

Week 41: October 11<sup>th</sup> – October 17th, 2009



# Illinois Influenza Surveillance Report

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Week 41: October 11th –October 17th , 2009

**Division of Infectious Diseases**

**Immunizations Section**

10/23/2009

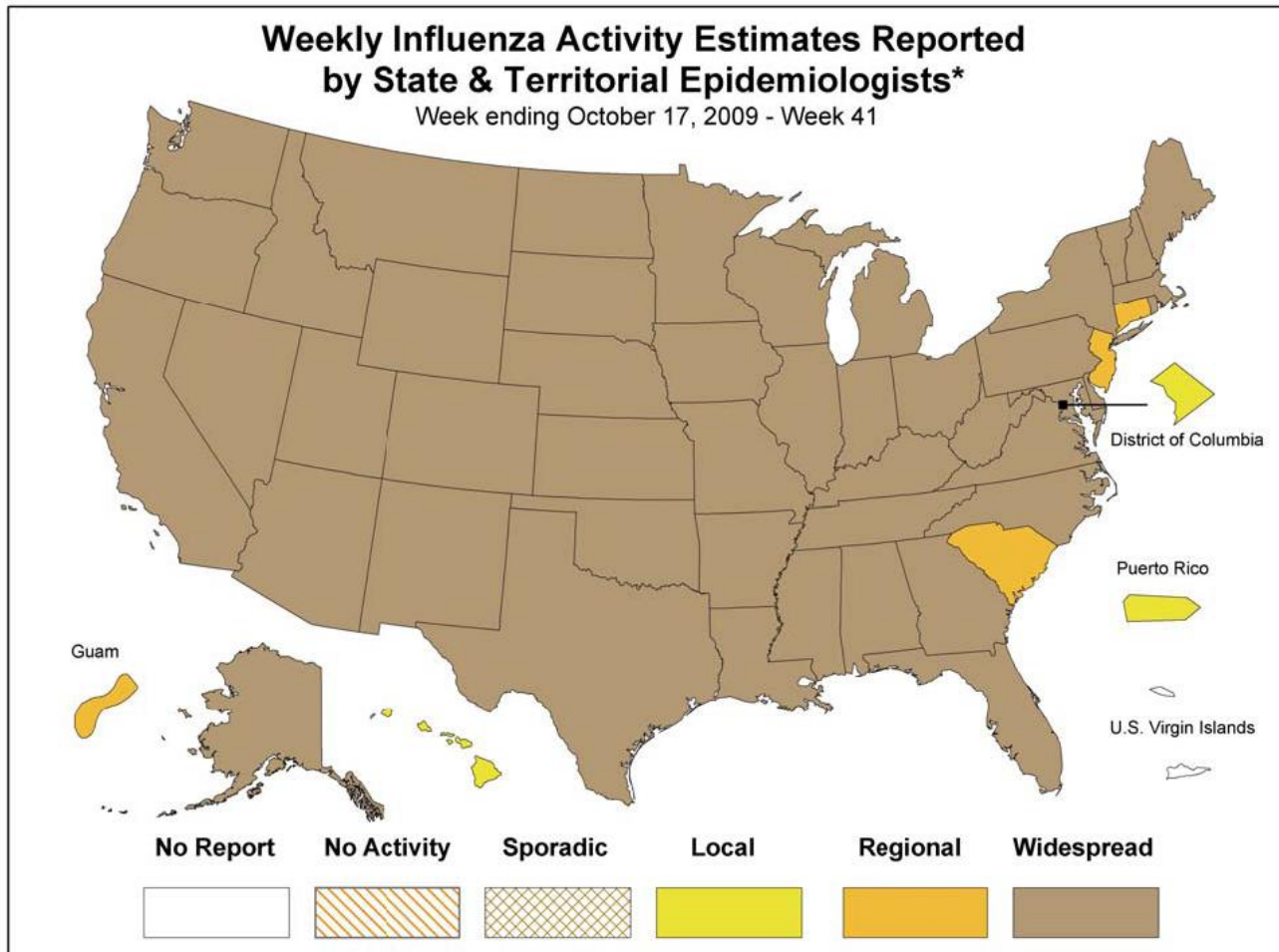
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## SUMMARY

- During CDC week 41, the proportion of outpatient visits for influenza-like illness (ILI)<sup>i</sup> was 7.67%. This is three times higher than the proportion of ILI outpatients typically seen this time of the year.
- 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 41, 99% of all influenza A viruses sub typed by IDPH and sentinel hospitals were 2009 influenza A (H1N1).
- Five hundred and forty two hospital admissions and 22 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 19<sup>th</sup>, 2009 were less than 65 years old.
- The proportion of deaths attributed to pneumonia and influenza (P&I) was below the seasonal baseline<sup>ii</sup>.

CDC FLU VIEW



**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.

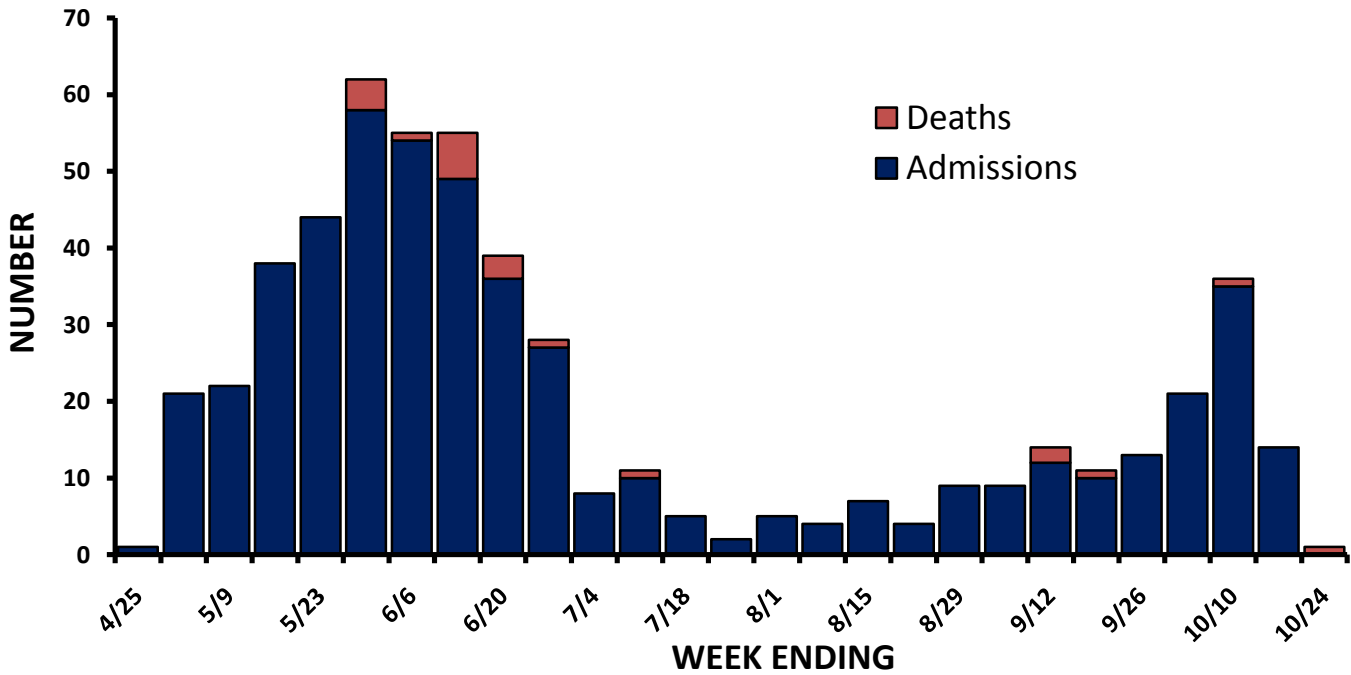
**Regional:** Outbreaks of influenza or increases in ILI and recent laboratory confirmed influenza in at least two but less than half the regions of the state.

**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 October 22 <sup>nd</sup> , 2009		
Age range	Hospital Admissions No. (%)	Deaths No. (%)
0-4	74 (13.65)	1 (4.55)
5-18	163 (30.07)	4 (18.18)
19-24	41 (7.56)	2 (9.09)
25-49	117 (21.59)	8 (36.36)
50-64	64 (11.81)	4 (18.18)
65 +	27 (4.98)	3 (13.64)
Unknown	56 (10.33)	0 (0.0)
<b>TOTAL</b>	<b>542</b>	<b>22</b>

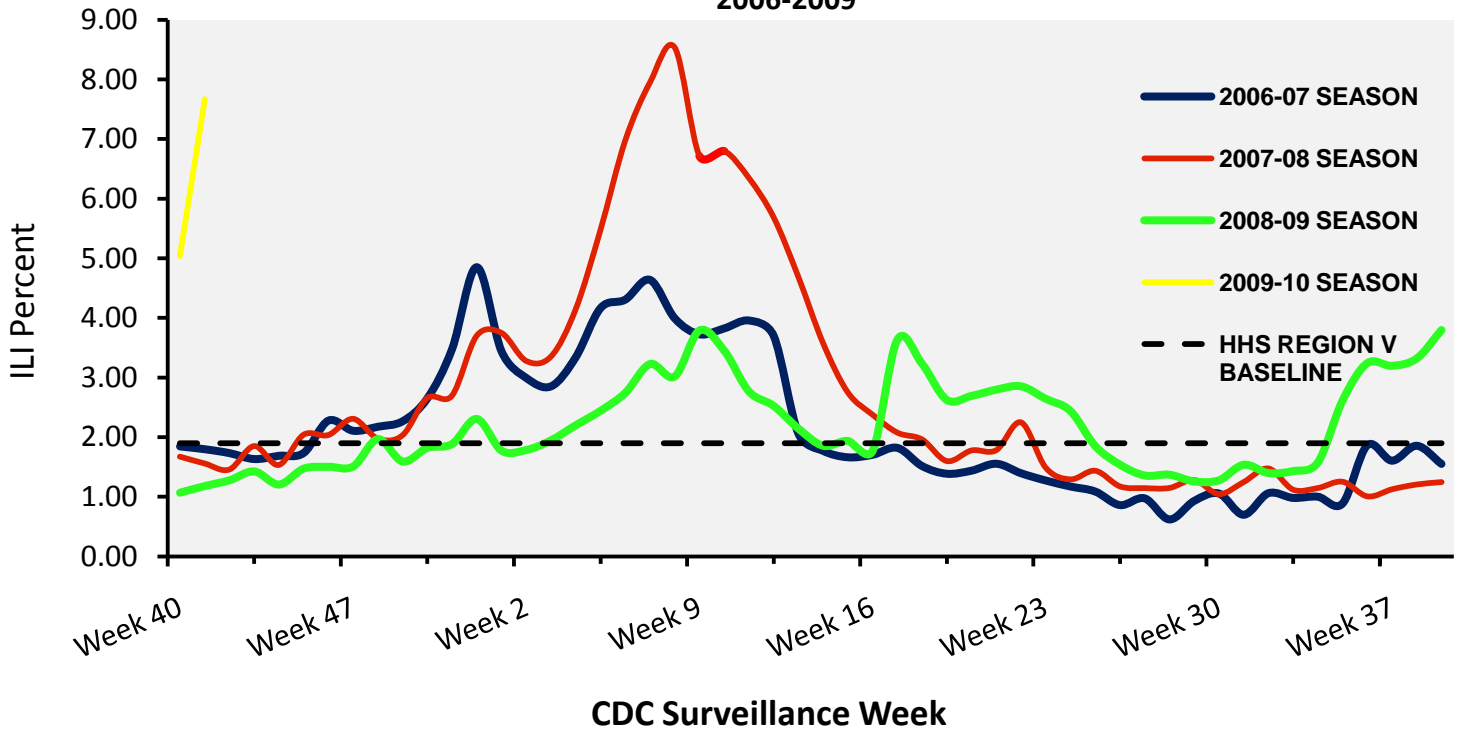
**2009 Influenza A (H1N1 ) Admissions and Deaths**



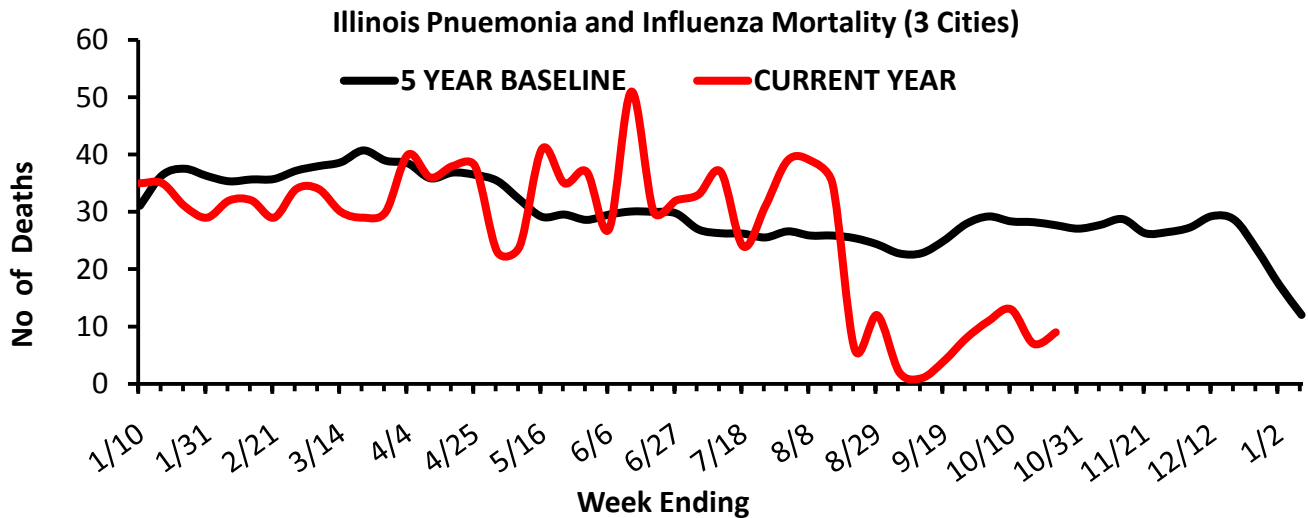
\*Does not include hospitalizations with unknown admission date

**ILI NET PROVIDER SURVEILLANCE**

**Influenza like Illness(ILI) Outpatient Surveillance by Season  
2006-2009**



**PNEUMONIA AND INFLUENZA MORTALITY**



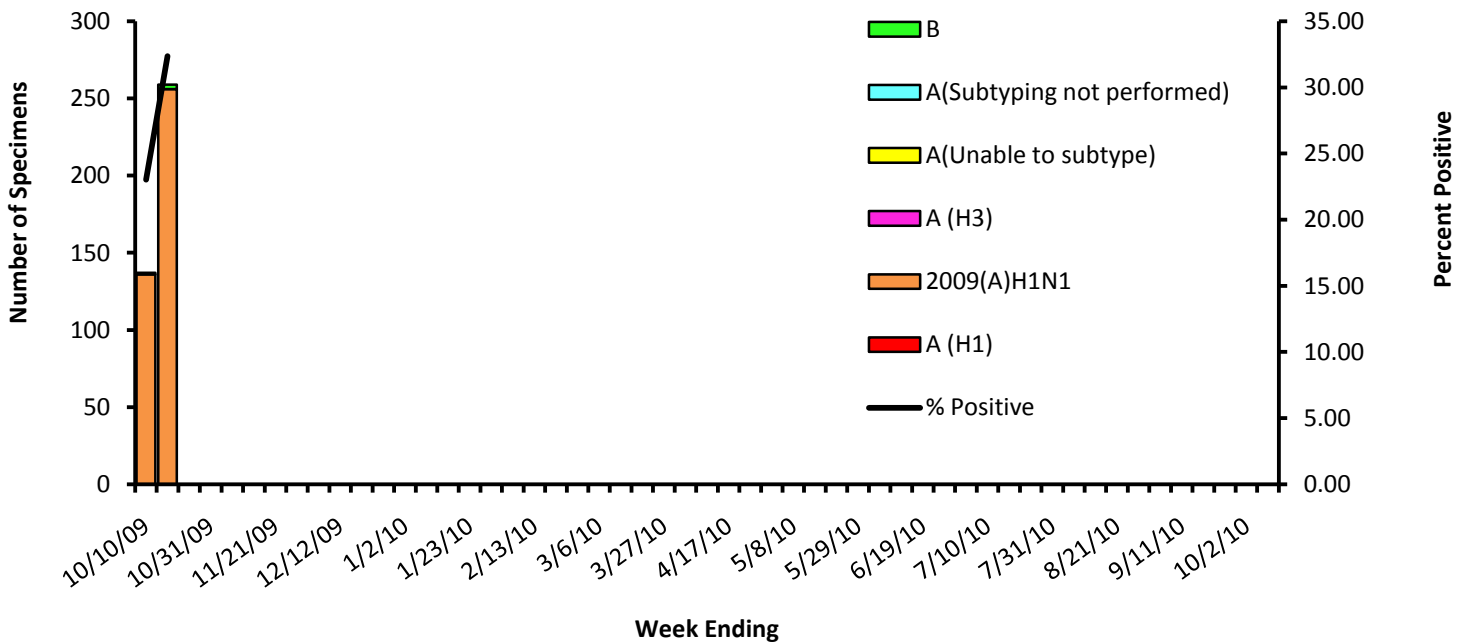
\*\*Three cities (Chicago Peoria and Rockford) Participate in the 122 –Cities Mortality Reporting System  
Reporting may be delayed

**LABORATORY SURVEILLANCE**

During week 41, 91(32%) specimens tested by Illinois WHO/NREVSS<sup>iii</sup> collaborating laboratories and sentinel sites<sup>iv</sup> tested positive for influenza. 256 (98.4%) of all subtyped 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
38	3	0	65	2	5	0	0	396	18.18
39	2	0	90	1	0	0	0	394	23.10
40	5	0	136	0	1	0	0	595	23.03
41	3	0	256		0	0	3	800	32.38
<b>Year to Date</b>		212	4090	72	81	74	68	11892	38.66%

**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. (%)
	Oseltamivir		Zanamivir	
Seasonal Influenza A (H1N1)	0	0 (0)	0	0 (0)
Influenza A (H3N2)	0	0 (0)	0	0 (0)
Influenza B	0	0 (0)	0	0 (0)
2009 Influenza A (H1N1)	580	3 <sup>vi</sup> (0.5)	114	0 (0)

Since September 1, 2009, 114 2009 influenza A (H1N1) virus isolates have been tested for resistance to the neuraminidase inhibitors (oseltamivir and zanamivir). In addition, 466 2009 influenza A (H1N1) original clinical samples were tested for a single known mutation in the virus that confers oseltamivir resistance.

**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>

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

<sup>ii</sup> The seasonal baseline is calculated using statistical procedures using data from the previous five years, and the epidemic threshold is calculated as 1.645 standard deviations above the seasonal baseline.

<sup>iii</sup> 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.

<sup>iv</sup> Super Sentinel Surveillance Sites: Sites recruited by IDPH to conduct virologic surveillance during summer 2009

<sup>v</sup> Two screening tools were used to determine oseltamivir resistance: sequence analysis of viral genes or a neuraminidase inhibition assay

<sup>vi</sup> 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.