

Week 13: March 24-30, 2013

ILLINOIS DEPARTMENT OF PUBLIC HEALTH



# Illinois Influenza Surveillance Report

Week 13: Week Ending Saturday, March 30, 2013

Division of Infectious Diseases Immunization Section

4/5/2013

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## Summary

- During the Centers for Disease Control and Prevention (CDC) surveillance week 13, the proportion of outpatient visits for influenza-like illness (ILI)<sup>1</sup> reported by ILI Net sentinel providers in Illinois was 1.7% compared with 2.1% for week 12.
- The influenza (flu) activity level (geographic spread of influenza) for Illinois was **“LOCAL”** based on CDC criteria for week ending March 30, 2013.
- Febrile Respiratory Illness (FRI) surveillance<sup>2</sup> at Naval Recruit Training Command, Great Lakes was **at or below expected value** for week 13.
- For the week ending March 30, 2013, no specimen was tested for Influenza by the Illinois Department of Public Health Laboratory.
- Five influenza-associated Intensive Care Unit (ICU) admissions<sup>3</sup> and no death were reported during week 13.
- No influenza-associated pediatric death was reported during week 13.
- During week 13, no institutional influenza outbreaks were reported.

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

<sup>2</sup> 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:

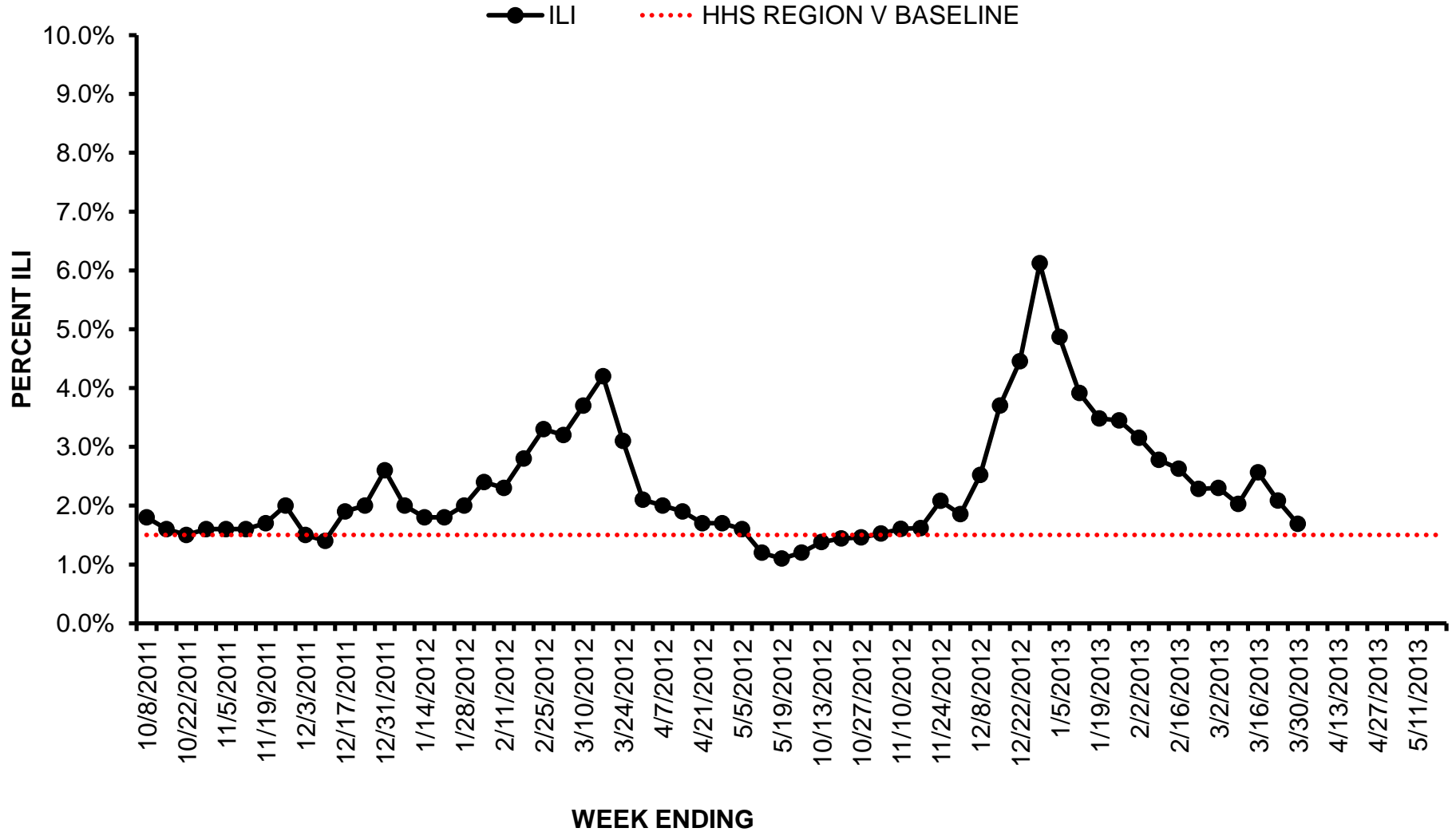
1. At or below expected value (expected value shown as dashed line)
2. Moderately elevated
3. Substantially elevated

<sup>3</sup> 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.



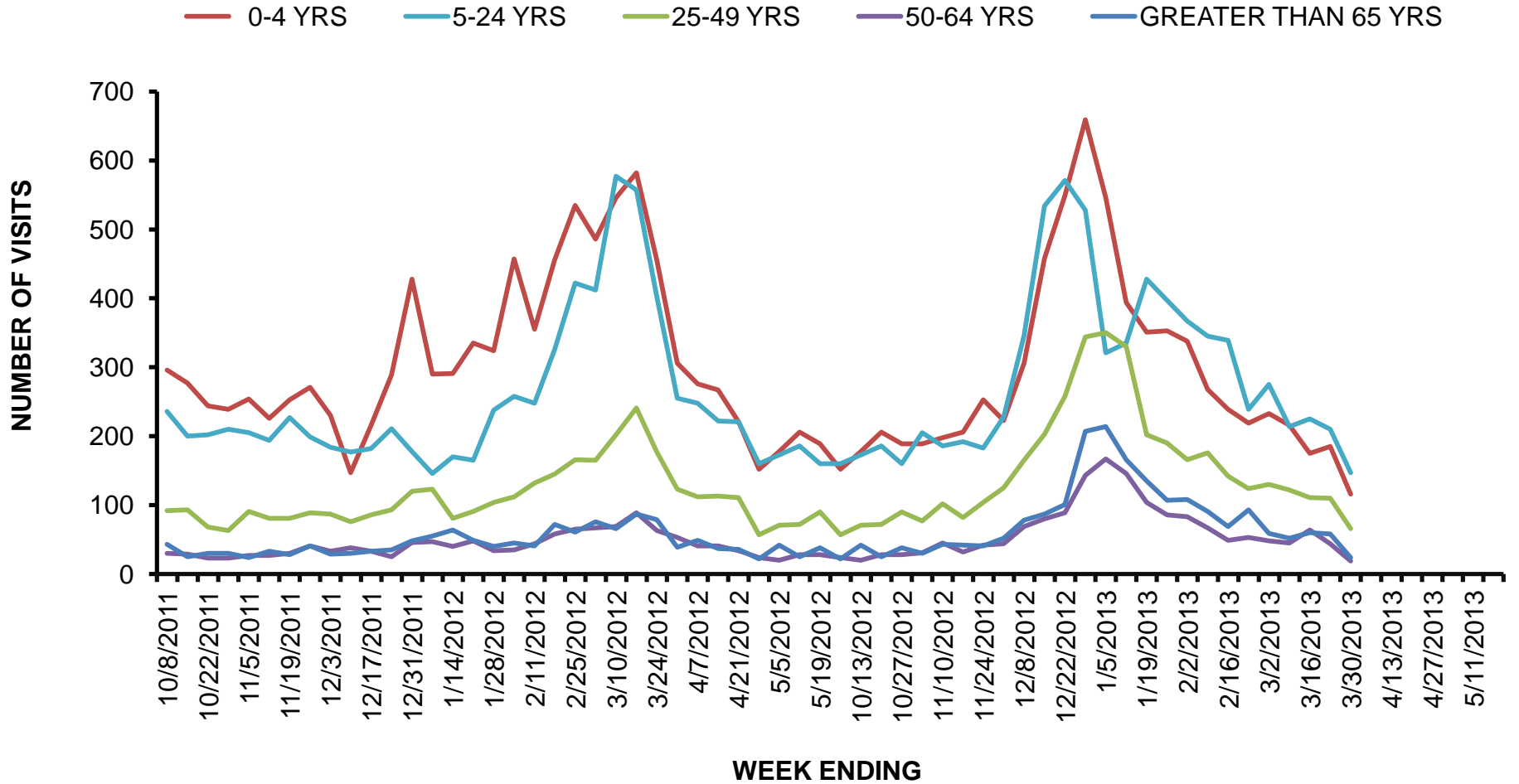
**ILI Net Provider Surveillance**

**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) surveillance<sup>4</sup> at Naval Recruit Training Command, Great Lakes was **at or below expected value** for week ending March 30, 2013. For more information visit <http://www.med.navy.mil/sites/nhrc/geis/Pages/default.aspx>

**Influenza Intensive Care Unit Admissions and Deaths**

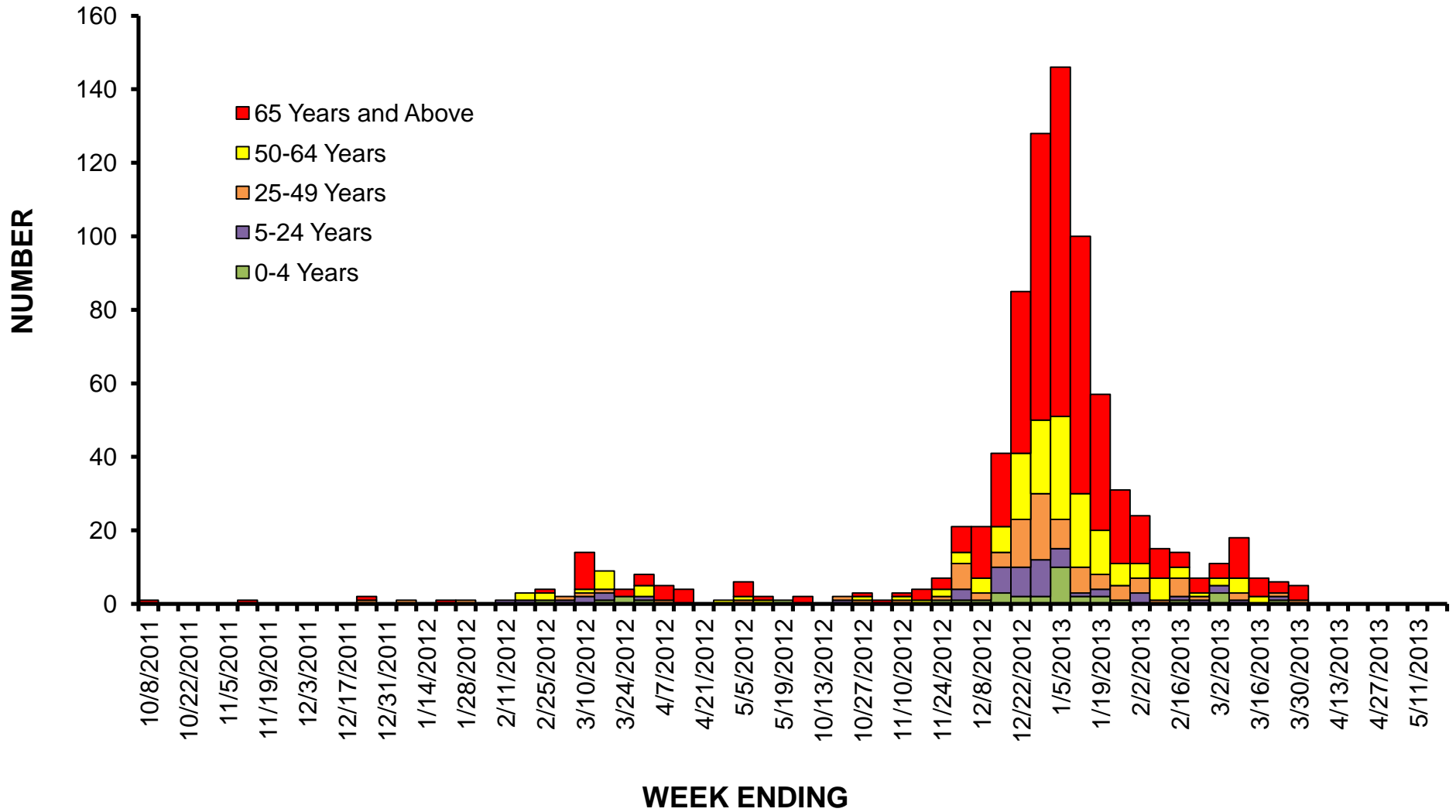
Five influenza related ICU admissions and no deaths were reported the week ending March 30, 2013.

<b>Year</b>	<b>Week No</b>	<b>Admissions</b>	<b>Deaths</b>
2013	6	15	2
2013	7	14	1
2013	8	7	0
2013	9	11	1
2013	10	18	2
2013	11	7	0
2013	12	6	1
2013	13	5	0
<b>Total (Provisional) for 2012-13 Season up to week ending March 23, 2013</b>	<b>-</b>	<b>759</b>	<b>116</b>

<sup>4</sup> 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 March 30, 2013, no specimen was tested for Influenza by the Illinois Department of Public Health Laboratory.

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	9	0	0	2	0	0	0	4	50%
2013	10	0	0	2	0	0	0	4	50%
2013	11	0	1	3	0	0	0	3	100%
2013	12	0	0	1	0	0	0	1	100%
2013	13	0	0	0	0	0	0	0	0%

## 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.

Neuraminidase Inhibitor Resistance Testing Results on Samples Collected in the U.S. Since October 1, 2012				
	Oseltamivir		Zanamivir	
	Virus Samples tested (n)	Resistant Viruses, Number (%)	Virus Samples tested (n)	Resistant Viruses, Number (%)
<b>Influenza A (H3N2)</b>	1734	2 (0.1)	1734	0 (0.0)
<b>Influenza B</b>	691	0 (0.0)	691	0 (0.0)
<b>2009 H1N1</b>	446	2 (0.4)	204	0 (0.0)

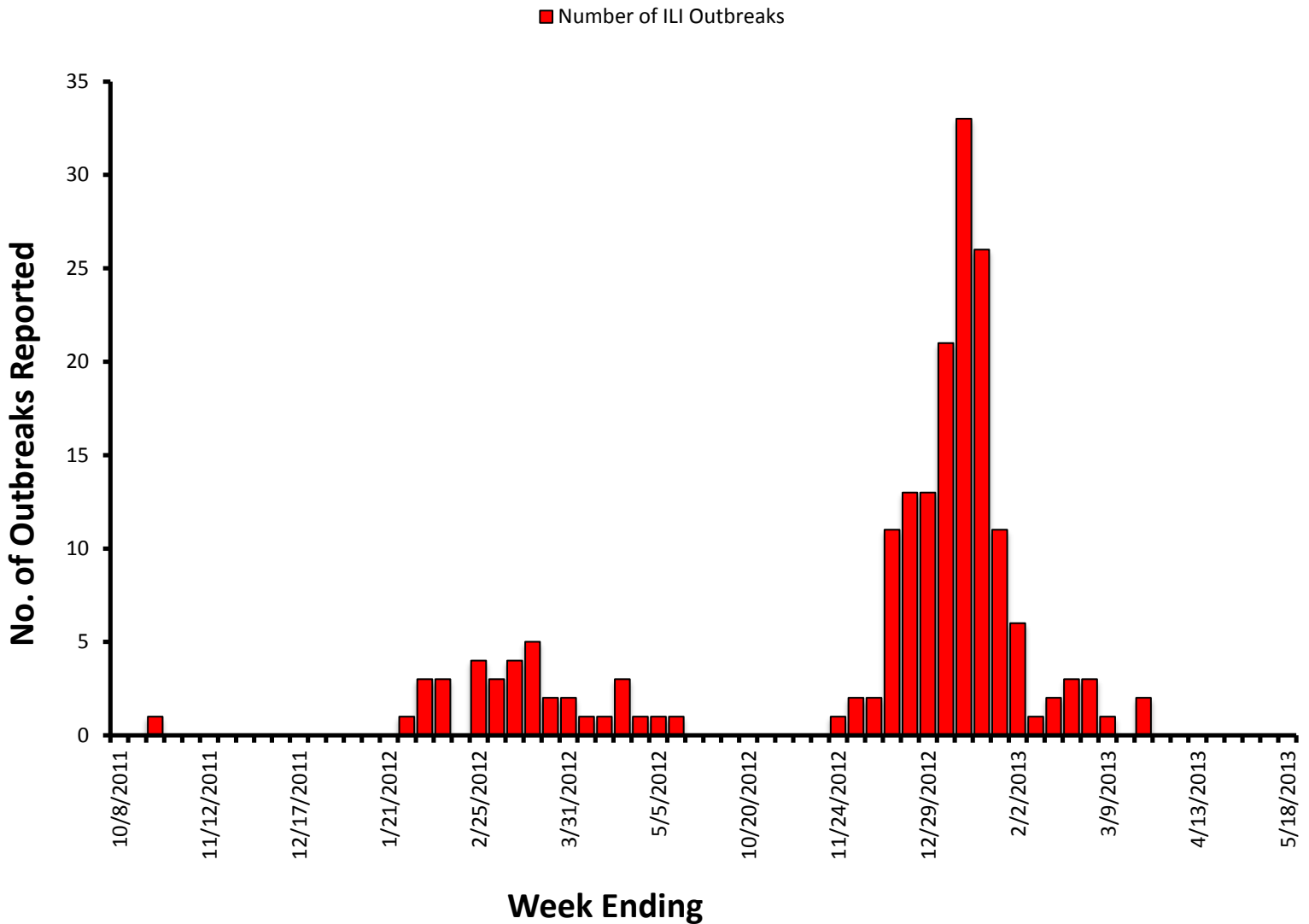
High levels of resistance to the adamantanes (amantadine and rimantadine) persist among 2009 H1N1 and A (H3N2) viruses (the adamantanes do not have activity against influenza B viruses). Antiviral treatment as early as possible with oseltamivir or zanamivir is recommended for patients with confirmed 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

No institutional influenza outbreaks were reported the week ending March 30, 2013.

## Number of Institutional Influenza Outbreaks Reported

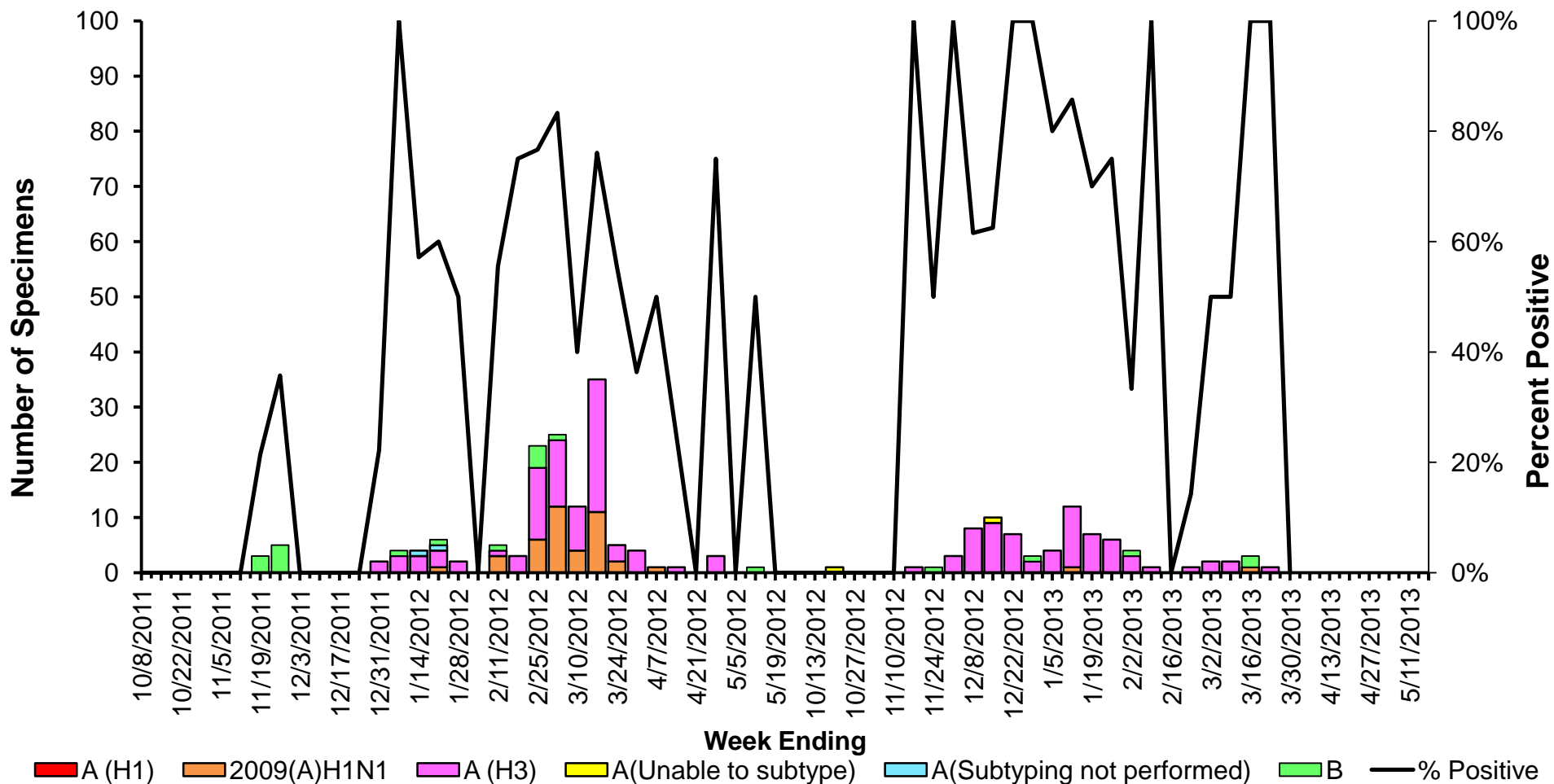


**IDPH, Immunization Section Regional Map**



**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>