

PANDEMIC PULSE

Expert Analysis of the Current Pandemic Influenza Threat



Global Consulting

Emergency Preparedness Specialists



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Monthly Feature

H1N1 Vaccine: Is Canada Prepared?

As of 30th September, 2009, regulatory authorities in Australia, China, Hungary, the United States of America and the European Union have licensed a vaccine for the 2009 Pandemic H1N1 virus, and vaccinations have started in China and Australia. The World Health Organization (WHO) currently estimates worldwide production capacity for pandemic vaccines at approximately 3 billion doses per year. Early data from clinical trials suggest that a single dose of vaccine will be sufficient to confer protective immunity in healthy adults and older children. Common side effects include soreness or swelling at the injection site and possibly some systemic reactions (fever, headache, muscle or joint aches). In almost all vaccine recipients, these symptoms are estimated to be mild, self-limited and last 1-2 days.

A WHO report concludes that Pandemic A (H1N1) viruses were antigenically and genetically similar to A/California/7/2009-like viruses. Vaccines containing A/California/7/2009 antigens stimulated anti-HA antibodies against the vaccine virus and recent pandemic A (H1N1) viruses. Pharmaceutical companies that have reported manufacturing a successful H1N1 vaccine are Novartis, GlaxoSmithKline, Sanofi-Aventis, AstraZeneca, Sinovac, Baxter, Inovio Biomedical, Novovax, Commonwealth Serum Laboratories, Solvay and Hualan Biological.

The Government of Canada has a longstanding contract with GlaxoSmithKline for 50.4 million doses of H1N1 vaccine by November, 2009. The vaccine will be in 3.75 microgram doses with an adjuvant that boosts the immune system and allows for smaller vaccine doses. There is a fear that the crest of the Canadian pandemic wave may precede the arrival of the vaccine. The Public Health Agency of Canada reports that immunization priority will be given to people under 65 with chronic health conditions, pregnant women, children 6 months to less than 5 years of age, health care workers involved in pandemic response or essential care services, inhabitants of remote and isolated communities and household contacts and care providers of persons at high risk or already diagnosed with H1N1.

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National News

Pandemic Pulse

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<http://h1n1flu2009.blogspot.com/>



H1N1 confirmed cases in BC

News 1130 – 23 September 2009
http://www.news1130.com/more.jsp?content=20090923_161705_5692



The Vancouver Catholic Independent Schools of the Vancouver Archdiocese schools superintendent has confirmed two cases of H1N1 in its Catholic high schools in the Lower Mainland. One of the cases is at Notre Dame Regional Secondary, where 100 students were absent today; the other confirmed case is at St. Patrick's Regional Secondary. Superintendent Doug Lawson commented, "I would imagine there are a fair number of families who are electing not to come to school." Of the 329 students at Elsie Roy Elementary School in Vancouver, 113 stayed home with flu-like symptoms on 23rd September and sporting and other events were cancelled after about a quarter of the students at Shawnigan Lake boarding school on Vancouver Island reported mild symptoms similar to swine flu.

First Nations community hit hard

The Globe and Mail – 29 September 2009
<http://www.theglobeandmail.com/news/national/bc-reserve-hit-by-first-outbreak-of-the-fall-flu-season-experts-say/article1292296/>

The Ahousaht First Nation, a small native community off the coast of Vancouver Island, has been hit by what some medical experts say is Canada's first H1N1 pandemic outbreak of the fall flu season. The influenza cluster on the Ahousaht First Nation sickened more than 100 residents of the remote reserve, north of Tofino. Roughly 10 per cent of the reserve's population had flu-like symptoms late last month. A woman with pre-existing medical conditions from the nearby Beecher Bay reserve died from contracting the virus.

Health over personal freedom: Canadians worried

The Province – 24 September 2009
<http://www2.canada.com/theprovince/news/story.html?id=1188503d-6533-4d19-a8f5-01e3544d1809>

85% of Canadians surveyed by the U. of Toronto Joint Centre for Bioethics agreed that governments should have the power to suspend individual rights, such as travelling and the right to assemble, during a flu pandemic. 50% of the same group agreed that violation of such quarantines would amount to manslaughter. As well, 90% believe that doctors and nurses should work during a pandemic, while 25% to 85% of health care workers have reported that they would be unwilling to work during a pandemic.

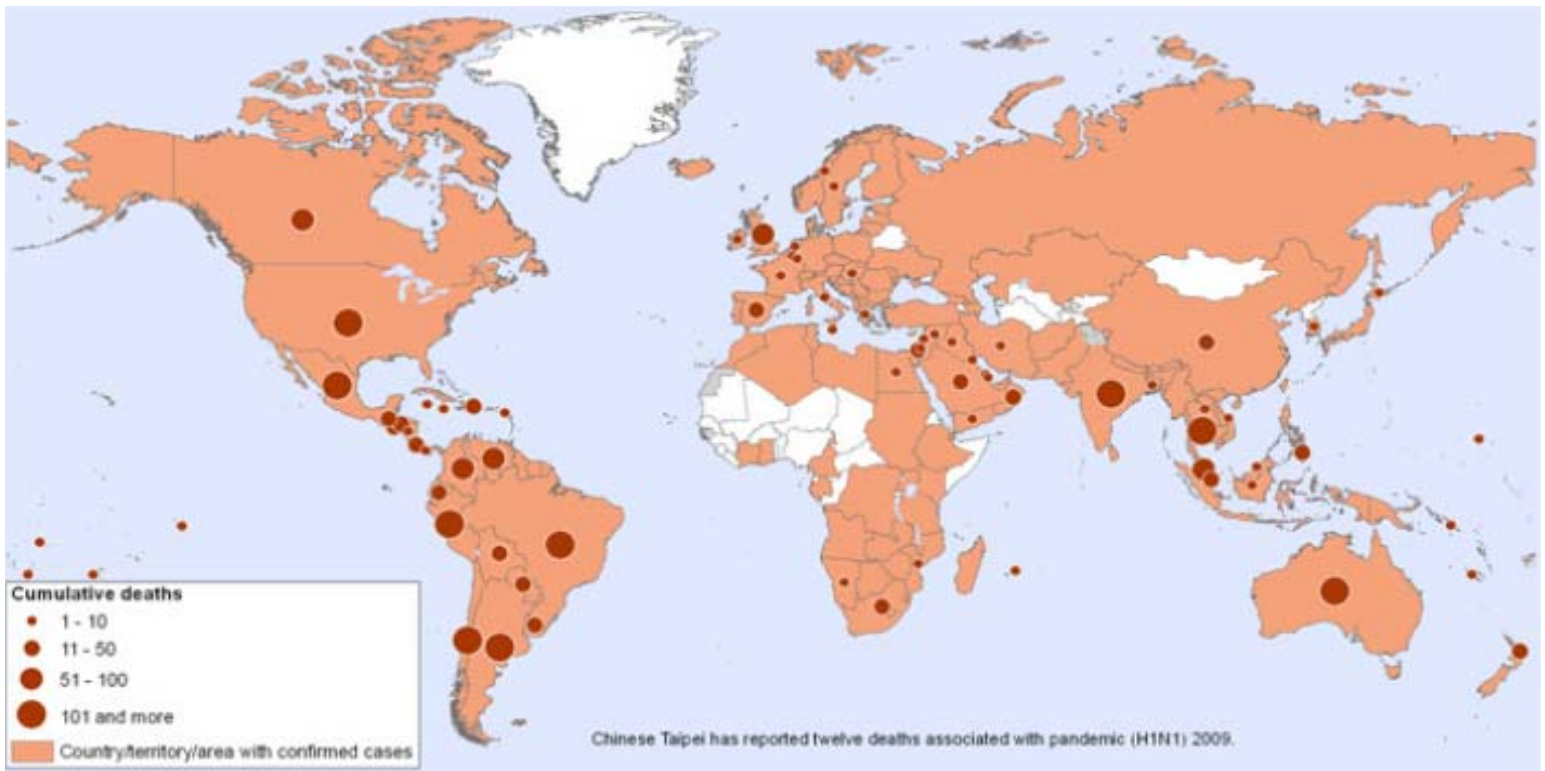


International News

Worldwide Pandemic Update

World Health Organization – 20 September 2009
http://www.who.int/csr/don/2009_09_25/en/index.html

The United States is reporting increases in influenza-like-illness activity, especially in the southeastern and northeastern parts of the country. In Europe, the United Kingdom, France, Ireland and the Netherlands are reporting influenza activity above the seasonal epidemic threshold. In the tropical regions of the Americas. Influenza transmission remains active. In India, Bangladesh and Cambodia, influenza transmission continues to be active, while countries like Indonesia, Singapore and Thailand have been recently reporting declining transmission.



Close schools if 1% of students fall sick: WHO

World Health Organization – 11 September 2009
http://www.who.int/csr/disease/swineflu/notes/h1n1_school_measures_20090911/en/index.html

The WHO continues to recommend students, teachers, and other staff who feel unwell to stay home. School closures can be aimed at reducing transmission in the school, although high levels of absenteeism among students and staff may make it impractical to continue classes. The WHO suggests that school closure have their greatest benefit when schools are closed early in an outbreak, ideally before 1% of the population falls ill, potentially reducing the demand for health care by an estimated 30–50%.



Vaccine and Antiviral News

Upcoming Global Consulting Events

- **October 15:** Dr. Allan Holmes will be speaking at the Conference Board of Canada, with a presentation covering the potential impact of the H1N1 virus on business, healthcare and the work force and maintaining business continuity.
- **October 18:** Dr. Allan Holmes will be speaking to the Occupational and Environmental Medical Association of Canada.
- **October 21:** Dr. Allan Holmes will be speaking to the BC Risk & Insurance Council on Business Continuity Planning in a Pandemic.

Global Medical Services

Global Medical Services is a leader in the development of medical educational workshops aimed at providing physicians, nurses, and other health care professionals with the latest information and skills enabling them to provide optimum care. Our programs meet and exceed all recommendations from the Heart and Stroke Foundation, Health Canada, WorkSafeBC, and PCTIA.

Certifications

- Advanced Cardiac Life Support (ACLS)
- Pediatric Advanced Life Support (PALS)

Workshops

- Critical Interventions
- Procedural Sedation
- Electrocardiogram Interpretation
- AED – Cardiac Arrest Management

WHO monitors antiviral resistance

WHO Guidelines – 25 September 2009

http://www.who.int/csr/disease/swineflu/notes/h1n1_antiviral_use_20090925/en/index.html

Over 10,000 isolates of the 2009 H1N1 virus have been found with the H275Y mutation that confers resistance to oseltamivir. The risk of resistance is considered higher in patients with severely compromised or suppressed immune systems, who have received oseltamivir treatment but still have evidence of persistent viral replication and in people who receive oseltamivir for “post-exposure prophylaxis” following exposure to another person with influenza, and who then develop illness despite taking oseltamivir.



New drug for H1N1

New York Times – 21 September 2009

http://www.nytimes.com/2009/09/22/health/22flu.html?_r=3&ref=health

At a conference in San Francisco organized by the American Society for Microbiology, researchers presented data on peramivir, a new antiviral drug that works like Tamiflu but is given intravenously. Studies report that a single 15- to 30-minute infusion of peramivir was equivalent to a five-day course of Tamiflu in alleviating symptoms of the seasonal flu. Peramivir is for patients who cannot swallow Tamiflu capsules or inhale Relenza.

China first country to start H1N1 vaccination program

BBC – 9 September 2009

http://news.bbc.co.uk/2/hi/in_depth/8246523.stm

China is the first country to start a mass vaccination program for its population. The first people to be vaccinated will be those attending the 60th anniversary of the founding of the PRC. Other critical groups are top government officials, students aged 5 to 19, patients with chronic respiratory and coronary diseases, pregnant women and medical staff. Beijing plans to vaccinate 65 million people before the end of the year. So far, 70 percent of cases in China have recovered and no deaths have been reported.