

# Weekly Influenza Update

**December 10, 2009**

Wisconsin:

Influenza activity has decreased in Wisconsin over the past two weeks.

Since the arrival of H1N1, there have been 13,049 confirmed and probable cases, 1060 hospitalizations and 43 deaths. The prevalence of influenza-like illness [fever of 100oF or higher and either cough or sore throat] in Wisconsin's primary care patients is estimated to be 1.6%.

12.6% of last week's primary care patients had acute respiratory infections (ARI).

The prevalence of acute diarrheal illness (ADI) in Wisconsin's primary care patients is at 1.5%

## CLINICAL NOTES:

### Prophylaxis

As of December 1st, 69 million doses of H1N1 vaccine have been released. Because of a significant decline in H1N1 circulation and due to increasing supplies of H1N1 vaccine, it is reasonable to vaccinate anyone interested in protection from H1N1 along with emphasis on the following groups (not in hierarchical order):

- pregnant women
- persons who live with or provide care for infants aged <6 months
- health-care and EM personnel who have direct contact with patients or infectious material
- children aged 6 months--4 years
- children and adolescents aged 5--18 years who have medical conditions
- adults 19 years and older with high risk medical conditions Continue vaccinating with seasonal influenza vaccine

Pneumococcal vaccine is indicated for smokers, and people with asthma and other chronic lung conditions as well as a number of other chronic conditions

### Demographics and Symptoms (based on laboratory-confirmed H1N1 cases in Wisconsin primary care sites)

Median time from onset to clinic visit: 2 days

Mean age: 23.9 years

Sex Ratio: female 46%; Male 54%

% with probable exposure to similar illness within 1-3 days of onset: 38%

#### Common symptoms

Fever: 82%

Cough: 100%

Sore Throat: 73%

Runny Nose: 73%

Headache: 56%

Any GI symptom: 27%

Severity: mild - 10%; moderate 90%; severe 0%

### Diagnosis

- influenza infections are at low levels at this time
- the best performing rapid antigen tests will miss 31% of true cases of 2009 H1N1. Trust the positives.
- a negative test in a patient with influenza-like illness does not rule out influenza

Treatment (see: <http://www.cdc.gov/H1N1flu/recommendations.htm>)

Prompt empiric treatment is recommended for persons with suspected or confirmed influenza and:

- Illness requiring hospitalization
- Progressive, severe, or complicated illness, regardless of previous health status
- Patients at risk for severe disease

Antivirals need to be started with 48 hours of symptom onset to be effective Antivirals started after 48 hours may be effective for hospitalized patients with confirmed influenza

## Resistance Patterns

- a limited number of viruses have been tested for neuraminidase inhibitor resistance this season
  - all tested 2009 H1N1 viruses have been sensitive to zanamivir
  - 1% of 2009 H1N1 viruses have been resistant to oseltamivir
  - 99.5% of 2009 H1N1 have been resistant to adamantane antivirals

## Other

- Rhinovirus, and parainfluenza viruses are co-circulating at low levels in Wisconsin
- rare isolates of RSV have been detected

## Across the U.S.:

28.8% of respiratory specimens during week 47 (November 22-28) were positive for influenza.

- 99.4% of isolates have been type A
  - 99.8% of all sub-typed A viruses have been 2009 H1N1
  - 0.0% of A viruses have been seasonal H1N1
  - 0.2% of A viruses have been H3N2
- 0.6% of isolates have been type B

Since August 30, 2009, there have been 26,315 lab-confirmed influenza-associated hospitalizations and 1,049 lab-confirmed influenza-associated deaths.

- 7.2% of deaths during week 47 (November 22-28) were due to pneumonia or influenza [above the epidemic threshold of 7.1%]

-251 pediatric have been reported since April 26th. Of these, 210 were associated with 2009 H1N1, 40 with unknown subtype A, and 1 with seasonal influenza. Bacterial co-infections were noted in 28 of 89 cases which had samples collected from a normally sterile site (32%).

Global News [from the WHO]: As of 29 November 2009, worldwide more than 207 countries and overseas territories or communities have reported laboratory confirmed cases of pandemic influenza H1N1 2009, including at least 8768 deaths.

In western and northern Europe the peak of disease activity has passed in Belgium, Iceland, Ireland, Netherlands, Norway and parts of the United Kingdom (Northern Ireland, Wales); activity may be peaking or plateauing in Spain, Portugal, Italy, Sweden and Denmark. Influenza activity continues to increase in much of Central Europe in the region between the Baltic and Balkan countries and from Germany to Romania. In Eastern Europe, recent peaks or plateaus in disease activity have also been observed in Ukraine, Belarus, Bulgaria and the Republic of Moldova.

In the Russian Federation, influenza activity remains active and intense in some regions, with an overall increasing trend\

In Western and Central Asia, influenza transmission remains active.

Disease activity continues to increase in Kazakhstan, Kyrgyzstan, Uzbekistan, Iran and Iraq, while activity may have peaked in Israel, Jordan, and Afghanistan.

In East Asia, increasing ILI or respiratory disease activity has been reported in Southern China and Japan. A recent decline in activity has been observed in Northern China. In South and Southeast Asia, influenza activity continues to increase in the north-western parts of India, Nepal, Sri Lanka, and Cambodia, while activity in the rest of region remains low.

In the tropical zone of Central and South America and the Caribbean, influenza transmission remains geographically widespread but overall disease activity has been declining except for focal areas of increasing activity in Jamaica, Venezuela, and Ecuador.

In Africa, pandemic H1N1 2009 virus continues to be isolated from all parts of the continent, and there is evidence of continued co-circulation of pandemic (H1N1) 2009 and seasonal H3N2 viruses.

In the temperate region of the southern hemisphere, little pandemic influenza activity has been reported.

Avian Influenza (H5N1): The Ministry of Health of Egypt has reported

a new confirmed human case of avian influenza A(H5N1) in a 3 year-old male whose symptoms started on 21 November 2009. He was admitted to a hospital on 22 November and his condition is stable. Investigations into the source of infection indicated that the case had close contact with dead and/or sick poultry.

Since 2003, there have been 444 laboratory-confirmed cases of Avian influenza (A-H5N1). There have been 262 associated deaths (case fatality rate= 59%).

#### Other Observations:

December 10th Phenology: Today's photoperiod is 9 hours and 4 minutes, and daylength is decreasing by 50 seconds per day. The rate of change will continue to decrease until December 21st, a which point we'll have slightly less than 9 hours of daylight.

H1N1 vaccine safety: For a current review of H1N1 safety, the December 4th MMWR update can be accessed using the URL below. "Data from VAERS indicated that the overall reporting rate after H1N1 vaccination was higher than the rate after seasonal influenza vaccination. Although these data might represent an actual difference in the safety of the vaccines, the difference might have resulted from efforts to enhance reporting to VAERS and heightened public awareness of the H1N1 vaccines.

VSD (Vaccine Safety Datalink) has the capability to test and strengthen hypotheses generated by VAERS reports. To date, preliminary VSD data indicate no increase above background rates for monitored health events among recipients of H1N1 vaccines. VSD, because of its ability to follow populations of vaccinated and unvaccinated persons over time, can detect associations between health events and vaccination. This and other systems will continue to monitor adverse events after H1N1 and seasonal influenza vaccination and can help determine whether adverse events after vaccination are causally related to the vaccines"

[http://www.cdc.gov/mmwr/preview/mmwrhtml/mm58e1204a1.htm?s\\_cid=mm58e1204a1\\_e](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm58e1204a1.htm?s_cid=mm58e1204a1_e)

Norwegian Night Sky: the beautiful spiral occurring in the night sky over Norway last night turned out to be a failed Russian missile. The images, however, are stunning.

<http://www.youtube.com/watch?v=TXA8WmFnp8s>

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