INFLUENZA SURVEILLANCE UPDATE

ILLINOIS DEPARTMENT OF PUBLIC HEALTH

Divisions of Infectious Disease

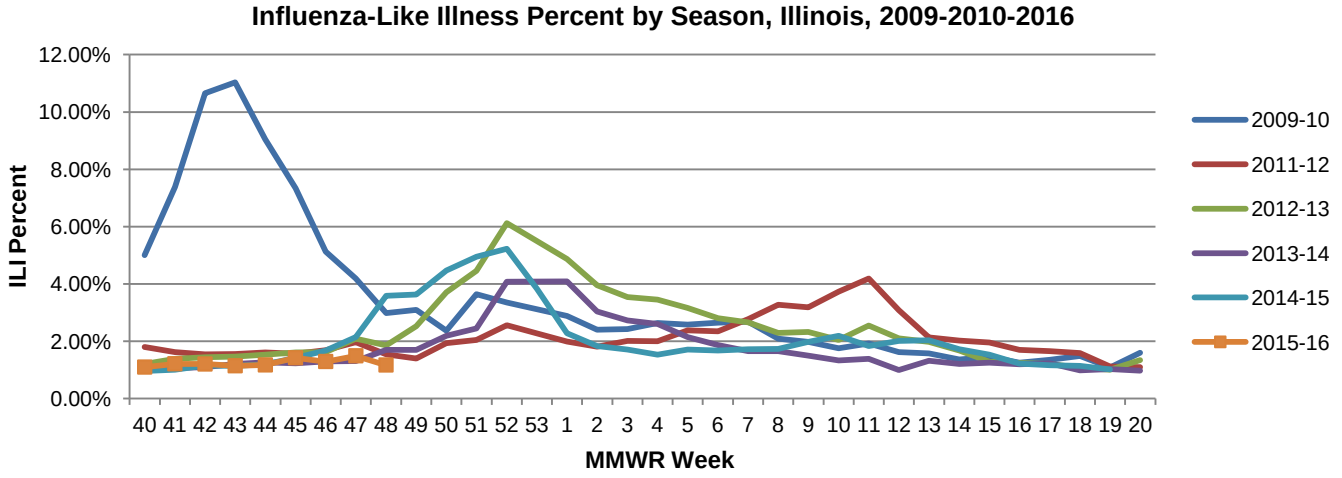
Week 48: Week Ending Saturday, December 5, 2015

Vaccination is the best way to protect against influenza infection.
All Illinois residents aged six months and older should be vaccinated annually.

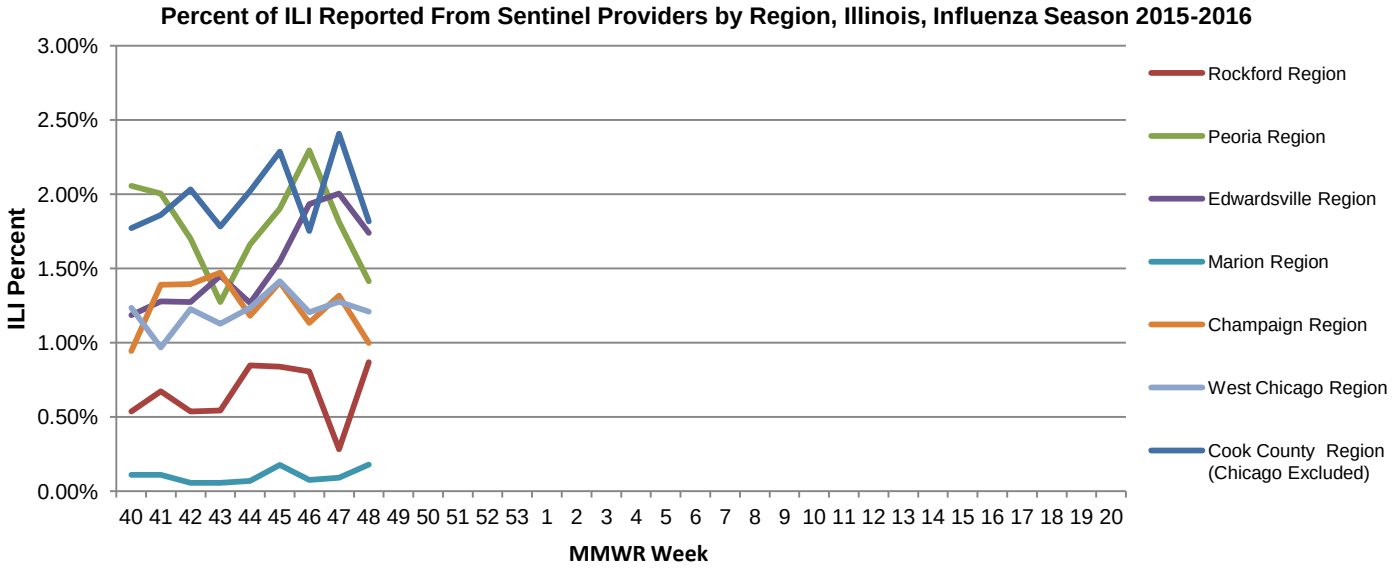
All data in this report are provisional and may change as additional reports are received.
For questions, please contact the IDPH CD Section at 217-782-2016 or dph.influenza@illinois.gov.
Additional data on influenza in Chicago can be found on the City of Chicago Influenza Website

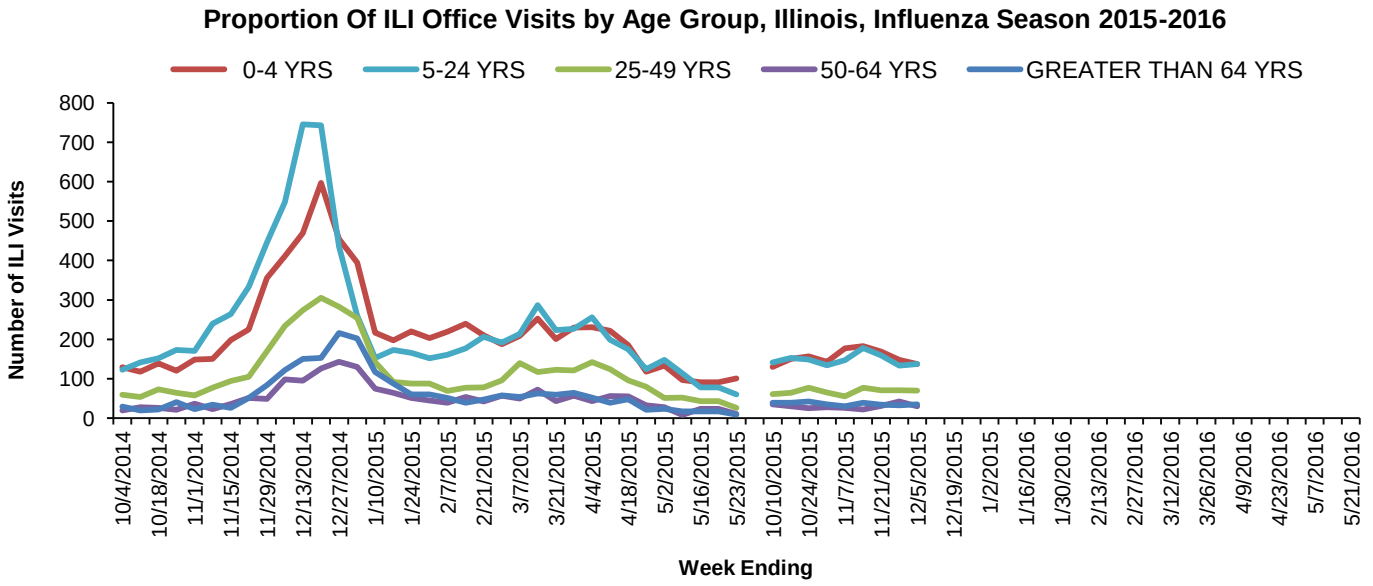
Current Week Quick Stats	
Illinois Influenza Geographic Spread	**Sporadic**
Percent of outpatients visits for ILI[1]	1.16% (baseline 1.9%)
Percent/Number of influenza positive tests[2]	Current Week: 1.0% (6/610);Season:1.9% (86/4613)
Influenza-associated ICU admissions[3]	Current Week: 2; Season: 30
Influenza outbreaks	Current Week: 0; Season: 1
Influenza-associated pediatric deaths **(Season Total)**	0

Illinois Influenza-Like Illness (ILI) Surveillance



[1] ILI "Influenza like Illness" is defined as fever ≥ 100°F and cough and/or sore throat.
[2] Specimens tested by WHO/NREVSS collaborating laboratories and IDPH laboratories.
[3] For the purpose of diagnosis, influenza can be diagnosed by using the following test: reverse transcription polymerase chain reaction RT-PCR], viral culture, Immunofluorescence [Direct Fluorescent Antibody (DFA) or Indirect Fluorescent Antibody (IFA) Staining], Enzyme Immuno Assay (EIA) or any rapid diagnostic test. Sensitivities of rapid diagnostic tests are approximately 50-70% when compared with viral culture or reverse transcription polymerase chain reaction (RT-PCR), and specificities of rapid diagnostic tests for influenza are approximately 90-95%. False-positive (and true-negative) results are more likely to occur when disease prevalence in the community is low, which is generally at the beginning and end of the influenza seasons. False-negative (and true-positive) results are more likely to occur when disease prevalence is high in the community, which is typically at the height of the influenza season.





Become an Illinois Sentinel Provider

Illinois outpatient health care providers are encouraged to join the Illinois influenza surveillance program. Each week, providers report data to CDC on the number of patients seen and the number with influenza-like illness. These reporters are critical to determining when and where influenza activity is occurring and who it is affecting. For more information on how to participate, contact DPH.INFLUENZA@ILLINOIS.GOV.

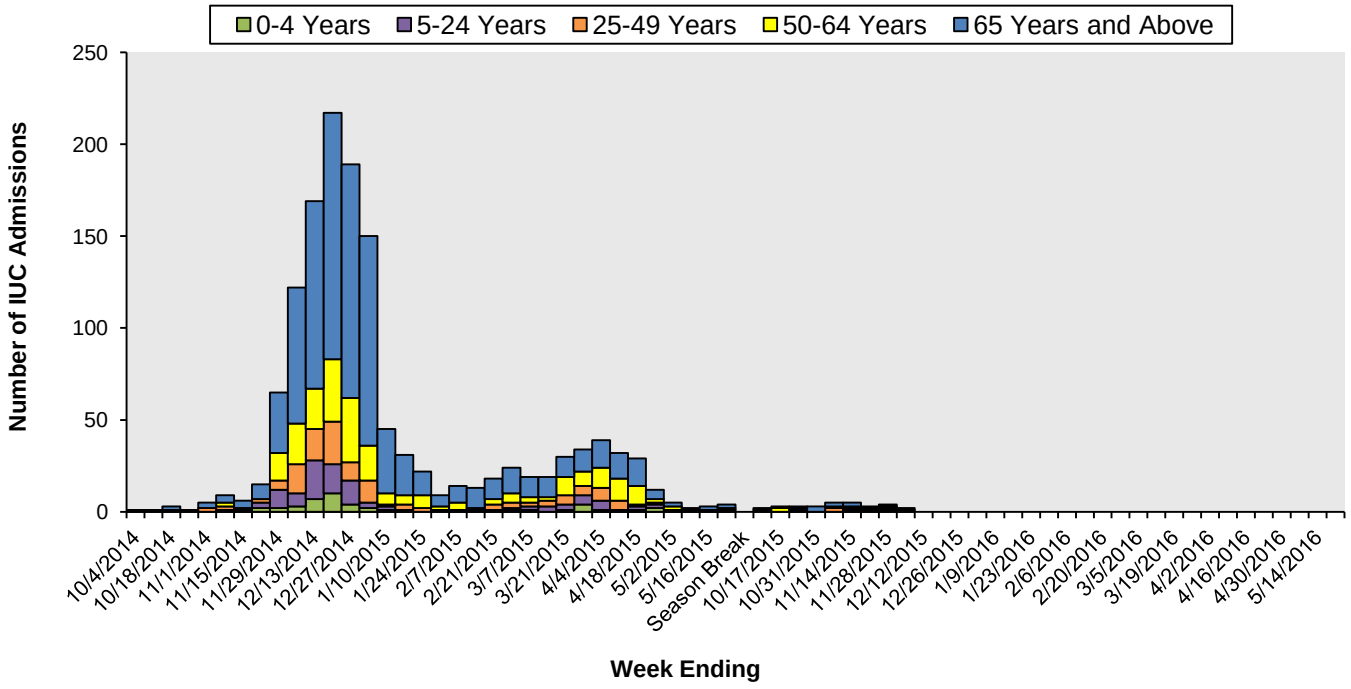
Resources

- IDPH Seasonal Influenza
- IDPH Immunization
- CDC Influenza
- CDC Influenza Vaccine
- Cook County Influenza Report
- DuPage County Influenza Report
- Kane County Influenza Report
- Vaccine Finder
- Immunization Action Coalition
- National Respiratory and Enteric Virus Surveillance System (NREVSS), CDC
- St Louis Children's Hospital Weekly Virus/Microbiology Update

Illinois Influenza-associated Intensive Care Unit (ICU) Admissions

Age	Current Week	Season Total (10/04/2015 – Present Week)
0-4	0	1
5-24	0	3
25-49	0	6
50-64	1	9
>64	1	11
Total	2	30

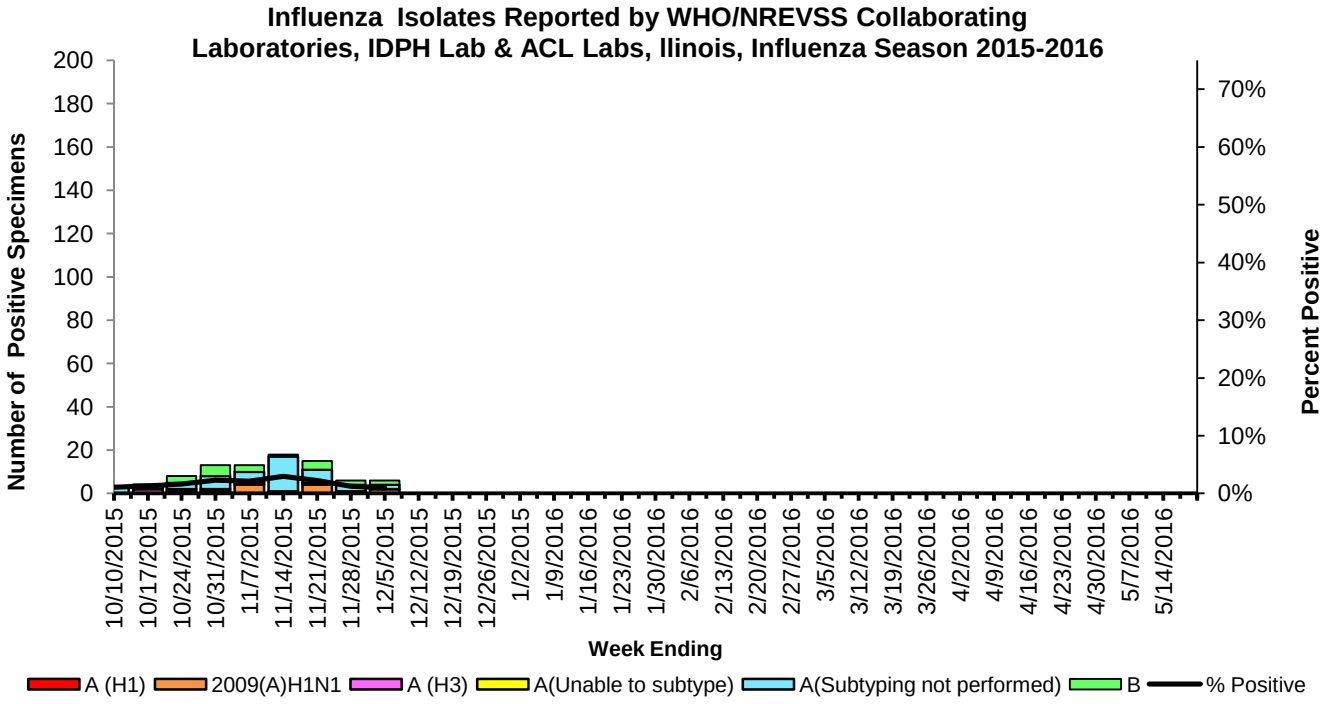
Influenza Related ICU Admissions by Age Group, Illinois, 2014-2016



Illinois Laboratory Surveillance (IDPH, NREVSS & ACL Laboratories)

Current Week					
A (H1N1) pdm09	A (H3)	A (Sub typing not performed)	B (Victoria Lineage)	B (Yamagata Lineage)	B (Lineage not performed)
2	0	2	0	0	2

Season Total (10/04/2015 – Present Week)					
A (H1N1) pdm09	A (H3)	A (Sub typing not performed)	B (Victoria Lineage)	B (Yamagata Lineage)	B (Lineage not performed)
13	7	46	0	0	20



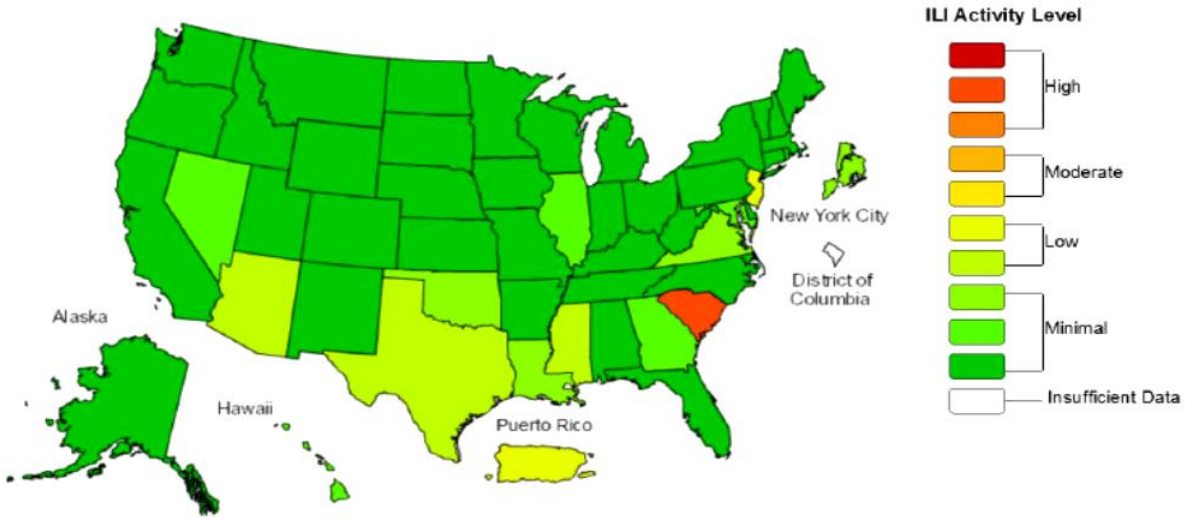
Influenza Outbreaks

Region	Current Week	Season Total (10/04/2015 – Present Week)
Rockford	0	0
Peoria	0	0
Edwardsville	0	1
Marion	0	0
Champaign	0	0
West Chicago	0	0
Chicago/Cook	0	0
Total	0	1

Influenza Outbreaks by First Onset Date, Illinois, 2015-2016

National Influenza Surveillance (CDC)

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet
2015-16 Influenza Season Week 48 ending Dec 05, 2015



* This map uses the proportion of outpatient visits to healthcare providers for influenza-like illness (ILI) to measure the ILI activity level within a state. It does not, however, measure the extent of geographic spread of flu within a state.
* Click Link to View The Animated National Activity Level Map

Additional National Influenza Resources

International influenza surveillance (WHO)—Map shows spread not severity –information is available at:
http://who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/

National Influenza Surveillance (CDC) information can be found in the weekly FluView reports available at:
www.cdc.gov/flu/weekly/

CDC FluView Website—Link to CDC's Weekly Influenza Report
http://www.cdc.gov/flu/weekly/#S5

Antiviral Resistance:

Testing of influenza A(H1N1)pdm09, A(H3N2), and influenza B virus isolates for resistance to neuraminidase inhibitors (oseltamivir, zanamivir, and peramivir) is performed at CDC using a functional assay. Additional A(H1N1)pdm09 and A(H3N2) clinical samples are tested for mutations of the virus known to confer oseltamivir resistance. The data summarized below combine the results of both testing methods. These samples are routinely obtained for surveillance purposes rather than for diagnostic testing of patients suspected to be infected with antiviral-resistant virus.

The majority of recently circulating influenza viruses are susceptible to the neuraminidase inhibitor antiviral medications, oseltamivir, zanamivir, and peramivir, rare sporadic instances of oseltamivir-resistant and peramivir-resistant influenza A (H1N1)pdm09 and oseltamivir-resistant influenza A (H3N2) viruses have been detected worldwide. Antiviral treatment as early as possible for patients is recommended for patients with confirmed or suspected influenza who have severe, complicated, or progressive illness; who require hospitalization; or who are at high risk for serious influenza-related complications. Additional information on influenza virus infection with antiviral agents is available at http://www.cdc.gov/flu/antivirals/index.htm

Neuraminidase Inhibitor Resistance Testing Results on Samples Collected Since October 1, 2015

	Oseltamivir		Zanamivir		Peramivir	
	Virus Samples tested (n)	Resistant Viruses, Number (%)	Virus Samples tested (n)	Resistant Viruses, Number (%)	Virus Samples tested (n)	Resistant Viruses, Number (%)
Influenza A(H1N1)pmd09	17	0 (0.0)	17	0 (0.0)	17	0 (0.0)
Influenza A (H3N2)	34	0 (0.0)	34	0 (0.0)	34	0 (0.0)
Influenza B	18	0 (0.0)	18	0 (0.0)	18	0 (0.0)