

Week 1: January 1-7, 2012

ILLINOIS DEPARTMENT OF PUBLIC HEALTH



Illinois Influenza Surveillance Report

Week 1: Week Ending Saturday, January 7, 2012

Division of Infectious Diseases Immunizations Section

1/13/2012

Contents

| | |
|--|----|
| Summary..... | 3 |
| CDC Flu View..... | 4 |
| ILI Net Provider Surveillance | 5 |
| ILI Visits by Age Group | 6 |
| Great Lakes Naval Recruit Influenza Surveillance | 7 |
| Influenza Intensive Care Unit Admissions and Deaths..... | 7 |
| Influenza Related ICU Admissions by Age Group..... | 8 |
| Laboratory Surveillance | 9 |
| Viral Resistance | 10 |
| Influenza Outbreaks Reported in Long-Term Facilities and Nursing Homes | 10 |
| Weekly Viral Subtype | 11 |
| Resources..... | 12 |

Summary

- During CDC Week 1, the proportion of outpatient visits for influenza-like illness (ILI)¹ was 1.8% compared with 2.6% for week 52.
- The risk of illness due to influenza viruses is low. Numerous respiratory viruses can cause ILI, and these viruses are now more prevalent than influenza viruses.ⁱ
- Based on CDC criteria, influenza activity is classified as **sporadic** (see CDC FLU View Section) for week 1. This represents no change in activity from week 52.
- Febrile Respiratory Illness (FRI) surveillance² at Naval Recruit Training Command, Great Lakes for week 1 is **at or below expected value**.
- During week 1, three of the specimens tested by Illinois Department of Public Health Laboratory were positive for influenza.
- There was one influenza-associated Intensive Care Unit (ICU) admission³ reported for week 1.
- No influenza-associated pediatric deaths were reported for week 1.
- During week 1, no 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.

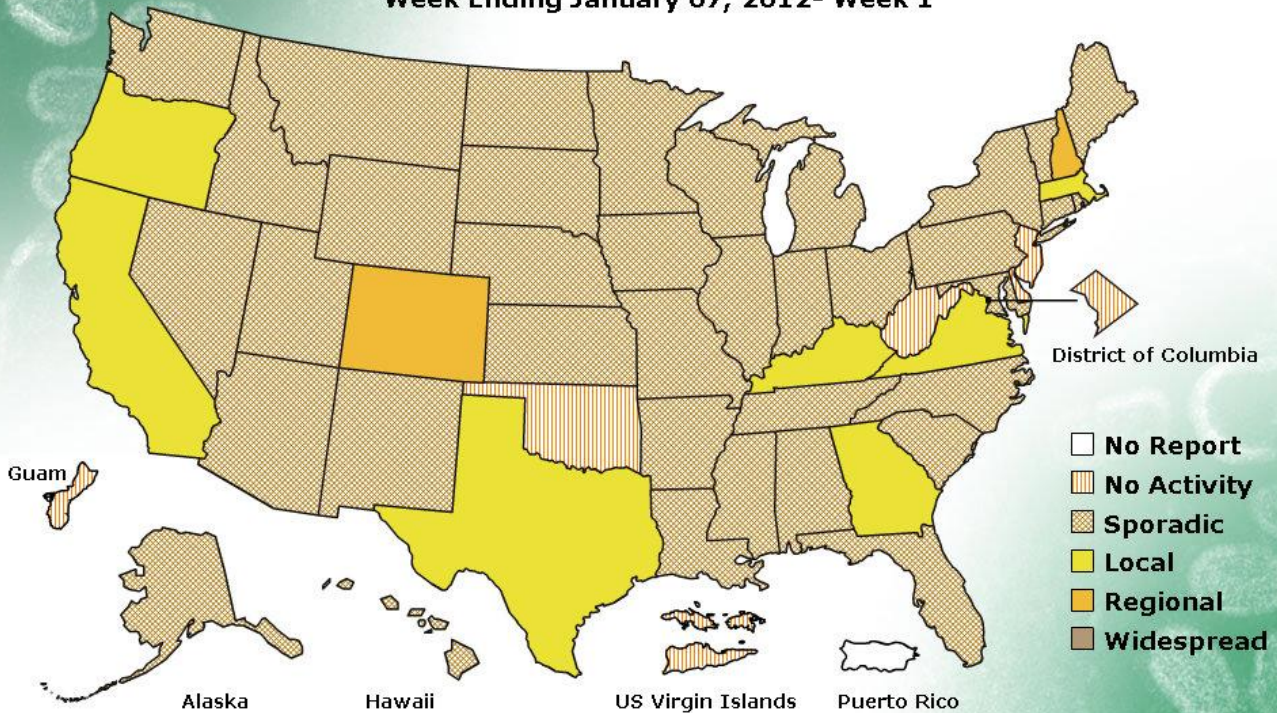
CDC Flu View

FLUVIEW



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

Week Ending January 07, 2012- Week 1



*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.

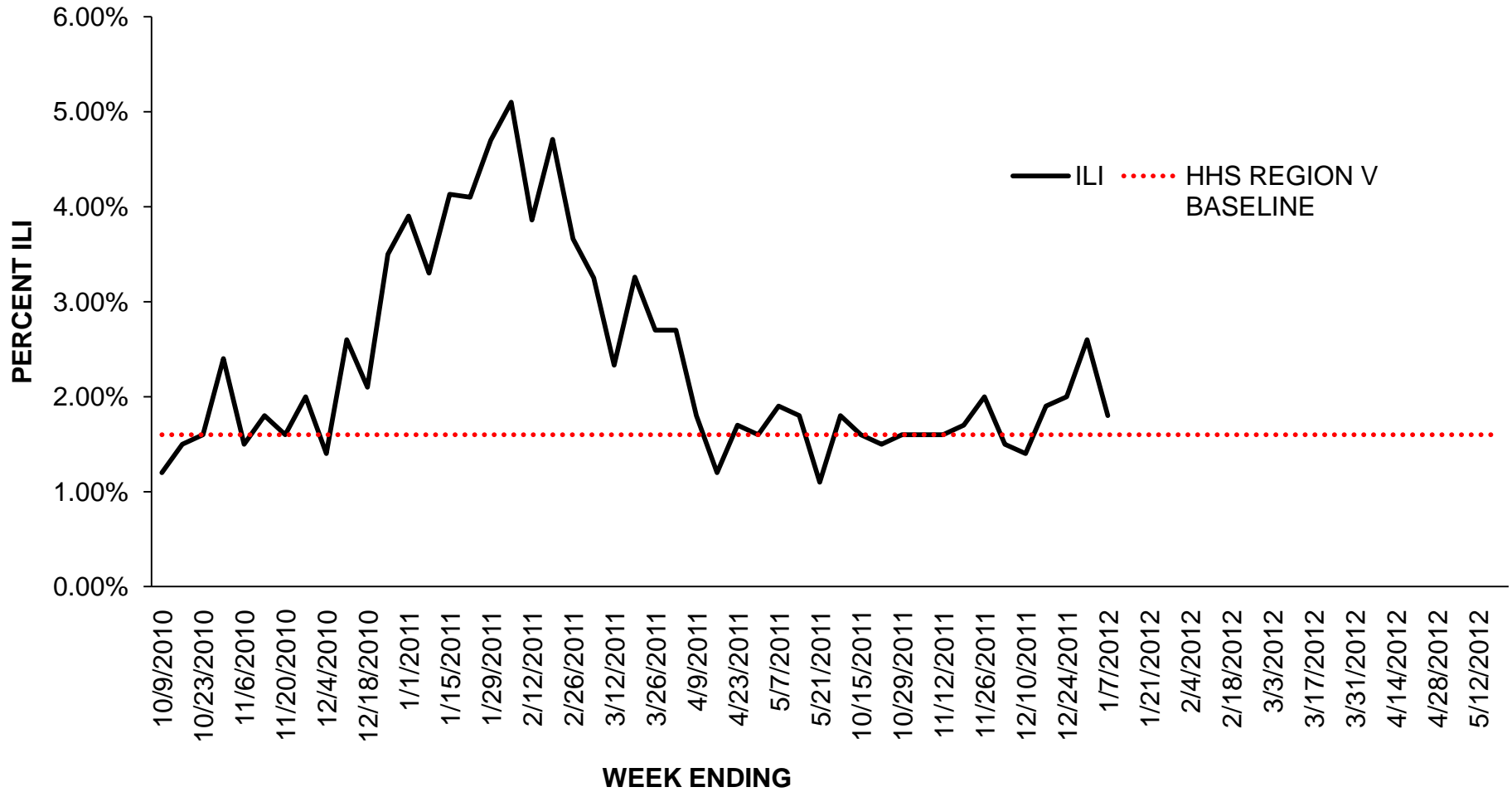
Local: Outbreaks of influenza or increases in ILI and recent laboratory confirmed influenza in a single region of the state.

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

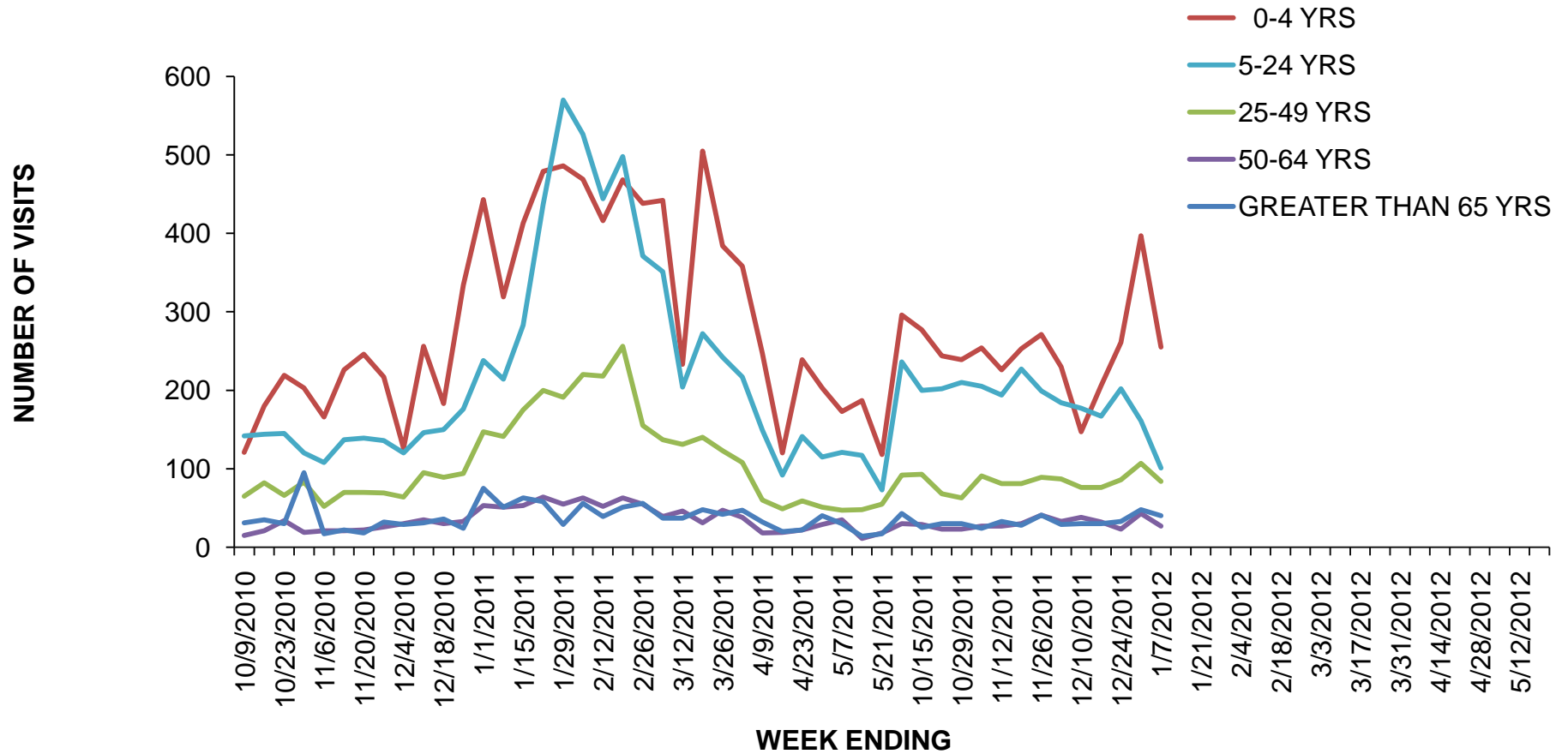
Influenza Like Illness Outpatient Surveillance 2010-2012



Week 1: January 1-7, 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 **at or below expected value** for week ending January 7, 2012. For more information visit <http://www.med.navy.mil/sites/nhrc/geis/Pages/default.aspx>

Influenza Intensive Care Unit Admissions and Deaths

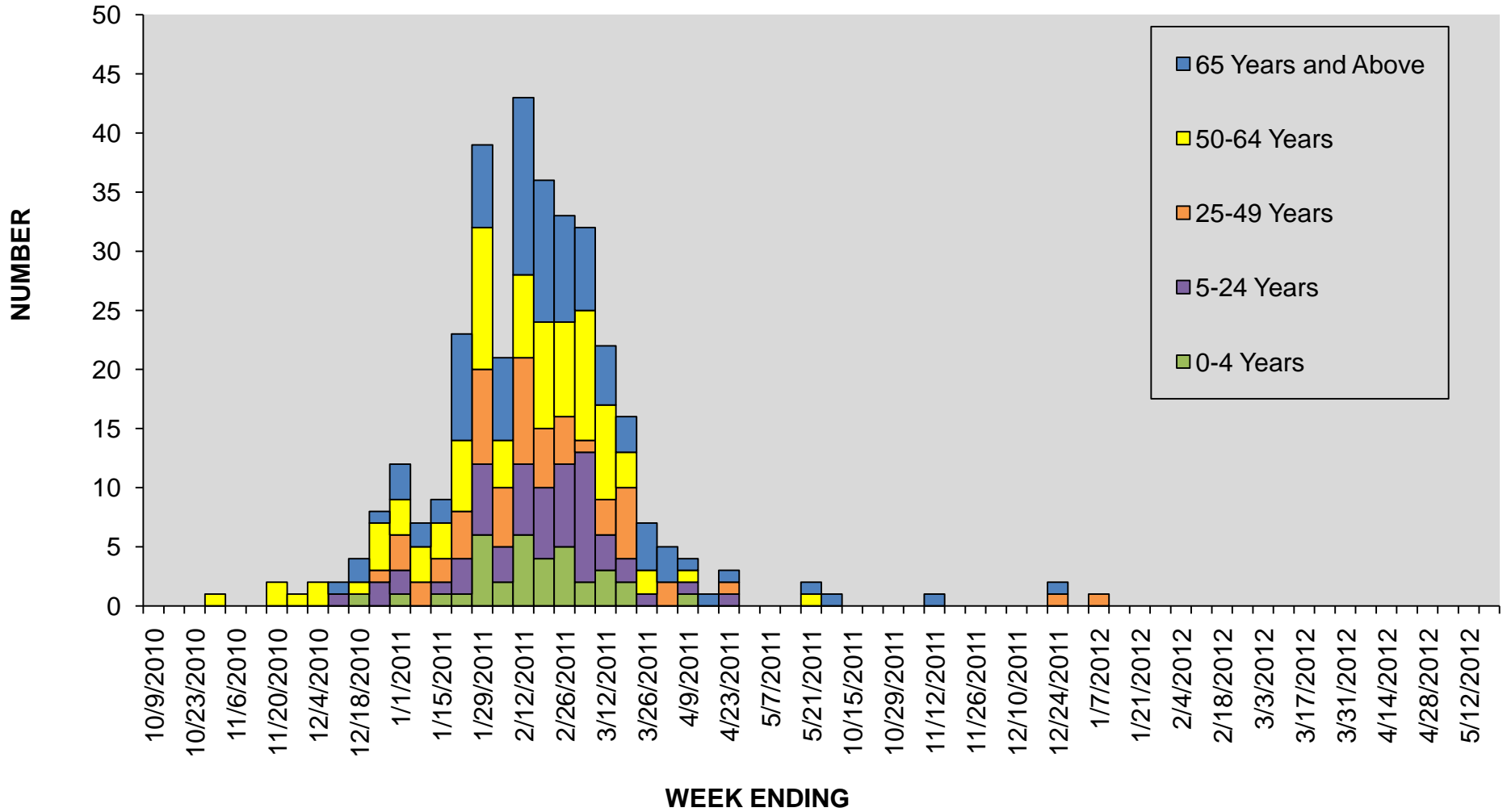
There was one influenza related ICU admissions and no deaths reported for week ending January 7, 2012.

| Week No | Admissions No | Deaths |
|---------|---------------|--------|
| 50 | 0 | 0 |
| 51 | 2 | 0 |
| 52 | 0 | 0 |
| 1 | 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 1, three specimens were tested by Illinois WHO/NREVSS^[1] collaborating laboratories in Illinois. This represents a decrease in testing compared with week 52. Of the three specimens tested, all tested positive for influenza A during week 1.

| Week | No of Labs Reporting | A (H1) | 2009(A)H1N1 | A (H3) | A(Unable to subtype) | A(Sub typing not performed) | B | Total # Tested | % Positive |
|------|----------------------|--------|-------------|--------|----------------------|-----------------------------|---|----------------|------------|
| 50 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 |
| 51 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 52 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 9 | 22% |
| 1 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 100% |

^[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) | 103 | 0 (0.0) | 103 | 0 (0.0) |
| Influenza B | 14 | 0 (0.0) | 14 | 0 (0.0) |
| Influenza A (2009 H1N1) | 15 | 0 (0.0) | 15 | 0 (0.0) |

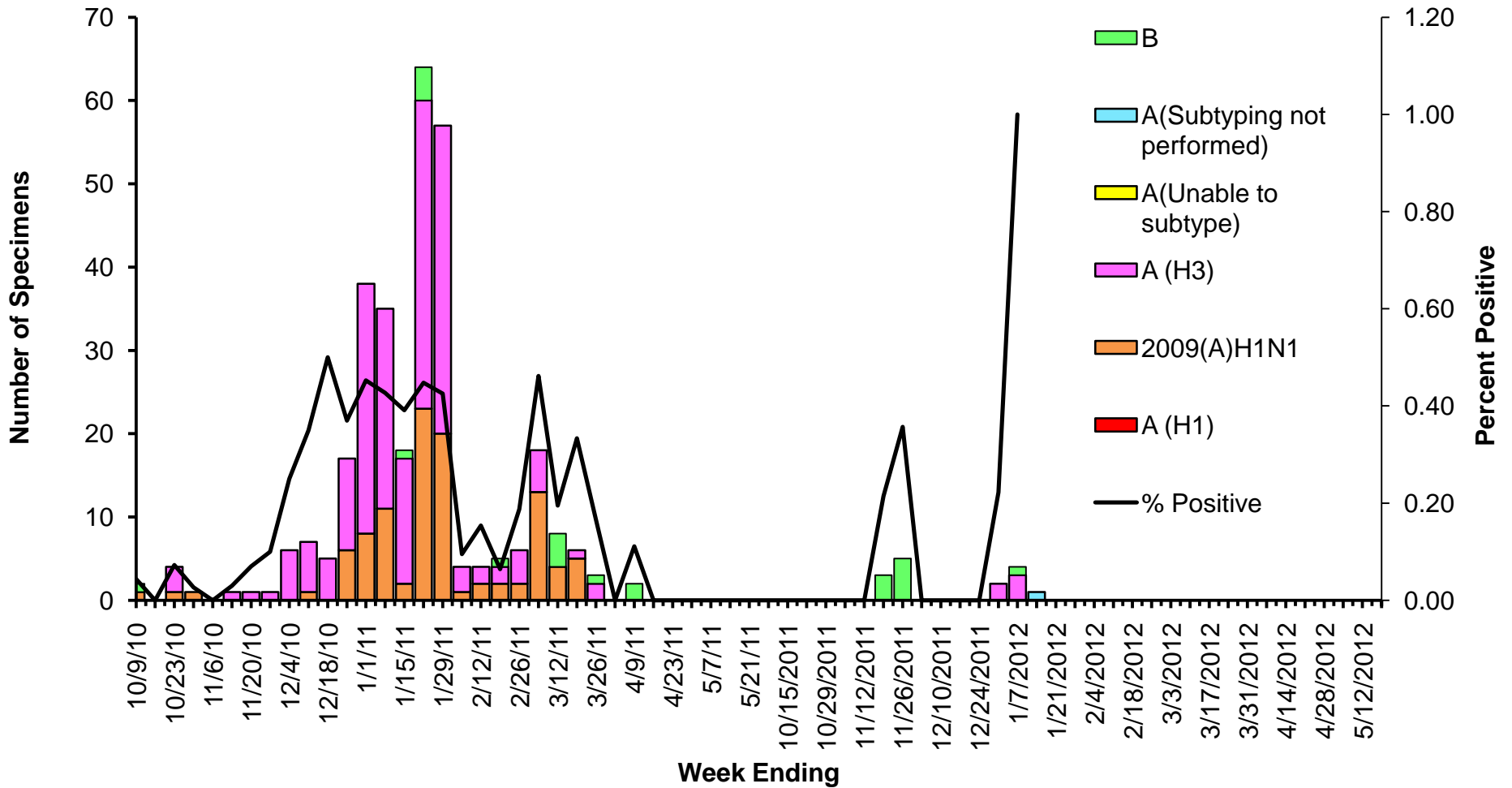
All viruses tested for the 2011-2012 season since October 1, 2011 have been susceptible to the neuraminidase inhibitor antiviral medications oseltamivir and zanamivir as were the majority of viruses tested last season; however, rare sporadic cases of oseltamivir resistant 2009 influenza A (H1N1) and A (H3N2) viruses 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 and Nursing Homes

There were no outbreaks reported for week 1.

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>

¹ For more information regarding circulating respiratory viruses, see

a. <http://www.cdc.gov/surveillance/nrevss/rsv/state.html>

b. <http://www.acllaboratories.com/>

c. www.stlouischildrens.org/content/ClinicalLaboratories.htm