**ILLINOIS DEPARTMENT OF PUBLIC HEALTH**

# Illinois Influenza Surveillance Report

## Week 3: Week Ending Saturday, January 19, 2013

**Division of Infectious Diseases Immunization Section**

**1/25/2013**



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

## Contents

## Summary

- During the Centers for Disease Control and Prevention (CDC) surveillance week three, the proportion of outpatient visits for influenza-like illness (ILI)[1] reported by ILI Net sentinel providers in Illinois was 4.4% compared with 3.9% for week two.
- The influenza (flu) activity level (geographic spread of influenza) for Illinois was **"WIDESPREAD"** based on CDC criteria for week ending January 19, 2013.
- Febrile Respiratory Illness (FRI) surveillance[2] at Naval Recruit Training Command,Great Lakes was **at or below expected value**.
- For the week ending January 19, 2013, 10 specimens were tested for Influenza by Illinois Department of Public Health Laboratory, 7(70%) were positive for influenza. All Isolates (100%) were Influenza (A) H3N2.
- Thirty-one influenza-associated Intensive Care Unit (ICU) admissions[3] and one death were reported for week ending January 19, 2013.
- No influenza-associated pediatric death was reported for the week ending January 12, 2013.
- For the week ending January 19, 2013, 22 institutional influenza outbreaks were reported.

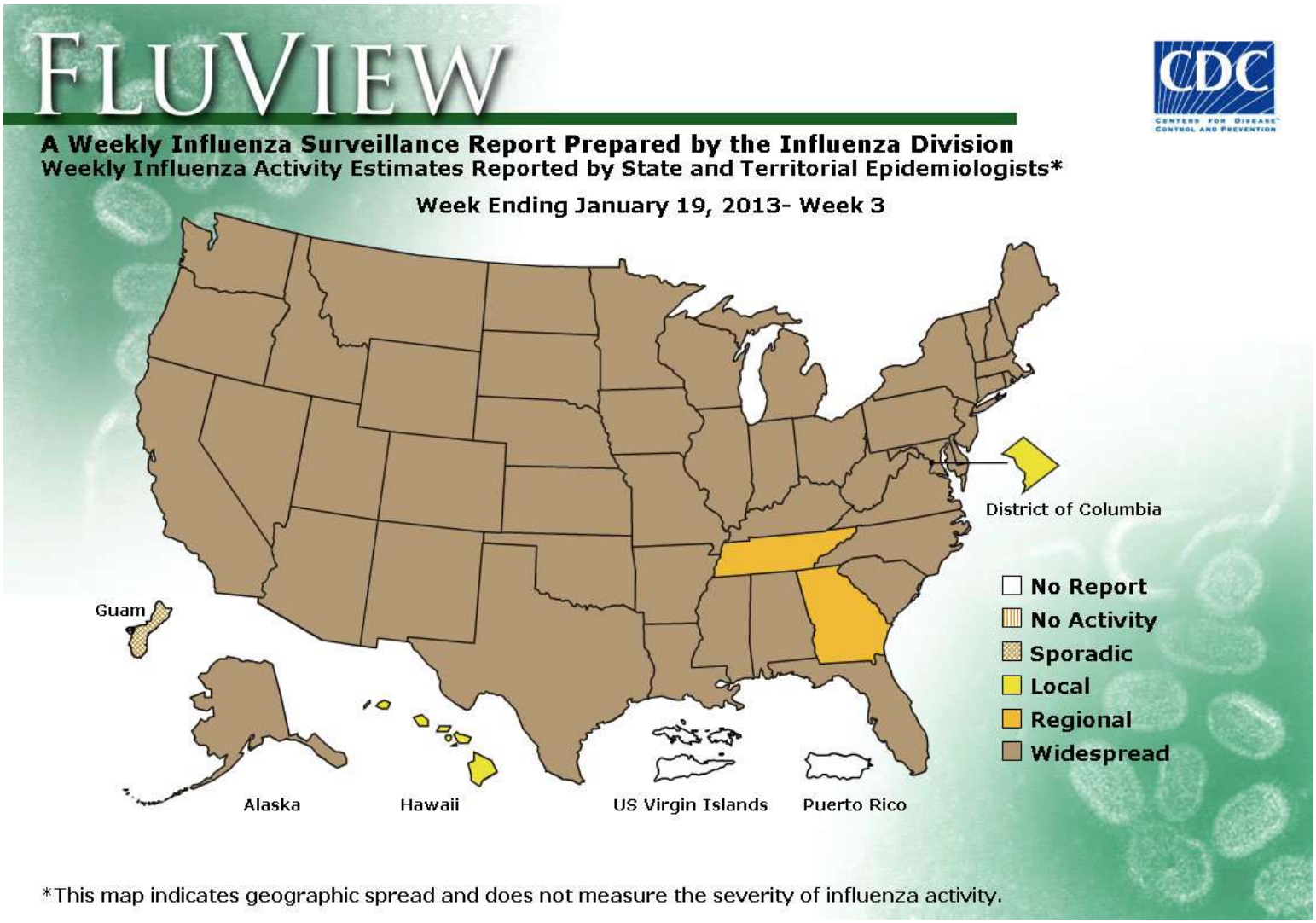
[1] ILI "Influenza like Illness" is defined as fever ≥ 100°F and cough and/or sore throat.

[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

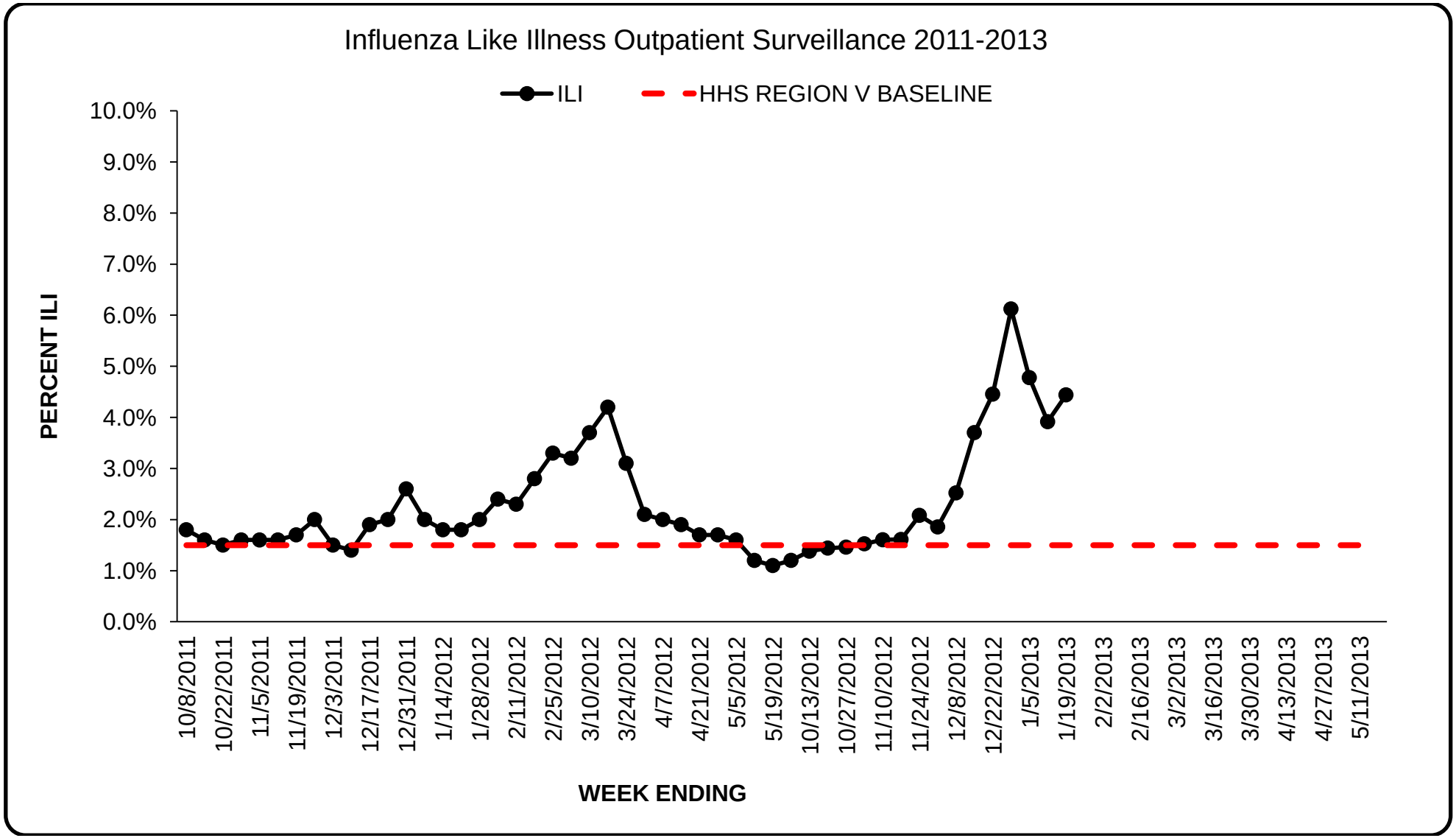
[3] For the purpose of diagnosis, influenza can be diagnosed by using the following test: reverse transcription polymerase chain reaction RT-PCR], viral culture, Immunofluorescence [Direct Fluorescent Antibody (DFA) or Indirect Fluorescent Antibody (IFA) Staining], Enzyme Immuno Assay (EIA) or any rapid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

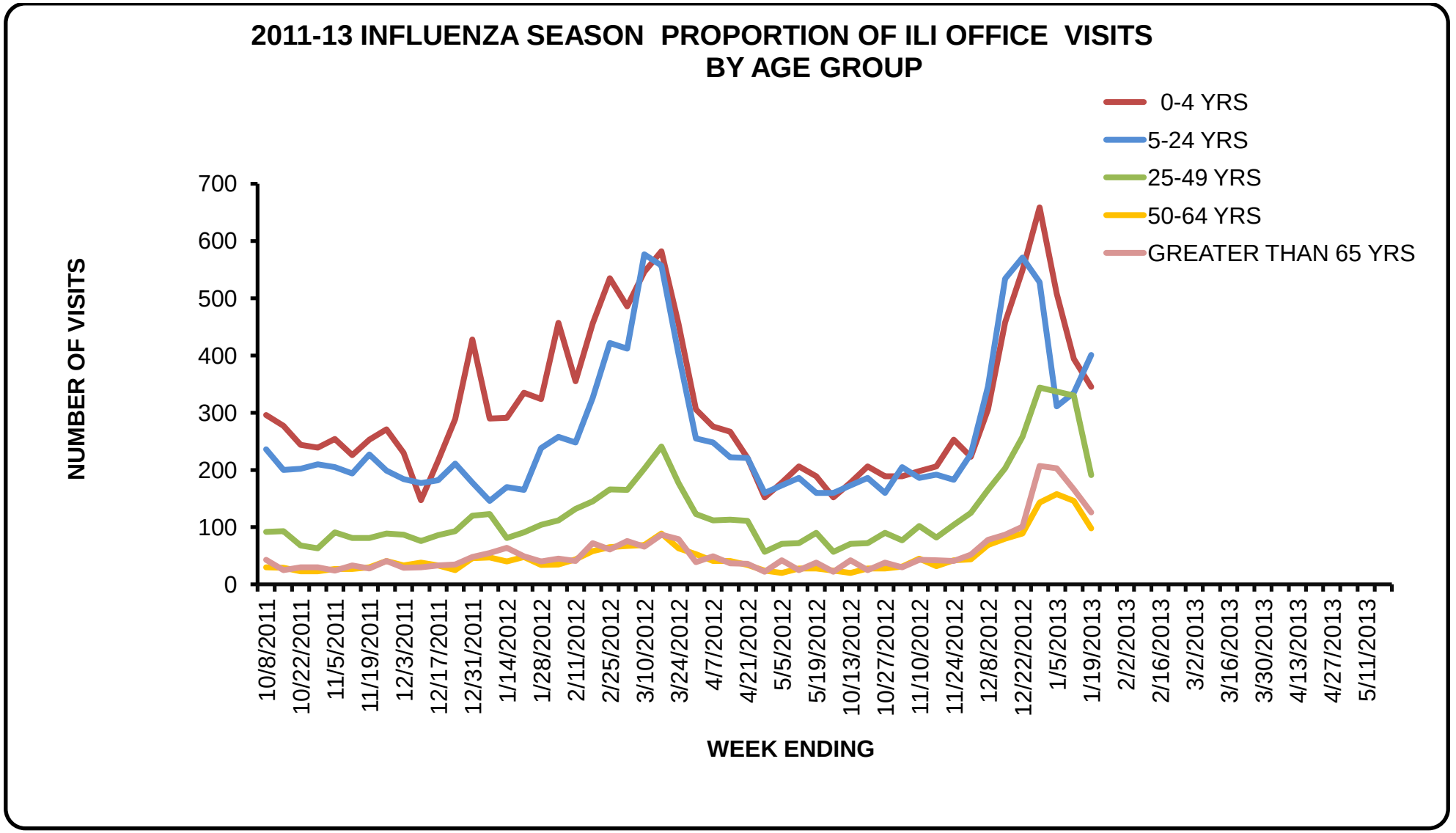



**No activity:** No laboratory confirmed cases of influenza and no reported increase in cases of influenza like illness (ILI).
**Sporadic:** Small numbers of laboratory confirmed influenza cases or a single laboratory confirmed influenza in a single region of the state.
**Local:** Outbreaks of influenza 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 Respiratory Illness (FRI) surveillance[4] at Naval Recruit Training Command, Great Lakes was **at or below expected value** for week ending January 12, 2013. For more information visit http://www.med.navy.mil/sites/nhrc/geis/Pages/default.aspx

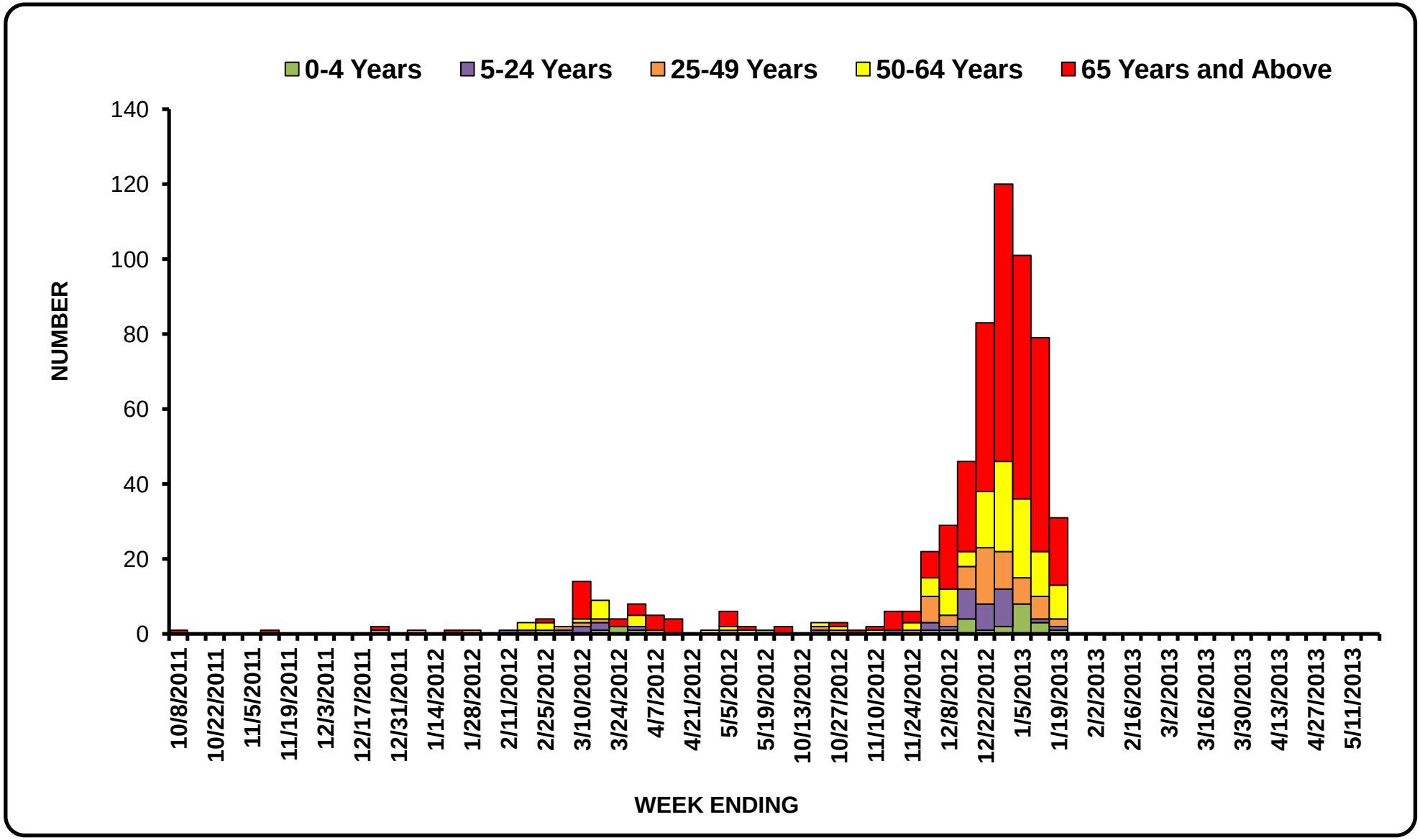
## Influenza Intensive Care Unit (ICU) Admissions and Deaths

For the week ending January 19, 2013, 31 influenza related ICU admissions and one death were reported. Total provisional ICU Admissions and deaths for the 2012-13 Influenza season up to week ending January 19, 2013 is 534 and 58 respectively.

| Year | Week No | Admissions | Deaths |
|---|---|---|---|
| 2012 | 51 | 83 | 10 |
| 2012 | 52 | 120 | 13 |
| 2013 | 1 | 101 | 12 |
| 2013 | 2 | 79 | 11 |
| 2013 | 3 | 31 | 1 |
| **Total (Provisional) for 2012-13 Season up to week ending January 19, 2013** | **-** | **534** | **58** |

[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 three, 10 specimens tested for Influenza by Illinois Department of Public Health Laboratory, seven (70%) were positive. Of the seven positive isolates, all were Influenza (A) H3N2 (100%). 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 |
|---|---|---|---|---|---|---|---|---|---|
| 2012 | 52 | 0 | 0 | 2 | 0 | 0 | 1 | 3 | 100% |
| 2013 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 5 | 80% |
| 2013 | 2 | 0 | 1 | 11 | 0 | 0 | 0 | 14 | 86% |
| 2013 | 3 | 0 | 0 | 7 | 0 | 0 | 0 | 10 | 70% |

## 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.

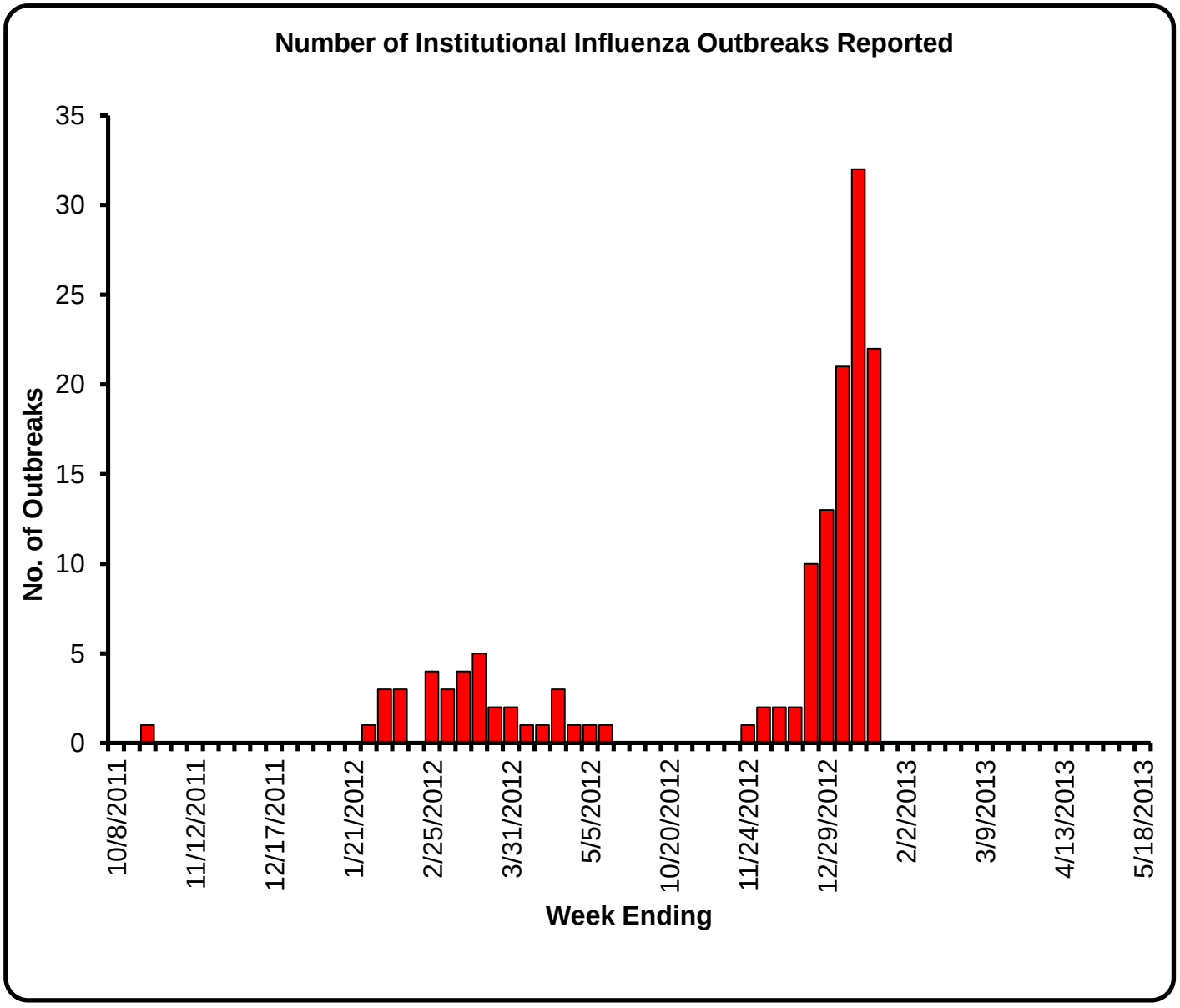
| Neuraminidase Inhibitor Resistance Testing Results on Samples Collected in the U.S. Since October 1, 2012 | | | | |
|---|---|---|---|---|
| | **Oseltamivir** | | **Zanamivir** | |
| | **Virus Samples tested (n)** | **Resistant Viruses, Number (%)** | **Virus Samples tested (n)** | **Resistant Viruses, Number (%)** |
| **Influenza A (H3N2)** | 762 | 0 (0.0) | 762 | 0 (0.0) |
| **Influenza B** | 274 | 0 (0.0) | 274 | 0 (0.0) |
| **2009 H1N1** | 119 | 1 (0.8) | 58 | 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.

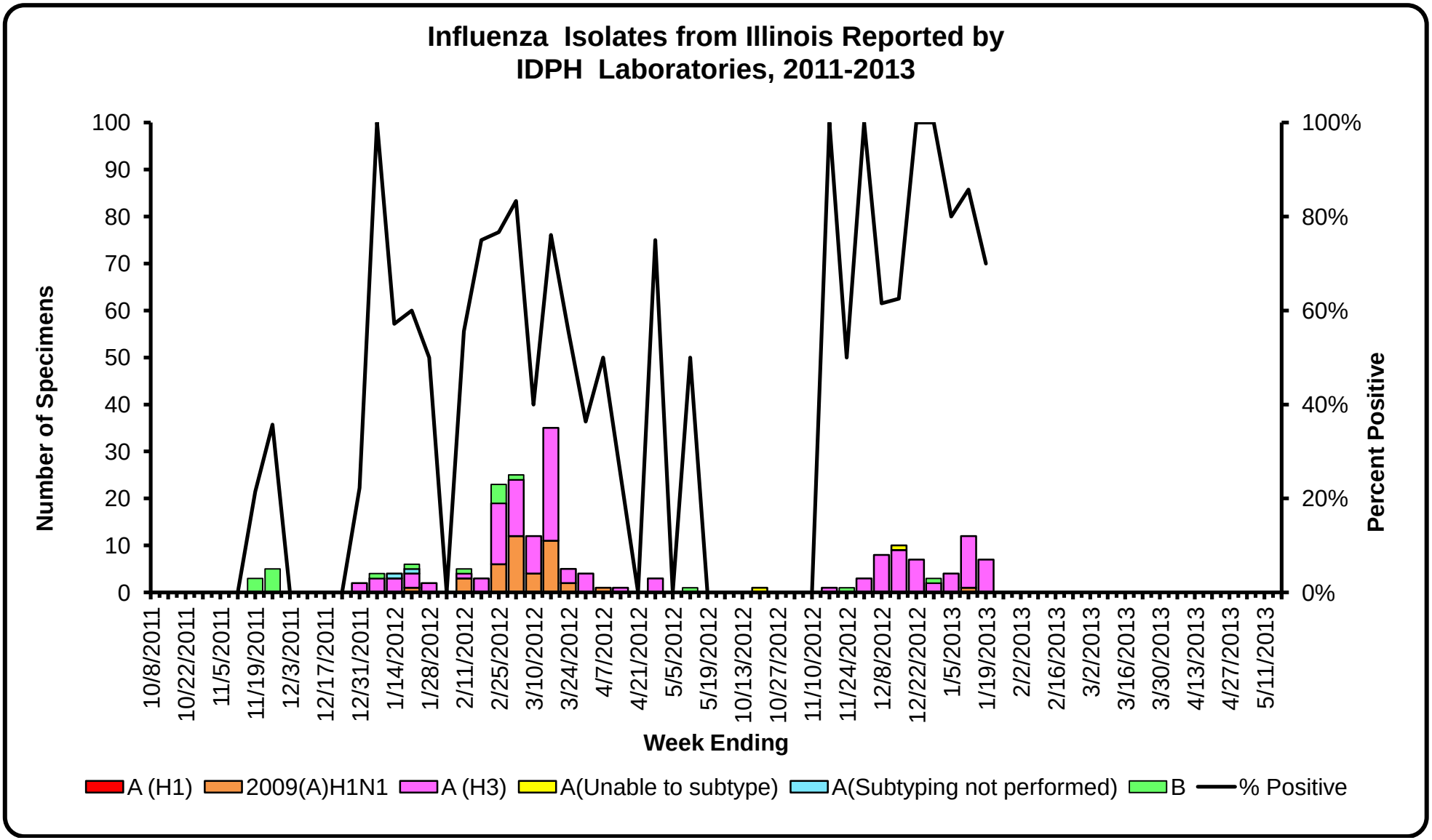
## Institutional Influenza Outbreaks Reported

Twenty -two institutional influenza outbreaks within Illinois for week ending January 19, 2013.The facilities were located in regions 1, 2, 4, 6, 7, and 8.



## 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