

# Illinois Influenza Surveillance Report

Week 48: November 29 – December 5, 2009

**Division of Infectious Diseases** 

**Immunizations Section** 

Friday, December 10<sup>th</sup>, 2009

## **IN THIS ISSUE**

Summary	Page 2
CDC FLU View	Page 3
2009 H1N1 Hospital Admissions and Deaths	Page 4
ILI Net	Page 5
Laboratory surveillance summary	Page 6
National antiviral resistance data and resources	Page 7

#### **SUMMARY**

- During CDC week 48, the proportion of outpatient visits for influenza-like illness (ILI)<sup>i</sup> was 2.8%. This represents a 35% decrease compared with last week.
- Based on CDC criteria; influenza activity is currently **regional** in Illinois. For more information visit <a href="http://www.cdc.gov/flu/weekly/fluactivity/htm">http://www.cdc.gov/flu/weekly/fluactivity/htm</a>
- During week 48, 100.0 % of all influenza A viruses sub typed by IDPH and sentinel hospitals were 2009 influenza A (H1N1).
- Two thousand four hundred and three hospital admissions and 76 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<sup>9th</sup>, 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\*



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

Activity Level	ILI activity*/Outbreaks		Laboratory data					
No activity	Low	And	No lab confirmed cases <sup>†</sup>					
	Not increased	And	Isolated lab-confirmed cases					
Sporadic	OR							
	Not increased	And	Lab confirmed outbreak in one institution <sup>‡</sup>					
Local	Increased ILI in 1 region**; ILI activity in other regions is not increased	And	Recent (within the past 3 weeks) lab evidence of influenza in region with increased ILI					
	OR							
	2 or more institutional outbreaks (ILI or lab confirmed) in 1 region; ILI activity in other regions is not increased	And	Recent (within the past 3 weeks) lab evidence of influenza in region with the outbreaks; virus activity is no greater than sporadic in other regions					
Regional (doesn't	Increased ILI in ≥2 but less than half of the regions	And	Recent (within the past 3 weeks) lab confirmed influenza in the affected regions					
apply to states with ≤4 regions)	, OR							
	Institutional outbreaks (ILI or lab confirmed) in ≥2 and less than half of the regions	And	Recent (within the past 3 weeks) lab confirmed influenza in the affected regions					
Widespread	Increased ILI and/or institutional outbreaks (ILI or lab confirmed) in at least half of the regions	And	Recent (within the past 3 weeks) lab confirmed influenza in the state.					

ILI activity can be assessed using a variety of data sources including ILINet providers, school/workplace absenteeism, and other syndromic surveillance systems that monitor influenza-like illness.

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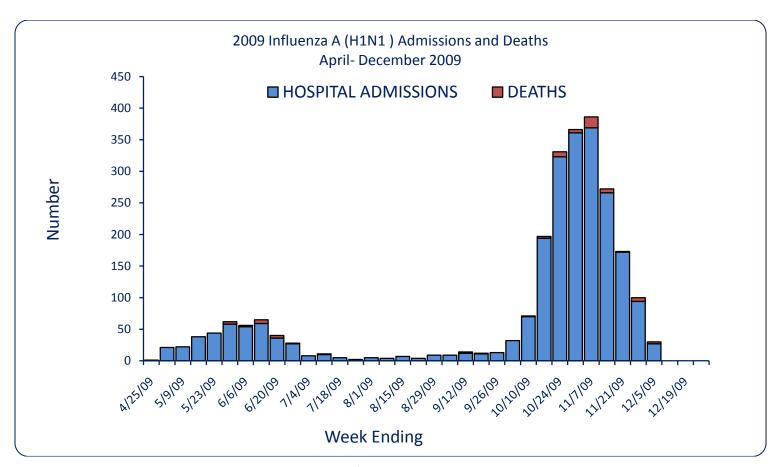
† Lab confirmed case = case confirmed by rapid diagnostic test, antigen detection, culture, or PCR.

<sup>&</sup>lt;sup>‡</sup> Institution includes nursing home, hospital, prison, school, etc.

<sup>\*\*</sup>Region: population under surveillance in a defined geographical subdivision of a state.

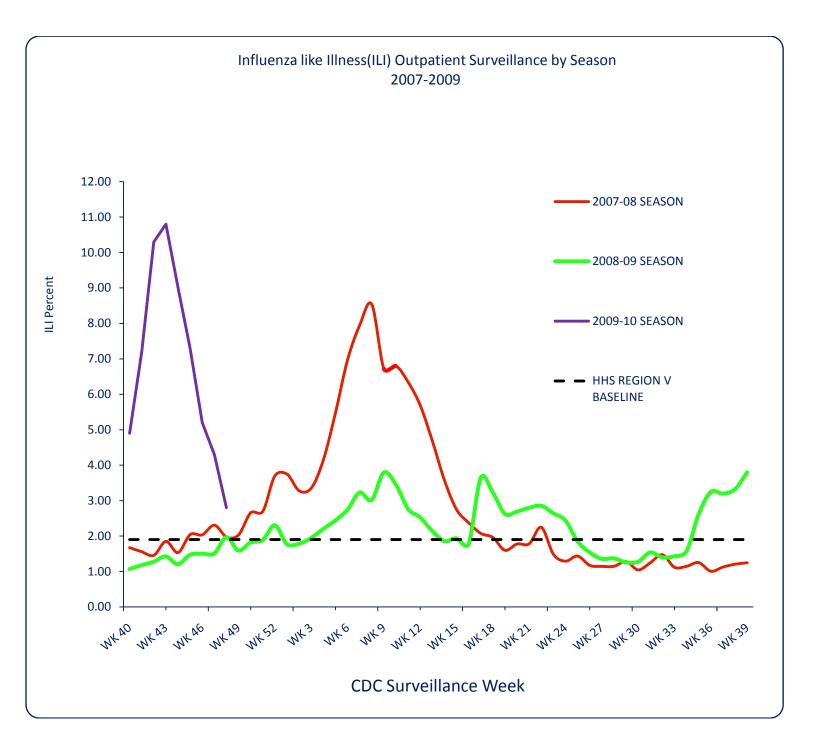
# 2009 (A) H1N1 HOSPITAL ADMISSIONS AND DEATHS

Illinois H1N1 (2009): Cumulative Hospitalizations and Deaths by Age Group through December 8, 2009 <sup>ii</sup>						
Age range	Admissions	Percent	Deaths	Percent		
0-4 Years	467	(19)	2	(3)		
5-18 Years	564	(23)	11	(14)		
19-24 Years	189	(8)	2	(3)		
25-49 Years	614	(26)	30	(39)		
50-64 Years	402	(17)	19	(25)		
65 + Years	165	(7)	12	(16)		
Unknown	2	(0)	0	(0)		
TOTAL	2403		76			



Weekly Influenza Report Page-4

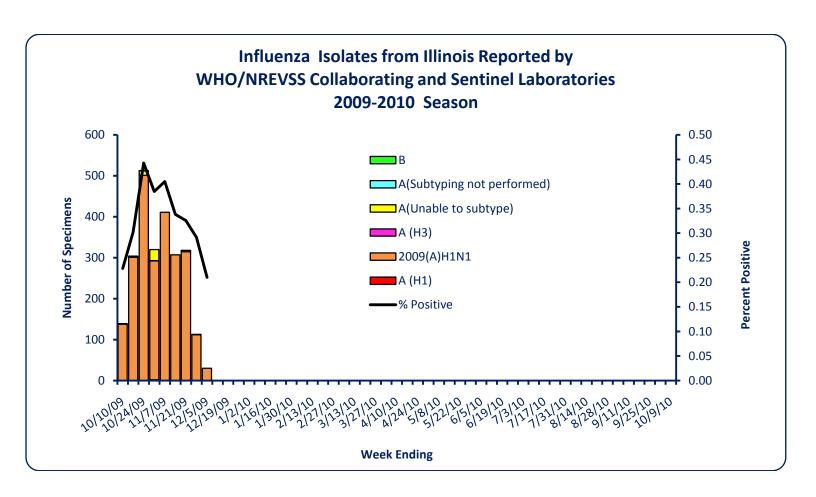
# **ILI NET PROVIDER SURVEILLANCE**



# **LABORATORY SURVEILLANCE**

During week 48, 30 (21%) specimens tested by Illinois WHO/NREVSS<sup>iii</sup> collaborating laboratories and sentinel sites<sup>iv</sup> tested positive for influenza. Thirty (100.0%) sub typed influenza A viruses were 2009 influenza A (H1N1) viruses.

Week	No of Labs	Α	2009(A)H1N1	Α	A(Unable to	A(Sub typing not	В	Total #	%
	Reporting	(H1)		(H3)	subtype)	performed)		Tested	Positive
45	2	0	307	0	0	0	0	908	33.8
46	2	0	315	0	2	0	1	977	32.6
47	1	0	112	0	0	0	1	388	29.1
48	1	0	30	0	0	0	0	143	21.0
200	9 Year to Date	214	6103	73	122	74	70	17534	37.9



# **NATIONAL ANTIVIRAL RESISTANCE DATA**

## Antiviral Resistance Testing Results on Samples Collected Since September 1, 2009.

	Viruses tested (n)	Resistant Viruses, No. (%)	Viruses tested (n)	Resistant Viruses, No. (%)	Viruses tested (n)	Resistant Viruses, No. (%)	
	Oselta	amivir	Zana	mivir	Adamantanes		
Seasonal Influenza A (H1N1)	2	1 (50)	0	0 (0)	1 (0)	0 (0)	
Influenza A (H3N2)	5	0 (0)	0	0 (0)	3 (0)	3 (100)	
Influenza B	1	0 (0)	0	0 (0)	NA	NA	
2009 Influenza A (H1N1)	2043	18 <sup>vvi</sup> (0.9)	559	0 (0)	452	451 (99.8)	

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. A total of 29 cases of oseltamivir resistant 2009 influenza A (H1N1) viruses have been identified in the United States since April 2009. Nineteen of these 26 cases have been identified in the United States since September 1, 2009.

#### **RESOURCES**

Centers for Disease Control and Prevention Influenza Website:

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

Immunization Action Coalition Website: <a href="http://immunize.org/">http://immunize.org/</a>
IDPH Website <a href="http://www.idph.state.il.us/flu/surveillance.htm">http://www.idph.state.il.us/flu/surveillance.htm</a>

<sup>&</sup>lt;sup>1</sup> ILI "Influenza like Illness" is defined as fever ≥ 100°F and cough and/or sore throat.

Beginning 4/5/2009 includes influenza A infections negative for human H1 and H3 by influenza RT\_PCR and positive for novel H1N1 by RT\_PCR

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

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

<sup>\*\*</sup>Additional laboratories perform antiviral resistance testing and report their results to CDC. One additional oseltamivir resistant 2009 influenza A (H1N1) virus has been identified by these laboratories since September 1, 2009, bringing the total number to 19.