

Week 42: October 18th – October 24th, 2009



Illinois Influenza Surveillance Report

Week 42: October 18th – October 24th, 2009

Division of Infectious Diseases

Immunizations Section

Thursday, October 29, 2009

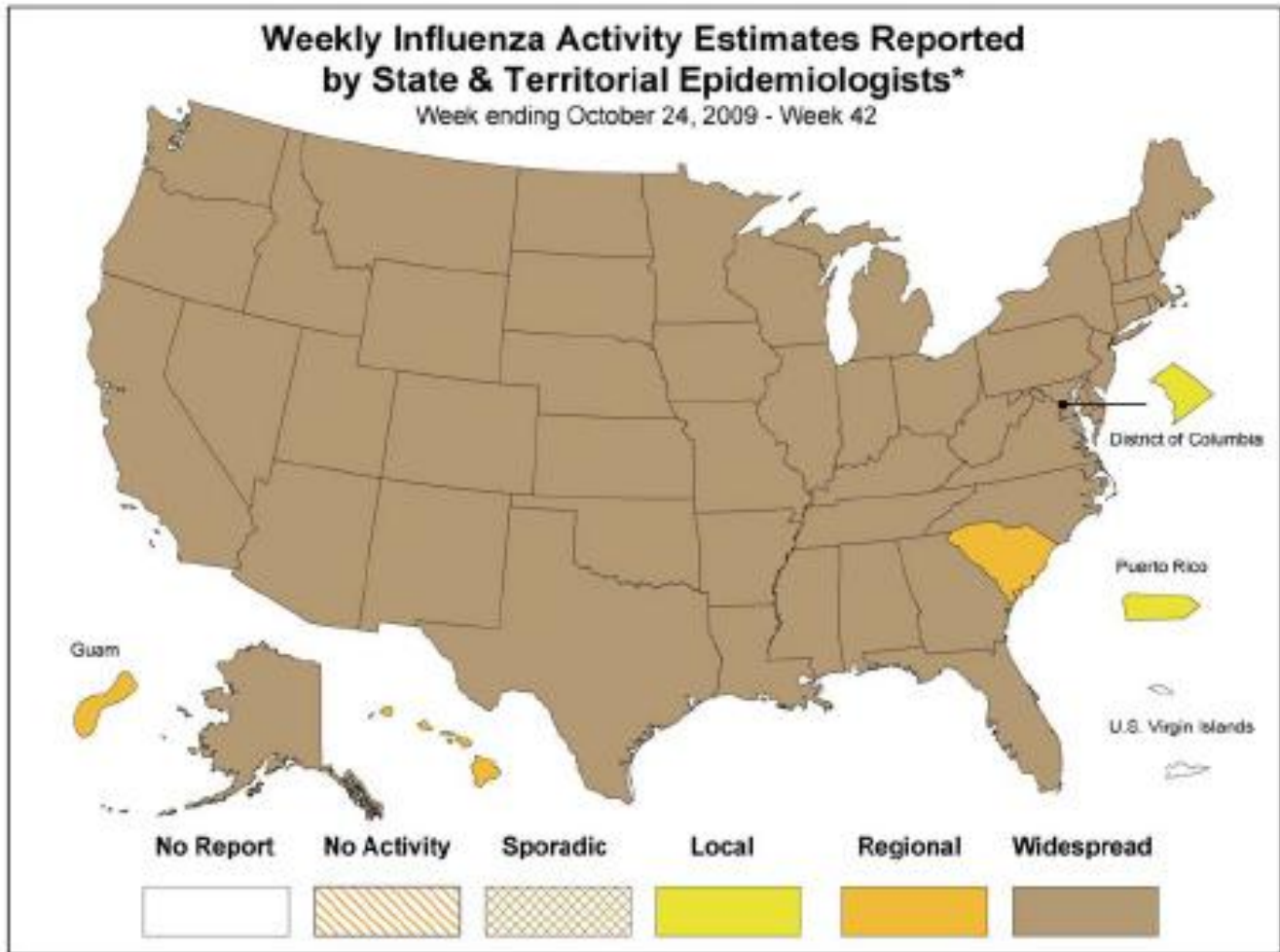
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SUMMARY

- During CDC week 42, the proportion of outpatient visits for influenza-like illness (ILI)ⁱ was 10.05%. This is four 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 42, 97.7% of all influenza A viruses sub typed by IDPH and sentinel hospitals were 2009 influenza A (H1N1).
- Seven hundred and thirty-one hospital admissions and 28 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 19th, 2009 were less than 65 years old.
- The proportion of deaths attributed to pneumonia and influenza (P&I) was below the seasonal baselineⁱⁱ.

CDC FLU VIEW



* This map indicates geographic spread & 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.

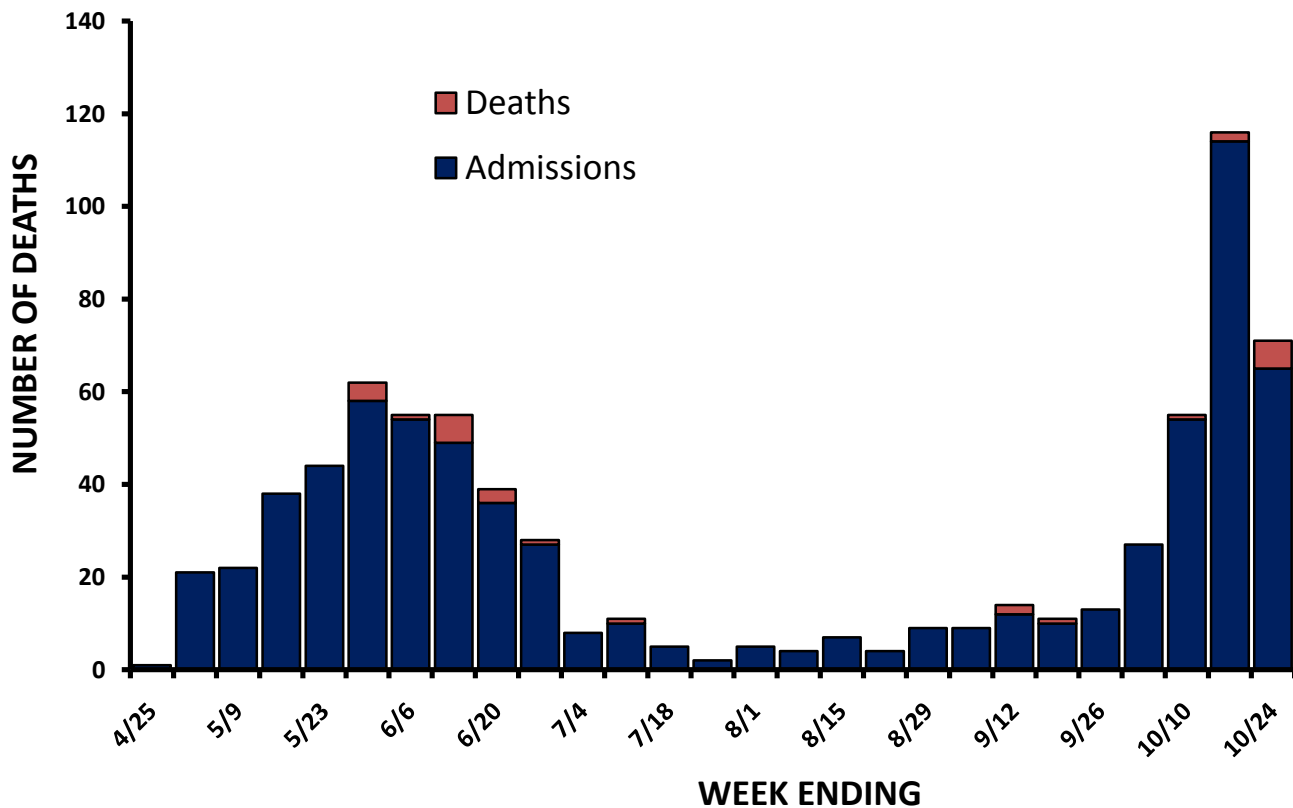
Regional: Outbreaks of influenza or increases in ILI and recent laboratory confirmed influenza in at least two but less than half the regions of the state.

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 October 27th, 2009		
Age range	Hospital Admissions No. (%)	Deaths No. (%)
0-4	160 (21.89)	1 (3.57)
5-18	220 (30.10)	5 (17.86)
19-24	52 (7.11)	2 (7.14)
25-49	161 (22.02)	9 (32.14)
50-64	99 (13.54)	7 (25.00)
65 +	38 (5.20)	4 (14.29)
Unknown	1 (0.14)	0 (0.0)
TOTAL	731	28

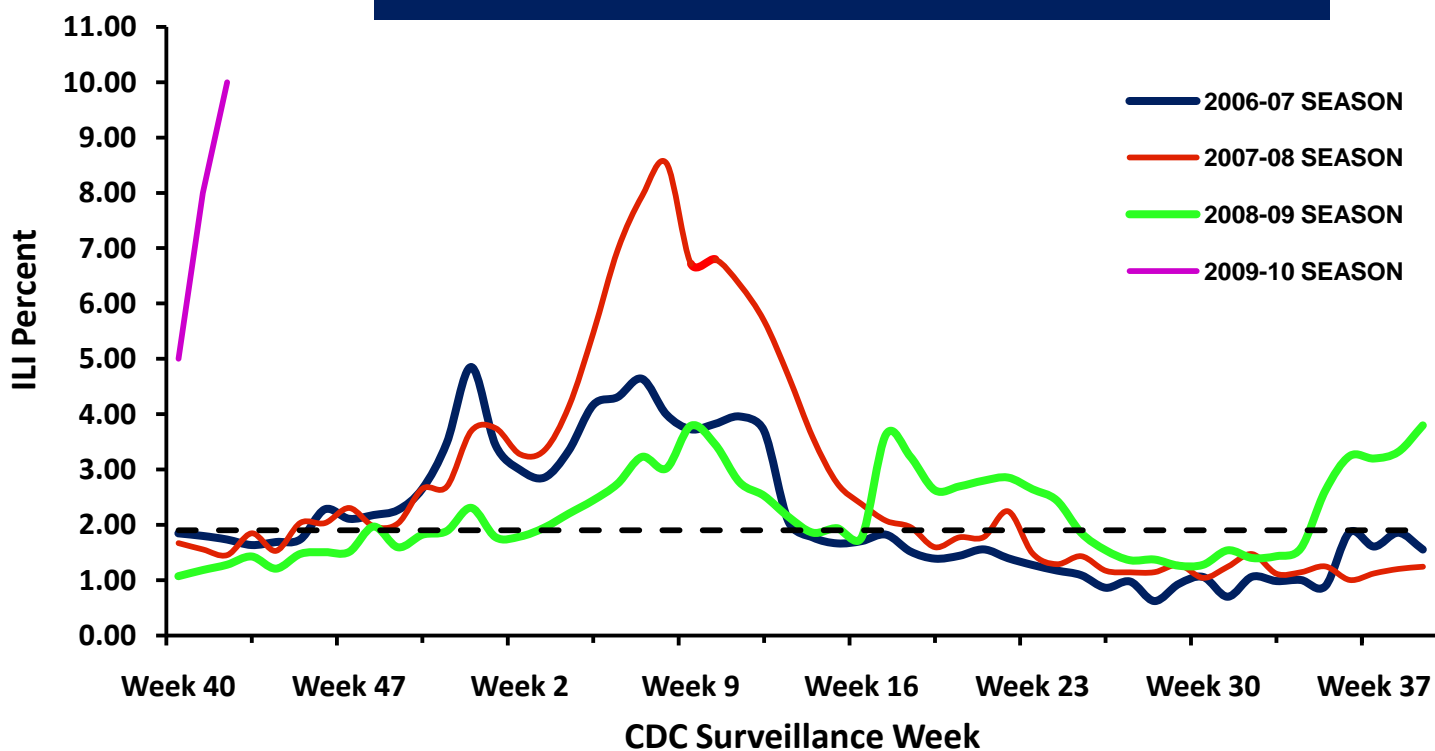
2009 Influenza A (H1N1) Admissions and Deaths**



**Does not include hospitalizations with unknown admission date

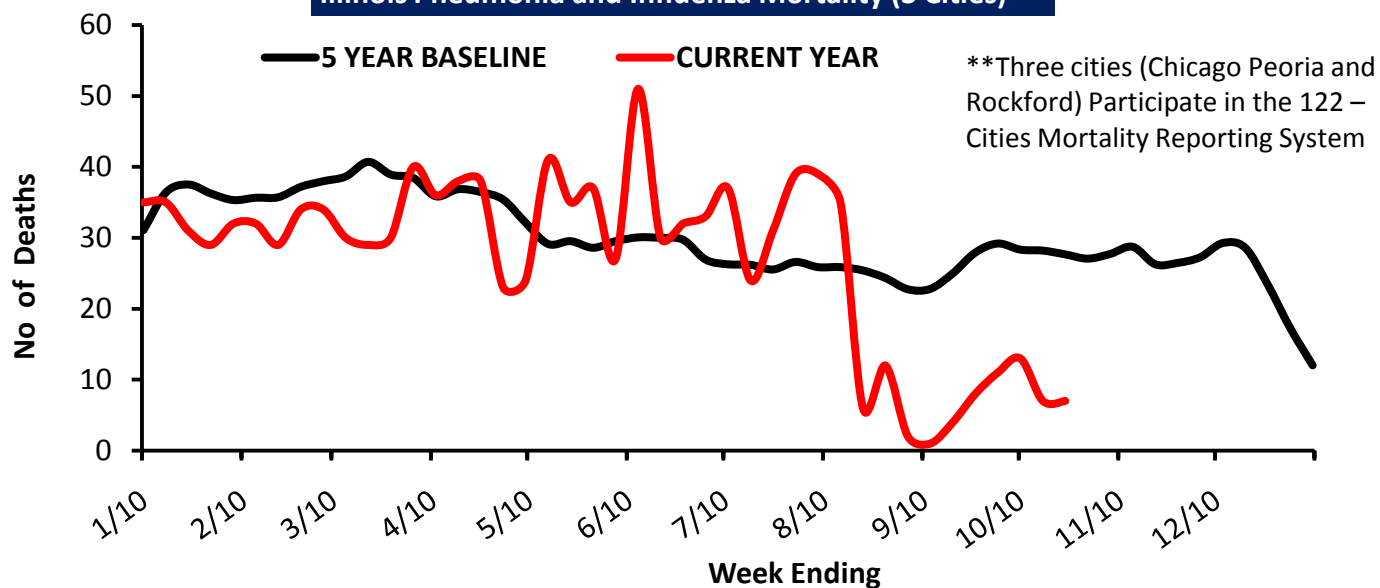
ILI NET PROVIDER SURVEILLANCE

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



PNEUMONIA AND INFLUENZA MORTALITY

Illinois Pneumonia and Influenza Mortality (3 Cities) **



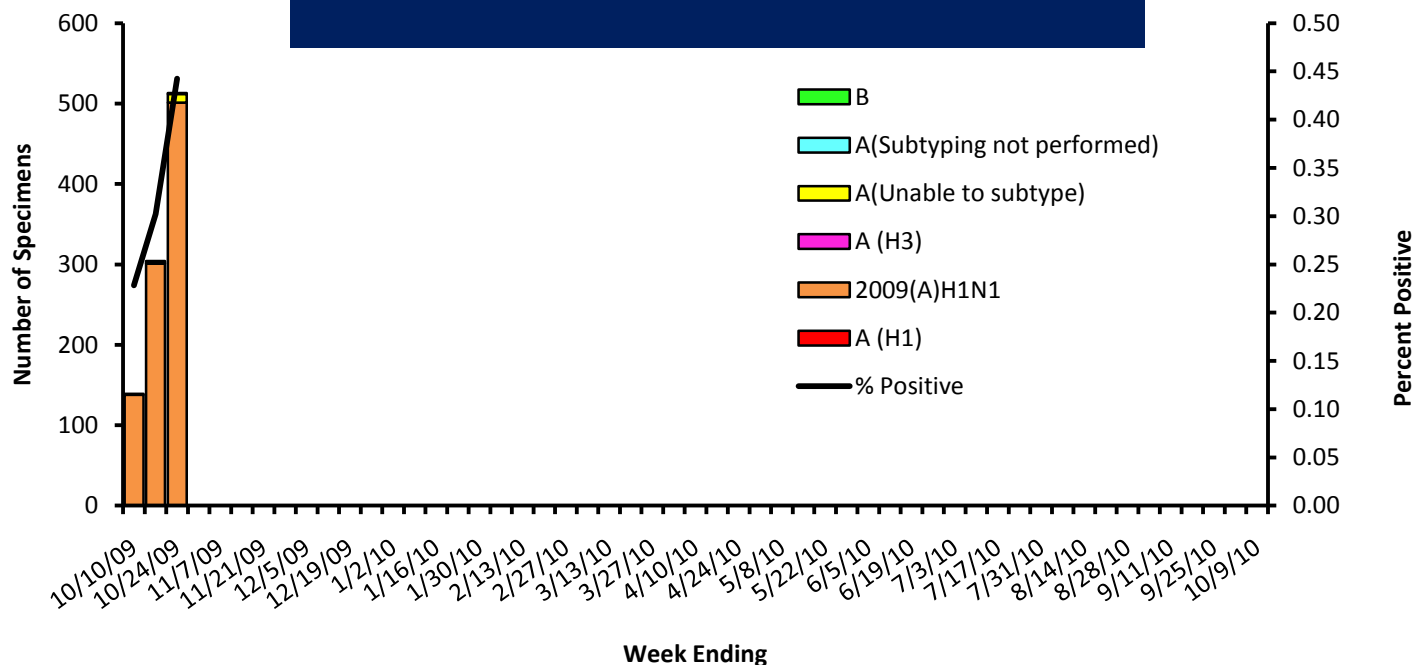
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LABORATORY SURVEILLANCE

During week 42, 513(44%) specimens tested by Illinois WHO/NREVSSⁱⁱⁱ collaborating laboratories and sentinel sites^{iv} tested positive for influenza. 501 (97.7%) 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
39	2		90	1	0	0	0	394	23.10
40	8	0	138	0	1	0	0	609	23.00
41	8	0	301	0	1	0	2	1006	30.00
42	4	0	501	0	11	0	1	1159	44.00
Year to Date		212	4638	72	93	74	68	13271	38.86

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 (0)
Influenza A (H3N2)	0	0 (0)	0	0 (0)	0 (0)	0 (0)
Influenza B	0	0 (0)	0	0 (0)	NA	NA
2009 Influenza A (H1N1)	730	3 ^{vi} (0.5)	166	0 (0)	58	58 (100)

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 14 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 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.

ⁱⁱⁱ 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.

^{iv} Super Sentinel Surveillance Sites: Sites recruited by IDPH to conduct virologic surveillance during summer 2009

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

^{vi} 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.