

Week 11: March 11-March 17, 2012

ILLINOIS DEPARTMENT OF PUBLIC HEALTH



Illinois Influenza Surveillance Report

Week 11: Week Ending Saturday, March 17, 2012

Division of Infectious Diseases Immunizations Section

3/23/2012

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Summary

- During CDC week 11, the proportion of outpatient visits for influenza-like illness (ILI)¹ was 3.3% compared with 3.8% for week 10.
- Based on CDC criteria, influenza activity is classified as **widespread** (see CDC FLU View Section) for week 11. This represents no change in activity from week 10.
- Febrile Respiratory Illness (FRI) surveillance² at Naval Recruit Training Command, Great Lakes was **moderately elevated** for week ending March 17, 2012.
- During week 11, thirty-five (76%) of the forty-six specimens tested by Illinois Department of Public Health Laboratory were positive for influenza. Of the thirty-five that tested positive, 11 (31%) were characterized as 2009 (A) H1N1 and 24 (69%) were Influenza A (H3).
- There were nine influenza-associated Intensive Care Unit (ICU) admission³ reported for week 11.
- No influenza-associated pediatric deaths were reported for week 11.
- During week 11, seven influenza outbreaks were reported in long-term care facilities in regions the Rockford (1), Edwardsville (4), Marion (5), West Chicago (7), and Chicago/Cook County (8) regions of Illinois (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.

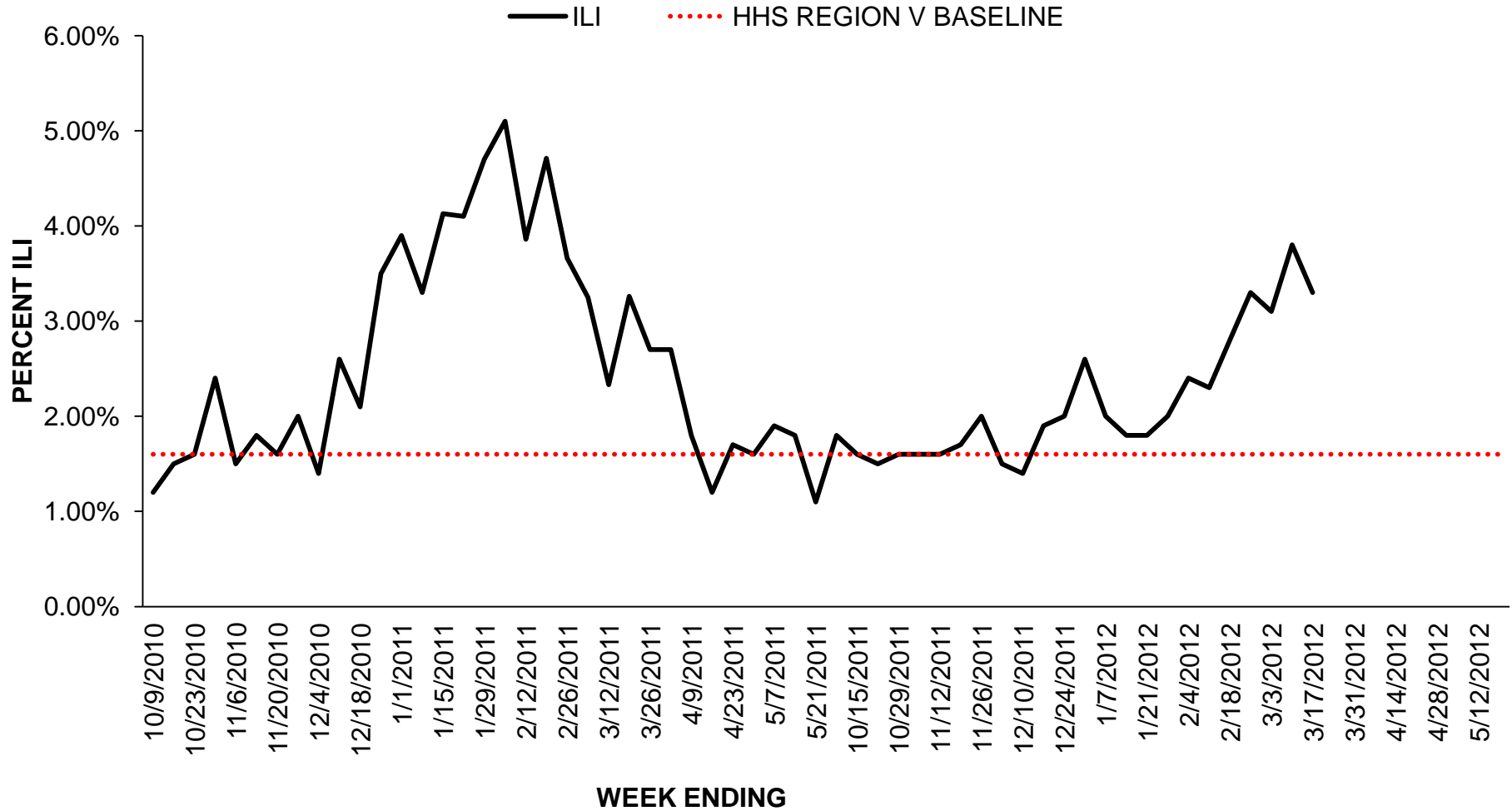
² FRI surveillance is ongoing at 8 U.S. military basic training centers, representing all service branches. FRI Rate Status is classified into one of 3 categories:

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.

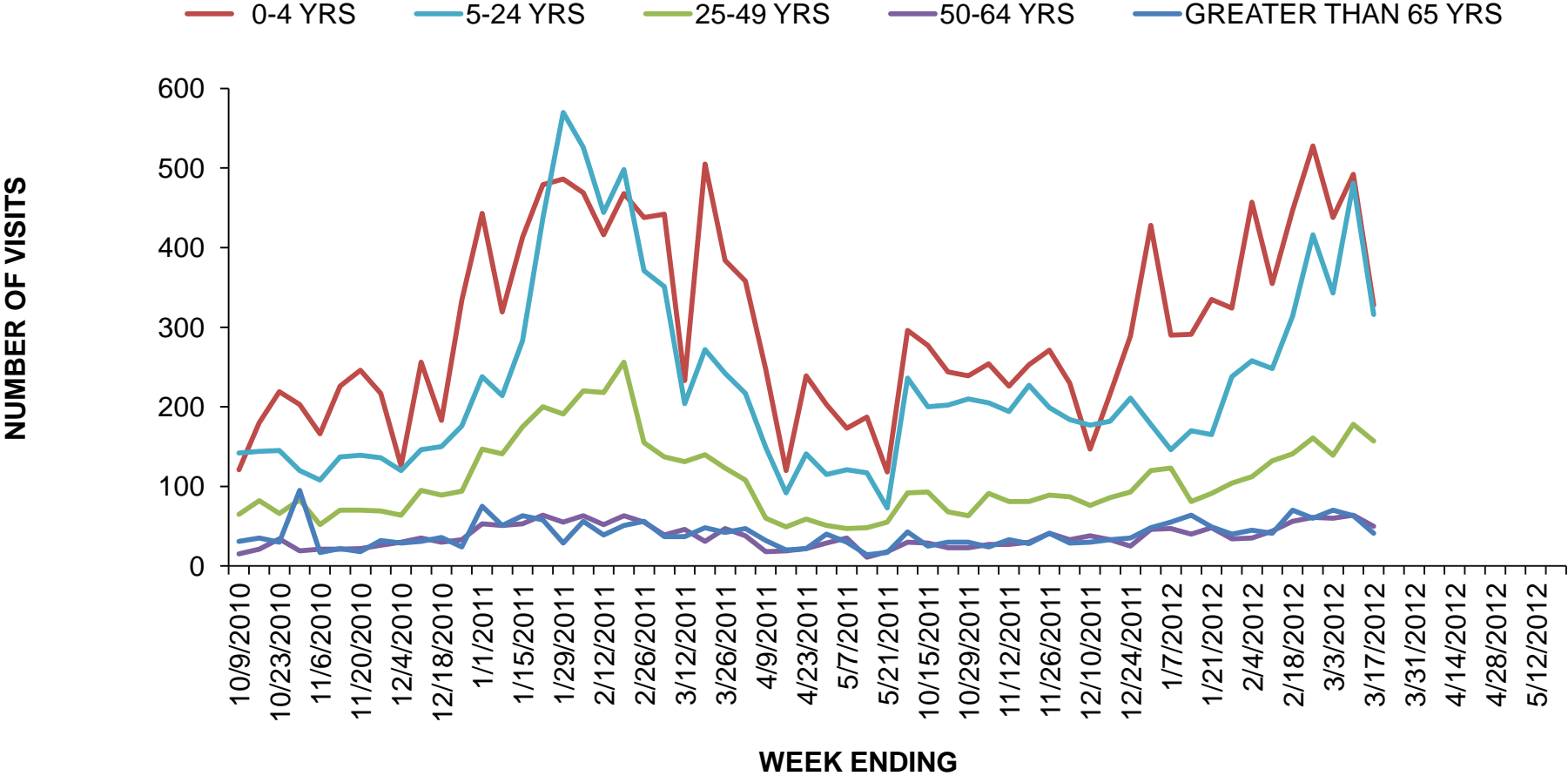
ILI Net Provider Surveillance

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 **moderately elevated** for week ending March 17, 2012. For more information visit <http://www.med.navy.mil/sites/nhrc/geis/Pages/default.aspx>

Influenza Intensive Care Unit Admissions and Deaths

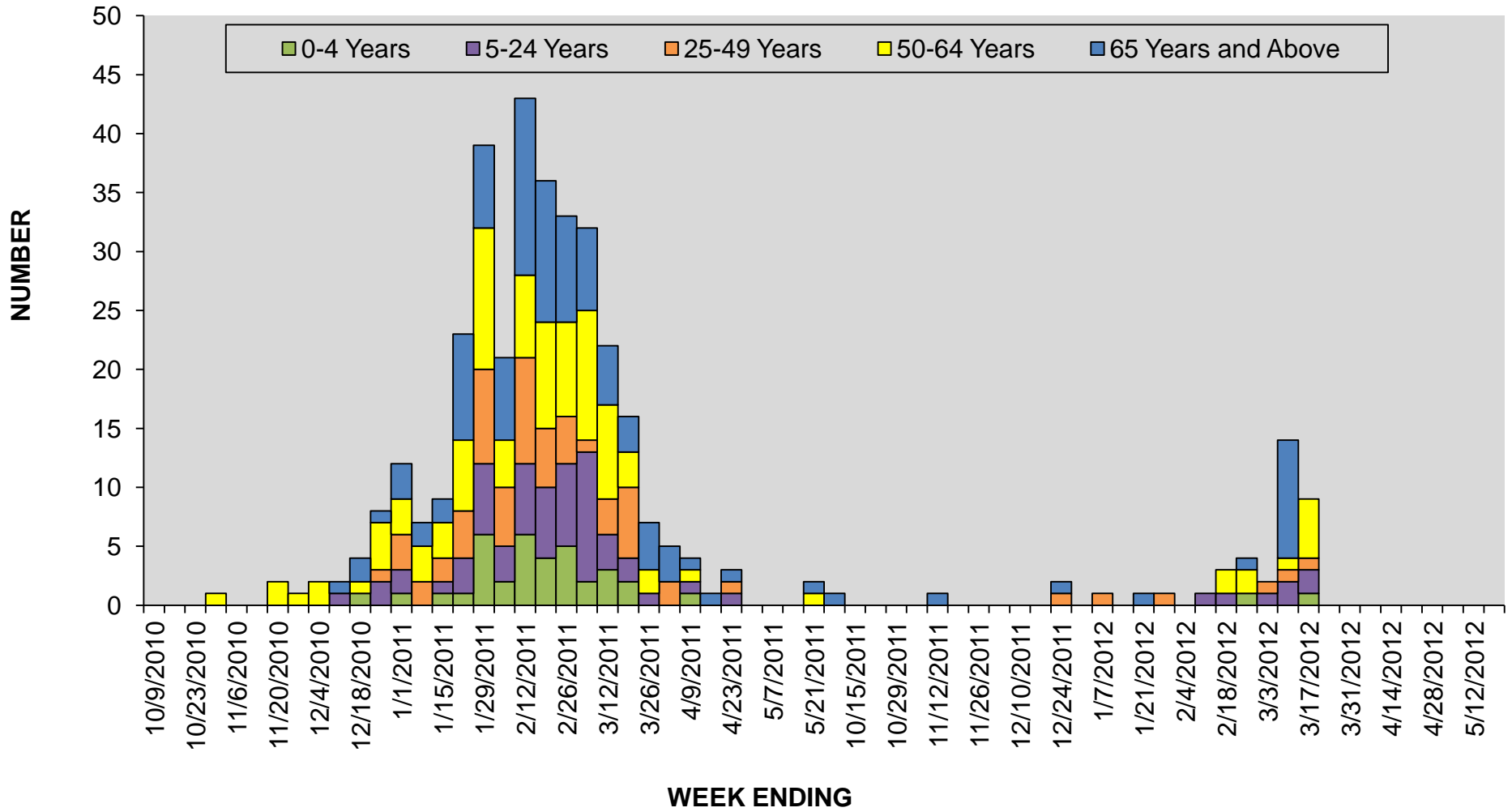
There were nine influenza related ICU admissions and no deaths reported for week ending March 17, 2012.

| 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 |

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 11, forty-six specimens were tested by Illinois WHO/NREVSS^[1] collaborating laboratories in Illinois. This represents an increase in testing compared with week 10. Thirty-five (76%) of the forty-six specimens tested by Illinois Department of Public Health Laboratory were positive for influenza. Of the thirty-five that tested positive, eleven (31%) were characterized as 2009 (A) H1N1 and twenty-four (69%) were 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% |

^[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) | 581 | 0 (0.0) | 581 | 0 (0.0) |
| Influenza B | 115 | 0 (0.0) | 115 | 0 (0.0) |
| Influenza A (2009 H1N1) | 257 | 1 (0.6) | 173 | 0 (0.0) |

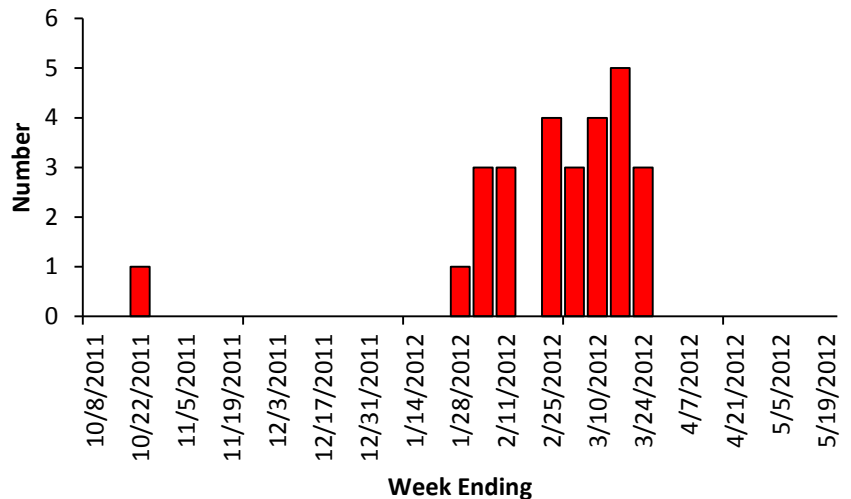
Rare sporadic cases of oseltamivir resistant 2009 H1N1 and A (H3N2) have been detected worldwide. Antiviral treatment with oseltamivir or zanamivir is recommended as early as possible for patients with confirmed or suspected influenza who have severe, complicated, or progressive illness; who require 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)

There were seven influenza outbreaks were reported in long-term care facilities in regions the Rockford (1), Edwardsville (4), Marion (5), West Chicago (7), and Chicago/Cook County (8) regions of Illinois (see IDPH, Immunization Section Regional Map).

| Region | Number of outbreaks No. (%) |
|-------------------|-----------------------------|
| Rockford (1) | 5(18.5) |
| Peoria (2), | 4(15) |
| Edwardsville (4), | 5(18.5) |
| Marion (5), | 3(11) |
| Champaign (6), | 0(0) |
| West Chicago (7) | 5(18.5) |
| Chicago/Cook (8) | 5(18.5) |
| Total | 27(100) |

Number of LTC and NH Influenza Outbreaks Reported 2011-2012 Season, Illinois, N=27

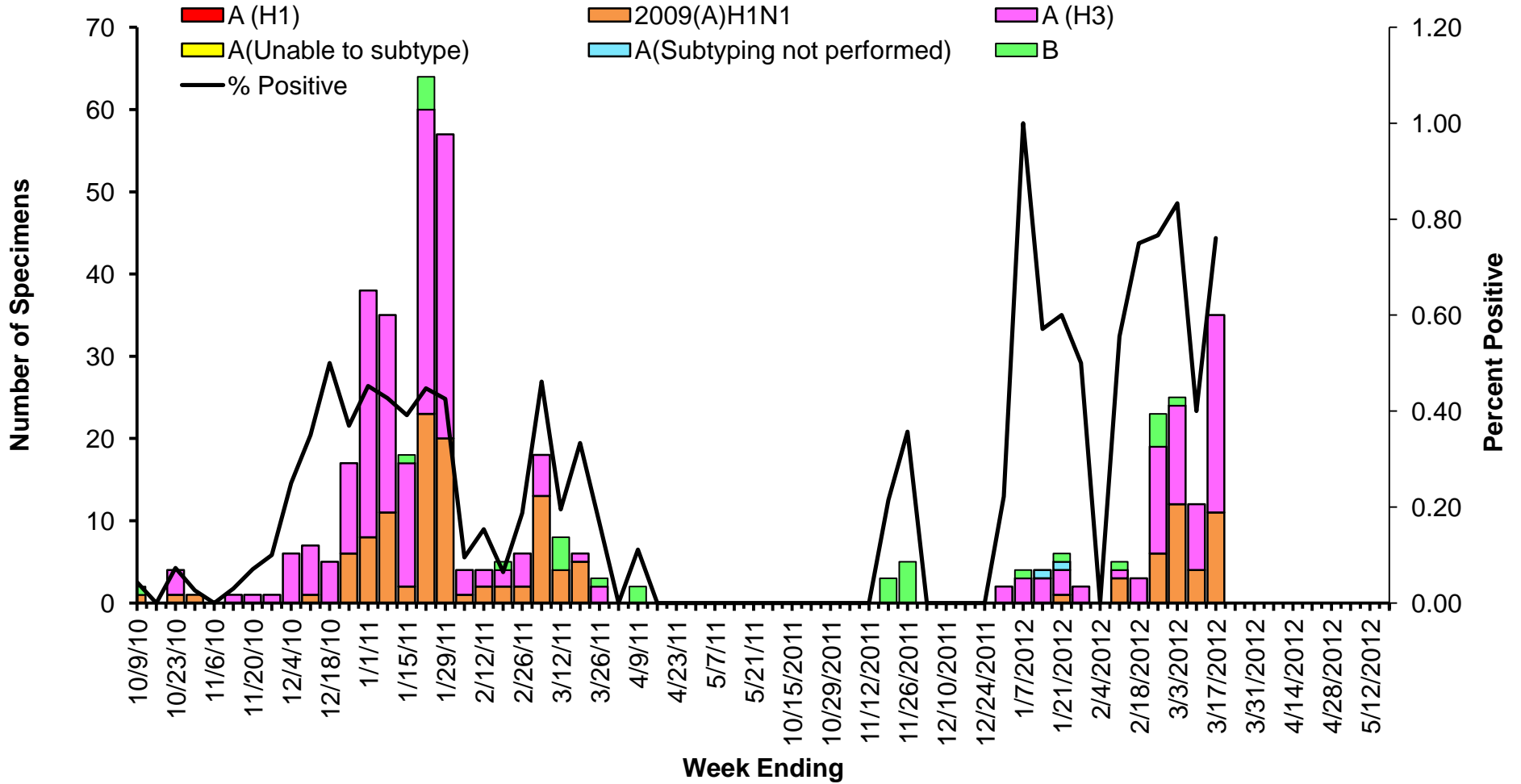


IDPH, Immunization Section Regional Map



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>