

Week 17: April 22-28, 2012

ILLINOIS DEPARTMENT OF PUBLIC HEALTH



Illinois Influenza Surveillance Report

Week 17: Week Ending Saturday, April 28, 2012

Division of Infectious Diseases Immunizations Section

5/4/2012

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Summary

- During CDC week 17, the proportion of outpatient visits for influenza-like illness (ILI)¹ was 1.2% compared with 1.8% for week 16.
- Based on CDC criteria, influenza activity is classified as **sporadic** (see CDC FLU View Section) for week 17. This represents no change in activity from week 16.
- Febrile Respiratory Illness (FRI) surveillance² at Naval Recruit Training Command, Great Lakes was **at or below expected value** for week ending April 28, 2012.
- During week 17, three (75%) of the four specimens tested by the IDPH Laboratory were positive for influenza; all were characterized as Influenza A (H3).
- One influenza-associated Intensive Care Unit (ICU) admission³ was reported for week 17.
- No influenza-associated pediatric deaths were reported for week 17.
- During week 17, one influenza outbreak was reported in a long-term care facility within the West Chicago (7) region (see IDPH, Immunization Section Regional Map).

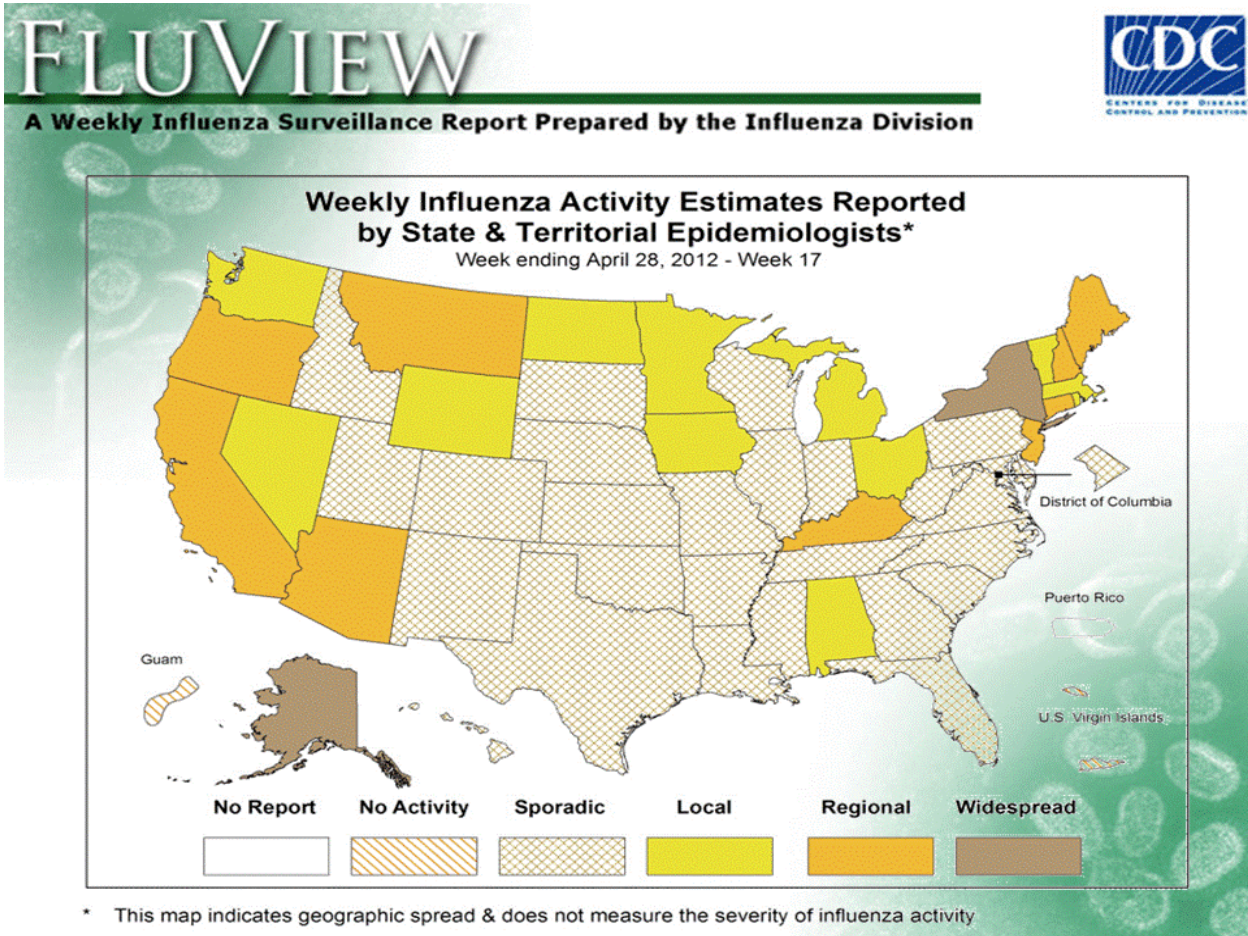
¹ ILI "Influenza like Illness" is defined as fever $\geq 100^{\circ}\text{F}$ and cough and/or sore throat.

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



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.

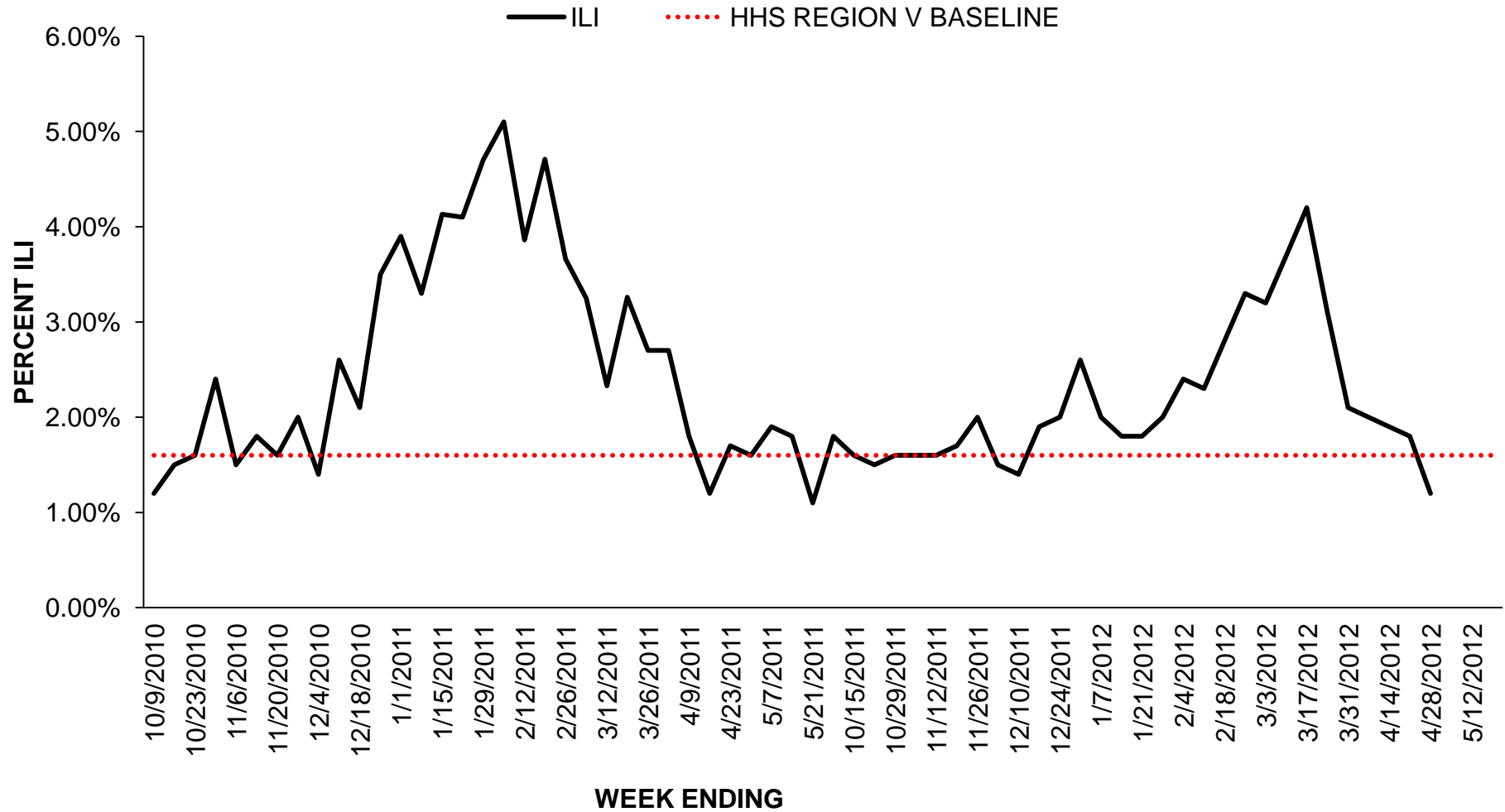
Local: Outbreaks of influenza or increases in ILI and recent laboratory confirmed influenza in a single region of the state.

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.

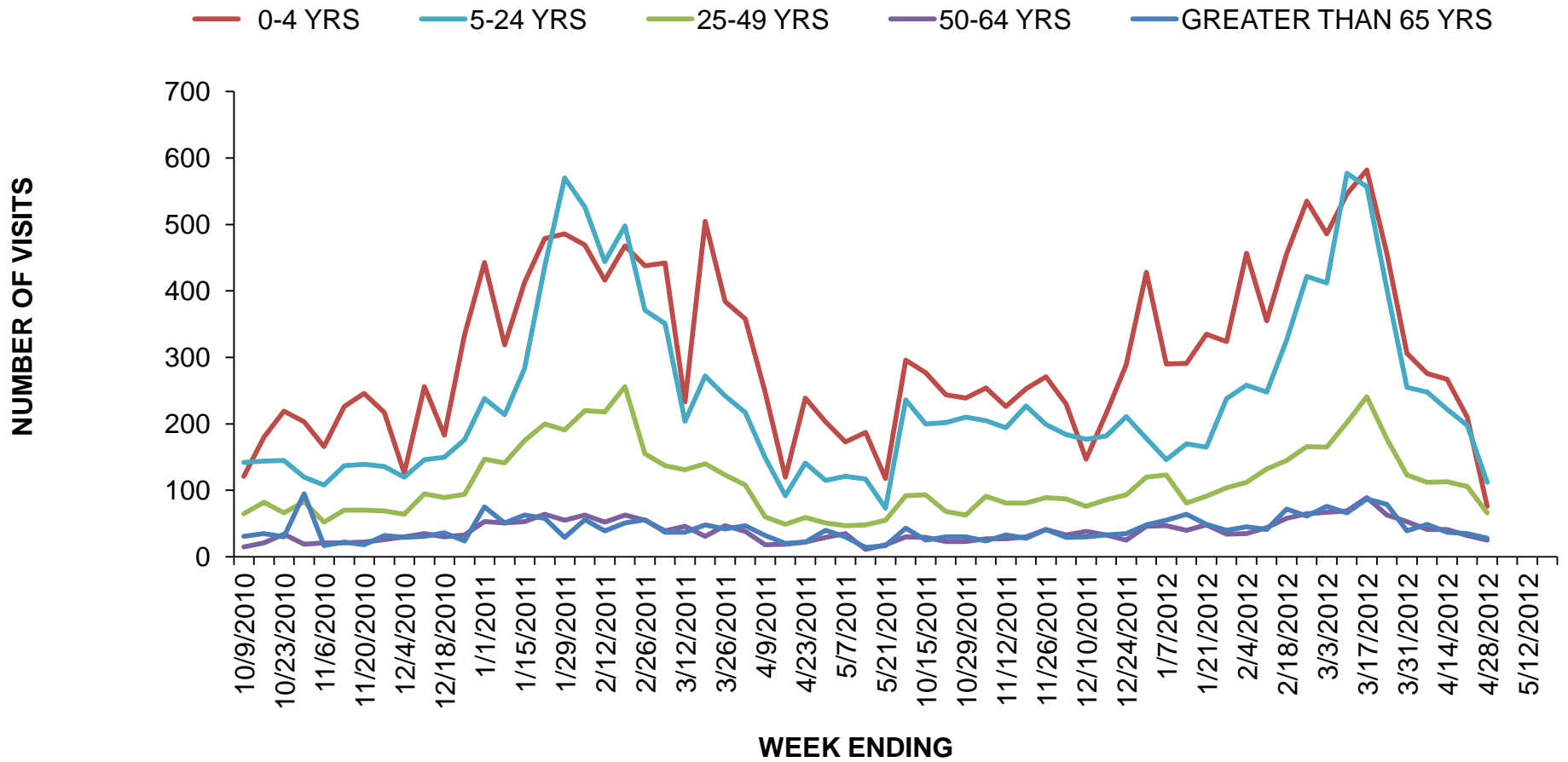
ILI Net Provider Surveillance

Influenza Like Illness Outpatient Surveillance 2010-2012



ILI Visits by Age Group

2010 -12 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 April 28, 2012. For more information visit <http://www.med.navy.mil/sites/nhrc/geis/Pages/default.aspx>

Influenza Intensive Care Unit Admissions and Deaths

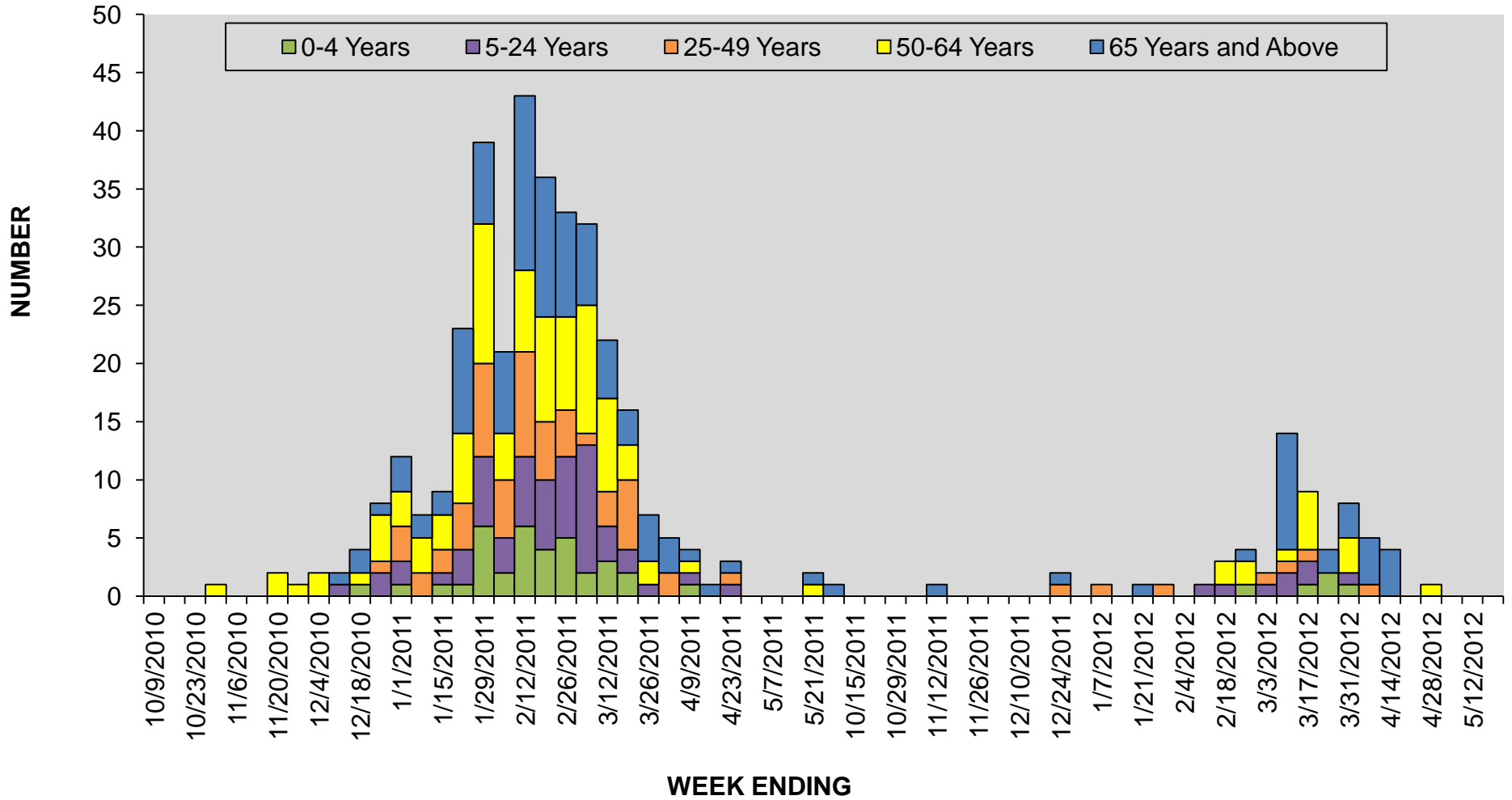
There was one influenza related ICU admissions and no deaths reported for week ending April 28, 2012.

Year	Week No	Admissions No	Deaths
2012	4	1	0
2012	5	0	0
2012	6	1	0
2012	7	3	0
2012	8	4	0
2012	9	2	0
2012	10	14	0
2012	11	9	0
2012	12	4	0
2012	13	8	0
2012	14	5	0
2012	15	4	0
2012	16	0	0
2012	17	1	0

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

During week 17, four specimens were tested by Illinois WHO/NREVSS^[1] collaborating laboratories in Illinois. This represents an increase in testing compared with week 16. Three (75%) of the four specimens tested by Illinois Department of Public Health Laboratory were positive for influenza. Of the three that tested positive, all (100%) were characterized as Influenza A (H3).

Year	Week	A (H1)	2009(A)H1N1	A (H3)	A(Unable to subtype)	A(Sub typing not performed)	B	Total # Tested	% Positive
2012	1	0	0	3	0	0	1	4	100%
2012	2	0	0	3	0	1	0	7	57%
2012	3	0	1	3	0	1	1	10	60%
2012	4	0	0	2	0	0	0	4	50%
2012	5	0	0	0	0	0	0	4	0
2012	6	0	3	1	0	0	1	9	56%
2012	7	0	0	3	0	0	0	4	75%
2012	8	0	6	13	0	0	4	30	77%
2012	9	0	12	12	0	0	1	30	83%
2012	10	0	4	8	0	0	0	30	40%
2012	11	0	11	24	0	0	0	46	76%
2012	12	0	2	3	0	0	0	9	56%
2012	13	0	0	4	0	0	0	11	36%
2012	14	0	1	0	0	0	0	2	50%
2012	15	0	0	1	0	0	0	4	25%
2012	16	0	0	0	0	0	0	2	0

^[1] 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.

Viral Resistance

Neuraminidase Inhibitor Resistance Testing Results on Samples Collected Since October 1, 2011

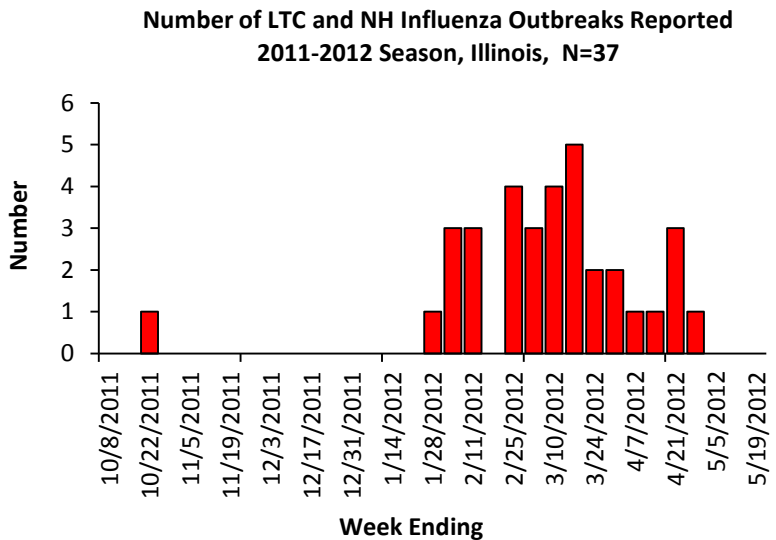
	Oseltamivir		Zanamivir	
	Virus Samples tested (n)	Resistant Viruses, Number (%)	Virus Samples tested (n)	Resistant Viruses, Number (%)
Influenza A (H3N2)	1,139	0 (0.0)	1,139	0 (0.0)
Influenza B	245	0 (0.0)	245	0 (0.0)
Influenza A (2009 H1N1)	1,067	16 (1.5)	442	0 (0.0)

So far this season, 16 oseltamivir-resistant 2009 H1n1 viruses have been detected nationally. Information related to oseltamivir exposure among these cases is available for 14 patients. Among those 14 patients, 3 patients were using oseltamivir for 1 day or more at the time of specimen collection, 2 had family members using oseltamivir, and 9 had no exposure to oseltamivir (resistance of influenza A viruses to antiviral drugs can occur spontaneously and emerge during the course of antiviral treatment or antiviral exposure). Additional information on recommendations for treatment and chemoprophylaxis of influenza virus infection with antiviral agents is available at <http://www.cdc.gov/flu/antivirals/index.htm>.

Influenza Outbreaks Reported in Long-Term Facilities (LTC) and Nursing Homes (NH)

One influenza outbreak was reported in long-term care facilities within the West Chicago (7) region (see IDPH, Immunization Section Regional Map); bringing the total number of outbreaks reported during 2011-12 Influenza season to 37.

Region	Number of outbreaks No. (%)
Rockford (1)	6(16)
Peoria (2),	5(14)
Edwardsville (4),	6(16)
Marion (5),	3(8)
Champaign (6),	0(0)
West Chicago (7)	9(24)
Chicago/Cook (8)	8(22)
Total	37(100)

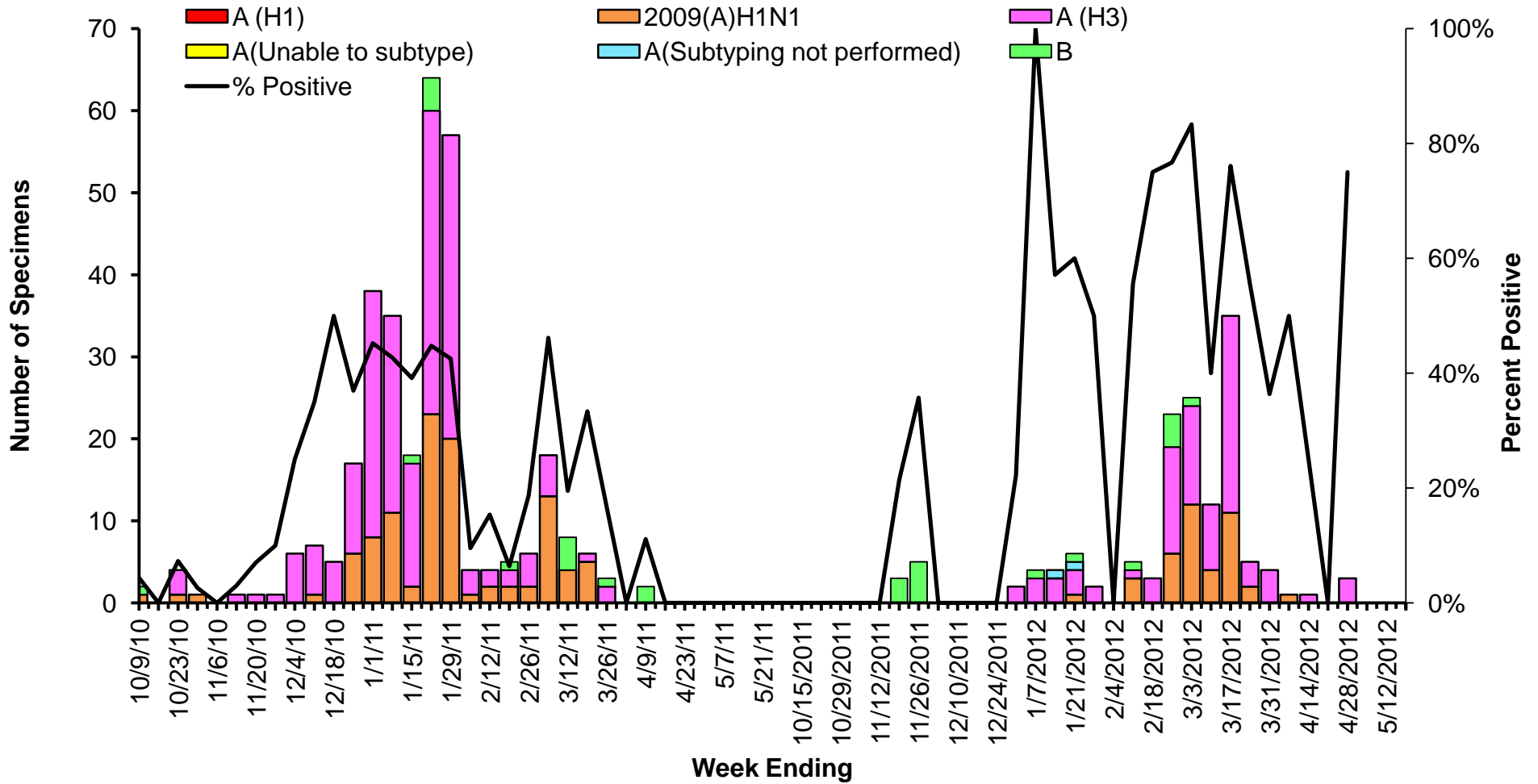


IDPH, Immunization Section Regional Map



Weekly Viral Subtype

Influenza Isolates from Illinois Reported by WHO/NREVSS Collaborating Laboratories 2010-2012



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/content/ClinicalLaboratories.htm>