprint/NEJMoa0904252.pdf>  
Appendix:  
<http://content.nejm.org/cgi/content/full/NEJMoa0904252/DC1>
- [JUNE 29] Severe Respiratory Disease Concurrent with the Circulation of H1N1 Influenza. New England Journal of Medicine.  
<http://content.nejm.org/cgi/reprint/NEJMoa0904023.pdf>
- [JUNE 29] Historical Perspective — Emergence of Influenza A (H1N1) Viruses. New England Journal of Medicine.  
<http://content.nejm.org/cgi/reprint/NEJMra0904322.pdf>
- [JUNE 29] The Persistent Legacy of the 1918 Influenza Virus. New England Journal of Medicine.  
<http://content.nejm.org/cgi/reprint/NEJMp0904819.pdf>
- [JUNE 29] Spread of a Novel Influenza A (H1N1) Virus via Global Airline Transportation. New England Journal of Medicine.  
<http://content.nejm.org/cgi/reprint/NEJMp0904819.pdf>  
Appendix:  
<http://content.nejm.org/cgi/content/full/NEJMc0904559/DC1>
- [JUNE 29] Rapid-Test Sensitivity for Novel Swine-Origin Influenza A (H1N1) Virus in Humans. New England Journal of Medicine.  
<http://content.nejm.org/cgi/reprint/NEJMc0904264.pdf>
- [JUNE 29] Effects of Oseltamivir on Influenza-Related Complications in Children With Chronic Medical Conditions  
[Abstract only.](#)
- [JUNE 25] Strategy to enhance influenza surveillance worldwide / Ortiz JR, Sotomayor V, Uez OC, Oliva O, Bettels D, McCarron M, et al.

Emerg Infect Dis. 2009 Aug; [Epub ahead of print]  
<http://www.cdc.gov/eid/content/15/8/pdfs/08-1422.pdf>

- [JUNE 25] Rambault A. Origins and evolutionary genomics of the 2009 swine-origin H1N1 influenza A epidemic. *Nature* 2009; 459(7250): 1122-1125.  
<http://www.nature.com/nature/journal/v459/n7250/full/nature08182.html>
- [JUNE 19] Novel Influenza A (H1N1) Virus Infections Among Health-Care Personnel --- United States, April--May 2009. *Morbidity and Mortality Weekly Report (MMWR)*.  
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5823a2.htm>
- [JUNE 16] Toshihiro Tanaka, Ken Nakajima, Atsuko Murashima, Facundo Garcia-Bournissen, Gideon Koren, and Shinya Ito. Safety of neuraminidase inhibitors against novel influenza A (H1N1) in pregnant and breastfeeding women. *CMAJ* published 16 June 2009, 10.1503/cmaj.090866  
<http://www.cmaj.ca/cgi/rapidpdf/cmaj.090866v2>
- [JUNE 11] Preliminary analysis of Influenza A (H1n1) Individual and aggregated case reports from EU and EFTA countries / ECDC Working Group on Influenza A (H1N1). *Eurosurveillance*,  
<http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19238>
- [JUNE 11] Smith GJD, Vijaykrishna D, Bahl J, et al. Origins and evolutionary genomics of the 2009 swine-origin H1N1 influenza A epidemic. *Nature* 2009.  
<http://www.nature.com/nature/journal/v459/n7250/full/nature08182.html>
- [JUNE 4] Nava GM, Attene-Ramos MS, Ang JK, et al. Origins of the new influenza A (H1N1) virus: time to take action. *Eurosurveillance* 2009 Jun 4;14(22).  
<http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19228>

## **Clinical and Public Health Practice Tools**

- [JUNE 15] Algorithms from 18 US states to assist in decisions regarding testing and treatment of H1N1  
<http://www.smh.com/sections/services-procedures/medlib/Pandemic/Algorithms/Algorithms.html>

## Historical Resources

Markel H, Lipman HB, Navarro JA, et al. Nonpharmaceutical Interventions Implemented by US Cities During the 1918-1919 Influenza Pandemic. *JAMA*. 2007;298(6):644-654.  
<http://jama.ama-assn.org/cgi/content/full/298/6/644>

Interview: Swine flu of 1976: lessons from the past. Interview with Harvey V Fineberg (WHO Bulletin June 2009)  
<http://www.who.int/bulletin/volumes/87/6/09-040609.pdf>

The Swine Flu Affair: Decision-Making on a Slippery Disease [1978]  
[http://www.nap.edu/catalog.php?record\\_id=12660&utm\\_medium=email&utm\\_source=National%20Academies%20Press&utm\\_campaign=Swine%20Flu%203&utm\\_content=Downloader&utm\\_term](http://www.nap.edu/catalog.php?record_id=12660&utm_medium=email&utm_source=National%20Academies%20Press&utm_campaign=Swine%20Flu%203&utm_content=Downloader&utm_term)

## Travel Advisories

[MAY 19] Public Health Agency of Canada no longer recommends Canadians postpone elective or non-essential travel to Mexico  
<http://www.phac-aspc.gc.ca/tmp-pmv/2009/h1n1-mexico-090518-eng.php>