

# H1N1 Flu Virus (Human Swine Influenza)

## Information Resources

(last updated May 22nd, 2009, 5pm)

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### Overview

- Confirmed cases in Ontario as of **May 22, 3pm**: 294
- Confirmed cases in Canada as of **May 20, 3pm**: 719 (incl. 1 death in AB)
- Confirmed cases worldwide as of **May 22, 6am GMT**: 11 168 (incl. 86 deaths)
  - WHO pandemic level: 5
- New MMWR article: [Serum Cross-Reactive Antibody Response to a Novel Influenza A \(H1N1\) Virus After Vaccination with Seasonal Influenza Vaccine](#)

### MOHLTC Media lines

General Public: Info Line 1-866-532-3161

Media: Media line 416-314-6197 or 1-888-414-4774

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## Events

### Upcoming

Nothing of interest.

### Archived

[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. Over 6,500 delegates from around the globe registered for the meeting. Speakers at the session were Albert Osterhaus (Rotterdam, Netherlands) and Javier Garau (Barcelona, Spain). Video highlights available at link below.

[www.TheLancet.com/H1N1-flu](http://www.TheLancet.com/H1N1-flu).

[MAY 8] Friday May 8, 8pm EST: "The Agenda" on TVO  
The science and politics of swine flu with guests Vivek Goel, Allison McGeer, Andrew Nikiforuk, and Peter Singer.

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



[MAY 22] 23 New Confirmed Cases Of H1N1 Flu Virus In Ontario

Total number of cases in Ontario as of May 22 at 3pm: 294

All of the cases reported to date, with the exception of two, are considered mild. Two people, who have the H1N1 flu virus, have been hospitalized with a number of underlying medical conditions. The Ontario cases involve 150 males and 144 females with an age range of <1 to 62. The breakdown by health unit is as follows:

Health Unit	New Confirmed Cases	Total Confirmed Cases
Toronto	14	124
York Region	5	43
Peel Region	0	40
Halton	3	38
City of Ottawa	0	13
Durham Region	0	10
Windsor Essex	0	5
Simcoe Muskoka District	1	5
Waterloo Region	0	2
Sudbury and District	0	3
Hamilton	0	3
Wellington Dufferin Guelph	0	2
Oxford County	0	1
Leeds, Grenville & Lanark	0	1
Middlesex-London	0	1
Hastings and Prince Edward Counties	0	1

Out of province (*)	0	2
<b>TOTAL</b>	<b>23</b>	<b>294</b>

(\*) – Visitors who were tested and confirmed in Ontario but do not reside in the province.

[http://www.health.gov.on.ca/english/media/news\\_releases/archives/nr\\_09/may/nr\\_20090522\\_2.html](http://www.health.gov.on.ca/english/media/news_releases/archives/nr_09/may/nr_20090522_2.html)

[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

Nothing new since May 19.

### 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 now updates confirmed case #s only on Mondays, Wednesdays, and Fridays.



[MAY 20] As of May 20 2009, a total of 719 laboratory-confirmed cases (including 1 death) of H1N1 flu virus have been reported in 9 provinces and 1 territory in Canada [May 20]

As of May 19, 2009, half the cases are 33 years of age or younger (median: 33 years; range: <1 – 86 years). To date, 16 cases have been hospitalized and one death has been reported. The most recent date of symptom onset is May 15, 2009.

Summary of laboratory-confirmed cases of H1N1 flu virus (Human Swine Flu) reported to the Public Health Agency of Canada, by the provinces and territories:

Province / Territory	New Confirmed Cases	Total Confirmed Cases
British Columbia	14	114
Alberta	19	86
Saskatchewan	30	49
Manitoba	2	6
Ontario	97	284
Quebec	59	106

New Brunswick	0	2
Nova Scotia	2	68
Prince Edward Island	0	3
Newfoundland	0	0
Yukon	0	1
Northwest Territories	0	0
Nunavut	0	0
TOTAL	<b>223</b>	<b>719</b>

<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)

[May 22, 11am] Confirmed and probable cases in the US: 6552 (incl. 9 deaths)  
 48 states affected.

Status: Public Health Emergency  
<http://www.cdc.gov/h1n1flu/update.htm>


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


## Center for Infectious Disease Research and Policy

[MAY 21] Some immunity to novel H1N1 flu found in seniors  
<http://www.cidrap.umn.edu/cidrap/content/influenza/swineflu/news/may2109serum-jw.html>

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

## Health Protection Agency (UK)

 [MAY 22] Confirmed swine flu cases in UK: 117  
[http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb\\_C/1242949537194](http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1242949537194)

 [MAY 22] Updated: Classification of Swine Influenza Cases  
[http://www.hpa.org.uk/web/HPAwebFile/HPAweb\\_C/1242804165710](http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1242804165710)

[MAY 21] Swine flu: travel advice for the half-term break  
*“Around the world, 41 countries have reported more than 11,000 cases of swine flu. In many, the position is similar to that of the UK. However travellers should be aware that there is widespread community transmission in North America.”*

[http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb\\_C/1242914497046](http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1242914497046)

[MAY 21] Mexico situation update

[http://www.hpa.org.uk/web/HPAwebFile/HPAweb\\_C/1242914495645](http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1242914495645)

[MAY 21] Managing a flu-like illness in a boarding school during the current swine flu outbreak (WHO Phase 5; UK Containment Phase)

[http://www.hpa.org.uk/web/HPAwebFile/HPAweb\\_C/1242549140578](http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1242549140578)

[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**

[MAY 22, 17:00] Situation report: **316** confirmed cases in EU/EFTA countries  
Developments in the past 24 hours:

9% increase in reported confirmed cases in EU/EFTA countries  
totalling 316 confirmed cases;

Sentinel surveillance in the EU picks one case of A(H1N1)  
influenza;

Japan scaling back measures for handling A(H1N1) influenza.

[http://ecdc.europa.eu/en/files/pdf/Health\\_topics/Situation\\_Report\\_090522\\_1700hrs.pdf](http://ecdc.europa.eu/en/files/pdf/Health_topics/Situation_Report_090522_1700hrs.pdf)

[MAY 22] Seasonal influenza activity in Europe continues to be low and declining but human infections with a novel influenza virus were reported.

[http://ecdc.europa.eu/en/health\\_content/episu/090508\\_EISS.aspx](http://ecdc.europa.eu/en/health_content/episu/090508_EISS.aspx)

[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)

[MAY 22] WHO Update 33. 42 countries have officially reported 11 168 cases of influenza A(H1N1) infection, including 86 deaths.

[http://www.who.int/csr/don/2009\\_05\\_22/en/index.html](http://www.who.int/csr/don/2009_05_22/en/index.html)

[MAY 22] Today's WHO Outbreak Map

[http://www.who.int/csr/don/GlobalSubnationalMaster\\_20090522\\_06001.jpg](http://www.who.int/csr/don/GlobalSubnationalMaster_20090522_06001.jpg)

[MAY 22] Summary report of a High-Level Consultation in Geneva on 18 May 2009: New influenza A (H1N1)

[http://www.who.int/csr/resources/publications/swineflu/High\\_Level\\_Consultation\\_18\\_May\\_2009.pdf](http://www.who.int/csr/resources/publications/swineflu/High_Level_Consultation_18_May_2009.pdf)

[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)



[MAY 21] Influenza A(H1N1) Regional Report (Epidemiological)

Up to 21 May 2009, **10,540** confirmed cases of the new virus influenza A (H1N1) infection, including 86 deaths, have been notified in 14 countries of the Americas: Argentina, Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Mexico, Panama, Peru and the United States.

[http://new.paho.org/hq/index.php?option=com\\_content&task=view&id=1390&Itemid=1167](http://new.paho.org/hq/index.php?option=com_content&task=view&id=1390&Itemid=1167)

[MAY 20] General recommendations for the organisation of health facilities in countries where cases of influenza A(H1N1) virus have not yet been reported

[http://new.paho.org/hq/index.php?option=com\\_docman&task=doc\\_download&qid=1384&Itemid=](http://new.paho.org/hq/index.php?option=com_docman&task=doc_download&qid=1384&Itemid=)

[MAY 20] General recommendations for clinical management of influenza A(H1N1) infection cases

[http://new.paho.org/hq/index.php?option=com\\_docman&task=doc\\_download&qid=1529&Itemid=](http://new.paho.org/hq/index.php?option=com_docman&task=doc_download&qid=1529&Itemid=)

[MAY 20] General recommendations for the organization of health care facilities for the care of influenza A(H1N1) cases

[http://new.paho.org/hq/index.php?option=com\\_docman&task=doc\\_download&qid=1533&Itemid=](http://new.paho.org/hq/index.php?option=com_docman&task=doc_download&qid=1533&Itemid=)

[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

[MAY 22] 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)

## 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>

### 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/>

### 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



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>

Brownstein JS, et al. Influenza A (H1N1) Virus, 2009 — Online Monitoring. NEJM. 2009 May; 360(21):2156.  
<http://content.nejm.org/cgi/content/full/360/21/2156?query=TOC>

Cheng PKC, Leung TWC, Ho ECM, Leung PCK, Ng AYY, Lai MY, et al. Oseltamivir- and amantadine-resistant influenza viruses A (H1N1). Emerg Infect Dis. 2009 Jun; [Epub ahead of print]  
<http://www.cdc.gov/eid/content/15/6/pdfs/08-1357.pdf>

Novel Swine-Origin Influenza A (H1N1) Virus Investigation Team. Emergence of a Novel Swine-Origin Influenza A (H1N1) Virus in Humans N Engl J Med. 2009 May 7. [Epub ahead of print]  
<http://content.nejm.org/cgi/reprint/NEJMoa0903810.pdf>

Shinde V, Bridges CB, Uyeki TM, et al. Triple-Reassortant Swine Influenza A (H1) in Humans in the United States, 2005–2009. N Engl J Med. 2009 May 7. [Epub ahead of print].  
<http://content.nejm.org/cgi/reprint/NEJMoa0903812.pdf>

Fraser C. et al. Pandemic Potential of a Strain of Influenza A (H1N1) : Early Findings. Science. 2009 May 11. [Epub ahead of print]. [Abstract only].  
<http://www.sciencemag.org/cgi/content/abstract/sci;1176062v1?maxtoshow=&>

## Historical Resources

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>