

Week 45: November 8th – November 14th, 2009



Illinois Influenza Surveillance Report

Week 45: November 8th – November 14th , 2009

Division of Infectious Diseases

Immunizations Section

Friday, November 20th, 2009

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SUMMARY

- During CDC week 45, the proportion of outpatient visits for influenza-like illness (ILI)ⁱ was 8.4%. This represents a 3.4% decrease compared with last week.
- Based on CDC criteria; influenza activity is currently **widespread** in Illinois, and several other states. For more information visit <http://www.cdc.gov/flu/weekly/fluactivity/htm>
- During week 45, 100.0 % of all influenza A viruses sub typed by IDPH and sentinel hospitals were 2009 influenza A (H1N1).
- One thousand and six hundred and twelve hospital admissions and 56 deaths have occurred among individuals with confirmed 2009 influenza A (H1N1) since April 2009.
- 2009 influenza (A) H1N1 infection continues to impact younger age groups in Illinois. More than 80% of individuals hospitalized since April 1^{9th}, 2009 were less than 65 years old.

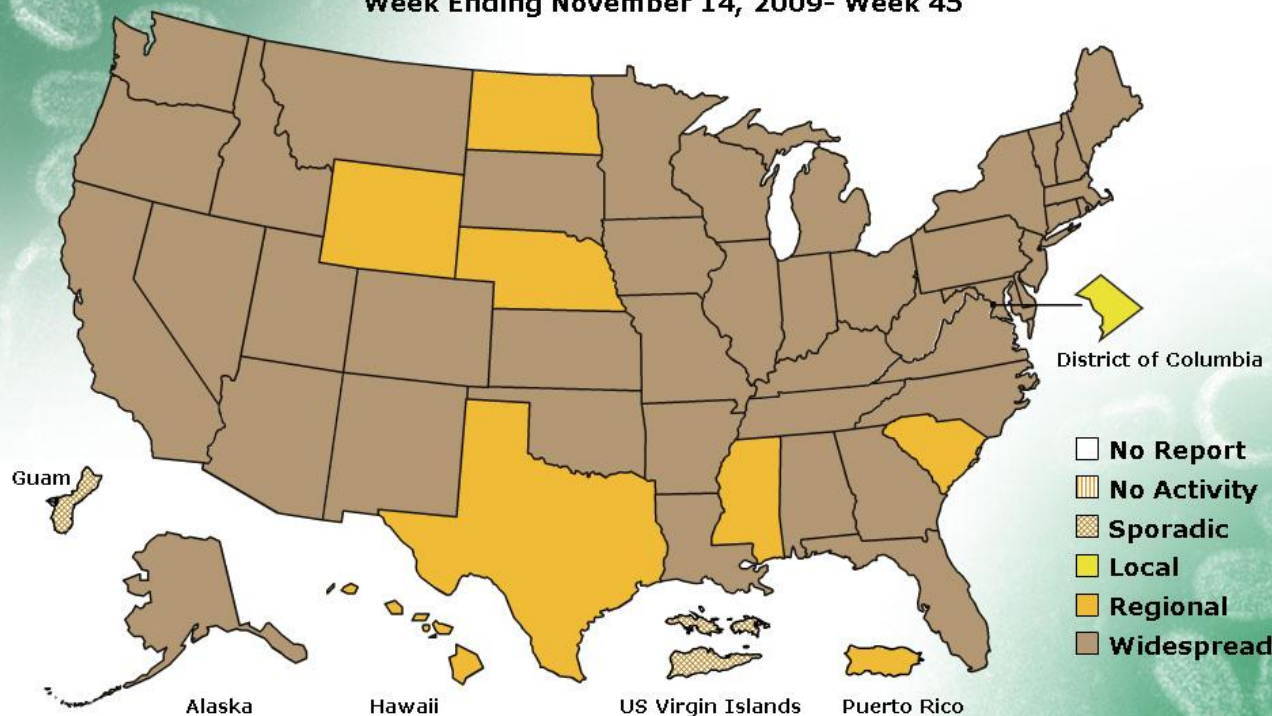
CDC FLU VIEW

FLUVIEW



A Weekly Influenza Surveillance Report Prepared by the Influenza Division
Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists*

Week Ending November 14, 2009- Week 45



*This map indicates geographic spread and does not measure the severity of influenza activity.

No activity: No laboratory confirmed cases of influenza and no reported increase in cases of influenza like illness (ILI).

Sporadic: Small numbers of laboratory confirmed influenza cases or a single laboratory confirmed influenza in a single region of the state.

Local: Outbreaks of influenza or increases in ILI and recent laboratory confirmed influenza in a single region of the state.

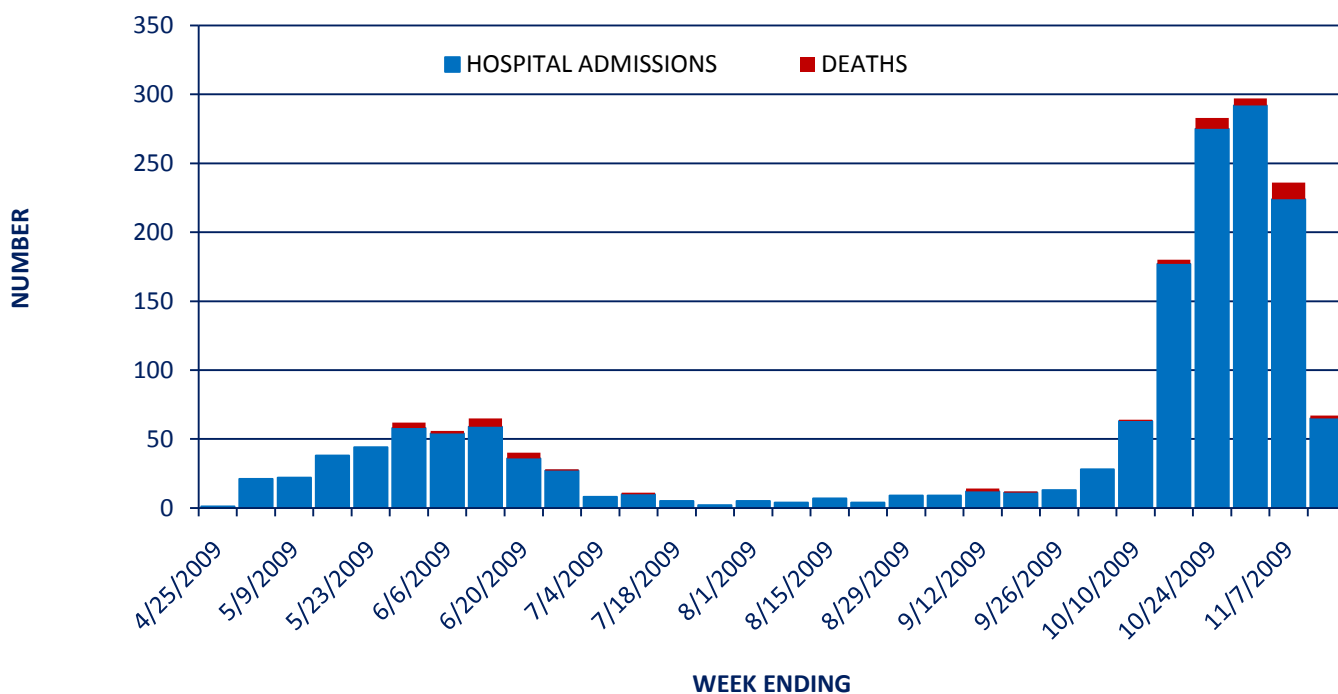
Regional: Outbreaks of influenza or increases in ILI and recent laboratory confirmed influenza in at least two but less than half the regions of the state.

Widespread: Outbreaks of influenza or increases in ILI cases and recent laboratory confirmed influenza in at least half the regions in the state.

2009 (A) H1N1 HOSPITALIZATIONS AND DEATHS

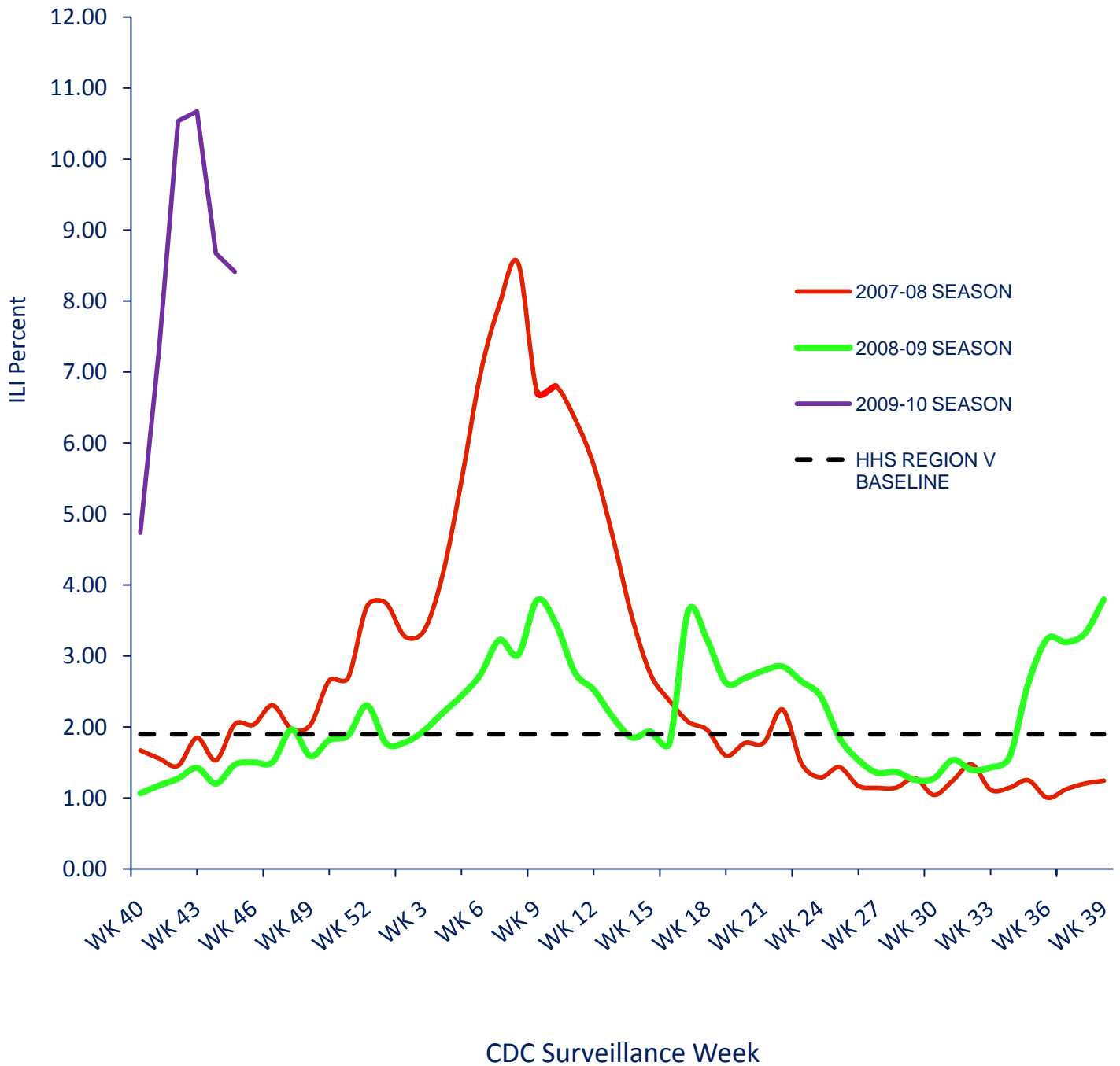
| H1N1 2009 Cumulative Hospitalizations and Deaths by Age Group* through November 17th , 2009 | | |
|---------------------------------------------------------------------------------------------|--------------------------------|-------------------|
| Age range | Hospital Admissions No. (%) | Deaths No. (%) |
| 0-4 | 337 (21) | 1 (2) |
| 5-18 | 413 (26) | 9 (16) |
| 19-24 | 130 (8) | 3 (5) |
| 25-49 | 376 (23) | 21 (38) |
| 50-64 | 253 (16) | 14 (25) |
| 65 + | 102 (6) | 8 (14) |
| Unknown | 1 (0) | 0 (0) |
| TOTAL | 1612 | 56 |

2009 H1N1 Hospital Admissions and Deaths



ILI NET PROVIDER SURVEILLANCE

Influenza like Illness(ILI) Outpatient Surveillance by Season
2007-2009

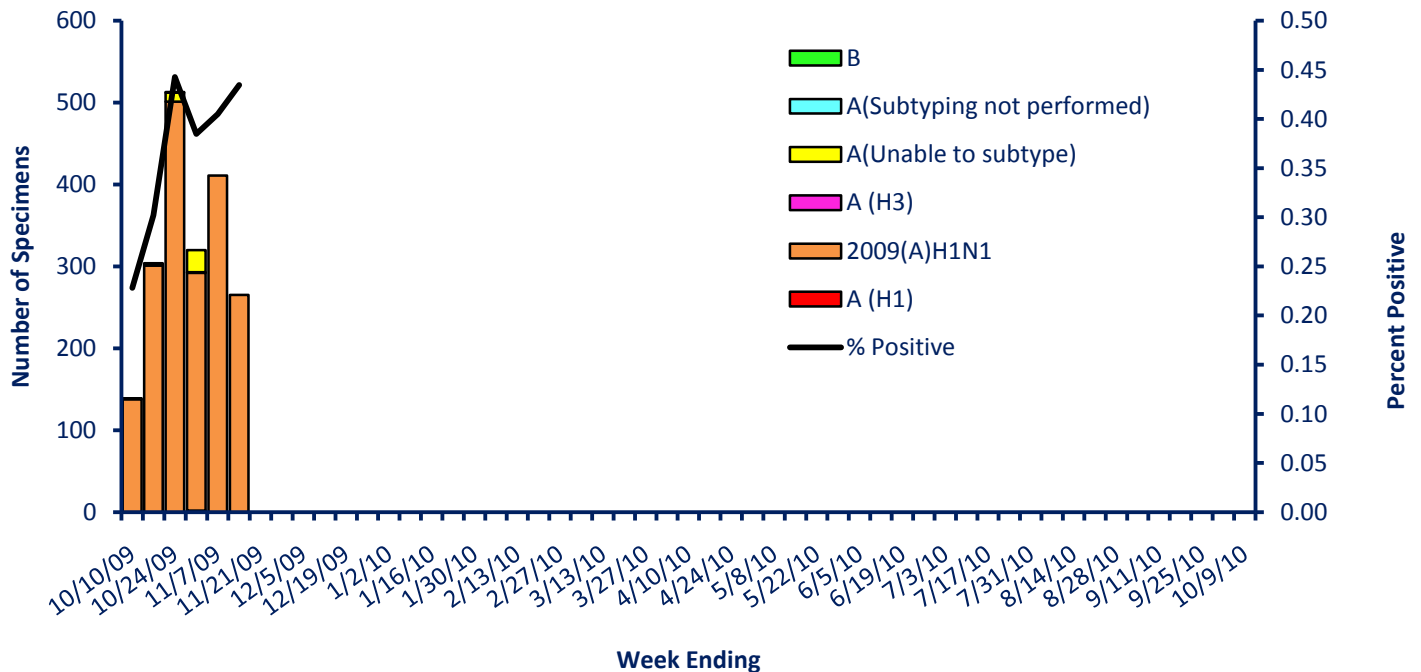


LABORATORY SURVEILLANCE

During week 45, 265(43%) specimens tested by Illinois WHO/NREVSSⁱⁱ collaborating laboratories and sentinel sitesⁱⁱⁱ tested positive for influenza. All 265 (100.0%) sub typed influenza A viruses were 2009 influenza A (H1N1) viruses.

| Week | No of Labs Reporting | A (H1) | 2009(A)H1N1 | A (H3) | A(Unable to subtype) | A(Sub typing not performed) | B | Total # Tested | % Positive |
|--------------------------|----------------------|--------|-------------|--------|----------------------|-----------------------------|----|----------------|------------|
| 42 | 4 | 0 | 501 | 0 | 11 | 0 | 1 | 1159 | 0.44 |
| 43 | 2 | 2 | 290 | 1 | 27 | 0 | 0 | 832 | 0.38 |
| 44 | 2 | 0 | 411 | 0 | 0 | 0 | 0 | 1015 | 0.40 |
| 45 | 1 | 0 | 265 | 0 | 0 | 0 | 0 | 610 | 0.43 |
| 2009 Year to Date | | 214 | 5604 | 73 | 120 | 74 | 68 | 15728 | 0.39 |

Influenza Isolates from Illinois Reported by WHO/NREVSS Collaborating and Sentinel Laboratories 2009-2010 Season



NATIONAL ANTIVIRAL RESISTANCE DATA

| | Viruses tested (n) | Resistant Viruses, No. (%) | Viruses tested (n) | Resistant Viruses, No. (%) | Viruses tested (n) | Resistant Viruses, No. (%) |
|-----------------------------|--------------------|----------------------------|--------------------|----------------------------|--------------------|----------------------------|
| | Oseltamivir | | Zanamivir | | Adamantanes | |
| Seasonal Influenza A (H1N1) | 0 | 0 (0) | 0 | 0 (0) | 0 | 0 (0) |
| Influenza A (H3N2) | 4 | 0 (0) | 0 | 0 (0) | 1 | 1 (100) |
| Influenza B | 1 | 0 (0) | 0 | 0 (0) | NA | NA |
| 2009 Influenza A (H1N1) | 1,209 | 10 ^{iv} (0.8) | 353 | 0 (0) | 182 | 181 (99.5) |

The majority of 2009 influenza A (H1N1) viruses are susceptible to the neuraminidase inhibitor Antiviral medication oseltamivir; however, rare sporadic cases of oseltamivir resistant 2009 Influenza A (H1N1) viruses have been detected worldwide. Since September 1, 2009, five cases have been identified in the United States, and a total of 15 cases of oseltamivir resistant 2009 influenza A (H1N1) viruses have been identified in the United States since April 2009

RESOURCES

Centers for Disease Control and Prevention Influenza Website:

<http://www.cdc.gov/flu/weekly/fluactivity.htm>

Immunization Action Coalition Website: <http://immunize.org/>

IDPH Website <http://www.idph.state.il.us/flu/surveillance.htm>

ⁱ ILI “Influenza like Illness” is defined as fever $\geq 100^{\circ}\text{F}$ and cough and/or sore throat.

ⁱⁱ WHO/NREVSS Collaborating Laboratories WHO/NREVSS Collaborating Laboratories: For viral surveillance - About 80 U.S. World Health Organization (WHO) Collaborating Laboratories and 70 National Respiratory and Enteric Virus Surveillance System (NREVSS), located throughout the United States report daily or weekly the results of their testing.

ⁱⁱⁱ Super Sentinel Surveillance Sites: Sites recruited by IDPH to conduct virologic surveillance during summer 2009

^{iv} Two screening tools were used to determine oseltamivir resistance: sequence analysis of viral genes or a neuraminidase inhibition assay

^v Additional laboratories perform antiviral resistance testing and report their results to CDC. Two additional oseltamivir resistant 2009 influenza A (H1N1) viruses have been identified by these laboratories, bringing the total number to 11.