

H1N1 Flu Virus (Human Swine Influenza) Information Resources

(last updated June 29, 2009 at 5pm)

Overview

- Confirmed cases in Ontario as of **June 26**: 3,154 (7 deaths)
- Confirmed cases in Canada as of **June 29**: 7,983 (incl. 25 deaths)
- Confirmed cases worldwide as of **June 29**: 70,893 (incl. 311 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
- **Novel H1N1 influenza can cause severe respiratory illness**
Novel H1N1 influenza can cause severe respiratory illness, profound lung damage, and death even in patients with no underlying conditions to make them vulnerable, a team of physicians from Mexico report in a rush article published online today by the *New England Journal of Medicine (NEJM)*.
- [Rapid test shows low sensitivity for novel H1N1](#)
San Diego researchers with close knowledge of the confirmation of the first US novel flu cases reported today in a letter to the New England Journal of Medicine that the sensitivity of rapid tests used during the outbreak was low, the same as for seasonal strains, and varied by subtype.
- [First Tamiflu-resistant novel flu case reported in Denmark](#)
- [Tamiflu reduces flu complications in kids with chronic conditions](#)

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Events

Upcoming

Archived

[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](#)

Ministry of Health and Long-Term Care (MOHLTC)

[JUNE 26] H1N1 Flu Virus: Ontario Influenza Bulletin
There are 3,154 confirmed cases of H1N1 flu virus reported through the integrated Public Health System (iPHIS).

Nearly all of the cases have symptoms similar to those of seasonal influenza.

Seven deaths have been reported among confirmed H1N1 cases. 98 of the confirmed cases have been hospitalized to date. Of these 65 cases have been discharged.

http://www.health.gov.on.ca/english/public/updates/archives/hu_09/sf_weekly_update.html



[JUNE 26] Updated: Guidelines for the Prevention and Management of Novel H1N1 Influenza Virus in Summer Camps
http://www.health.gov.on.ca/english/providers/program/emu/health_notices/summer_camps/sc_guidelines_20090626.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

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_notices/ihn_20090611.pdf

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 29] H1N1 situation update

The Honourable Leona Aglukkaq, Minister of Health, along with Dr. David Butler-Jones, Chief Public Health Officer of Canada, Dr. Frank Plummer, Scientific Director General of the National Microbiology Laboratory, Dr. Danielle Grondin, Assistant Deputy Minister, Infectious Disease and Emergency Preparedness in the Public Health Agency of Canada, and Valerie Gideon, Regional Director of First Nations and Inuit Health for Health Canada, will provide an update on the H1N1 flu virus.

<http://www.phac-aspc.gc.ca/media/notices-avis/index-eng.php#0629>



[JUNE 26] As of June 29, 2009, a total of 7,983 laboratory-confirmed cases of H1N1 flu virus have been reported in all provinces and territories in Canada (see Table 1 below). To date, 636 hospitalizations and 25 deaths have been reported among laboratory-confirmed cases.

Province / Territory	NEW			TOTAL		
	Laboratory-confirmed cases ¹ reported as of June 29, 2009	Hospitalizations reported as of June 29, 2009	Deaths reported as of June 29, 2009	Laboratory-confirmed cases (including today's cases)	Hospitalizations ^{2,3}	Total deaths ²
British Columbia ⁴	6	0	0	270	6	0
Alberta	87	2	0	880	34	1
Saskatchewan ⁴	54	0	2	739	9	2
Manitoba ⁴	NR	0	0	599	83	2
Ontario ⁴	NR	138	2	3161	236	9
Quebec ^{4,5}	NR	28	0	1834	247	11
New Brunswick	0	0	0	9	0	0
Nova Scotia	8	15	0	138	1	0
PEI	0	0	0	3	0	0
Newfoundland	1	0	0	32	0	0

Province / Territory	NEW			TOTAL		
	Laboratory-confirmed cases ¹ reported as of June 29, 2009	Hospitalizations reported as of June 29, 2009	Deaths reported as of June 29, 2009	Laboratory-confirmed cases (including today's cases)	Hospitalizations ^{2,3}	Total deaths ²
Yukon	0	0	0	1	0	0
NWT	0	0	0	7	0	0
Nunavut	52	0	0	310	20	0
Total	208	140	4	7983	636	25

NR : No report

¹ Note: P/Ts may choose to announce cases that have been confirmed after 15:00 EDT. These cases will be reflected in the next epidemiological update.

² Number of deaths and hospitalizations are included in the number of cases.

³ Hospitalizations are not reported until investigation forms are received which can cause a delay in the reporting.

⁴ **British Columbia, Saskatchewan, Manitoba, Ontario and Quebec are now reporting case counts on a weekly basis.**

⁵ Quebec searches systematically for influenza H1N1 among all ILI hospitalized patients which may explain high numbers.

<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

Centers for Disease Control and Prevention (CDC)

The CDC now posts case count updates on Friday only.



[JUNE 29] CDC Telebriefing on Investigation of Human Cases of Novel Influenza A (H1N1)

<http://www.cdc.gov/media/transcripts/2009/t090626.htm>

[JUNE 26] Update: 27,717 confirmed and probable cases (incl. 127 deaths) in 53 states/territories as of 11am Friday June 26/09.

<http://www.cdc.gov/h1n1flu/update.htm>

[JUNE 25] General Business and Workplace Guidance for the Prevention of Novel Influenza A (H1N1) Flu in Workers

<http://www.cdc.gov/h1n1flu/guidance/workplace.htm>

[ARCHIVE] Previous CDC documents and updates available from:

<http://www.cdc.gov/h1n1flu/guidance/>

Center for Infectious Disease Research and Policy



[JUNE 29] News Scan
http://www.cidrap.umn.edu/cidrap/content/influenza/swineflu/news_scan/index.html

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

Health Protection Agency (UK)



[JUNE 29] Update on confirmed swine flu cases. Cumulative laboratory confirmed cases to date: **5,937**
http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1246260039528

[JUNE 26] Standard practical advice for investigating individuals with possible swine influenza infection (Update)
http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1241048770758

[JUNE 26] Algorithm P6 – Actions and post exposure prophylaxis for contacts of case(s) of influenza A/H1N1v for phase 6 (Update)
http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1240986160584

[JUNE 26] Summary of prescribing guidance for the treatment and prophylaxis of influenza-like illness: CONTAINMENT PHASE (Update)
http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1243581475043

[JUNE 26] Position of HPA on the need for ethical committee approval of field investigation and control of H1N1 influenza Flu (Update)
http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1243771213441

[JUNE 25] Updated case definition
<http://www.hpa.org.uk/web/HPAweb&Page&HPAwebAutoListName/Page/1242949541865>

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

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



[JUNE 26] Situation report: Cumulative number of cases in the EU and EFTA countries is now 6,173, including two deaths.

Main developments in past 24 hours:

- 55 new cases were reported in EU and EFTA countries;
- 1,401 new cases were reported from non-EU and EFTA countries;
- The total number of fatal cases worldwide is 324;
- 4 new fatal cases have been reported from non-EU and EFTA countries: Australia (2), Thailand (1) and Brazil (1);
- Denmark health authorities are reporting today an isolated case of oseltamivir resistance.

http://ecdc.europa.eu/en/files/pdf/Health_topics/Situation_Report_090629_1700hrs.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 29] Update 54: Cumulative total number of cases worldwide: 70,893 (incl. 311 deaths)

http://www.who.int/csr/don/2009_06_29/en/index.html

[JUNE 24] Availability of a candidate reassortant vaccine virus for the novel influenza A (H1N1) vaccine development CBER-RG2.

http://www.who.int/csr/resources/publications/swineflu/cber_rg2/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)



[JUNE 26] Influenza A (H1N1) Regional Report
As of 25 June 2009, 53,683 confirmed cases of the Pandemic H1N1 2009 infection, including 302 deaths, have been notified in 28 countries of the Americas.
http://new.paho.org/hq/index.php?option=com_content&task=view&id=1541&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

Google News Search on Swine Flu

[JUNE 19] Results are refreshed each time you click [here](#).

Mapping Resources

[JUNE 17] From *Science Daily*

A Warwick Business School professor and one of the founders of global risks specialist, Maplecroft, has released three new maps and indices revealing the countries most at risk from an influenza pandemic.

The Influenza Pandemic Risk Index (IPRI) consists of three categories:

- Risk of Emergence
- Risk of Spread
- Capacity to Contain

Each index generates a list of countries most at risk and which require a tailored policy response on the part of government and business. Maplecroft's research focuses on global risks to business. **The map of Risk of Spread shows the UK most at risk to the spread of an influenza pandemic, ranking number 1 out of 213 countries.** The Netherlands, Germany, Italy, Russia, Canada and Japan are also categorised as extreme risk because of their high population density, urbanisation and busy airports.

<http://maps.maplecroft.com/panspread>

[ARCHIVE] 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

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

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

[ARCHIVE] HealthMap: Swine flu global disease alert map

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

[ARCHIVE] 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

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

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

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/>

Epidemiology and Infection

In the light of recent global events and the ensuing public health issues, Cambridge Journals are giving you **FREE access** to articles which are related to the Influenza A H1N1 'swine flu' virus and which are published in Epidemiology and Infection. [Click here to access a special sample issue covering key research on influenza.](#)

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 *Proux Science Integrity*® portal

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

New & Notable Research Articles



[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>

- NEW** [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>
- NEW** [JUNE 29] Historical Perspective — Emergence of Influenza A (H1N1) Viruses. New England Journal of Medicine.
<http://content.nejm.org/cgi/reprint/NEJMra0904322.pdf>
- NEW** [JUNE 29] The Persistent Legacy of the 1918 Influenza Virus. New England Journal of Medicine.
<http://content.nejm.org/cgi/reprint/NEJMp0904819.pdf>
- NEW** [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>
- NEW** [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>
- NEW** [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 19] Comment: Patient-oriented pandemic influenza research. Lancet. [Abstract only](#).
- [JUNE 19] Editorial: Avoiding panic in a pandemic. Lancet. [Abstract only](#).

- [JUNE 19] Letter: H1N1, public health security, bioethics, and human rights. Lancet. [Abstract only](#).
- [JUNE 18] Editorial: Influenza A(H1N1)v in the southern hemisphere - lessons to learn for Europe? Eurosurveillance. <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19246>
- [JUNE 18] School closure is currently the main strategy to mitigate influenza A(H1N1)v: a modeling study Eurosurveillance. <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19240>
- [JUNE 18] A variety of respiratory viruses found in symptomatic travellers returning from countries with ongoing spread of the new influenza A(H1N1)v virus strain. Eurosurveillance. <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19242>
- [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

Howard Markel, MD, PhD; Harvey B. Lipman, PhD; J. Alexander Navarro, PhD; Alexandra Sloan, AB; Joseph R. Michalsen, BS; Alexandra Minna Stern, PhD; Martin S. Cetron, MD. 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

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>