pH1N1 Flu Virus (Human Swine Influenza)
Information Resources
Current as of January 22, 2010 at 12 pm

Highlights

Epidemiological updates from international public health authorities ------------------------

HPA: No longer producing a weekly pandemic flu media update

Pandemic H1N1 (2009) Influenza: Chief Medical Officer's Fortnightly Bulletin for Journalists

WHO: Pandemic (H1N1) 2009 - update 84 - As of 17 January 2010, more than 209 countries have reported laboratory confirmed cases of pH1N1 2009, incl. at least 14142 deaths.

Literature -----------------------------------------------------------------------------------------------

Epi Infec: Face masks to prevent transmission of influenza virus: a systematic review

CMAJ: Correlates of severe disease in patients with 2009 pandemic influenza (H1N1) virus infection

Eurosurveillance: The vaccination campaign against 2009 pandemic influenza A(H1N1) and its continued importance in view of the uncertainty surrounding the risk associated with the pandemic

JAMA: Public Health Response to Influenza A(H1N1) as an Opportunity to Build Public Trust

Public Health: Getting back to basics during a public health emergency: a framework to prepare and respond to infectious disease public health emergencies

Med J Australia: The changing phases of pandemic (H1N1) 2009 in Queensland: an overview of public health actions and epidemiology

PNAS: Optimizing infectious disease interventions during an emerging epidemic

Ann Emerg Med: Health Information Exchange, Biosurveillance Efforts, and Emergency Department Crowding During the Spring 2009 H1N1 Outbreak in New York City

Aust NZ J of PH: Adverse effects following pandemic influenza (H1N1) 2009 vaccination
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Jurisdictions

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
Other US Sources

Europe

United Kingdom’s Health Protection Agency (HPA)
UK Department of Health
European Centre for Disease Control and Prevention (ECDC)
European Union

International

World Health Organization (WHO)
Pan American Health Organization (PAHO)
Australia and New Zealand

Other Resources

pH1N1 Clinical Information
Research Articles
Travel Advisories
Events

Current / Upcoming

[FEB 3-5] International Symposium on Neglected Influenza Viruses
February 3-5, 2010 | Amelia Island, Florida
Sponsor: International Society for Influenza and other Respiratory Virus Diseases
Contact:
Gregory C. Gray, MD, MPH | Phone: (319) 384-5008 | gregory-gray@uiowa.edu

[ONGOING] "H1N1 and Pregnancy: Key Considerations for Vaccination and Management": Online learning program for health professionals
To access the program, go to:
www.mdBriefCase.com (for physicians)
www.rxBriefCase.com (for pharmacists)
www.AdvancingIn.com (for nurses and other healthcare professionals)

Archived

Join experts from the U.S. Department of Health and Human Services and the former president of the American Medical Association answer your questions about the H1N1 virus and vaccine. Hosted by the U.S. Department of Health and Human Services, the show airs live on www.flu.gov.


[NOV 18] Clinical Laboratory Management Association: Review Epidemiology of Novel H1N1

[NOV 10] Assembly of First Nations and Health Canada to Co-host a Virtual Summit on H1N1 Preparedness November 10th, 2009

[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

Jurisdictional Scan
Using QI Tools To Make A Difference In H1N1 Flu Immunization Clinics: A Local Health Department's Experience

Literature

Canadian First Nations experience with H1N1: new lessons or perennial issues?
Health Information Exchange, Biosurveillance Efforts, and Emergency Department Crowding During the Spring 2009 H1N1 Outbreak in New York City.

The changing phases of pandemic (H1N1) 2009 in Queensland: an overview of public health actions and epidemiology.

Research funding in a pandemic.*

[The influence of an event in the Israeli media on the compliance of patients with influenza vaccinations in the winter of 2006-2007]

Review of an influenza surveillance system, Beijing, People's Republic of China.

Commentary: Public Health Response to Influenza A(H1N1) as an Opportunity to Build Public Trust

Getting back to basics during a public health emergency: a framework to prepare and respond to infectious disease public health emergencies

A pandemic response to a disease of predominantly seasonal intensity.

Swine flu: crisis communicator.

Optimizing infectious disease interventions during an emerging epidemic.

Drive-Through Medicine: A Novel Proposal for Rapid Evaluation of Patients During an Influenza Pandemic.

Ministry of Health and Long-Term Care (MOHLTC)

Ontario Flu Bulletin
For the surveillance period of January 3 to January 9, 2010:
• Influenza activity in Ontario was similar compared to the previous reporting period (Dec. 20, 2009 to Jan. 2, 2010).
• Fewer patients reporting influenza-like symptoms consulted sentinel physicians during this week than during the previous reporting period.
• 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 widespread influenza activity for the current reporting period. One health unit reported localized influenza activity, six reported sporadic influenza activity and 22 reported no influenza activity.

• There are 8,771 confirmed cases of H1N1 flu virus reported through the integrated Public Health System (iPHIS).

[ARCHIVED] Previous MOHLTC updates and news conference video footage

Important Health Notices / Avis de santé important

None on H1N1 since Nov 13, 2009.

Ontario Agency for Health Protection and Promotion (OAHPP)

Ontario Agency for Health Protection and Promotion Laboratory Pandemic H1N1 Surveillance Report January 11th

Weekly Synthesis of Surveillance Information, Literature & Government Updates (Week ending Jan 8, 2010)

[ARCHIVED] Swine influenza outbreak page

Public Health Agency of Canada (PHAC)

PHAC issues national updates on H1N1-associated deaths on Thursdays at 4 pm, and will report regularly on any unusual outbreaks or clusters of illness.

Summary of FluWatch Findings for the Week ending January 9, 2010

• During week 1, all influenza indicators were either back to baseline or considerably under the expected level for this time of the year.

• The national ILI consultations rate were significantly below the expected range for this time of the year with 17 consultations per 1,000 patient visits.

• Only 1.3% of the specimens tested were positive for influenza compared to 16.4% for the respiratory syncytial virus.

• The Pandemic (H1N1) 2009 strain still accounted for 100% of the positive influenza A subtyped specimens this week while only one specimen tested positive for influenza B.

• Eighteen hospitalized cases, 7 ICU admissions and 2 deaths were reported during week 1. Deaths were from BC and AB. From August 30, 2009 to January 9, 2010, a total of 7,048 hospitalized cases including 1,141 (16.2%) cases admitted to an intensive care unit (ICU) as well as 340 (4.8%) deaths have been reported.

Deaths Associated with H1N1 flu virus in Canada

Jan 14 – Jan 21, 2010: 5 Cumulative: 425

[ARCHIVED] Previous PHAC documents and updates
Centers for Disease Control and Prevention (CDC) and US Department of Health and Human Services

UPDATED: Open Letter to the American People about the H1N1 Flu Vaccine

In an open letter to the American people, several health care provider and public health organizations encouraged Americans to get the H1N1 vaccine. This letter emphasizes that the H1N1 vaccine is safe, effective, and the best way to protect against 2009 H1N1 flu. Originally, 32 organizations signed on to this letter; however, since publication, several groups have joined this effort.

Laboratory confirmed Influenza-Associated Hospitalizations and Deaths from August 30, 2009 to January 16, 2010

Weekly FluView Map and Surveillance Report for Week Ending January 16, 2010

During week 2 (January 10-16, 2010), influenza activity decreased slightly in the U.S.

- 120 (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.
- Ninety-eight percent of subtyped influenza A viruses reported to CDC were 2009 influenza A (H1N1) viruses.
- The proportion of deaths attributed to pneumonia and influenza (P&I) was above the epidemic threshold.
- Nine influenza-associated pediatric deaths were reported. Three deaths were associated with 2009 influenza A (H1N1) virus infection, four were associated with an influenza A virus for which the subtype was undetermined, one was associated with an influenza A (H3) virus infection, and one was associated with an influenza B virus infection. The influenza A(H3) and B deaths occurred during the 2008-09 influenza season.
- The proportion of outpatient visits for influenza-like illness (ILI) was 1.8% which is below the national baseline of 2.3%. One of the 10 regions (region 9) reported ILI above their region-specific baseline.
- No states reported widespread influenza activity, seven states reported regional influenza activity, Puerto Rico, and 10 states reported local influenza activity, the District of Columbia, Guam, and 32 states reported sporadic influenza activity, and the U.S. Virgin Islands and one state reported no influenza activity.

[ARCHIVED] Previous CDC documents and updates

Other US Sources

[JAN 14] January 14: Young Adults Flu Vaccination Day

Center for Infectious Disease Research and Policy

January 21

Pediatric flu deaths triple past 3 season average

In an overview of flu activity during the 2009-10 flu season that started Aug 30, the US Centers for Disease Control and Prevention (CDC) said pediatric deaths from the pandemic virus are three times higher than the average for the past three seasons. Flu activity peaked on Oct 24, much earlier than the February peaks of the most recent flu seasons. The CDC pointed out that multiple
waves were seen during the three most recent pandemics, emphasizing the importance of vaccination.

**WHO to write response to 'false pandemic' charges**
In response to a request from India's health secretary, the World Health Organization (WHO) will write formal letters to all countries to clarify the facts about the H1N1 pandemic, to counter charges that the threat was exaggerated, the Indian government said in a statement yesterday. In requesting the WHO action, the Indian official said the reports of a "false pandemic" were hurting public health measures taken by governments. India also asked for more details about vaccine contracts.

**Massachusetts flu effort targets minority groups**
Hoping to ease racial disparities in pandemic flu illness, Massachusetts officials said they will target $1 million of its federal funding toward community groups that can help promote vaccination in these groups. The state's public health officials have reported that the disease has taken a heavier illness, hospitalization, and death toll on black, Hispanic, and Asian groups.

**Nigeria cites progress in securing vaccine**
Following the first deaths and illnesses from pandemic H1N1 flu, Nigeria's health ministry said yesterday that it is in advanced talks with the WHO to receive the vaccine, AllAfrica news reported today. The ministry said Nigeria wasn't previously on the WHO's priority list because it had not detected any illnesses but now said the country could receive vaccine doses by February. Nigeria has confirmed two H1N1 deaths and eight illnesses.

**January 20**

**No flu vaccine in Nigeria after first H1N1 death**
Nigerian health authorities disclosed today that the country has no H1N1 vaccine with which to launch a flu-shot campaign, 2 weeks after recording its first death from the pandemic virus. The newspaper *This Day* reported that screening of the 38-year-old woman's close contacts revealed 8 infected people, out of 46, who were placed on antiviral treatment. The government is ramping up public education about infection risks.

**Japan OKs its first imported H1N1 vaccines**
Today Japan approved domestic use of H1N1 flu vaccines made by GlaxoSmithKline (GSK) and Novartis, paving the way for their use within a month. Japan has finalized deals for enough GSK vaccine for 7.4 million healthy adults and Novartis vaccine for 2.5 million. The approval marks Japan's first agreement to accept imported vaccine. GSK earlier contracted to supply the country with 74 million doses of H1N1 vaccine.

**Mexico City offers vaccine for subway riders**
Health officials in Mexico City this week began offering H1N1 vaccine at 26 of the city's busiest subway stations, the Associated Press (AP) reported. On Jan 18 about 10,200 of Mexico City's 300,000 vaccine doses were distributed at the subway stops. City officials said they will extend the immunization effort to markets by the end of the week. Mexico City was at the center of the novel H1N1 outbreak in the spring. The country hopes to vaccinate 24 million people by March.

**Chinese expert seeks support for sickest flu patients**
China's government should help seriously ill pandemic flu patients cover the cost of lengthy treatment, Dr Zhong Nanshan, one of the country's top respiratory disease specialists, said at a Jan 18 ceremony marking the hospital discharge of a teenage girl, *China Daily* reported today. He said a financial safety net would help reduce fear and barriers to treatment. Zhong first spoke out on the issue in December after a toddler was found dead after his parents took him out of the hospital.
Concern raised over vaccine and autoimmune disease
Switzerland's medical regulatory agency, Swissmedic, recommends that people who have serious autoimmune diseases not receive Novartis's H1N1 vaccine because it has not been tested in such patients, Reuters reported today. The agency said it could not exclude the risk that the vaccine antigen or adjuvant could exacerbate disease.  [Jan 20 Reuters report]

January 19 --------------------------------------------------------------------------------------------------------

Chan: Lack of H1N1 vaccine demand surprising
The H1N1 influenza pandemic brought no "devastating surprises," but what has surprised public health agencies is the public's lack of interest in getting vaccinated, Margaret Chan, director-general of the World Health Organization (WHO), said yesterday.

GSK vaccine sales lower than predicted
Flu-vaccine manufacturer GlaxoSmithKline (GSK) could end up earning only 75% of what it once forecast from H1N1 vaccines, as governments renegotiate their contracts to two thirds of what they ordered last year, the Financial Times reported. Similar results are expected for other flu-shot manufacturers. In a separate statement, GSK acknowledged that countries are changing their orders but said it is "too early to say" what final dose totals and earnings for H1N1 vaccine will be.

FDA chief stresses safety of H1N1 vaccine
Margaret Hamburg, MD, commissioner of the US Food and Drug Administration (FDA) recently sent a letter to healthcare professionals reassuring them about the safety of the pandemic H1N1 vaccine, based on the latest findings. She said no substantial differences between the pandemic and seasonal flu vaccine have been seen and that 94% of adverse events have been nonserious conditions such as injection-site soreness.

Greece, Norway scale back vaccine orders
Greece and Norway have both cut back on pandemic vaccine deliveries, Agence France-Presse (AFP) reported. The Greek health ministry said it would pay for only the 3.6 million doses it has already received and wants companies to refund advances made for future shipments. Meanwhile, Norway's health ministry said it reached an agreement with GSK to trim its order by 30%. It has received about 4.3 million doses so far and has vaccinated about 60% of its population.

Experts review Australia's pandemic response
Two respiratory medicine experts from Australia, in a recent issue of Respirology, critiqued their country's H1N1 pandemic response. One said officials could have done more to slow the spread of the virus, such as isolating infected cruise ship passengers and canceling youth sports events, as well as better coordinating response across government levels. The other author praised officials for funding research efforts, but said the next possible wave may reveal more about response.

Massachusetts minorities hit harder than whites
Massachusetts is the latest jurisdiction to find higher rates of flu illness and death in its non-white residents, the Boston Globe reported in its blog White Coat Notes. Asians were hospitalized 1.5 times as often as whites and were 4 times as likely to die from flu; Hispanics were hospitalized 3 times as often and were 6 times as likely to die; and blacks were hospitalized more than 4 times as often, and had death rates more than 3 times higher than whites.

County tests emergency response with H1N1 shots
Lexington County, S.C., used a newly arrived allotment of H1N1 vaccine to stage a 1-day test of its emergency medical response, The State newspaper reported. The county used a sports field to set up portable hospital tents purchased with homeland security funds, called in health professionals and community volunteers to work the site, and funneled 600 vaccine recipients through at several minutes each.
Los Angeles airport makes vaccine available
The Los Angeles international airport recently began offering flu shots, including the pandemic vaccine, in most of its terminals. A spokeswoman said the airport's goal is to help curb flu spread and put the shots within convenient reach of travelers. Vaccination stations are staffed by nurses from FluEase, a company that specializes in immunization services for organizations. The shots cost $30, and vaccination will continue throughout flu.

January 15

WHO: Influenza B up in China
Though the pandemic H1N1 virus is still the dominant flu strain, China has found influenza B in 12.6% of specimens, the World Health Organization (WHO) reported today. Some countries are sporadically detecting seasonal H1N1 and H3N2 viruses. Regions reporting the most intense pandemic flu activity are North Africa, South Asia, and east and southeastern Europe. The most affected North African countries are Morocco, Algeria, and Egypt.

Kids overdue for booster vaccine dose
A review of data from 10 states shows up to 80% of children under age 10 who were immunized against pandemic flu are overdue for their second dose, USA Today reported. Officials have said children ages 6 months to 10 years need a second dose to be fully protected. States said they worry that declining flu activity may dampen the public's interest in the vaccine. Experts have said a booster is still effective, even when given later than the suggested 4 weeks after the first dose.

California minority groups hit hard
California Hispanics, African-Americans, and Native Americans have been hospitalized and died from pandemic H1N1 flu at higher rates than whites, according to an LA Times report today. Death and hospitalization rates for the state's Hispanics have been about twice as high as whites', compared with a 50% higher death rate and a tripled hospitalization rate in blacks. Native Americans' rates were also higher than whites', while Asians had a higher hospitalization rate but lower death rate.

Belgium, Italy cut vaccine orders
Belgium has cut back its pandemic vaccine order with Glaxo by a third because of falling demand, Reuters reported today. The country's health ministry said the cut would save the government about $47.6 million. Meanwhile, Italy cancelled 24 million doses it had ordered from Sanofi, Bloomberg News reported today. The Italian media has reported that only 900,000 people were immunized against pandemic flu. Italy had also bought 24 million doses from Novartis.

Australia braces for possible back-to-school wave
The Australian Medical Association (AMA) has said it is likely swine flu will strike the country again, possibly as a second wave after school resumes in a couple weeks and as people return from overseas holiday travel, according to The Australian. AMA vice-president Steven Hambleton said, "We're expecting to reimport the virus and to see people getting sick again." Officials are encouraging vaccination.

HHS unveils flu-fighter Facebook app
Department of Health and Human Services (HHS) Secretary Kathleen Sebelius yesterday announced a new Facebook application called, "I'm a Flu Fighter" that allows users to tell their friends they received the flu vaccine and urge others to do the same. "Social media has been an important tool to communicate with young people and all Americans about the importance of getting the H1N1 flu vaccine," Sebelius said in a press release.
Health Protection Agency (UK)

Weekly Epidemiological Update: 21 January 2010 (Week 3)
Summary for 21 January 2010 (Week 03)

- Pandemic influenza activity is generally decreasing across the UK.
- In week 02 (ending 17 January), the weekly influenza/influenza-like illness (ILI) consultation rate decreased in all schemes across the UK.
- The National Pandemic Flu Service (NPFS) continues to issue antiviral drugs to people in England with an influenza-like illness who call or log onto the internet site. The number of assessments and antiviral collections through this service have decreased over the past week.
- A decrease in respiratory syncytial virus detections has been observed recently.
- The main influenza virus circulating in the UK continues to be the pandemic (H1N1) 2009 strain, with few influenza H1 (non-pandemic), H3 and B viruses detected. Thirty-six of 4,949 pandemic viruses tested have been confirmed to carry a mutation which confers resistance to the antiviral drug oseltamivir; three are phenotypically resistant to the drug but retain sensitivity to zanamivir.
- The majority of pandemic influenza cases continue to be mild. The cumulative number of deaths reported due to pandemic (H1N1) 2009 in the UK is 388.
- The UK pandemic influenza vaccination programme continues for people at high risk for severe disease, health-care workers and healthy children aged between 6 months and 5 years. For further information see the Department of Health website.
- An outbreak of pandemic (H1N1) 2009 influenza has occurred in pigs in Suffolk. As this virus has been circulating widely in the human population, no public health impacts are expected. According to the European Centre for Disease Prevention and Control, by 19 January, 14,378 deaths due to pandemic influenza had been reported globally.
- According to the World Health Organisation (15 January), the most intense areas of pandemic influenza virus transmission are currently in parts of North Africa, south Asia, and east and south-eastern Europe. Pandemic (H1N1) 2009 viruses accounted for 82% of all influenza detections worldwide; other viruses included influenza A H3 (1.4%), seasonal A H1 (0.1%), A not subtyped (5.7%) and B (10.9%).

NOTE: The Health Protection Agency (HPA) is no longer producing a weekly pandemic flu media update. Should the position change in relation to the course of the pandemic then the updates will be resumed.

Department of Health (UK)

Pandemic H1N1 (2009) Influenza: Chief Medical Officer’s Fortnightly Bulletin for Journalists Issue 1 – Thursday 21 January 2010
Public strongly advised it is still important to have the swine flu jab.
Commenting on the latest situation, Sir Liam Donaldson, Chief Medical Officer for England said:

“Levels of pandemic ‘flu are currently very low virtually concluding the second wave of the infection in this country. Although throughout it has not been a severe illness for most people, children and younger adults have developed serious complications, been admitted to hospital and some have died. When the virus returns in the 2010 ‘flu season those who develop complications or die will be doing so from a vaccine
preventable disease. I strongly advise that those eligible for the vaccine who have not yet had it get the jab and protect themselves."

[ARCHIVE]  DH Pandemic Flu site

European Centre for Disease Prevention and Control (ECDC)

Daily update
The Last Daily Update – January 19, 2010
The ECDC Public Health Event Strategy Team (PST) decided yesterday to downgrade our crisis management activities to Public Health Event level 0 (PHE 0). ECDC has been operating its pandemic response in under a crisis management plan since April 2009, diverting significant resources from other parts of the organisation to respond in a robust and coherent way. Although the pandemic is far from over and considerable uncertainties on developments in the coming months exist, currently the workload related to pandemic response has clearly decreased. The ECDC activities related to the pandemic will continue under a reinforced influenza programme.

We will now stop publishing the Daily Updates. The surveillance work will be reported on Fridays in the Weekly Influenza Surveillance Overviews (WISO) with a technical overview of influenza development in a technical successor to the previous Flu News along with the Weekly Executive Update giving a digest of the technical reports and reporting on ECDC activities. All of these outputs will be published on our website.

JAN 19
- The last ECDC Daily Update;
- Updates from US and Canada included;
- A total of 2 292 fatal cases in Europe and EFTA countries and 12 086 in the rest of the world have been reported up to date.

JAN 18
- ECDC likely to stop publishing Daily Updates;
- Weekly Influenza Surveillance Overview published;
- A total of 2 290 fatal cases in Europe and EFTA countries and 11 996 in the rest of the world have been reported up to date.

Weekly Influenza Surveillance Overview : Main surveillance developments in week 1/2010 (04January—10 January)
- Poland reported high intensity of ILI/ARI. Six countries and the UK (Scotland) reported medium intensity of ILI/ARI, while all of the other countries reported low intensity. Eight countries reported an increasing ILI/ARI trend, while all remaining countries reported either stable or decreasing activity.
- While the proportion of influenza-positive sentinel samples continues to decline (19% positive), the 2009 pandemic influenza A(H1N1) virus still accounts for nearly all of the subtyped viruses in sentinel ILI/ARI and SARI patients.
- The number of SARI cases, measured by week of onset, continues to decline. Of the 181 reported SARI cases, 89 (49%) were known to have required ICU admission.
- Detection of 2009 pandemic influenza A(H1N1) viruses resistant to oseltamivir remains sporadic; of 1260 viruses reported, 34 (2.7%) were resistant.

[ARCHIVED]  Maps, surveillance summaries and previous ECDC updates
European Union

Pan-American Health Organization (PAHO)

Regional Update. Pandemic (H1N1) 2010 (Jan 19)

- In North America, acute respiratory disease activity continued to decrease and is lower than expected in most areas
- In the Caribbean, all countries reported unchanged and decreasing trends in acute respiratory disease
- Central American countries reported decreasing trends in acute respiratory disease
- South American countries reported mostly decreasing or unchanged trends of acute respiratory disease, except Paraguay, which reported an increasing trend
- In North America, a median of 100% of subtyped influenza A viruses were Pandemic (H1N1) 2009
- 79 new confirmed deaths in 6 countries were reported; in total there have been 7,094 deaths

Australia and New Zealand

All jurisdictions in Australia have ceased daily Pandemic (H1N1) 2009 data reporting.

No new update for the Jan 22 update period

New Zealand Pandemic Influenza (H1N1) 09 Swine Flu - Update 168
Internationally the most intense pandemic activity continues to be centred in a few places in the world such as North Africa, in Southern Asia and in parts of East and Southeast Europe. In other parts of the world, activity is declining, however, there is still transmission of the pandemic H1N1 virus, so it has not disappeared.

In New Zealand GP consultations and calls to Healthline for influenza-like illness remain low which is what we’d expect to see at this time of year. The Ministry of Health continues to monitor for any early signs of an upswing in influenza - at the moment the rates of pandemic influenza remain at very low levels.

World Health Organization (WHO)

WHO no longer issues the global tables showing the numbers of confirmed cases for all countries. Regular updates describing the situation in the newly affected countries are provided.

Pandemic (H1N1) 2009 - update 84
22 January 2010 -- As of 17 January 2010, worldwide more than 209 countries and overseas territories or communities have reported laboratory confirmed cases of pandemic influenza H1N1 2009, including at least 14142 deaths.

[ARCHIVED] WHO H1N1 Guidance Documents

[ARCHIVED] Older WHO Updates

International Society for Infectious Diseases

[NOV 25] ProMed Posting: Comments re: Influenza pandemic (H1N1) 2009 (115): USA (WV), repeat infection
Out correspondents suggest 2 explanations for this case of pandemic (H1N1) 2009 virus reinfection in a mother and son. Dr Lenoir's observations suggest that reinfection may on occasion be a consequence of transient immune suppression, whereas Professor Tang cites evidence that reinfection may occur more frequently than currently supposed.

pH1N1 Clinical Information

[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)
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)

Incidence of 2009 pandemic influenza A H1N1 infection in England: a cross-sectional serological study[

Comment: Serological surveys for 2009 pandemic influenza A H1N1.*

Face masks to prevent transmission of influenza virus: a systematic review
Correlates of severe disease in patients with 2009 pandemic influenza (H1N1) virus infection

Influenza A/H1N1 Virus in Very Low-Birth-Weight Premature Infant: Case Report.

Conservation and diversity of influenza A H1N1 HLA-restricted T cell epitope candidates for epitope-based vaccines.

Host factors in swine flu pandemic in India.

It's not all swine flu...are we missing opportunities to diagnose primary HIV infection in patients with flu symptoms?

[Pandemic A/H1N1 2009 as an international health event with a global impact]

[The safety and immunogenicity of the vaccines against pandemic (H1N1) 2009 influenza]

H1N1 under surveillance. Feds, consumers getting plenty of assistance in tracking pandemic flu.

The vaccination campaign against 2009 pandemic influenza A(H1N1) and its continued importance in view of the uncertainty surrounding the risk associated with the pandemic

School absence data for influenza surveillance: a pilot study in the United Kingdom

Mask Use, Hand Hygiene, and Seasonal Influenza-Like Illness among Young Adults: A Randomized Intervention Trial
Aiello AE et al. The Journal of Infectious Diseases 2010;201:000–000. Published online 2010 Jan 20.

Perceived risks of adverse effects and influenza vaccination: a survey of hospital employees
An alternative method for preparation of pandemic influenza strain-specific antibody for vaccine potency determination

Update: Influenza Activity --- United States, August 30, 2009--January 9, 2010

Interim Results: Influenza A (H1N1) 2009 Monovalent Vaccination Coverage --- United States, October--December 2009

Pandemic influenza 2009 on Réunion Island: A mild wave linked to a low reproduction number

Community-Acquired Pneumonia Due to Pandemic A(H1N1)2009 Influenzavirus and Methicillin Resistant Staphylococcus aureus Co-Infection


Severe hospitalised 2009 pandemic influenza A(H1N1) cases in France, 1 July-15 November 2009.

H1N1 Influenza in Pregnancy: Risks, Vaccines, and Antivirals.

Vaccines against Seasonal and Pandemic Influenza and the Implications of Changes in Substrates for Virus Production.

Battling H1N1.

A model-based assessment of oseltamivir prophylaxis strategies to prevent influenza in nursing homes.

ACP Journal Club. A 15-microg dose of unadjuvanted influenza A (H1N1) 2009 vaccine was immunogenic in healthy adults within 21 days.

Influenza Infection Leads to Increased Susceptibility to Subsequent Bacterial Superinfection by Impairing NK Cell Responses in the Lung.
Antiviral treatment and prophylaxis of influenza virus in children.

Influenza vaccination of healthcare personnel.


Influenza vaccines: the key to disease prevention and control.

Investigation of equine influenza transmission in NSW: walk, wind or wing?


Influenza pandemic preparedness and severity assessment of pandemic (H1N1) 2009 in South-east Asia

Hospitalised adult patients with pandemic (H1N1) 2009 influenza in Melbourne, Australia.

The rational clinician in a pandemic setting.

Comparison of adult patients hospitalised with pandemic (H1N1) 2009 influenza and seasonal influenza during the "PROTECT" phase of the pandemic response.

Heterosubtypic anti-avian H5N1 influenza antibodies in intravenous immunoglobulins from globally separate populations protect against H5N1 infection in cell culture.

An alternative method for preparation of pandemic influenza strain-specific antibody for vaccine potency determination.
Schmeisser F, Vodeiko GM, Lugovtsev VY, Stout RR, Weir JP. Vaccine. Published online ahead of print 2010 Jan 11.
Preventing complications from 2009 influenza A (H1N1) in persons with underlying lung diseases: a formidable challenge for 2010 Year of the Lung.

[Pandemic influenza vaccines: from the lab to ethical policy making]

Extracorporeal lung support for patients who had severe respiratory failure secondary to influenza A (H1N1) 2009 infection in Canada.

Neurological sequelae of pH1N1 influenza in children: A case series observed during a pandemic*

H1N1 Vaccine for Prevention of Pandemic Influenza.

Use of rapid influenza diagnostic tests under field conditions as a screening tool during an outbreak of the 2009 novel influenza virus: Practical considerations.

[Severe "malignant" influenza in the light of past history.]

Adverse effects following pandemic influenza (H1N1) 2009 vaccination.

Genome-wide RNAi screen identifies human host factors crucial for influenza virus replication

Axis of coinfection evil.
DeLeo FR, Musser JM. The Journal of Infectious Diseases. 2010;201:000–000. Published online ahead of print 2010 Jan 15. doi: 10.1086/650304.

Commentary: Incidence and Case Fatality Rates of Novel 2009 Pandemic A/H1N1 Influenza in England

Rapid clinical diagnosis in fatal swine influenza (H1N1) pneumonia in an adult with negative rapid influenza diagnostic tests (RIDTs): Diagnostic swine influenza triad

Flu false alarm?

QSAR study of flavonoids and biflavonoids as influenza H1N1 virus neuraminidase inhibitors
Sustained Low Influenza Vaccination Rates in US Healthcare Workers

Research and development of universal influenza vaccines
Dua L, Zhoub Y, Jiang S. Microbes and Infection, Published online ahead of print 2010 Jan 15.

Risk factors for H1N1 influenza complications in 2009 Hajj pilgrims

Letter: Risk factors for H1N1 influenza complications in 2009 Hajj pilgrims
Letter: The truth about Tamiflu?: Neuraminidase inhibitors in pandemic A/H1N1 flu

Letter: The truth about Tamiflu?: Zanamivir should be inhaled, not nebulised

Letter: The truth about Tamiflu?: Data access is matter of trust

Letter: A/H1N1 flu pandemic: Life threatening infections labelled swine flu

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[NOV 19] Travel Health Notice: Global H1N1 flu virus
[OCT 29] H1N1 Backgrounder: Planes, Trains, Ferries and Buses—Advice for Travellers, Crews and Operators
[OCT 26] Hajj Pilgrims: Recommendations for travel