# WISCONSIN DEPARTMENT OF HEALTH SERVICES

**Division of Public Health**

**Bureau of Communicable Diseases and Emergency Response**

**Respiratory virus surveillance report for the week ending January 15, 2011, week 11-02**

## AT-A-GLANCE

- Respiratory viruses identified this week :
  Influenza, RSV, rhinovirus/enterovirus and parainfluenza were the predominant viruses

- Influenza-like illness (ILI) activity for this week

| | |
|---|---|
| Wisconsin | Low |
| Wisconsin (CDC level) | Minimal |
| Western Region | Low |
| Northern Region | Low |
| Northeastern Region | Low |
| Southeastern Region | Low |
| Southern Region | Low |

- ILI activity in Region V of the U.S. (WI, MN, IL, MI, OH) is <u>above</u> baseline levels

- ILI activity in the U.S. is <u>above</u> baseline levels

- The Predictive Value Positive (PVP) for rapid influenza tests is: Low but increasing
  (PVP is the probability of disease in a patient with a positive test result)

- The Predictive Value Negative (PVN) for rapid influenza tests is: High but decreasing
  (PVN is the probability of not having disease when the test result is negative)

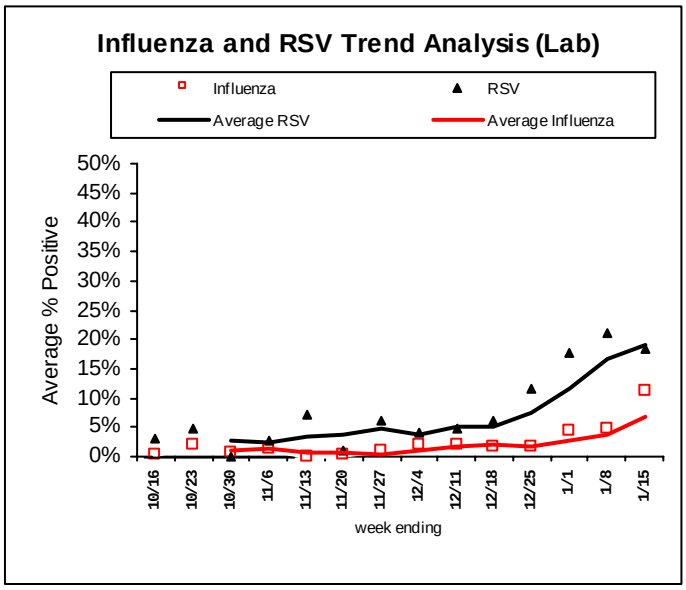
- Influenza-associated pediatric deaths (October 1, 2010-present)

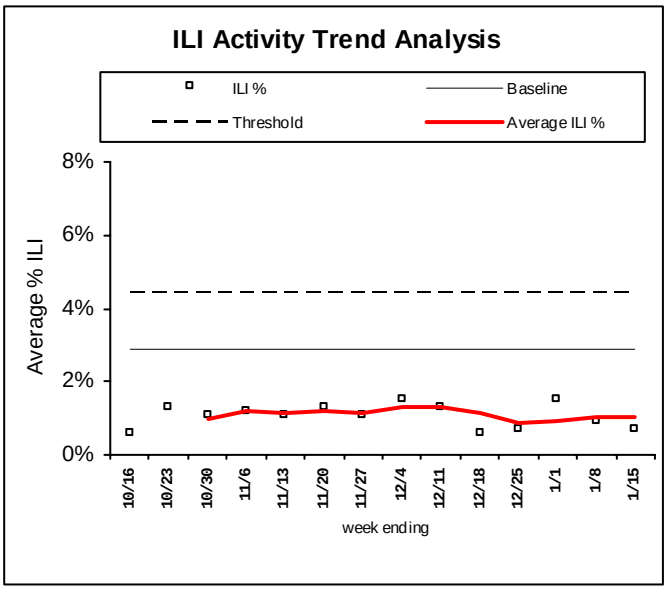
| | Week 11-02 | Total to Date |
|---|---|---|
| Wisconsin | 0 | 0 |
| United States | 2 | 10 |

## *WISCONSIN and REGIONAL SUMMARIES*
***(Trend analysis based on 3-week moving averages)***

### *Wisconsin (ILI activity is Low)*

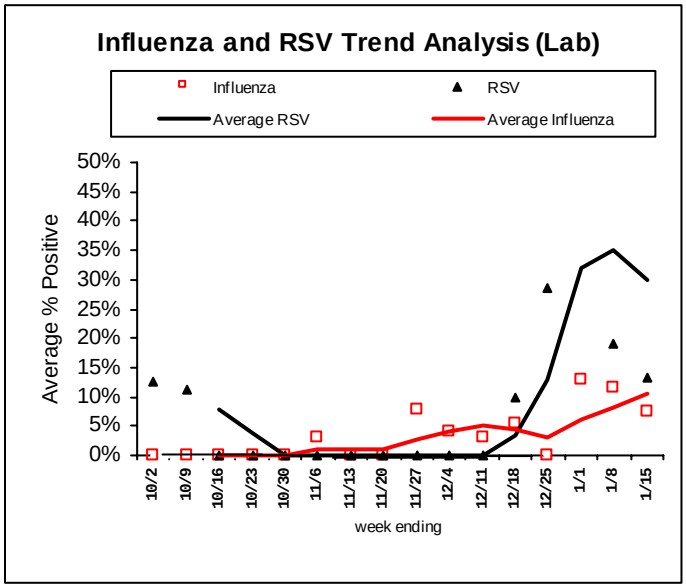
| INFLUENZA RAPID ANTIGEN TESTS | | | | | RSV RAPID ANTIGEN TESTS | | | INFLUENZA-LIKE ILLNESS | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Tested | Positive | | | % Positive | Tested | Positive | % Positive | ILI % | Baseline | Threshold |
| | Flu A | Flu B | Total | | | | | | | |
| 636 | 38 | 34 | 72 | 11.3% | 218 | 40 | 18.3% | 0.7% | 2.9% | 4.4% |

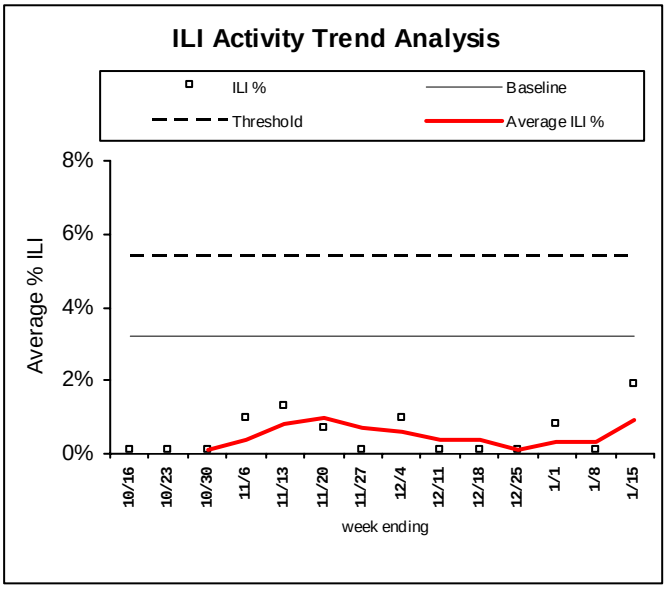



### *Northern Region (ILI activity is Low)*

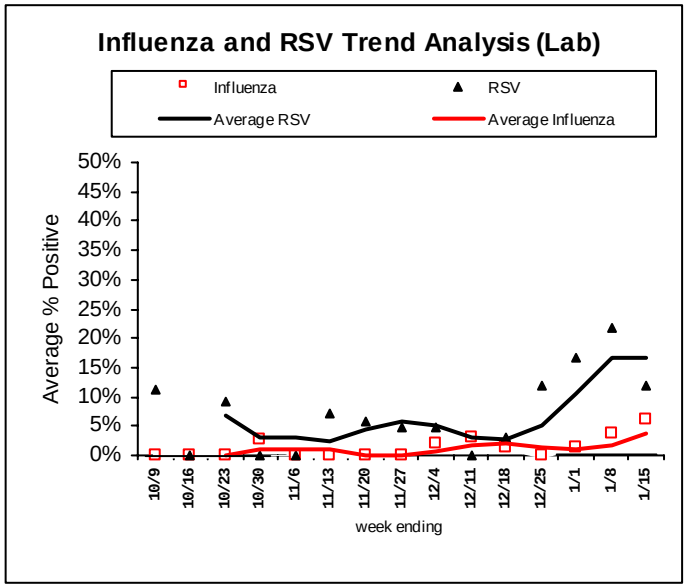
| INFLUENZA RAPID ANTIGEN TESTS | | | | | RSV RAPID ANTIGEN TESTS | | | INFLUENZA-LIKE ILLNESS | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Tested | Positive | | | % Positive | Tested | Positive | % Positive | ILI % | Baseline | Threshold |
| | Flu A | Flu B | Total | | | | | | | |
| 40 | 1 | 2 | 3 | 7.5% | 15 | 2 | 13.3% | 1.9% | 3.2 | 5.4% |

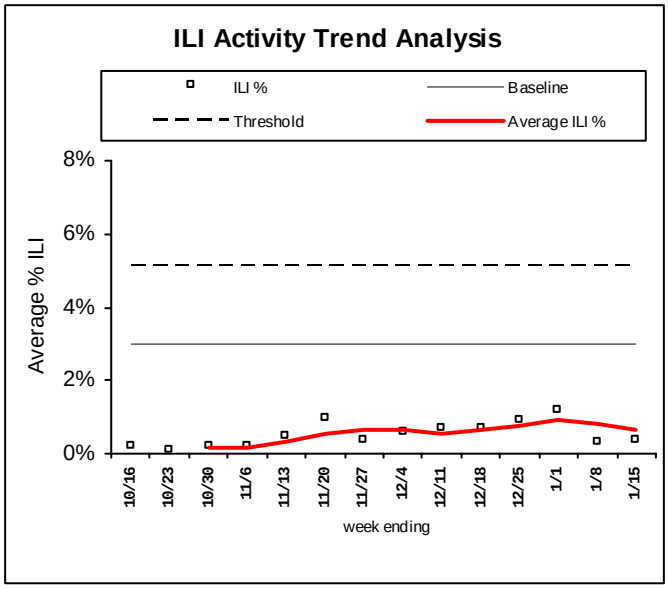


### *Western Region (ILI activity is Low)*

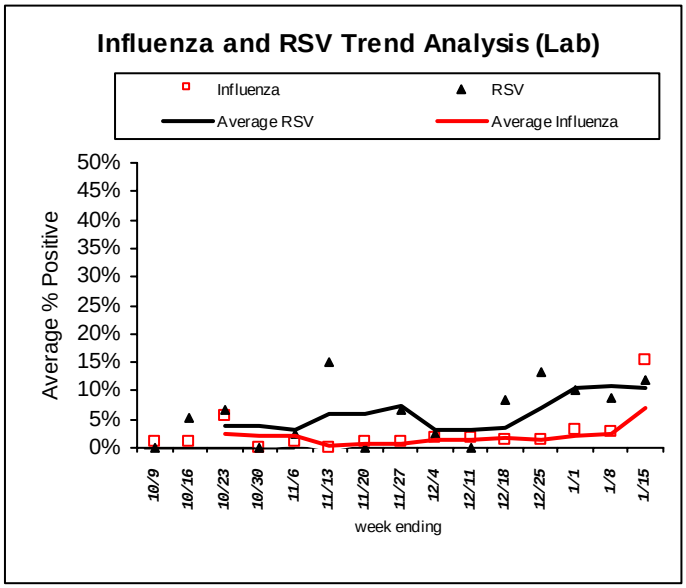
| INFLUENZA RAPID ANTIGEN TESTS | | | | | RSV RAPID ANTIGEN TESTS | | | INFLUENZA-LIKE ILLNESS | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Tested | Positive | | | % Positive | Tested | Positive | % Positive | ILI % | Baseline | Threshold |
| | Flu A | Flu B | Total | | | | | | | |
| 84 | 4 | 1 | 5 | 6.0% | 25 | 3 | 12.0% | 0.4% | 3.0% | 5.1% |

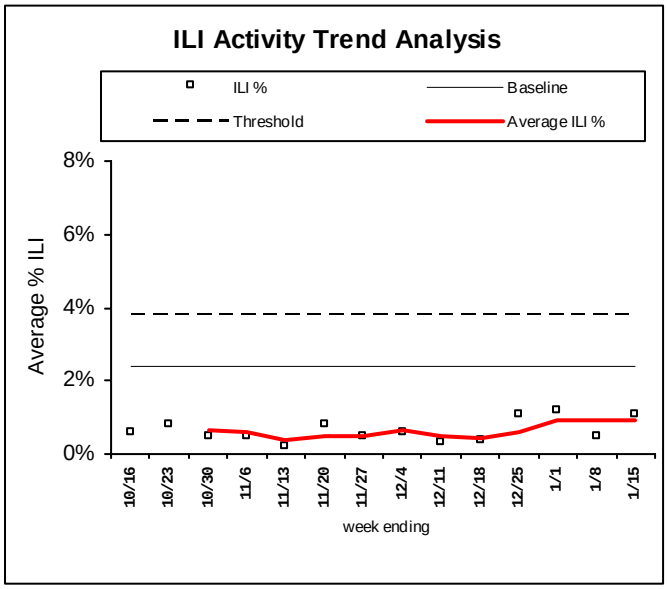



### *Northeastern Region (ILI activity is Low)*

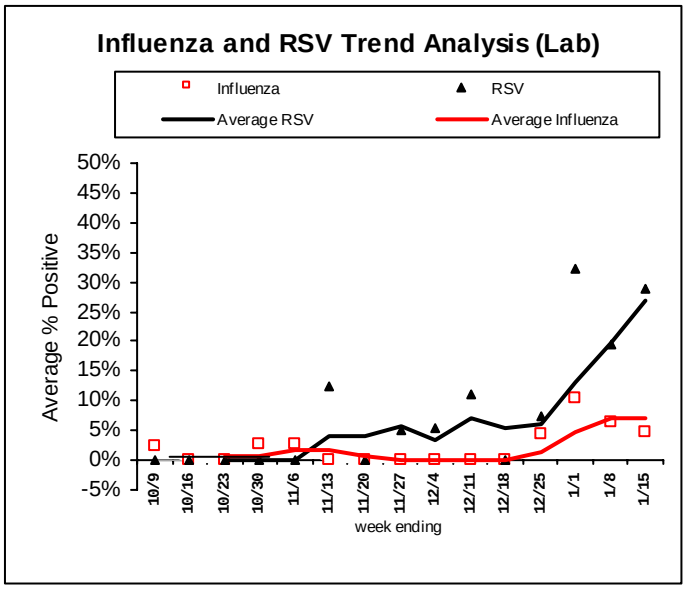
| INFLUENZA RAPID ANTIGEN TESTS | | | | | RSV RAPID ANTIGEN TESTS | | | INFLUENZA-LIKE ILLNESS | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Tested | Positive | | | % Positive | Tested | Positive | % Positive | ILI % | Baseline | Threshold |
| | Flu A | Flu B | Total | | | | | | | |
| 242 | 7 | 30 | 37 | 15.3% | 50 | 6 | 12.0% | 1.1% | 2.4% | 3.8% |

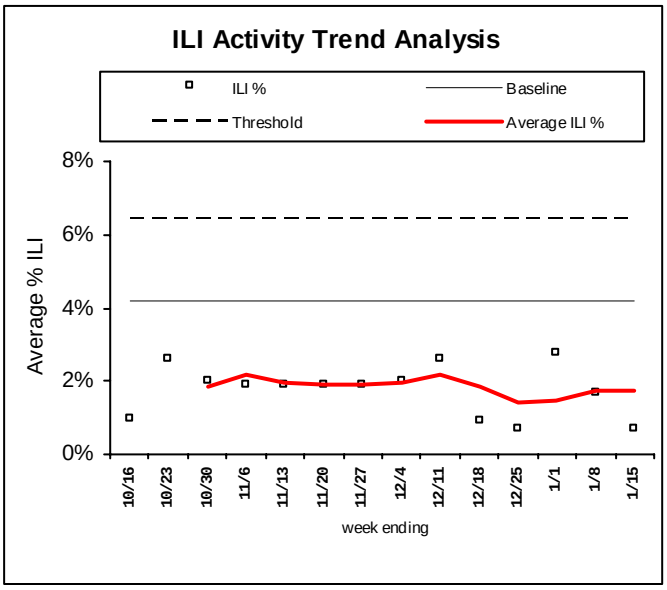


### *Southern Region (ILI activity is Low)*

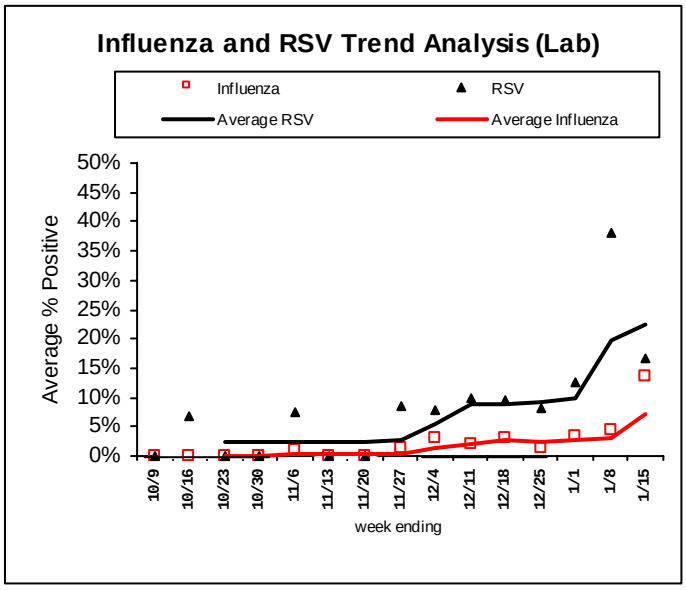
| INFLUENZA RAPID ANTIGEN TESTS | | | | | RSV RAPID ANTIGEN TESTS | | | INFLUENZA-LIKE ILLNESS | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Tested | Positive | | | % Positive | Tested | Positive | % Positive | ILI % | Baseline | Threshold |
| | Flu A | Flu B | Total | | | | | | | |
| 109 | 5 | 0 | 5 | 4.6% | 62 | 18 | 29.0% | 0.7% | 4.2% | 6.4% |

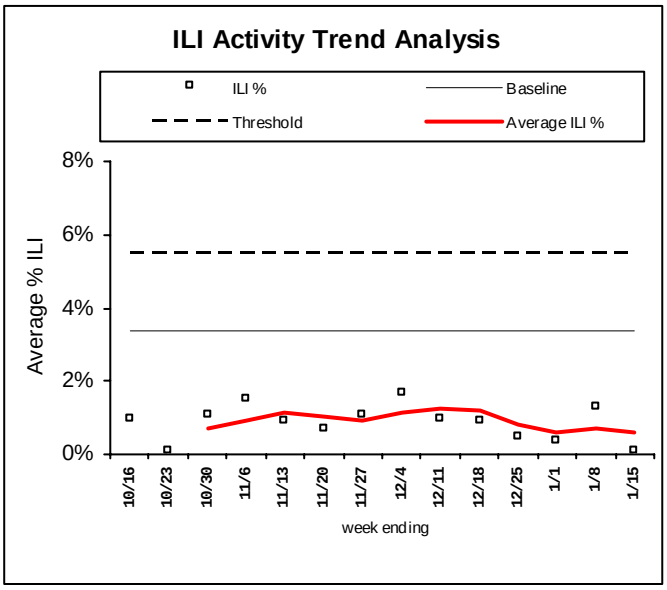



### *Southeastern Region (ILI activity is Low)*

| INFLUENZA RAPID ANTIGEN TESTS | | | | | RSV RAPID ANTIGEN TESTS | | | INFLUENZA-LIKE ILLNESS | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Tested | Positive | | | % Positive | Tested | Positive | % Positive | ILI % | Baseline | Threshold |
| | Flu A | Flu B | Total | | | | | | | |
| 161 | 21 | 1 | 22 | 13.7% | 66 | 11 | 16.7% | 0.1% | 3.4% | 5.5% |



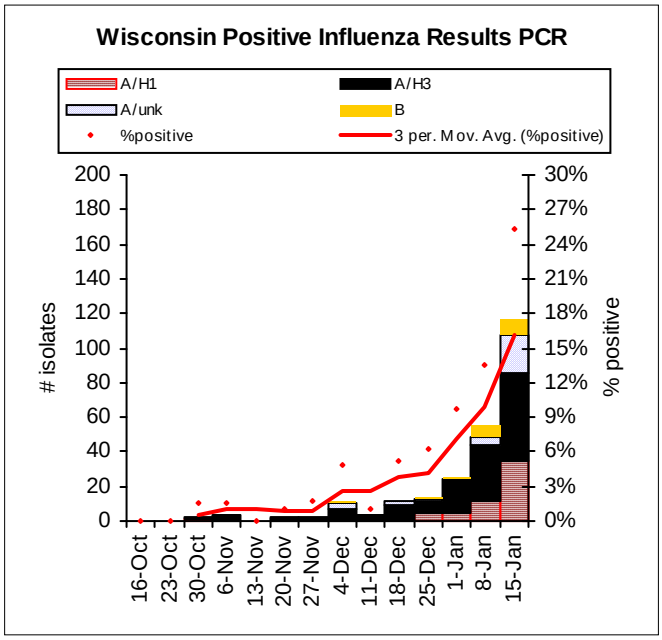
## *LABORATORY SURVEILLANCE FOR RESPIRATORY VIRUSES (PCR)*

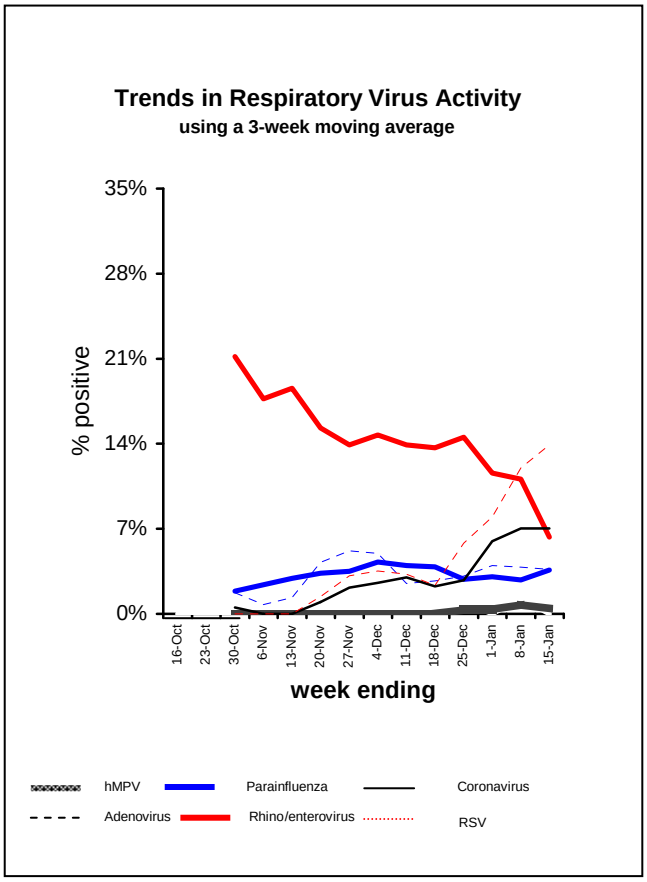
| Respiratory Agent | Tested | Positive | % Positive | Flu A (H1) | Flu A (H3) | Flu A (Unk) | Flu B |
|---|---|---|---|---|---|---|---|
| Influenza | 461 | 117 | 25.4% | 35 | 51 | 21 | 10 |

| Respiratory Agent | Tested | Positive | % Positive | P1 | P2 | P3 | P4 |
|---|---|---|---|---|---|---|---|
| Parainfluenza | 182 | 8 | 4.4% | 0 | 0 | 8 | 0 |

| Respiratory Agent | Tested | Positive | % Positive | CoV-229E | CoV-OC43 | CoV-NL63 | CoV-HKU1 |
|---|---|---|---|---|---|---|---|
| Coronavirus | 108 | 3 | 2.7% | 0 | 2 | 1 | 0 |

| Respiratory Agent | Tested | Positive | % Positive |
|---|---|---|---|
| RSV | 235 | 41 | 17.4% |
| Human Metapneumovirus | 131 | 0 | 0.0% |
| Rhino-entero | 126 | 6 | 4.8% |
| Adenovirus | 126 | 5 | 4.0% |



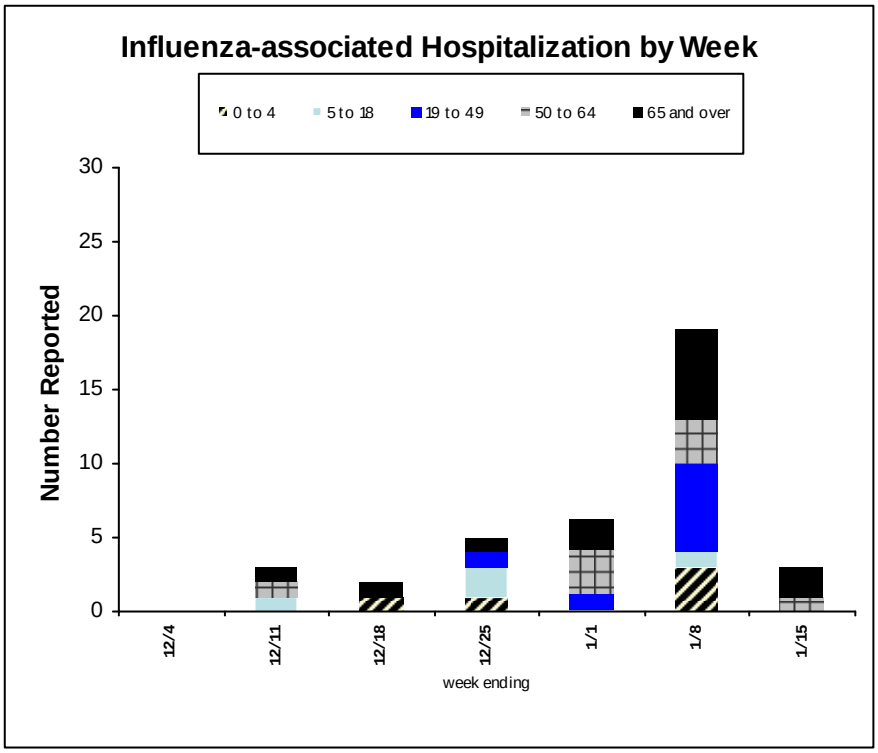




Cumulative number of positive influenza tests
By subtype, October 1, 2010 to present

| | A/H1 | A/H3 | A/Unknown | B | Total |
|---|---|---|---|---|---|
| Total Number positive | 58 | 134 | 33 | 22 | 247 |
| % of Total number positive | 24% | 54% | 13% | 9% | 100% |

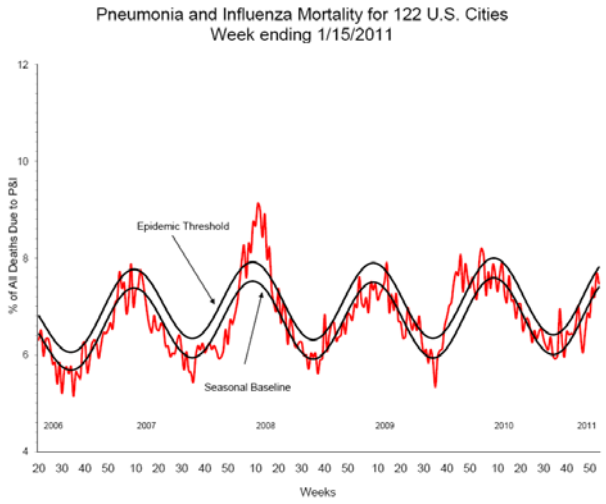
## Influenza-associated Hospitalizations, December 1, 2010 to present

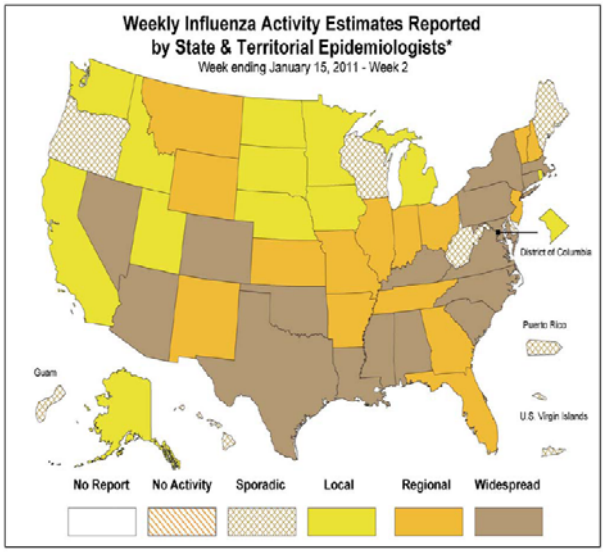
| Age Group | Total Number Reported | Influenza Subtypes | | | | Admitted to ICU | Required Mechanical Ventilation |
|---|---|---|---|---|---|---|---|
| | | A/H1 | A/H3 | A/Unknown | B | | |
| 0 to 4 | 5 | 2 | 1 | 0 | 2 | 2 | 2 |
| 5 to18 | 4 | 2 | 2 | 0 | 0 | 1 | 1 |
| 19 to 49 | 8 | 2 | 3 | 3 | 0 | 1 | 0 |
| 50 to 64 | 9 | 2 | 4 | 2 | 1 | 2 | 0 |
| 65 and over | 15 | 1 | 6 | 7 | 1 | 1 | 1 |
| Total | 41 | 9 | 16 | 12 | 4 | 7 | 4 |



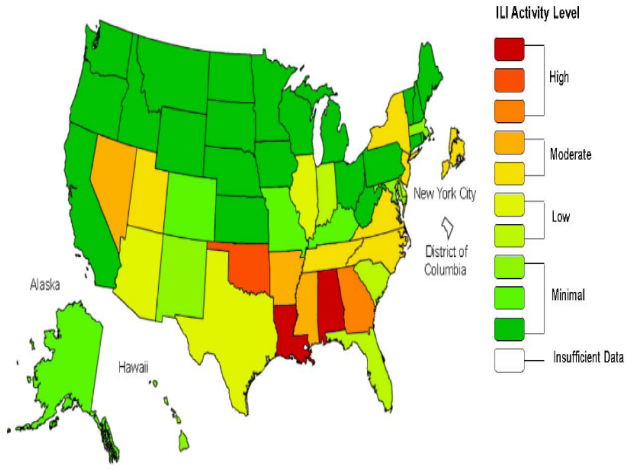
## National and Regional Summary of Select Surveillance Components

| | Data for current week | | | Data cumulative since October 3, 2010 (Week 40) | | | | |
|---|---|---|---|---|---|---|---|---|
| HHS Surveillance Regions* | Out-patient ILI† | % positive for flu‡ | Number of jurisdictions reporting regional or widespread activity§ | A (H3) | 2009 A (H1N1) | A (Subtyping not performed) | B | Pediatric Deaths |
| Nation | Elevated | 25.9% | 32 of 54 | 4,028 | 849 | 2,892 | 3,656 | 10 |
| Region 1 | Normal | 44.6% | 4 of 6 | 431 | 48 | 0 | 19 | 0 |
| Region 2 | Elevated | 20.4% | 2 of 4 | 236 | 19 | 257 | 28 | 2 |
| Region 3 | Normal | 22.6% | 3 of 6 | 332 | 107 | 91 | 54 | 1 |
| Region 4 | Elevated | 23.5% | 8 of 8 | 510 | 251 | 1,216 | 2,364 | 3 |
| Region 5 | Elevated | 44.1% | 3 of 6 | 415 | 170 | 33 | 138 | 0 |
| Region 6 | Normal | 27.9% | 5 of 5 | 437 | 24 | 543 | 512 | 2 |
| Region 7 | Normal | 20.6% | 2 of 4 | 131 | 38 | 142 | 58 | 0 |
| Region 8 | Normal | 26.0% | 3 of 6 | 912 | 89 | 506 | 84 | 1 |
| Region 9 | Normal | 22.4% | 2 of 5 | 515 | 87 | 89 | 380 | 1 |
| Region 10 | Normal | 10.9% | 0 of 4 | 109 | 16 | 15 | 19 | 0 |

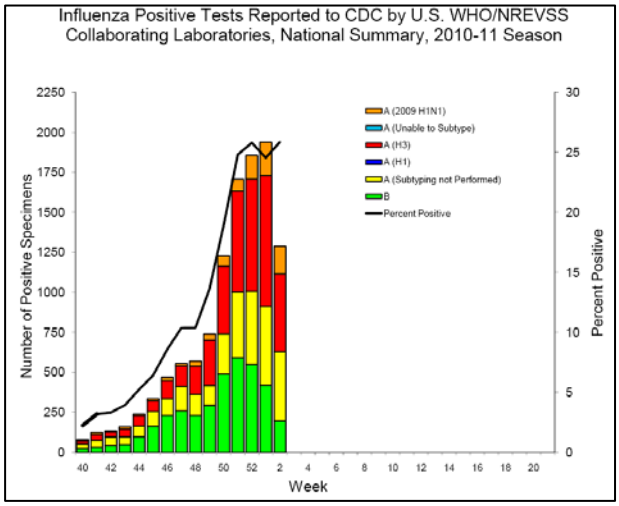



* This map indicates geographic spread & does not measure the severity of influenza activity




*This map uses the proportion of outpatient visits to health care providers for influenza-like illness to measure the ILI activity level within a state. It does not, however, measure the extent of geographic spread of flu within a state. Therefore, outbreaks occurring in a single city could cause the state to display high activity levels.




## Antiviral Resistance:

**Neuraminidase Inhibitor Resistance Testing Results on Samples Collected Since October 1, 2010.**

| | Viruses tested (n) | Resistant Viruses, Number (%) | Viruses tested (n) | Resistant Viruses, Number (%) |
|---|---|---|---|---|
| | | Oseltamivir | | Zanamivir |
| Seasonal Influenza A (H1N1) | 0 | 0 (0.0) | 0 | 0 (0.0) |
| Influenza A (H3N2) | 109 | 0 (0.0) | 109 | 0 (0.0) |
| Influenza B | 91 | 0 (0.0) | 91 | 0 (0.0) |
| 2009 Influenza A (H1N1) | 31 | 0 (0.0) | 21 | 0 (0.0) |