

Week 8: February 17-23, 2013

ILLINOIS DEPARTMENT OF PUBLIC HEALTH



Illinois Influenza Surveillance Report

Week 8: Week Ending Saturday, February 23, 2013

Division of Infectious Diseases Immunization Section

3/1/2013

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Summary

- During the Centers for Disease Control and Prevention (CDC) surveillance week 8, the proportion of outpatient visits for influenza-like illness (ILI)¹ reported by ILI Net sentinel providers in Illinois was 2.1% compared with 2.5% for week 7.
- The influenza (flu) activity level (geographic spread of influenza) for Illinois was “**REGIONAL**” based on CDC criteria for week ending February 23, 2013.
- Febrile Respiratory Illness (FRI) surveillance² at Naval Recruit Training Command, Great Lakes was **at or below expected value** for week 8.
- For the week ending February 23, 2013, seven specimens were tested for Influenza by the Illinois Department of Public Health Laboratory. Of these seven specimens, one specimen tested positive for Influenza A (H3N2).
- Four influenza-associated Intensive Care Unit (ICU) admissions³ were reported during week 8.
- No influenza-associated pediatric death was reported during week 8.
- During week 8, three institutional influenza outbreaks were reported.

¹ ILI “Influenza like Illness” is defined as fever $\geq 100^{\circ}\text{F}$ and cough and/or sore throat.

² FRI surveillance is ongoing at 8 U.S. military basic training centers, representing all service branches. FRI Rate Status is classified into one of 3 categories:

1. At or below expected value (expected value shown as dashed line)
2. Moderately elevated
3. Substantially elevated

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.

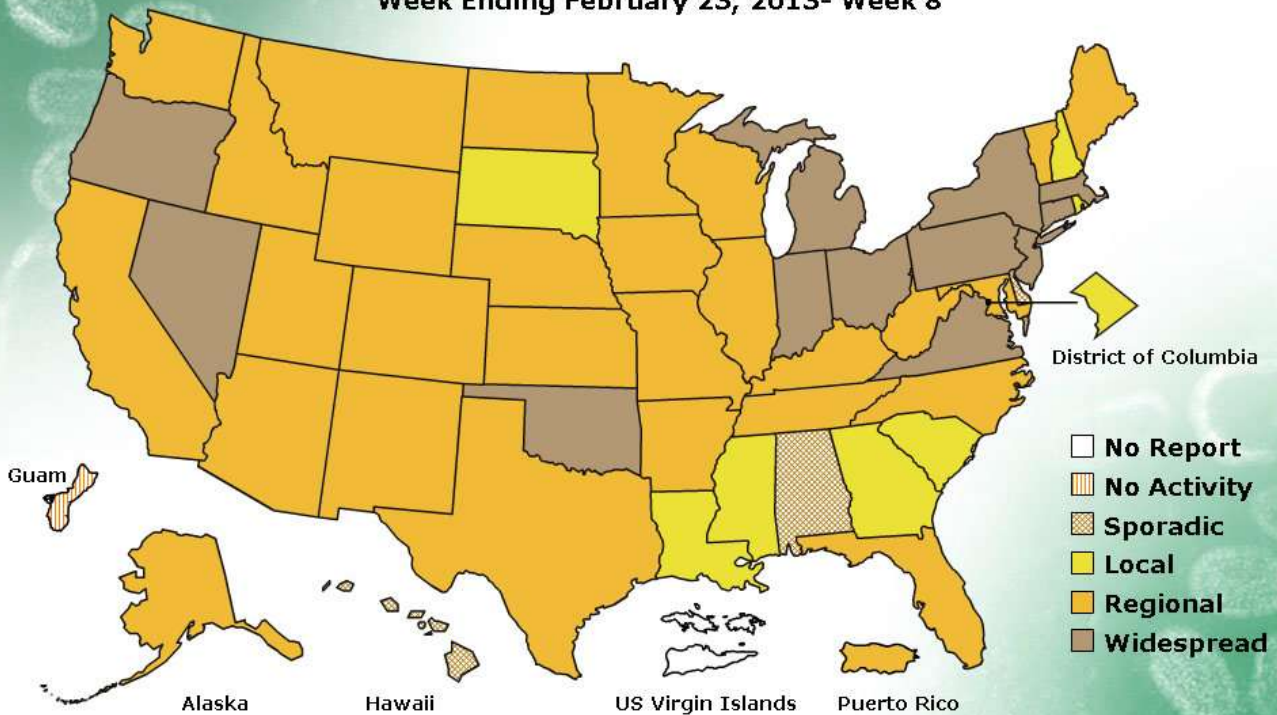
CDC Flu View

FLUVIEW



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

Week Ending February 23, 2013- Week 8



*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.

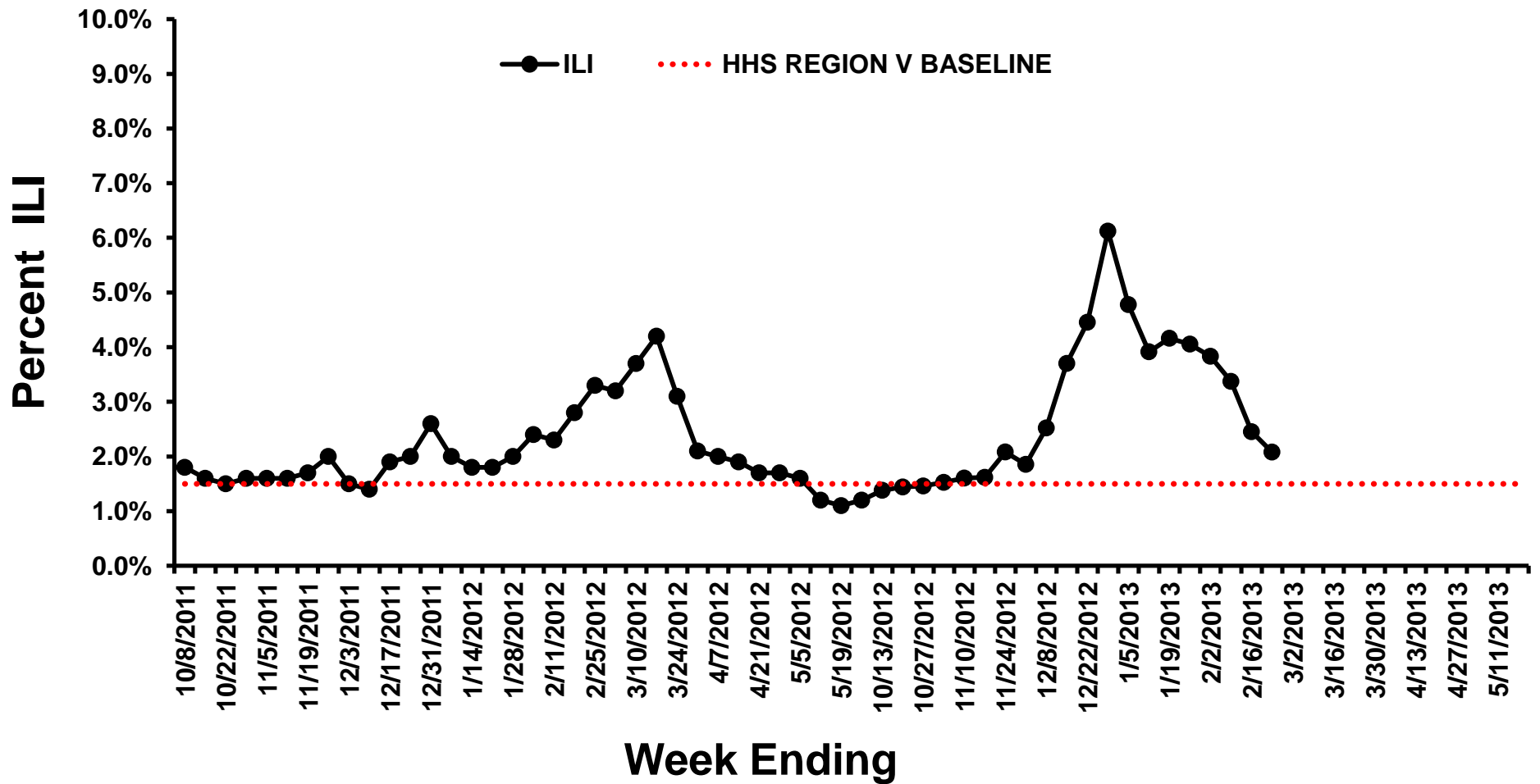
Local: Outbreaks of influenza or increases in ILI and recent laboratory confirmed influenza in a single region of the state.

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.

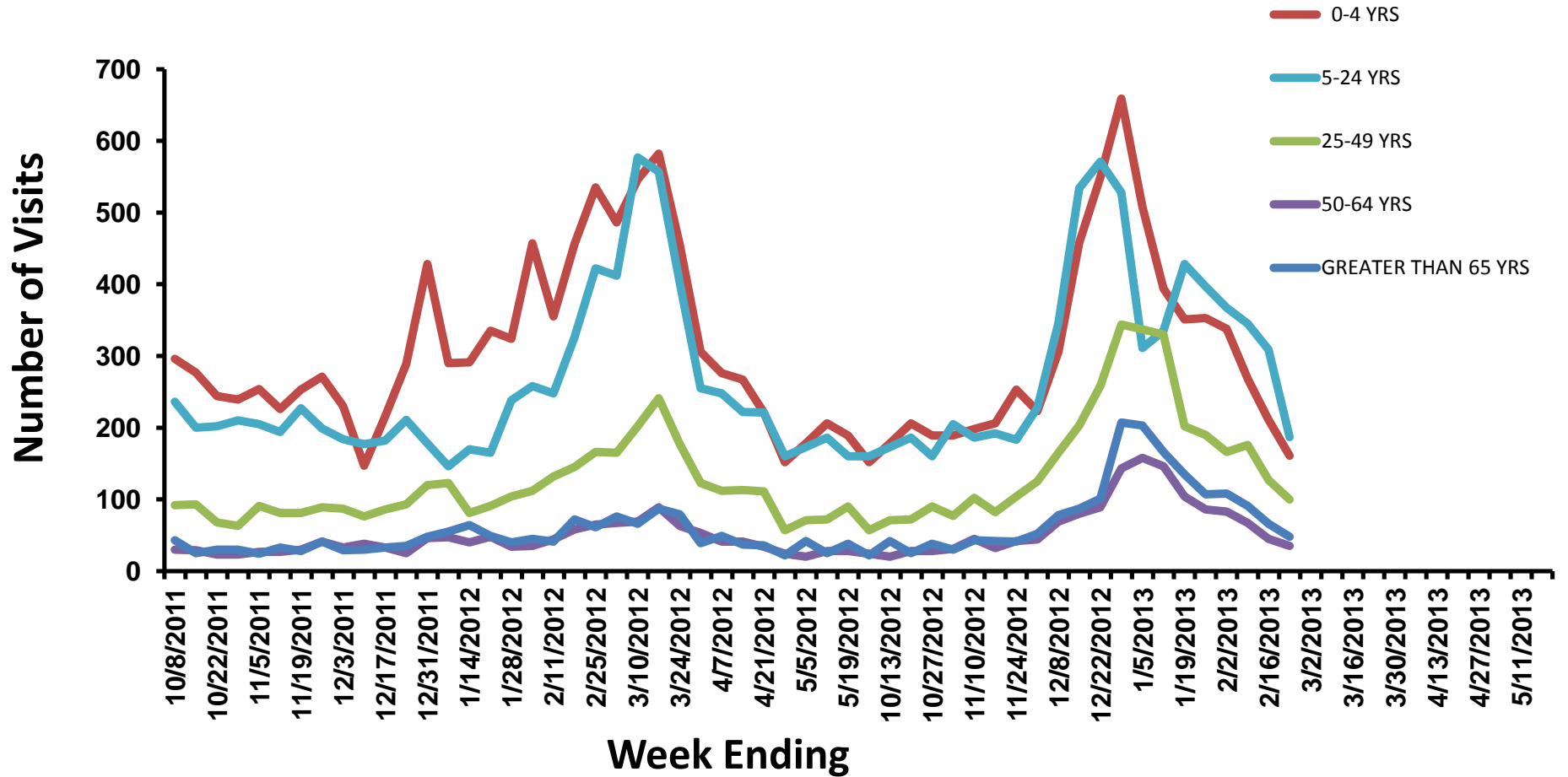
ILI Net Provider Surveillance

Influenza Like Illness Outpatient Surveillance 2011-2013



ILI Visits by Age Group

2011-13 Influenza Season Proportion of ILI Office Visits By Age Group



Great Lakes Naval Recruit Influenza Surveillance

Febrile Respiratory Illness (FRI) surveillance⁴ at Naval Recruit Training Command, Great Lakes was **at or below expected value** for week ending February 23, 2013. For more information visit <http://www.med.navy.mil/sites/nhrc/geis/Pages/default.aspx>

Influenza Intensive Care Unit Admissions and Deaths

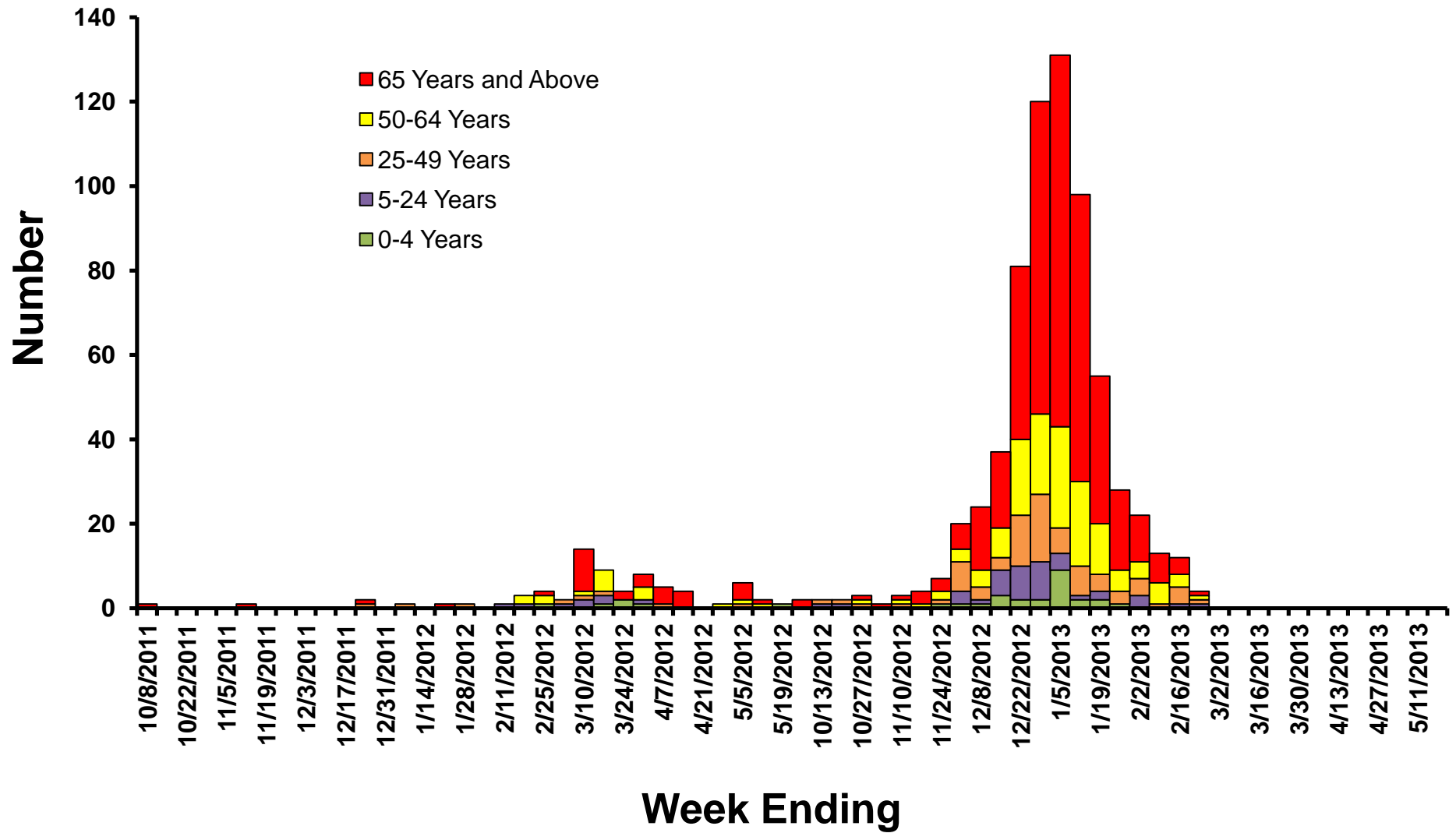
There were four influenza related ICU admissions and no deaths reported for week ending February 23, 2013.

Year	Week No	Admissions	Deaths
2013	2	98	23
2013	3	55	10
2013	4	28	7
2013	5	22	4
2013	6	13	1
2013	7	12	1
2013	8	4	0
Total (Provisional) for 2012-13 Season up to week ending February 23, 2013	-	667	103

⁴ FRI surveillance is ongoing at 8 U.S. military basic training centers, representing all service branches. FRI Rate Status is classified into one of 3 categories:

- 4. At or below expected value (expected value shown as dashed line)
- 5. Moderately elevated
- 6. Substantially elevated

Influenza Related ICU Admissions by Age Group



Laboratory Surveillance

For the week ending February 23, 2013, seven specimens were tested for Influenza by the Illinois Department of Public Health Laboratory. **Of these seven specimens, one specimen tested positive for Influenza A (H3N2).**

For more information about viruses circulating in Illinois visit:

- ACL Clinical Laboratory Respiratory Panel: <http://www.acllaboratories.com/>
- St Louis Children's Hospital Clinical Laboratory Respiratory Panel: <http://www.stlouischildrens.org/health-care-professionals/clinical-laboratories>

Year	Week	A (H1)	2009(A)H1N1	A (H3)	A(Unable to subtype)	A(Sub typing not performed)	B	Total # Tested	% Positive
2013	3	0	0	7	0	0	0	10	70%
2013	4	0	0	6	0	0	0	8	75%
2013	5	0	0	0	3	0	1	12	33%
2013	6	0	0	1	0	0	0	1	100%
2013	7	0	0	0	0	0	0	0	0%
2013	8	0	0	1	0	0	0	7	14%

Viral Resistance

The majority of currently circulating influenza viruses are susceptible to the neuraminidase inhibitor antiviral medications oseltamivir and zanamivir; however, rare sporadic cases of oseltamivir resistant 2009 influenza A (H1N1) and A (H3N2) viruses have been detected worldwide.

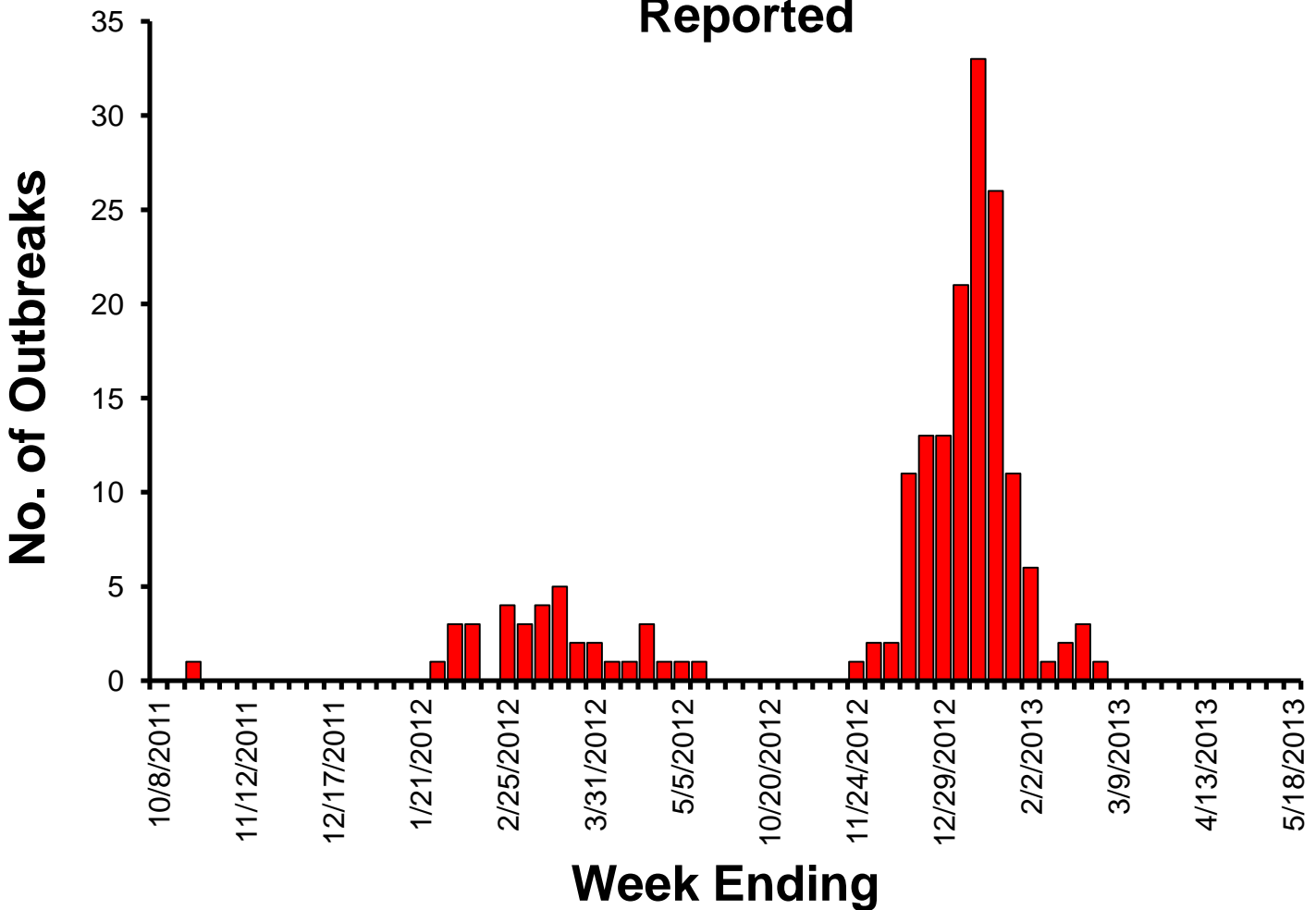
	Oseltamivir		Zanamivir	
	Virus Samples tested (n)	Resistant Viruses, Number (%)	Virus Samples tested (n)	Resistant Viruses, Number (%)
Influenza A (H3N2)	1267	0 (0.0)	1267	0 (0.0)
Influenza B	446	0 (0.0)	446	0 (0.0)
2009 H1N1	298	2 (0.7)	131	0 (0.0)

High levels of resistance to the adamantanes (amantadine and rimantadine) persist among 2009 H1N1 and A (H3N2) viruses (the adamantanes do not have activity against influenza B viruses). Antiviral treatment as early as possible with oseltamivir or zanamivir is recommended for patients with confirmed or suspected influenza who have severe, complicated, or progressive illness; who require hospitalization; or who are at greater risk for influenza-related complications. Additional information treatment and chemoprophylaxis of influenza virus infection with antiviral agents is available at <http://www.cdc.gov/flu/antivirals/index.htm>.

Institutional Influenza Outbreaks Reported

Three institutional influenza outbreaks were reported the week ending February 23, 2013. The outbreaks occurred in regions 4, 5 and 6 (see regional map below).

Number of Institutional Influenza Outbreaks Reported

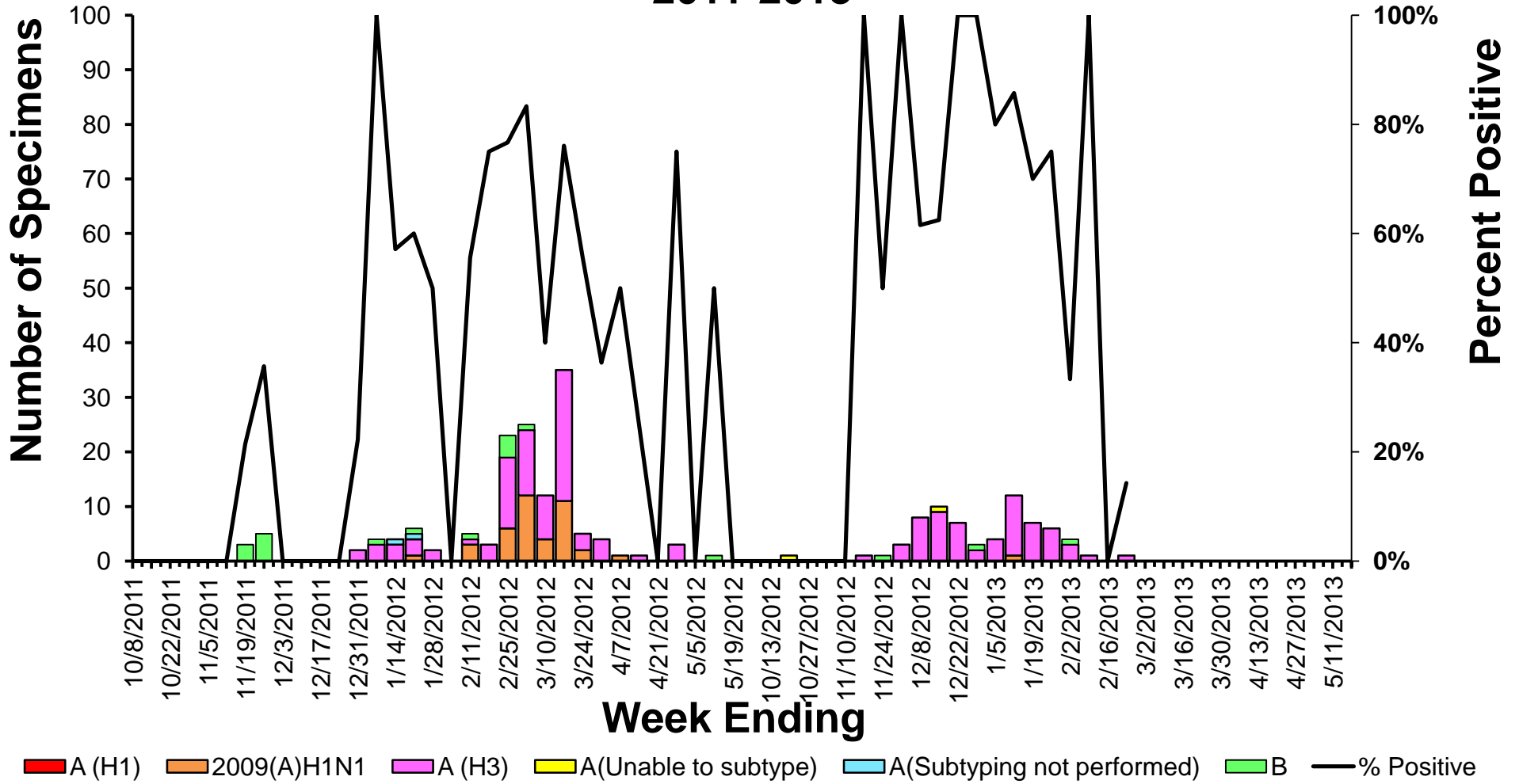


IDPH, Immunization Section Regional Map



Weekly Viral Subtype

Influenza Isolates from Illinois Reported by WHO/NREVSS Collaborating Laboratories 2011-2013



Resources

- Centers for Disease Control and Prevention Influenza Website: <http://www.cdc.gov/flu/>
- Immunization Action Coalition Website: <http://immunize.org/>
- IDPH Website: <http://www.idph.state.il.us/flu/surveillance.htm>
- ACL Clinical Laboratory Respiratory Panel: <http://www.acllaboratories.com/>
- St Louis Children's Hospital Clinical Laboratory Respiratory Panel:
<http://www.stlouischildrens.org/health-care-professionals/clinical-laboratories>