ILLINOIS DEPARTMENT OF PUBLIC HEALTH

Illinois Influenza Surveillance Report

Week 13: Week Ending Saturday, March 31, 2012

Division of Infectious Diseases Immunizations Section

4/10/2012

Please note that all data are preliminary and may change as more reports are received.

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Summary

- During CDC week 13, the proportion of outpatient visits for influenza-like illness (ILI)[1] was 1.7% compared with 2.6% for week 12.
- Based on CDC criteria, influenza activity is classified as **regional** (see CDC FLU View Section) for week 13. This represents no change in activity from week 12.
- Febrile Respiriratory Illness (FRI) surveillance[2] at Naval Recruit Training Command, Great Lakes was **at or below expected value** for week ending March 31, 2012.
- During week 13, four (36%) of the eleven specimens tested by Illinois Department of Public Health Laboratory were positive for influenza. Of the four that tested positive, all (100%) were characterized as Influenza A (H3).
- There were eight influenza-associated Intensive Care Unit (ICU) admission[3] reported for week 13.
- No influenza-associated pediatric deaths were reported for week 13.
- During week 13, two influenza outbreaks were reported in long-term care facilities in Chicago/Cook County (8) region of Illinois (see IDPH, Immunization Section Regional Map).

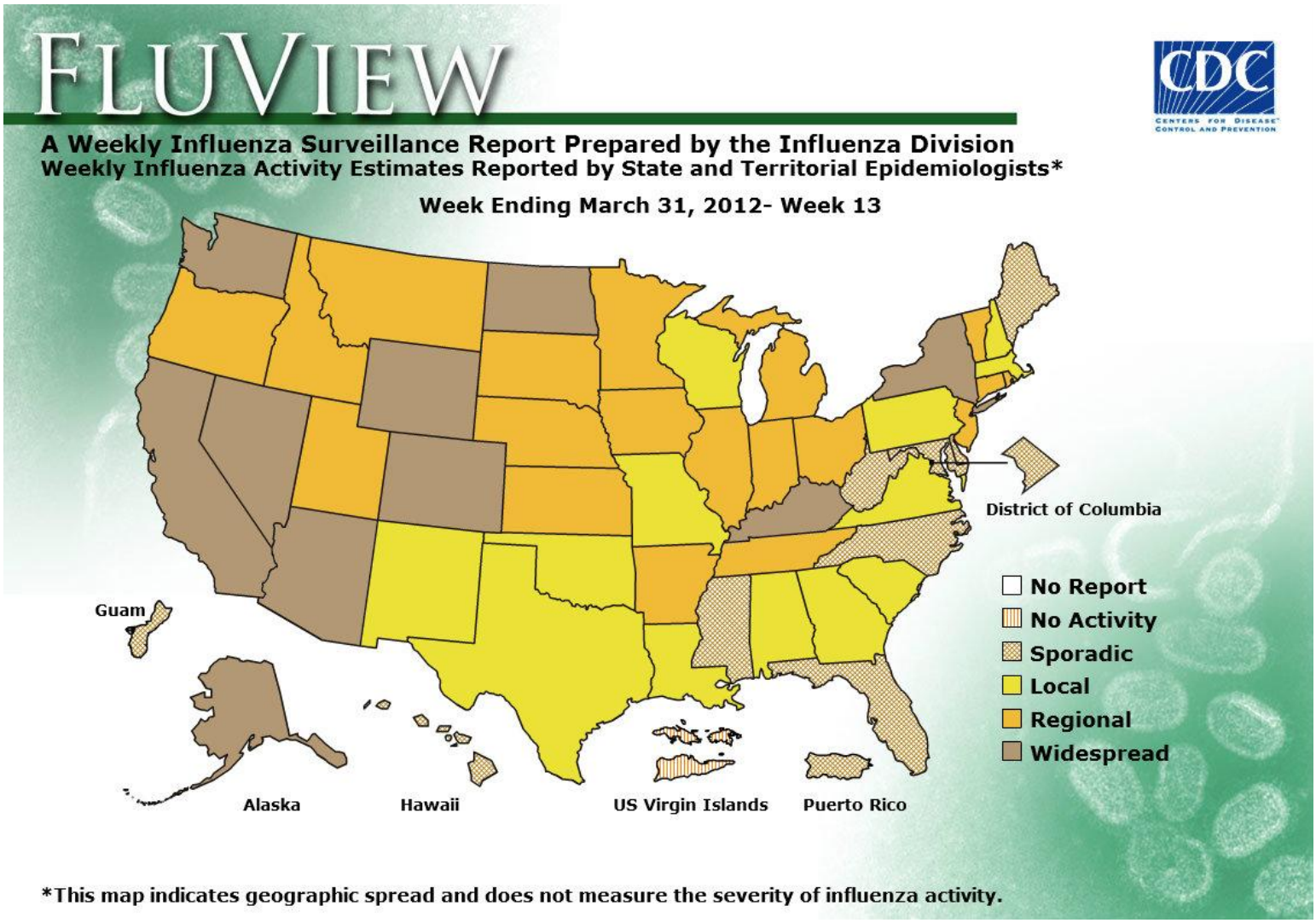
[1] ILI "Influenza like Illness" is defined as fever ≥ 100°F and cough and/or sore throat.

[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

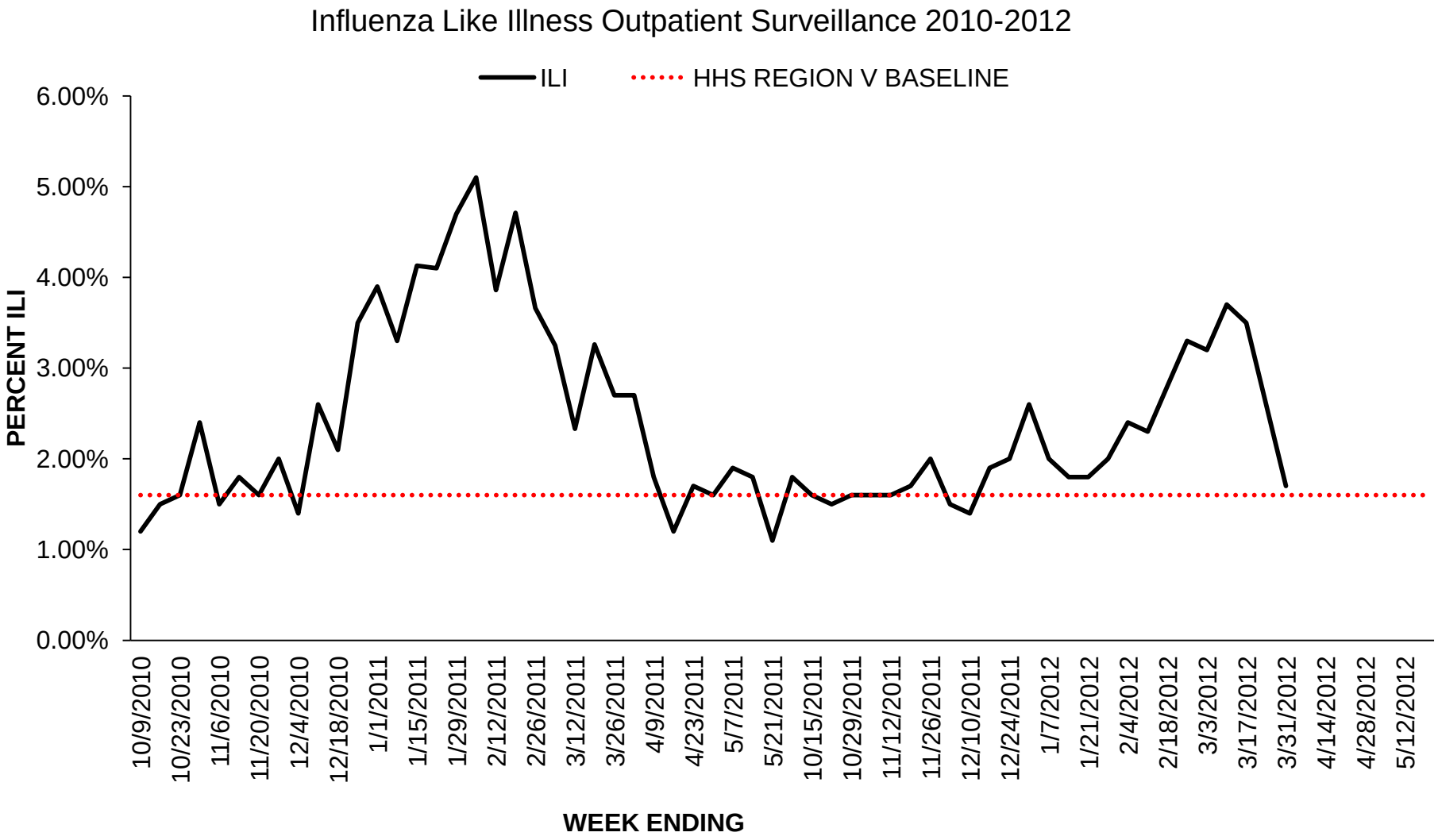
[3] For the purpose of diagnosis, influenza can be diagnosed by using the following test: reverse transcription polymerase chain reaction RT-PCR], viral culture, Immunofluorescence [Direct Fluorescent Antibody (DFA) or Indirect Fluorescent Antibody (IFA) Staining], Enzyme Immuno Assay (EIA) or any rapid 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

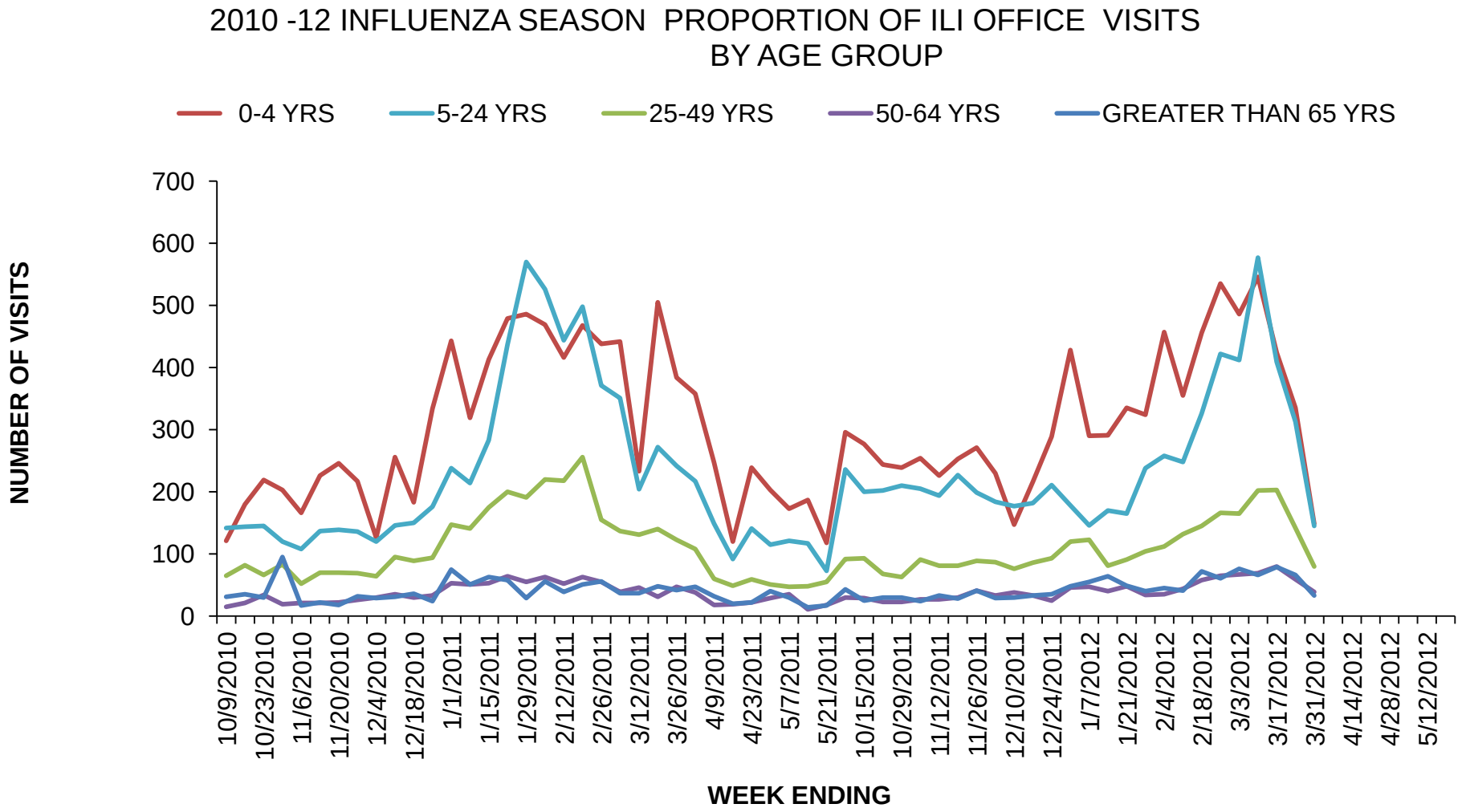


No activity: No laboratory confirmed cases of influenza and no reported increase in cases of influenza like illness (ILI).
Sporadic: Small numbers of laboratory confirmed influenza cases or a single laboratory confirmed influenza in a single region of the state.
Local: Outbreaks of influenza or increases 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



ILI Visits by Age Group



Great Lakes Naval Recruit Influenza Surveillance

Febrile Respiriratory Illness (FRI) surveillance[4] at Naval Recruit Training Command, Great Lakes was **at or below expected value** for week ending March 31, 2012. For more information visit http://www.med.navy.mil/sites/nhrc/geis/Pages/default.aspx

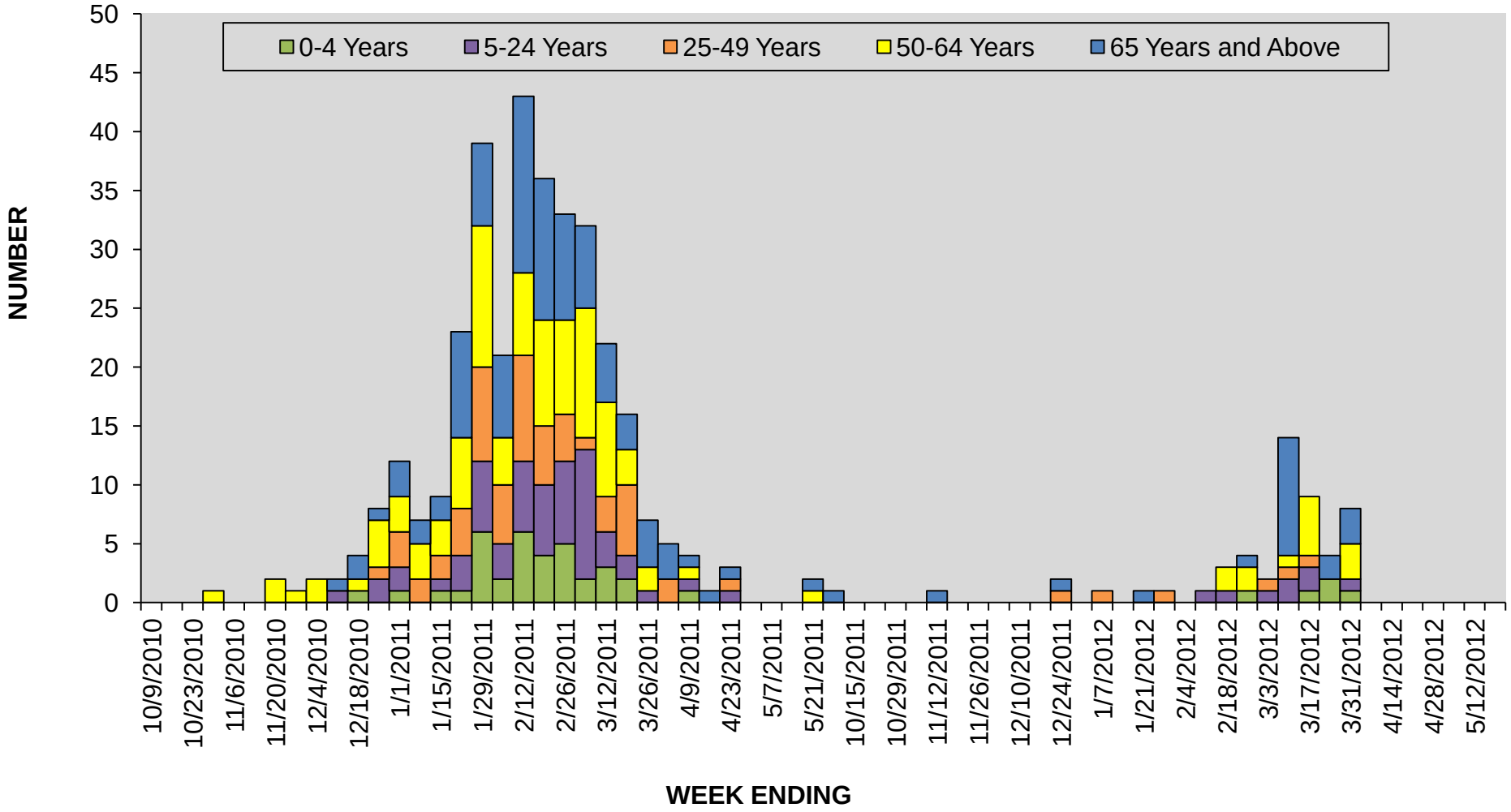
Influenza Intensive Care Unit Admissions and Deaths

There were eight influenza related ICU admissions and no deaths reported for week ending March 31, 2012.

Year	Week No	Admissions No	Deaths
2012	1	1	0
2012	2	0	0
2012	3	1	0
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

[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 13, eleven specimens were tested by Illinois WHO/NREVSS[1] collaborating laboratories in Illinois. This represents an increase in testing compared with week 12. Four (36%) of the eleven specimens tested by Illinois Department of Public Health Laboratory were positive for influenza. Of the four 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%

[1] WHO/NREVSS Collaborating Laboratories WHO/NREVSS Collaborating Laboratories: For v**iral 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

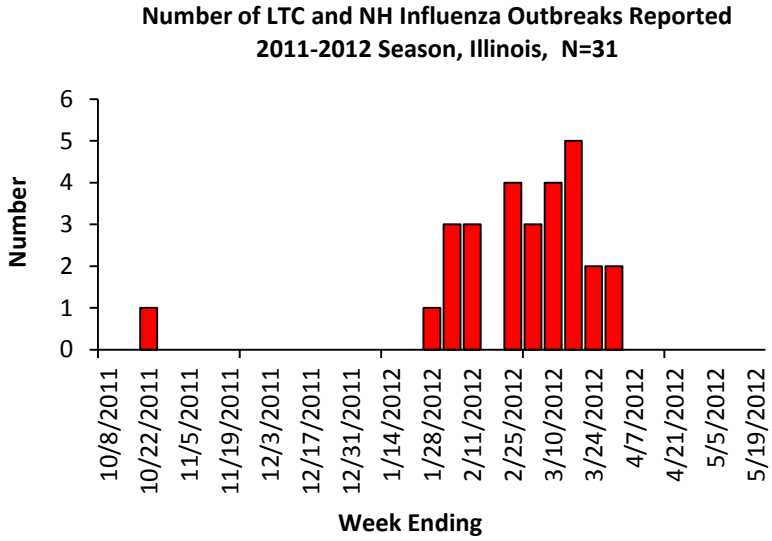
	Oseltamivir		Zanamivir	
	Virus Samples tested (n)	Resistant Viruses, Number (%)	Virus Samples tested (n)	Resistant Viruses, Number (%)
Influenza A (H3N2)	691	0 (0.0)	691	0 (0.0)
Influenza B	154	0 (0.0)	154	0 (0.0)
Influenza A (2009 H1N1)	417	5 (1.2)	284	0 (0.0)

Rare sporadic cases of oseltamivir resistant 2009 H1N1 and A (H3N2) have been detected worldwide. Antiviral treatment with oseltamivir or zanamivir is recommended as early as possible 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 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)

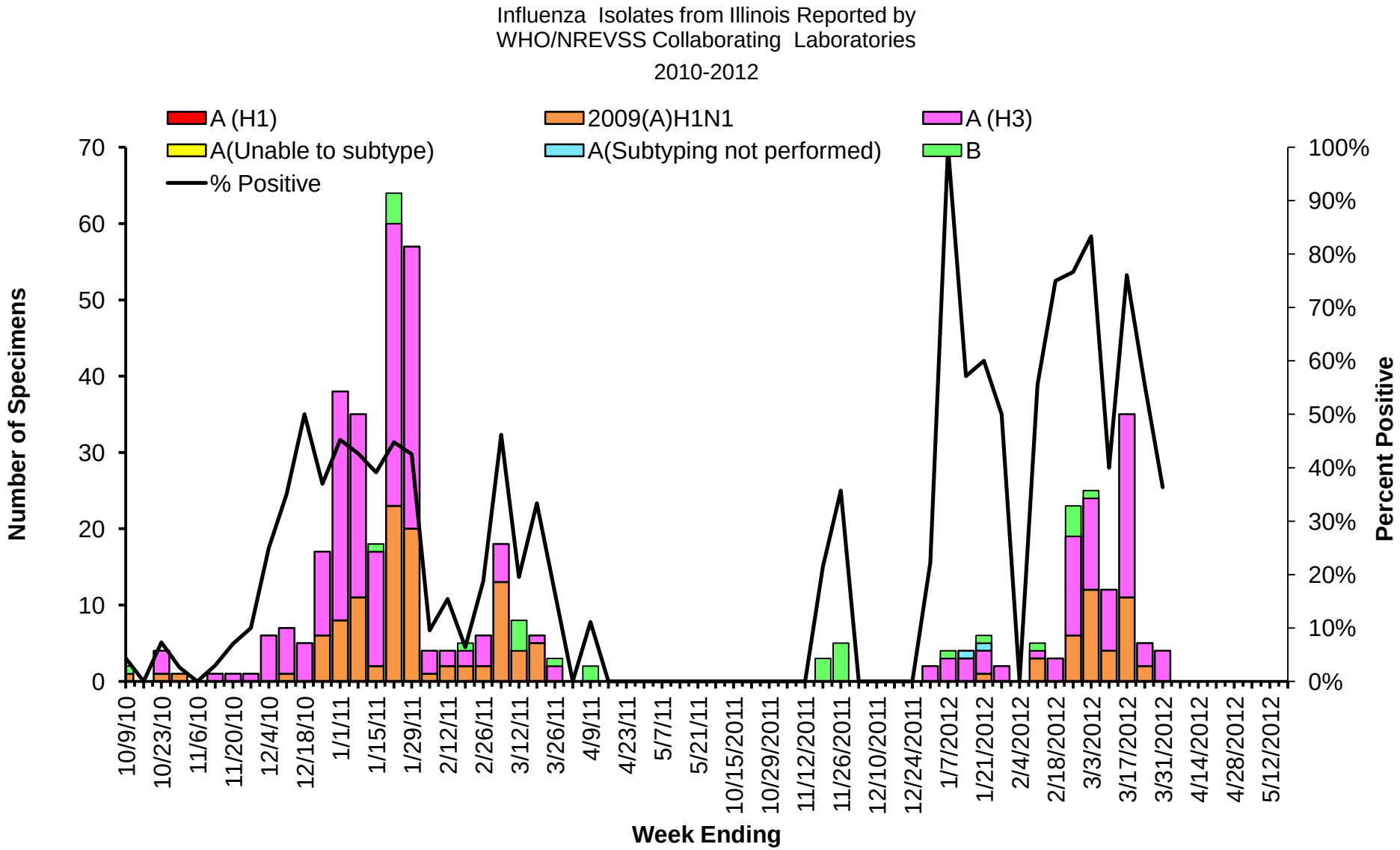
Two influenza outbreaks were reported in long-term care facilities in the Edwardsville (4) and West Chicago (7) regions of Illinois (see IDPH, Immunization Section Regional Map); bringing the total number of outbreaks reported during 2011-12 Influenza season to 31.

Region	Number of outbreaks No. (%)
Rockford (1)	5(16)
Peoria (2),	4(13)
Edwardsville (4),	6(19)
Marion (5),	3(10)
Champaign (6),	0(0)
West Chicago (7)	6(19)
Chicago/Cook (8)	7(23)
Total	31(100)



IDPH, Immunization Section Regional Map

Weekly Viral Subtype



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