

# pH1N1 Flu Virus (Human Swine Influenza) Information Resources

*Current as of April 9, 2010 at 12 pm*

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## Contents

[News](#)

[Events](#)

[Lessons Learned](#) (Read the latest research on the pH1N1 response here!)

## 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

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

[Australia and New Zealand](#)

[World Health Organization \(WHO\)](#)

[pH1N1 Clinical Information](#)

[Research Articles](#)

## News [\[back to top\]](#)

Globe and Mail: [It pays to give everyone a shot: universal flu immunization saves more lives and money than targeted doses](#)

[New cluster of 83 H1N1 cases appears in Malaysia](#)

[China: 429 new infections with H1N1 in March, 91 deaths](#)

[Georgia continues to see more hospitalizations for H1N1](#)

[United States Hands Over H1N1 Lab to Zimbabwe Government](#)

[Shanghai: 17-year-old in coma after H1N1 vaccine coupled with rabies vaccination](#)

[Rapid Development of Drug-Resistant 2009 H1N1 Influenza Reported in Two Cases](#)

NIH: [Both 1918 and 2009 Pandemic Flu lack a sugar topping](#)

Calgary Herald: [Alberta hit hard by H1N1 deaths during pandemic: Review to study preparedness for pandemic](#)

Toronto Star: [Swine flu fallout: many suffer from nagging symptoms long after H1N1 subsides](#)

## Events [\[back to top\]](#)

### Current / Upcoming

[JUN 21-22] [H1N1: The world responds to a 21st century pandemic](#) (London, UK)  
This international conference will bring together scientists, academics and public health professionals to examine what we have learned since the appearance of H1N1 in April 2009, and the knowledge gained from the global effort can be used in preparing for future pandemic response.

### Archived

[ARCHIVED] "H1N1 and Pregnancy: Key Considerations for Vaccination and Management": Online learning program for health professionals

To access the program, go to:

[www.mdBriefCase.com](http://www.mdBriefCase.com) (for physicians)

[www.rxBriefCase.com](http://www.rxBriefCase.com) (for pharmacists)

[www.AdvancingIn.com](http://www.AdvancingIn.com) (for nurses and other healthcare professionals)

[ARCHIVED] [COCA conference calls](#)

[ARCHIVED] U.S. DHHS [H1N1 Video Briefing archive](#)

[ARCHIVED] [Know what to do about the flu](#): webcast series from the U.S flu.gov

## Lessons Learned [[back to top](#)]

### [Association between the 2008–09 Seasonal Influenza Vaccine and Pandemic H1N1 Illness during Spring–Summer 2009: Four Observational Studies from Canada](#)

Skowronski DM, De Serres G, Crowcroft NS, Janjua NZ, Boulianne N, et al. PLoS Med. 7(4): e1000258.

### [Pandemic \(H1N1\) 2009 Risk for Nurses after Trivalent Vaccination.](#)

Loeb M, Earn DJ, Smieja M, Webby R. Emerg Infect Dis. 2010 Apr;16(4):719-20.

### [Household Transmission of Pandemic \(H1N1\) 2009, San Antonio, Texas, USA, April-May 2009.](#)

Morgan OW, Parks S, Shim T, et al. Emerg Infect Dis. 2010 Apr;16(4):631-637.

### [Findings, Gaps, and Future Direction for Research in Nonpharmaceutical Interventions for Pandemic Influenza.](#)

Vukotich Jr CJ et al. Emerg Infect Dis. 2010 Apr;16(4):e2.

### [Disproportional effects in populations of concern for pandemic influenza: insights from seasonal epidemics in Wisconsin, 1967–2004 \\*](#)

Lofgren Et et al. Influenza Other Resp Viruses. 2010; Published Online: Mar 22 2010 6:24AM DOI: 10.1111/j.1750-2659.2010.00137.x

### [Swine flu — lessons learnt in Australia](#)

Collignon PJ. MJA 2010; 92 (7): 364-365.

### [Central European Vaccination Advisory Group \(CEVAG\) guidance statement on recommendations for 2009 pandemic influenza A\(H1N1\) vaccination](#)

Chlibek R, et al. Vaccine. 2010. In Press, Uncorrected Proof, Available online 7 April 2010 doi: 10.1016/j.vaccine.2010.03.072

### [Features of the new pandemic influenza A/H1N1/2009 virus: virology, epidemiology, clinical and public health aspects.\\*](#)

Tang JW, Shetty N, Lam TT. Curr Opin Pulm Med. 2010 May;16(3):235-41.

### [Pig in a china shop: a personal perspective of how pandemic \(H1N1\) 2009 affected the work of intensive care units in NSW.](#)

Totaro RJ. N S W Public Health Bull. 2010 Jan-Feb;21(1-2):39-40.

### [Lessons from the NSW laboratory response to pandemic \(H1N1\) 2009 influenza.](#)

Adamson S, Fizzell J, Dwyer DE, Rawlinson W, Armstrong PK. N S W Public Health Bull. 2010 Jan-Feb;21(1-2):36-8.

### [Pandemic \(H1N1\) 2009 influenza vaccine roll-out in NSW.](#)

Fizzell J, Campbell-Lloyd S, Hallett AJ, Lowbridge CP, Meijer D, Tyner SE. N S W Public Health Bull. 2010 Jan-Feb;21(1-2):32-5.

### [Responding to pandemic \(H1N1\) 2009 influenza in Aboriginal communities in NSW through collaboration between NSW Health and the Aboriginal community-controlled health sector.](#)

Rudge S, Massey PD. N S W Public Health Bull. 2010 Jan-Feb;21(1-2):26-9.

[Reflections on public health surveillance of pandemic \(H1N1\) 2009 influenza in NSW.](#)

Churches T, Conaty SJ, Gilmour RE, Muscatello DJ. N S W Public Health Bull. 2010 Jan-Feb; 21(1-2):19-25.

[An influenza prophylaxis clinic in a primary school: 24 hours from notification to protection.](#)

Weston KM, Truman G. N S W Public Health Bull. 2010 Jan-Feb;21(1-2):16-8.

[Isolation and quarantine during pandemic \(H1N1\) 2009 influenza in NSW: the operational experience of public health units.](#)

Binns PL, Sheppard V, Staff MP. N S W Public Health Bull. 2010 Jan-Feb;21(1-2):10-5.

[Pandemic \(H1N1\) 2009 influenza in NSW: an overview of the public health response.](#)

Spokes PJ, Cretikos MA, Ward JG. N S W Public Health Bull. 2010 Jan-Feb;21(1-2):4-9.

[A collaborative approach to meeting the psychosocial needs of children during an influenza pandemic.\\*](#)

Murray JS. J Spec Pediatr Nurs. 2010 Apr;15(2):135-43.

[Pandemic H1N1 Influenza in the Pediatric Emergency Department: A Comparison With Previous Seasonal Influenza Outbreaks.\\*](#)

Costello BE, Simon HK, Massey R, Hirsh DA. Ann Emerg Med. 2010 Apr 2. [Epub ahead of print]

[Characteristics of US public schools with reported cases of novel influenza A \(H1N1\).](#)

Hoen AG, Buckeridge DL, Chan EH, Freifeld CC, Keller M, Charland K, Donnelly CA, Brownstein JS. Int J Infect Dis. 2010 Apr 1. [Epub ahead of print]

[Adapting the Hamilton health sciences critical care pandemic triage protocol.\\*](#)

Kaposy C, Bandrauk N, Pullman D, Singleton R, Brunger F. Healthc Q. 2010;13(2):60-3.

[Canada's Response to Pandemic H1N1 Influenza: The Collection of Individual-Level Data at the Point of Vaccination.](#)

Kwong JC, Foisy J, Quan S, Heidebrecht C, Kolbe F, Bettinger JA, Buckeridge DL, Chambers LW, Crowcroft NS, Dhalla IA, Sikora CA, Willison DJ, Pereira JA. Healthc Q. 2010;13(2):18-20.

[Pandemic Ventilator Rationing and Appeals Processes.\\*](#)

Patrone D, Resnik D. Health Care Anal. 2010 Mar 31. [Epub ahead of print]

[GPs' opinions on the NHS and HPA response to the first wave of the influenza A/H1N1v pandemic.\\*](#)

Caley M, Sidhu K, Shukla R. Br J Gen Pract. 2010 Apr;60(573):283-5.

[Analysis of the effectiveness of interventions used during the 2009 A/H1N1 influenza pandemic.](#)

Halder N, Kelso JK, Milne GJ. BMC Public Health. 2010 Mar 29;10(1):168. [Epub ahead of print]

## Ministry of Health and Long-Term Care [\[back to top\]](#)

### [Ontario Influenza Bulletin \(Week 12: Mar 19-26\)](#)

For the surveillance period of March 21 to March 27, 2010 :

- Influenza activity in Ontario was similar compared to the previous reporting period (Mar. 14 to Mar. 20, 2010).
- More patients reporting influenza-like symptoms consulted sentinel physicians during this week than during last week.
- The rate of influenza-like illness (ILI) in patients seen by sentinel physicians is lower than what is expected based on the average rate at this time of year for past seasons.
- No health units reported localized influenza activity for the current reporting period. Three health units reported sporadic influenza activity and 26 reported no influenza activity. The remaining seven health units did not report.
- Between April 1, 2009 and March 13, 2010, there were 8,759 laboratory confirmed cases of H1N1 flu virus reported in Ontario, through the integrated Public Health System (iPHIS).

[ARCHIVED] [Previous MOHLTC updates and news conference video footage](#)

## Ontario Agency for Health Protection and Promotion [\[back to top\]](#)

### [Laboratory Pandemic Influenza Surveillance Report: Information current as of: April 5, 2010](#)

[ARCHIVED] [Swine influenza outbreak page](#)

## Public Health Agency of Canada (PHAC) [\[back to top\]](#)

*No items of interest this week.*

[ARCHIVED] [Previous PHAC documents and updates](#)

## Centers for Disease Control and Prevention (CDC) & US Department of Health and Human Services [\[back to top\]](#)

### [Weekly FluView Map and Surveillance Report for Week Ending April 3, 2010](#)

During week 13 (March 28-April 3, 2010), influenza activity decreased slightly in the U.S. 105 (3.7%) specimens tested by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories and reported to CDC/Influenza Division were positive for influenza.

### [Influenza and Pneumonia-Associated Hospitalizations and Deaths from August 30, 2009 to April 3, 2010](#)

Flu activity in the United States declined slightly from last week and is low nationally; however, some states in the Southeast continue to report regional activity, according to the March 28-April 3, 2010 FluView. Most flu continues to be 2009 H1N1. Flu activity, caused by either 2009 H1N1 or seasonal flu viruses, may rise and fall, but is expected to continue for weeks in the U.S. Internationally, 2009 H1N1 flu is still circulating, including in the Southern Hemisphere, which is about to enter its flu season. For more information, please see the international situation update.

### [NEW: 5 Things Caregivers of People with Disabilities Need To Know About the Flu](#)

If you provide care for a person with a disability either at home or in a community-based setting, read the 5 Things Caregivers of People with Disabilities Need to Know about the Flu

### [NEW: 5 Things People with Disabilities Need To Know About the Flu](#)

If you are a person with a disability, read the 5 Things People with Disabilities Need to know about the Flu.

[ARCHIVED] [Previous CDC documents and updates](#)

## **Center for Infectious Disease Research and Policy** [\[back to top\]](#)

### [Researchers report peramivir-resistant H1N1 case](#) (March 26)

Researchers today sounded two warnings for clinicians who manage pandemic H1N1 patients: that even a short course of oseltamivir (Tamiflu) can lead to antiviral resistance and that patients can develop resistance to peramivir, an alternative to oseltamivir in emergency situations.

### [CDC sees sustained H1N1 activity in Southeast](#) (March 26)

Flu indicators are showing signs of increased and sustained pandemic flu activity in some Southeastern states, though rates remain steady at the national level, the US Centers for Disease Control and Prevention (CDC) said today.

### [WHO: Flu activity up in Central, South America](#) (March 26)

Pandemic activity may be increasing across Central America and in some parts of South America, the World Health Organization (WHO) said today. Guatemala, Nicaragua, El Salvador, Panama, and parts of Brazil have reported increasing pandemic flu detections. Mexico is seeing more respiratory illnesses, though it's not clear if flu is the cause. Flu activity hasn't peaked in West Africa, though it is subsiding in Thailand. European countries are increasingly reporting influenza B.

### [Review calls nondrug steps effective against flu](#) (March 26)

After assessing 11 CDC-funded studies on the effect of non-pharmaceutical interventions (NPIs) on pandemic flu, a committee has determined that "evidence exists of the effectiveness of NPIs, including face masks, hand hygiene, cough etiquette, reduced crowding, and school closures, in reducing the spread of influenza." The group, however, identified 16 research gaps, including the role of transmission modalities, implication of viral load, clinical definitions, and barriers to implementing NPIs.

### [Japan cancels part of vaccine order](#) (March 26)

Japan's Ministry of Health, Labor and Welfare announced today that it has reached agreement with GlaxoSmithKline to cancel a third of its H1N1 vaccine order, or 24 million surplus doses. It is also working to cancel part of a 25-million-dose vaccine order from Novartis, according to Kyodo News. Of the 99 million doses Japan had ordered from the two companies, about 50 million have been shipped

### [Georgia's rise in serious H1N1 cases worries CDC](#) (March 29)

Public health officials are so concerned by an uptick of serious cases of H1N1 flu in the southeastern United States that they called a short-notice press briefing today to urge Americans to be vaccinated against the pandemic strain.

### [WHO sets up external panel to review pandemic response](#) (March 26)

The World Health Organization (WHO) today said it is in the final stages of putting together an independent committee to review its preparation for and response to the H1N1 pandemic, a group of about 29 experts that will meet for the first time in the middle of April.

### [Possible spread of resistant H1N1 reported](#) (March 26)

Oseltamivir-resistant H1N1 flu probably spread between two children living in adjacent rooms in an institution for disabled children, Israeli physicians reported in *Emerging Infectious Diseases*. A 13-year-old boy became ill in late July and was found to have the resistant strain. His neighbor, a 10-year-old girl, got sick about 2 weeks later and had the resistant strain from early in her illness. The resistant virus did not appear to spread to any other children in the facility.

### [China drought threatens key Tamiflu ingredient](#) (March 26)

A severe drought in four of China's southwestern provinces is threatening production of star anise, a major source of shikimic acid, a key ingredient of oseltamivir (Tamiflu), Xinhua reported. A forestry expert said Roche, the maker of Tamiflu, gets two thirds of its star anise from China. A Roche official said it's not clear if the drought will affect Tamiflu production and that the company could substitute another ingredient for star anise.

### [Study says entry screening may have worked](#) (March 30)

Countries that began screening incoming travelers after the World Health Organization issued its pandemic alert last year may have delayed local transmission 7 to 12 days, according to a study today in *BMC Infectious Diseases*. The authors conclude that entry screening at airports, ports, and border crossings "may lead to short-term delays in local transmission of a novel strain of influenza virus." They added that resources need to be balanced against expected benefits.

### [Irish leave two thirds of H1N1 vaccine unused](#) (March 30)

Almost two thirds of the \$17 million worth of H1N1 vaccine that Ireland ordered has gone unused, with only 25% of the population getting vaccinated, the *Irish Times* reported today. The nation's health service was discussing options for the surplus with vaccine maker GlaxoSmithKline (GSK). Some of the 3 million doses bought by Ireland will remain stockpiled against the risk of a subsequent pandemic wave.

### [Regional flu spread seen at some Southern campuses](#) (March 30)

Flu-like illness on college campuses stayed at low levels for the 16th consecutive week, though some regional activity continued in the Southeastern area, consistent with what federal officials are reporting, the American College Health Association (ACHA) said today. Significant, short increases were seen in mid February to early March, especially in the Carolinas and Georgia. The attack rate was 1.4 cases/10,000 students, down slightly from the previous week.

### [Study: Emergency personnel most H1N1-susceptible](#) (March 30)

Emergency department workers have had the highest H1N1 infection rate among hospital staff, according to a new study, followed by those in pediatrics, ambulatory care, and anesthesiology. Data from five hospitals showed 123 confirmed cases, with an infection rate of 29% in adult emergency departments. As a group physicians and medical personnel had the highest rate (6.7%), followed by security/transportation (3.9%), housekeeping/food service (2.7%), and nurses/clinical technicians (2.2%).

### [Maine lawmakers kill sick-leave bill](#) (March 31)

A scaled-back bill in Maine addressing sick-leave issues died in the state house of representatives Mar 29, the Associated Press (AP) reported yesterday. As pandemic flu peaked last fall, Senate President Elizabeth Mitchell, D-Vassalboro, had proposed a law that would have required Maine employers to offer paid sick leave as a measure to slow flu transmission in the workplace. Later she scaled back the proposal to prevent employers from firing workers who take paid or unpaid sick days.

### [Study suggests CBC pattern may be flu marker](#) (March 31)

Lymphopenia with or without monocytosis in the complete blood count may be a marker for the

pandemic H1N1 virus and may be useful when demand for virus testing exceeds capacity, Greek researchers reported in *Public Library of Science Currents (PLoS Currents)*. They found the pattern in data from patients treated in a private clinic emergency department during the fall flu wave. They said though lymphopenia has been seen in seasonal and pandemic flu, the monocytosis observation is new.

#### [Bulgaria's health minister steps down over Tamiflu flap](#) (March 31)

Bulgaria's health minister resigned yesterday after federal prosecutors charged him with wasting public funds by overpaying for oseltamivir (Tamiflu), Agence France-Presse (AFP) reported today. Bojidar Nanev allegedly paid \$4.4 million to Roche for the drug that it could have bought from British health services for \$2.7 million, according to the charges. Nanev has denied the charges, and Roche said its contract complies with Bulgaria's public tender requirements, Sofia News Agency reported.

#### [CDC estimates 24% of Americans received H1N1 vaccine](#) (April 1)

Federal health officials estimated today that 24% to 27% of Americans, or 72 million to 81 million people, had received a dose of 2009 H1N1 vaccine by the end of February, with coverage varying widely from state to state.

#### [H1N1 vaccine rates low in healthcare workers](#) (April 1)

Although less than 40% of healthcare workers have received the pandemic flu vaccine, federal officials see promising signs about uptake of the seasonal vaccine and strategies for boosting vaccination rates in this group.

#### [WHO says H1N1 still active in parts of tropics](#) (April 2)

The World Health Organization (WHO) yesterday reported moderately active pandemic influenza activity in parts of the tropical regions of Asia, the Americas, and Africa, as well as influenza B activity in much of East Asia.

#### [CDC: Southeast sees rising flu hospitalization](#) (April 2)

Flu activity last week stayed steady, although increases in flu-related hospitalization occurred in the Southeast, an area that has seen sustained local and regional flu activity over the past several weeks, the Centers for Disease Control and Prevention (CDC) said today. Doctor's visits for flu-like illnesses were below the national baseline, but deaths from pneumonia and flu increased slightly above the epidemic threshold. One pandemic H1N1 pediatric death was reported.

#### [Thailand cites good vaccine safety](#) (April 2)

In a letter published today in *The Lancet*, officials from the Taiwan Centers for Disease Control reported a good safety profile for the H1N1 pandemic vaccine. Researchers had projected that they would see about 27 cases of Guillain-Barre syndrome (GBS) after 6 weeks of vaccination. However, with more than 4 months' of data, the country has confirmed only four GBS cases in vaccinees.

#### [Study ID's array of PCR tests to detect flu](#) (April 2)

A German research team reports good results for a bundled PCR assay in quickly and accurately detecting influenza B and key influenza A strains: seasonal H1N1 and H3N2, avian H5N1, as well as pandemic H1N1. Reporting in *Public Library of Sciences (PLoS) ONE*, the authors state that the nine-assay bundle enables "a fast and precise determination of virus type and subtype in respiratory specimens." These assays have been used successfully at the German national reference lab since 2007.

#### [IV zanamivir for patients in respiratory distress](#) (April 2)

German physicians writing in *Clinical Infectious Diseases* detail two cases of critically ill H1N1 patients on ventilators who had pneumonitis and acute respiratory distress, were treated with



intravenous zanamivir (Relenza), and had good outcomes. The patients, a 39-year-old man with no underlying conditions and a 49-year-old man with type 2 diabetes, received the drug 5 and 8 days, respectively, after hospitalization and were taken off the ventilator after 6 and 9 days, respectively.

#### [Editorial maps out Australia's flu lessons](#) (April 5)

In an editorial exploring the lessons Australia learned during the H1N1 pandemic, Dr Peter Collignon, director of infectious diseases at Canberra Hospital, wrote that the outbreak stretched the health system even though disease severity was mild to moderate. In the Apr 5 *Medical Journal of Australia*, he said quicker assessment of virulence and clearer messages about oseltamivir (Tamiflu) use to focus on high-risk groups could have eased the pandemic response

#### [New Zealand reports vaccine shortage](#) (April 5)

Higher-than-expected demand for the flu vaccine in advance of New Zealand's flu season, in which the pandemic virus is expected to dominate, is leading to vaccine shortages, The Medical News Web site reported today. The health ministry said about 20,000 to 30,000 vaccine doses have been administered daily. In late December Sanofi, New Zealand's main vaccine provider, announced a delay in vaccine delivery, which prompted the ministry to order about 450,000 doses from other companies.

#### [Study: School profile may influence flu spread](#) (April 5)

An analysis in the *International Journal of Infectious Diseases* of schools that had H1N1 flu cases last spring suggests that public schools with younger, more affluent students may have been sentinels and played a role in flu spread. Using a news database, the authors matched 32 schools reporting cases with controls in the same counties. Compared with controls, schools with H1N1 cases had fewer low-income students and had younger student populations.

#### [Some afebrile patients shed viable H1N1 virus](#) (April 5)

Researchers who studied H1N1 in 47 Quebec City households determined that between 8% and 13% of patients were still shedding viable virus 8 days into their illness, but none were still shedding on day 11. Among 47 patients who tested positive by PCR within the first 7 days of illness, 22 of 35 afebrile patients tested positive by viral culture. The authors write that self-isolation only until fever abates seems inadequate to limit spread and that self-isolation for 1 week may be more effective.

#### [Analysis finds Ontario's universal flu vaccination policy cost-effective](#) (Apr 6)

An analysis of Ontario's universal flu vaccination program, which targets free flu vaccine for anyone over 6 months old, is cost-effective and may be an attractive option for other provinces and countries that have single-payer health systems, researchers reported today.

#### [New Canadian studies suggest seasonal flu shot increased H1N1 risk](#) (Apr 6)

Despite a rapidly launched range of studies, investigators in Canada are still unable to say—or to rule out—whether receiving a seasonal flu vaccination in the 2008-09 season made it more likely that Canadians would become ill from 2009 pandemic H1N1 flu.

#### [UK cuts GSK vaccine order by a third](#) (April 7)

The UK Department of Health (DH) announced today that it has reached an agreement with GlaxoSmithKline (GSK) to cut its H1N1 vaccine order by about a third, according to a news release. The UK order with GSK has been capped at 34.8 million doses of Pandemrix vaccine, including those already received, and there will be no cancellation fee. Some unused vaccine will be kept in reserve for a potential third wave of cases, while 3.8 million doses will be donated to African nations.

#### [Study: No H1N1 immunity in older Singaporeans](#) (April 7)

Researchers in Singapore performed serologic tests on 50 healthy volunteers, most of whom were born before 1958 and therefore potentially carrying H1N1 antibodies. However, none of the recruits,

whose median age was 60, had immunity to pandemic H1N1 flu, which differs from findings in western populations. The authors say the results may reflect demographic differences, a very low seasonal-flu-vaccine rate in Singapore, or less exposure of Southeast Asians to swine-origin viruses from the West.

#### [Some Southeastern colleges see flu activity](#) (April 8)

Though flu-like illnesses remained at very low levels at colleges, with an attack rate of 1.6 cases/10,000 students, the level was 14% higher than previous weeks, the American College Health Association (ACHA) reported today. Disease incidence has remained below 5/10,000 students for 17 weeks. Low-level regional activity occurred in some Southeast states, consistent with trends in the general population. ACHA reported no signs of sustained transmission on college campuses.

#### [School outbreaks prompt warning in Ghana](#) (April 8)

Health groups in Ghana, along with its health ministry, issued a warning of a heightened pandemic flu threat in the wake of several school closures in several regions of the country, GhanaWeb reported today. A statement from the groups said children are among the most vulnerable groups, and they advised the public to minimize crowding at social events targeted to children. It also reviewed hygiene measures for preventing flu spread.

#### [Malaysia also reports school outbreaks](#) (April 8)

School outbreaks of influenza-like illnesses, some of which has been confirmed as pandemic H1N1, have spurred Malaysia's health ministry to ask state officials to boost flu education and prevention activities, particularly in schools and public areas, *The Star*, a Malaysia-based newspaper, reported today. The country's health minister said illness clusters have been detected at seven schools and that students from six other schools have received outpatient treatment.

#### [Study: H1N1 name game hinders lit searches](#) (April 8)

A study found that inconsistent naming of the novel H1N1 virus last spring impeded retrieval of relevant scientific articles in PubMed, an oft-used US National Library of Medicine database. Researchers developed a PubMed search algorithm covering different names of the pandemic virus and simulated results from the first 10 weeks of the pandemic. When they excluded one term from the string, such as "H1N1" or "swine," they found that the search missed from 14% to 21% of relevant articles.

#### [Lung study finds variation in virus replication](#) (April 8)

An ex vivo study comparing flu virus replication in human lung tissue suggests that pandemic H1N1 replication varied among samples but overall replicated more efficiently than seasonal H1N1 but less efficiently than H5N1 avian influenza, Chinese researchers reported in the *Journal of Infectious Diseases*. They wrote that it's not clear if replication variations in the H1N1 virus relate to clinical outcomes.

#### [Israel to hold on to excess vaccine](#) (April 8)

Israel's health ministry told *The Jerusalem Post* that it plans to keep 3 million doses of unused pandemic flu vaccine in storage for a potential resurgence of cases in the fall or winter. The ministry had initially ordered 7 million vaccine doses, but later canceled 2.5 million of them. Fewer than a million Israelis have been vaccinated.

[ARCHIVED] [Current overview and older updates from CIDRAP](#)

## Health Protection Agency (UK) [[back to top](#)]

*Due to low influenza activity the National Influenza Report will be published fortnightly, with a short summary of activity provided in alternate weeks. Should activity increase again the report will return to a weekly schedule. The next full report will be published on **Thursday 15 April 2010**.*

### [HPA Weekly National Influenza Report: 08 Apr 2010](#)

Pandemic influenza activity is low and generally stable across the UK.

[ARCHIVED] [Swine Influenza page](#)

[ARCHIVE] [DH Pandemic Flu site](#)

## European Centre for Disease Prevention and Control [[back to top](#)]

*Following suspension of the Daily Updates on the Pandemic, ECDC is now communicating out a **Weekly Digest** of its outputs on influenza notably the **Weekly Influenza Surveillance Overview** in addition to the **Monthly Executive Output**.*

### [ECDC Weekly Influenza Surveillance Overview \(09 Apr 2010\)](#)

- For the fifth consecutive week, all reporting countries experienced low intensity of influenza activity.
- All countries reported no or sporadic activity, except for Italy who reported local activity.
- Of the 49 influenza viruses detected from sentinel and non-sentinel sources during week 13/2010, 27 (55%) were type B viruses.
- Three countries (France, Malta and the Netherlands) reported one SARI case each. Two deaths in SARI cases were reported by Hungary.
- Even though the world remains in pandemic Phase 6, influenza activity caused by the 2009 pandemic influenza A(H1N1) virus is well past its winter peak in EU/EEA countries. However, transmission of the pandemic virus and B influenza viruses continues at low levels. Only some cases of influenza-like illness in EU/EEA countries are currently due to influenza virus.

[ARCHIVE] [Maps, surveillance summaries and previous ECDC updates](#)

[ARCHIVE] [European Union Influenza H1N1 page](#)

## Pan-American Health Organization (PAHO) [[back to top](#)]

*No items of interest this week.*

[ARCHIVED] [PAHO Influenza A \(H1N1\) Portal](#)

## Australia and New Zealand [[back to top](#)]

Australia: [Influenza Surveillance Report No.10 for the week ending 2010 Mar 26](#)

- In 2010, as at 26 March, there have been 51 confirmed cases of pandemic (H1N1) 2009 influenza reported in Australia, bringing the total of confirmed cases to 37,687 since May 2009. In addition, there have been 213 reported cases of influenza type A not sub-typed and 31 cases of influenza type B.
- From 1 January to 30 March 2010, there have been 14 hospitalisations and 0 deaths associated with pandemic (H1N1) 2009 influenza, as reported by jurisdictions.

NZ: Pandemic Influenza H1N1 2009 (swine flu): [Update 178](#) and [Update 179](#)

The number of people with an influenza-like illness visiting their doctor is tracking at similar levels to last week and remains under 'baseline' levels.

[ARCHIVED] [New Zealand's H1N1 page](#)

[ARCHIVED] [Australia's H1N1 Update Bulletins](#)

## **World Health Organization (WHO) [\[back to top\]](#)**

[Vaccine deployment update \(2010 Mar 31\)](#)

[Pandemic \(H1N1\) 2009 - update 95 \(2010 Apr 9\)](#)

[Pandemic \(H1N1\) 2009 - update 94 \(2010 Apr 1\)](#)

[ARCHIVED] [WHO H1N1 Guidance Documents](#)

[ARCHIVED] [Older WHO Updates](#)

## **pH1N1 Clinical Information [\[back to top\]](#)**

[ARCHIVED] [Ebsco Influenza Portal](#)

Due to Pandemic H1N1 Influenza and concerns about the 2009/2010 flu season, the EBSCO Publishing Medical and Nursing editors of *DynaMed™*, *Nursing Reference Center™* (NRC) and *Patient Education Reference Center™* (PERC) have made key influenza information from these resources freely available to health care providers worldwide. *Contact your library for access.*

## **Research Articles (1 week backfile) [\[back to top\]](#)**

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

[Medline literature search on H1N1](#) (current as of today)

### [Economic Appraisal of Ontario's Universal Influenza Immunization Program: A Cost-Utility Analysis](#)

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