

# H1N1 Flu Virus (Human Swine Influenza) Information Resources

(last updated June 15th, 2009 at 4pm)

---

## Overview

- Confirmed cases in Ontario as of **June 15**: 1907 (2 deaths)
- Confirmed cases in Canada as of **June 15**: 4049 (incl. 7 deaths)
- Confirmed cases worldwide as of **June 15**: 35,928 (incl. 163 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)
- Novartis produces swine flu vaccine. The Swiss pharmaceutical company Novartis says it has produced a first batch of a vaccine to fight the H1N1 swine flu virus, weeks ahead of expectations.  
<http://www.voanews.com/english/2009-06-12-voa12.cfm>
- OHA Conference: [The Pandemic Influenza: Where are we now?](#)

## **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 Protection \(CDC\)](#)  
[Center for Infectious Disease Research & Policy](#)

##### **Europe**

[United Kingdom's Health Protection Agency \(HPA\)](#)  
[European Centre for Disease Control and Prevention \(ECDC\)](#)

##### **International**

[World Health Organization \(WHO\)](#)  
[Pan American Health Organization \(PAHO\)](#)

#### Live Searches, News Feeds and Disease Tracking Tools

[Google news search](#)  
[Mapping resources](#)  
[Twitter feeds](#)

#### Other Resources

[Scientific Resources](#)  
[Research Articles](#)  
[Clinical and Public Health Practice Tools](#)  
[Historical Resources](#)  
[Travel Advisories](#)

## Events

### Upcoming



[JUNE 24] The Ontario Hospital Association presents [The Pandemic Influenza: Where are we now?](#). The primary goal of this conference is to provide healthcare facilities with the tools and information they need to be able to recognize and manage an influenza pandemic. Chaired by Dr. Mary Vearncombe. Topics to include: H1N1 scientific update, ethics, occupational health issues, preparing for a pandemic vaccine response, risk communication, public health measures, and lessons learned. For brochure details and agenda: [Click here](#)  
To register on-line: [Click here](#)

### Archived

[JUNE 9] The American Bar Association's Health Law Section, the CDC Clinician Outreach and Communication Activity (COCA), and the CDC Public Health Law Program have collaborated to present a teleconference entitled ***Legal Issues Related to Novel Influenza A (H1N1)***. The PowerPoint Presentation will be available on the COCA website <http://emergency.cdc.gov/coca/callinfo.asp>

[JUNE 4] Briefing on A(H1N1) influenza outbreaks by Dr. Jon K. Andrus, Pan American Health Organization. Registration not required. Canadian Toll-Free Number: 1-866-682-1172. Questions can also be sent by email: [pressconference@paho.org](mailto:pressconference@paho.org)  
[http://new.paho.org/hq/index.php?option=com\\_content&task=view&id=1458&Itemid=1](http://new.paho.org/hq/index.php?option=com_content&task=view&id=1458&Itemid=1)

[MAY 17] *The Lancet* co-hosted a session on influenza A H1N1 at the European Congress on Clinical Microbiology and Infectious Diseases (ECCMID) in Helsinki, Finland. Video highlights available at link below. [www.TheLancet.com/H1N1-flu](http://www.TheLancet.com/H1N1-flu).

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



[JUNE 15] Confirmed cases of H1N1 Flu Virus in Ontario as of 3:00pm: **1,907**  
[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)

[JUNE 11] Ontario remains vigilant on pandemic preparedness  
[http://www.health.gov.on.ca/english/media/news\\_releases/archives/nr\\_09/jun/nr\\_20090611.html](http://www.health.gov.on.ca/english/media/news_releases/archives/nr_09/jun/nr_20090611.html)

## Important Health Notices

### [JUNE 11] H1N1 Update

The WHO has raised the global pandemic alert level from Phase 5 to Phase 6, signaling that a global pandemic is underway. This is based on trends in transmission globally, and does not reflect any change in severity of the circulating virus. Guidance to health care settings in Ontario remains unchanged.

[http://www.health.gov.on.ca/english/providers/program/emu/health\\_notice/s/ihn\\_20090611.pdf](http://www.health.gov.on.ca/english/providers/program/emu/health_notice/s/ihn_20090611.pdf)

[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)

## 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)



[JUNE 15] As of June 15 2009, a total of 4,049 laboratory-confirmed cases of H1N1 flu virus have been reported in all provinces and territories in Canada except Newfoundland. To date, 212 hospitalizations and seven deaths have been reported among laboratory-confirmed cases. The most recent date of symptom onset is June 8th, 2009.

Province / Territory	New Confirmed Cases	Total Confirmed Cases	Total Deaths
British Columbia	5	172	0
Alberta	24	264	1
Saskatchewan	57	327	0
Manitoba	35	154	0
Ontario	126	1907	2
Quebec	265	971	4
New Brunswick	0	2	0
Nova Scotia	2	81	0
Prince Edward Island	0	3	0
Newfoundland	1	1	0
Yukon	0	1	0
Northwest Territories	0	2	0
Nunavut	19	164	0
<b>TOTAL</b>	<b>534</b>	<b>4049</b>	<b>7</b>

<http://www.phac-aspc.gc.ca/alert-alerte/swine-porcine/surveillance-eng.php>

[JUNE 12] Frequently asked questions: update  
[http://www.phac-aspc.gc.ca/alert-alerte/swine-porcine/faq\\_rg\\_swine-eng.php](http://www.phac-aspc.gc.ca/alert-alerte/swine-porcine/faq_rg_swine-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 now posts case count updates on Friday only

[JUNE 14] Interim CDC Guidance on Day and Residential Camps in Response to Human Infections with the Novel Influenza A (H1N1) Virus  
<http://www.cdc.gov/h1n1flu/camp.htm>

[JUNE 12, 11am] Confirmed and probable cases in the US: **17,855** (incl. 45 deaths). Section also includes an updated summary of H1N1 in the U.S.  
<http://www.cdc.gov/h1n1flu/update.htm>

[JUNE 11] Webcast: US response to pandemic declaration  
<http://www.cdc.gov/h1n1flu/webcast061109.htm>

[JUNE 11] Statements by HHS Secretary Kathleen Sebelius and DHS Secretary Janet Napolitano on WHO Decision to Declare Novel H1N1 Virus Outbreak a Pandemic  
<http://www.cdc.gov/h1n1flu/statement061109.htm>


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

## Center for Infectious Disease Research and Policy

[JUNE 10] Novel H1N1 Influenza (Swine Flu)  
<http://www.cidrap.umn.edu/cidrap/content/influenza/swineflu/biofacts/swinefluoverview.html>

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

## Health Protection Agency (UK)

 [JUNE 15] Confirmed swine flu cases in UK: **1320**  
[http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb\\_C/1245052114058?p=1231252394302](http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1245052114058?p=1231252394302)

[JUNE 12] WHO PANDEMIC ALERT PHASE 6: Actions and post exposure prophylaxis for close contacts of probable<sup>1</sup> or confirmed<sup>2</sup> human case(s) of swine influenza A/H1N1 (Algorithm P6 replaces Algorithm P5)  
[http://www.hpa.org.uk/web/HPAwebFile/HPAweb\\_C/1240986160584](http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1240986160584)

[JUNE 12] WHO PANDEMIC ALERT PHASE 6: Algorithm for the management of patients with influenza-like-illness – community or hospital (for use with patients who have not had contact with a probable or confirmed case of swine influenza and have not travelled to an area affected by A/H1N1v)(Algorithm S6b replaces Algorithm S5b)  
[http://www.hpa.org.uk/web/HPAwebFile/HPAweb\\_C/1244023923195](http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1244023923195)

[JUNE 12] WHO PANDEMIC ALERT PHASE 6: Algorithm for the management of suspected cases of swine influenza (A/H1N1v) (including returning travellers and visitors from countries affected by A/H1N1v and contacts of known cases) (Algorithm S6a replaces Algorithm S5a)  
[http://www.hpa.org.uk/web/HPAwebFile/HPAweb\\_C/1244023923195](http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1244023923195)

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

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



[JUNE 15] Situation report: **2,377** confirmed cases in EU/EFTA countries

- Developments in the past 24 hours:
- 108 new cases were reported in EU and EFTA countries;
- 510 new cases were reported from non-EU and EFTA countries;
- Media report the first death in Europe in UK/Scotland;
- First cluster of community transmission in France.

[http://ecdc.europa.eu/en/files/pdf/Health\\_topics/Situation\\_Report\\_090615\\_1700hrs.pdf](http://ecdc.europa.eu/en/files/pdf/Health_topics/Situation_Report_090615_1700hrs.pdf)



[JUNE 12] Surveillance and studies in a pandemic in Europe

[http://ecdc.europa.eu/en/files/pdf/Health\\_topics/Surveillance\\_and\\_studies\\_in\\_a\\_pandemic\\_in\\_Europe.pdf](http://ecdc.europa.eu/en/files/pdf/Health_topics/Surveillance_and_studies_in_a_pandemic_in_Europe.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)



[JUNE 15] Update 49: As of 17:00 GMT, 15 June 2009, 76 countries have officially reported 35,928 cases of influenza A(H1N1) infection, including 163 deaths.

[http://www.who.int/csr/don/2009\\_06\\_15/en/index.html](http://www.who.int/csr/don/2009_06_15/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)

*No updates for June 15.*

[JUNE 12] Influenza A(H1N1) Regional Report

As of 12 June 2009, **30,180 confirmed cases** of the new virus influenza A (H1N1) infection, **including 163 deaths**, have been notified in **26 countries of the Americas**: Argentina, Bahamas, Barbados, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Paraguay, Panama, Peru, United States, Trinidad and Tobago, Uruguay and Venezuela.

In the Americas Region, **there were 4,717 additional confirmed cases** compared to the previous day. **The United States notified 17 new deaths** caused by the new influenza A (H1N1) virus.

[http://new.paho.org/hq/index.php?option=com\\_content&task=view&id=1499&Itemid=1167](http://new.paho.org/hq/index.php?option=com_content&task=view&id=1499&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)

## Google News Search on Swine Flu

[June '09] Results are refreshed each time you click on the link.

<http://www.google.com/cse?cx=014077570761466621685%3As7g-vqi-dmo&cof=FORID%3A11&q=swine+flu&sa=search+influenza+sites>

## Mapping Resources

World Health Organization interactive timeline map of cases: view the number of cases reported on any given day since April 26, 2009

[http://www.who.int/csr/disease/swineflu/history\\_map/InfluenzaAH1N1\\_maps.html](http://www.who.int/csr/disease/swineflu/history_map/InfluenzaAH1N1_maps.html)

Pan-American Health Organization: Atlas to Confirmed Cases of Influenza A(H1N1)

<http://ais.paho.org/flu/sm/en/atlas.html>

HealthMap: Swine flu global disease alert map

<http://www.healthmap.org/en>

Google: Swine flu map

<http://maps.google.com/maps/ms?ie=UTF8&hl=en&t=p&msa=0&msid=106484775090296685271.0004681a37b713f6b5950&z=2>

## **Twitter Feeds, Weblogs, RSS Feeds, etc**

World Health Organization News on Twitter

<http://twitter.com/whonews>

Health Map on Twitter

<http://twitter.com/healthmap>

Avian/Pandemic Influenza Daily Digest on Twitter

<http://twitter.com/AIDigest>

CDC swine flu updates on Twitter

<http://twitter.com/cdcemergency>

Avian/Pandemic Influenza Daily Digest Blog

<http://aidailydigest.blogspot.com/>

Avian/Pandemic Influenza Daily Digest RSS Feed

[http://twitter.com/statuses/user\\_timeline/32957440.rss](http://twitter.com/statuses/user_timeline/32957440.rss)

## **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)

## Scientific Resources

### American Journal of Epidemiology (AJE)

AJE H1N1 Collection (all articles freely available)

<http://aje.oxfordjournals.org/collections/>

### American Society for Microbiology

Research Publications on Influenza A(H1N1)

<http://tinyurl.com/asmh1n1>.

### BioMed Central

Influenza Gateway (all articles freely available)

<http://www.biomedcentral.com/gateways/influenza>

### British Medical Journal

Podcast: Swine flu: planning

<http://podcasts.bmj.com/bmj/2009/05/26/swine-flu-planning/>

### Centre for Agriculture and Biosciences International (CABI)

**Global Health database:** international coverage of all aspects of human health from the Centre for Agriculture and Biosciences International.

<http://217.154.120.6/GLOBALHEALTH/searchform-quicksearch.nsp>



Related: Swine flu **dashboard from CABI.org**

<http://www.netvibes.com/cabialerts>

### DynaMed

Clinical summaries on Swine Flu & H1N1: free access courtesy of EBSCO

<http://www.ebscohost.com/dynamed/swineflu/> and

<http://www.ebscohost.com/dynamed/h1n1/>

### Epidemiologic Reviews

H1N1 Collection (all articles freely available)

<http://epirev.oxfordjournals.org/collections/>

### Human/Swine A/H1N1 Influenza Origins and Evolution

<http://tree.bio.ed.ac.uk/groups/influenza/>

## Lancet

H1N1 Flu Resource Centre (contains content from numerous Elsevier journals)

<http://www.TheLancet.com/H1N1-flu>

## Medline

Medline literature search on H1N1 (current as of today). Click [here](#) to run a search.

## Nature

Swine Flu Tracker

<http://www.nature.com/news/specials/swineflu/index.html>

## New England Journal of Medicine (NEJM)

NEJM H1N1 Influenza Center

<http://h1n1.nejm.org/>

## Science

Science Insider Swine Flu Archives

<http://blogs.sciencemag.org/scienceinsider/swine-flu/>

## Thomson Reuters

Free H1N1 briefing (updated daily) from *Prous Science Integrity*® portal

<http://science.thomsonreuters.com/pharma/h1n1/>

## New & Notable Research Articles

Laetitia Ninove, Céline Gazin, Ernest A. Gould, Antoine Nougairède, Antoine Flahault, Rémi N. Charrel, Christine Zandotti, Xavier de Lamballerie. Vector-Borne and Zoonotic Diseases. -Not available-, ahead of print. doi:10.1089/vbz.2009.0110.

<http://www.liebertonline.com/doi/pdf/10.1089/vbz.2009.0110?cookieSet=1>

Preliminary analysis of Influenza A (H1n1) Individual and aggregated case reports from EU and EFTA countries / ECDC Working Group on Influenza A (H1N1). *Eurosurveillance*, June 11, 2009 .

<http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19238>

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/vnfv/ncurrent/pdf/nature08182.pdf?\\_xsl=/mobil/cms-common.xsl](http://www.nature.com/nature/journal/vnfv/ncurrent/pdf/nature08182.pdf?_xsl=/mobil/cms-common.xsl)

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>

Development of antivirals to disrupt both neuraminidase and hemagglutinin]. *Scientific American* -  
<http://www.scientificamerican.com/article.cfm?id=knocking-out-the-flu>

Update: Novel Influenza (H1N1) virus infection, Mexico, March-May 2009. *MMWR*: Vol. 58, no. 21 June 5, 2009  
[http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5821a2.htm?s\\_cid=mm5821a2\\_x](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5821a2.htm?s_cid=mm5821a2_x)

M. Lipsitch, et al. Managing and Reducing Uncertainty in an Emerging Influenza Pandemic *NEJM* 2009 May 28: 360(22)  
<http://content.nejm.org/cgi/reprint/NEJMp0904380v2.pdf>

V. Trifonov, et al. Geographic Dependence, Surveillance, and Origins of the 2009 Influenza A (H1N1) Virus *NEJM* 2009 May 28: 360(22)  
<http://content.nejm.org/cgi/reprint/NEJMp0904572v1.pdf>

Garten Rj et al. Antigenic and Genetic Characteristics of Swine-Origin 2009 A(H1N1) Influenza Viruses Circulating in Humans. Published Online May 22, 2009 *Science* DOI: 10.1126/science.1176225. Abstract only.  
<http://www.sciencemag.org/cgi/content/abstract/1176225>

Hobday RA, Cason. The Open-Air Treatment of Pandemic Influenza. *Am J Public Health*. 2009 May 21. [Epub ahead of print]  
<http://www.ajph.org/cgi/content/abstract/AJPH.2008.134627v1>  
Serum Cross-Reactive Antibody Response to a Novel Influenza A (H1N1) Virus After Vaccination with Seasonal Influenza Vaccine. 2009 May 22;58(19):521-524.  
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5819a1.htm>

J.A. Belser et al. Past, Present, and Possible Future Human Infection with Influenza Virus A Subtype H7. *Emerging Infectious Diseases*. 2009 June;15(6):859-865.  
<http://www.cdc.gov/eid/content/15/6/pdfs/859.pdf>

R. Proff et al. Case-based Surveillance of Influenza Hospitalizations during 2004–2008, Colorado, USA. 2009 June;15(6):892-898.  
<http://www.cdc.gov/eid/content/15/6/pdfs/892.pdf>

P.K.C. Cheng et al. Oseltamivir- and Amantadine-Resistant Influenza Viruses A (H1N1). 2009 June;15(6):966-968.  
<http://www.cdc.gov/eid/content/15/6/pdfs/966.pdf>

L.J. Radonovich et al. Stockpiling Supplies for the Next Influenza Pandemic. 2009 June;15(6): online only.  
<http://www.cdc.gov/eid/content/15/6/e1.htm>

Shetty P. Preparation for a pandemic: influenza A H1N1. Lancet Infectious Diseases. 2009 June;9(6):339-340. Abstract only.  
[http://www.lancet.com/journals/laninf/article/PIIS1473-3099\(09\)70130-6/fulltext](http://www.lancet.com/journals/laninf/article/PIIS1473-3099(09)70130-6/fulltext)

Putting influenza A H1N1 in its place [editorial]. The Lancet Infectious Diseases. 2009 June;9(6):331. Abstract only.  
[http://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(09\)70134-3/fulltext](http://www.thelancet.com/journals/laninf/article/PIIS1473-3099(09)70134-3/fulltext).

Cohen J. Past Pandemics Provide Mixed Clues to H1N1's Next Moves. Science. 2009 May 22;324:996-997. Abstract only.  
<http://tinyurl.com/scienceh1n1>

## 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

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

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