

## 2010-2011 Influenza Season Week 41 ending October 16, 2010

All data are preliminary and may change as more reports are received.

**Synopsis:** During week 41 (October 10-16, 2010), influenza activity remained low in the United States.

- Ninety-two (3.6%) specimens tested by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories and reported to CDC/Influenza Division were positive for influenza.
- The proportion of deaths attributed to pneumonia and influenza (P&I) was below the epidemic threshold.
- No influenza-associated pediatric deaths were reported.
- The proportion of outpatient visits for influenza-like illness (ILI) was below the national baseline. All 10 regions reported ILI below region-specific baseline levels and all 49 states with sufficient data experienced minimal ILI activity.
- Geographic spread of influenza in the District of Columbia, Puerto Rico, and 24 states was assessed as sporadic, Guam and 26 states reported no influenza activity and the U.S. Virgin Islands did not report.

### National and Regional Summary of Select Surveillance Components

HHS Surveillance Regions*	Data for current week			Data cumulative since October 3, 2010 (Week 40)				
	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
<b>Nation</b>	Normal	3.6%	0 of 54	32	19	67	45	0
<b>Region 1</b>	Normal	0.5%	0 of 6	0	1	0	0	0
<b>Region 2</b>	Normal	0.9%	0 of 4	0	0	2	0	0
<b>Region 3</b>	Normal	0.7%	0 of 6	3	1	0	1	0
<b>Region 4</b>	Normal	7.3%	0 of 8	6	6	48	36	0
<b>Region 5</b>	Normal	1.8%	0 of 6	4	1	0	0	0
<b>Region 6</b>	Normal	1.4%	0 of 5	9	0	4	2	0
<b>Region 7</b>	Normal	0.0%	0 of 4	0	0	0	0	0
<b>Region 8</b>	Normal	1.9%	0 of 6	5	2	6	1	0
<b>Region 9</b>	Normal	4.6%	0 of 5	5	8	6	4	0
<b>Region 10</b>	Normal	0.4%	0 of 4	0	0	1	1	0

\*HHS regions (Region 1 CT, ME, MA, NH, RI, VT; Region 2: NJ, NY, Puerto Rico, U.S. Virgin Islands; Region 3: DE, DC, MD, PA, VA, WV; Region 4: AL, FL, GA, KY, MS, NC, SC, TN; Region 5: IL, IN, MI, MN, OH, WI; Region 6: AR, LA, NM, OK, TX; Region 7: IA, KS, MO, NE; Region 8: CO, MT, ND, SD, UT, WY; Region 9: AZ, CA, Guam, HI, NV; and Region 10: AK, ID, OR, WA).

† Elevated means the % of visits for ILI is at or above the national or region-specific baseline.

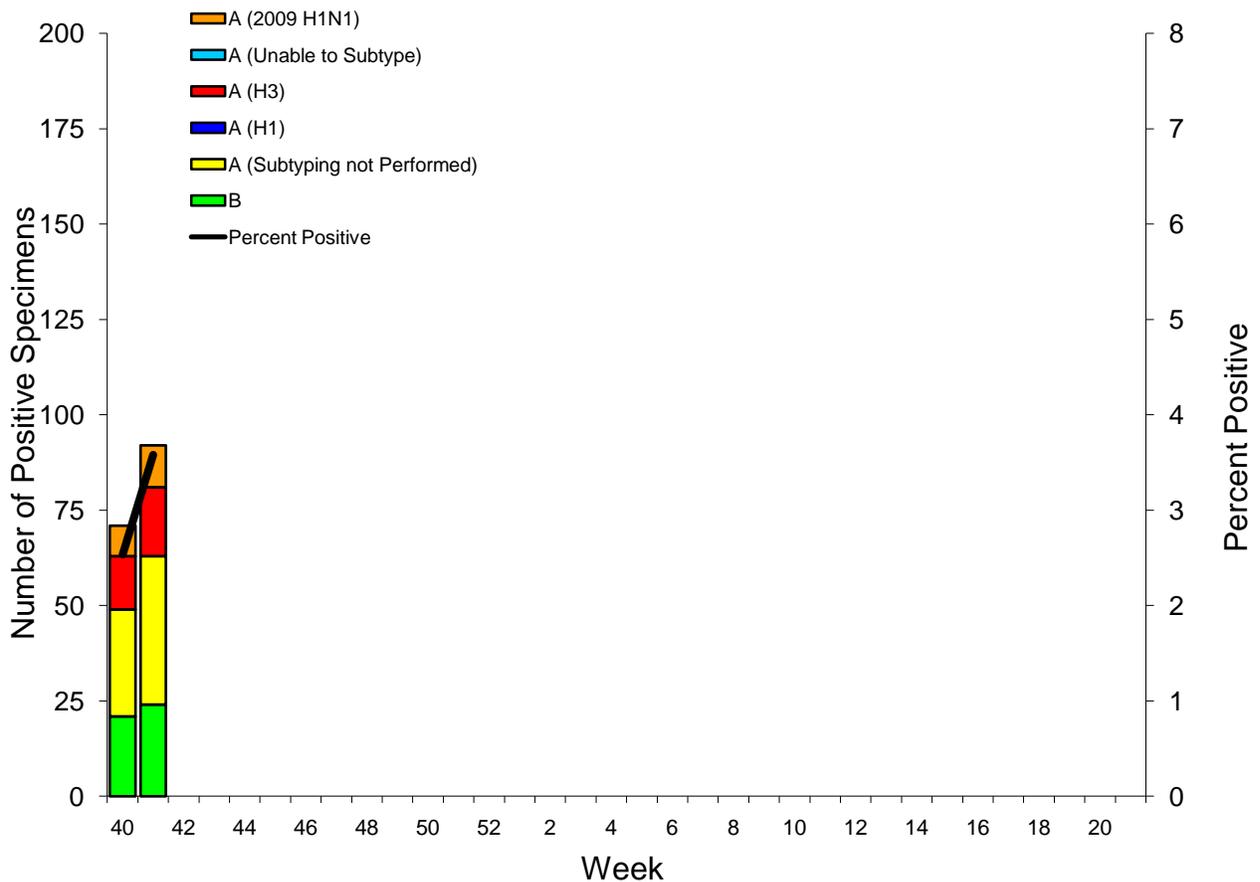
‡ National data are for current week; regional data are for the most recent three weeks.

§ Includes all 50 states, the District of Columbia, Guam, Puerto Rico, and the U.S. Virgin Islands.

**U.S. Virologic Surveillance:** WHO and NREVSS collaborating laboratories located in all 50 states and Washington D.C. report to CDC the number of respiratory specimens tested for influenza and the number positive by influenza type and subtype. The results of tests performed during the current week are summarized in the table below.

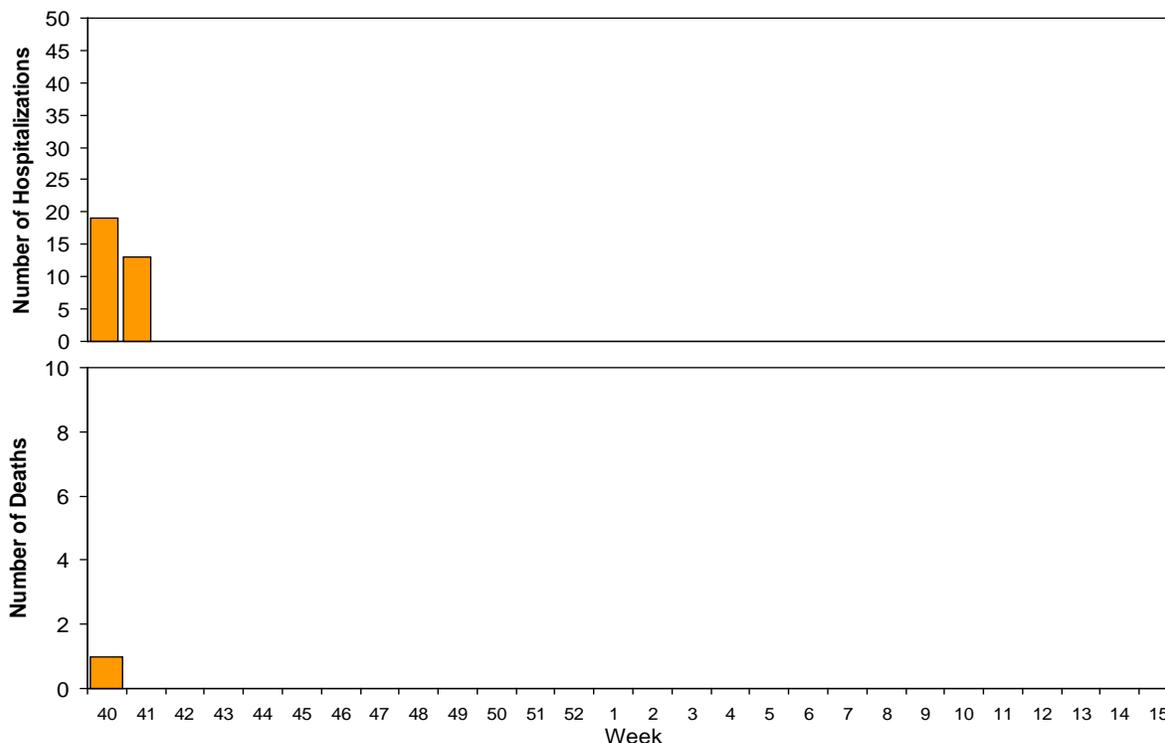
	<b>Week 41</b>
<b>No. of specimens tested</b>	2,571
<b>No. of positive specimens (%)</b>	92 (3.6%)
<b>Positive specimens by type/subtype</b>	
<b>Influenza A</b>	68 (73.9%)
<b>A (2009 H1N1)</b>	11 (16.2%)
<b>A (subtyping not performed)</b>	39 (57.4%)
<b>A (H3)</b>	18 (26.5%)
<b>Influenza B</b>	24 (26.1%)

### Influenza Positive Tests Reported to CDC by U.S. WHO/NREVSS Collaborating Laboratories, National Summary, 2010-11 Season



**Aggregate Hospitalization and Death Reporting Activity (AHDRA):** This system tracks weekly counts of laboratory-confirmed influenza-associated hospitalizations and deaths and was implemented on August 30, 2009, during the 2009 pandemic, and ended on April 4, 2010. AHDRA surveillance during the 2010-11 season is being continued on a voluntary basis and 18 jurisdictions reported during week 41. From October 3-16, 2010, 32 laboratory-confirmed influenza associated hospitalizations and one laboratory-confirmed influenza associated death were reported to CDC.

### Weekly Laboratory-Confirmed Influenza-Associated Hospitalizations and Deaths, National Summary, 2010-11 Season



**Antigenic Characterization:** No antigenic characterization data is available for influenza viruses collected after October 1, 2010. However, the vast majority of the isolates collected from May – September 2010 were closely related antigenically to the 2009 influenza A (H1N1), influenza A (H3N2), and influenza B components of the 2010-11 influenza vaccine.

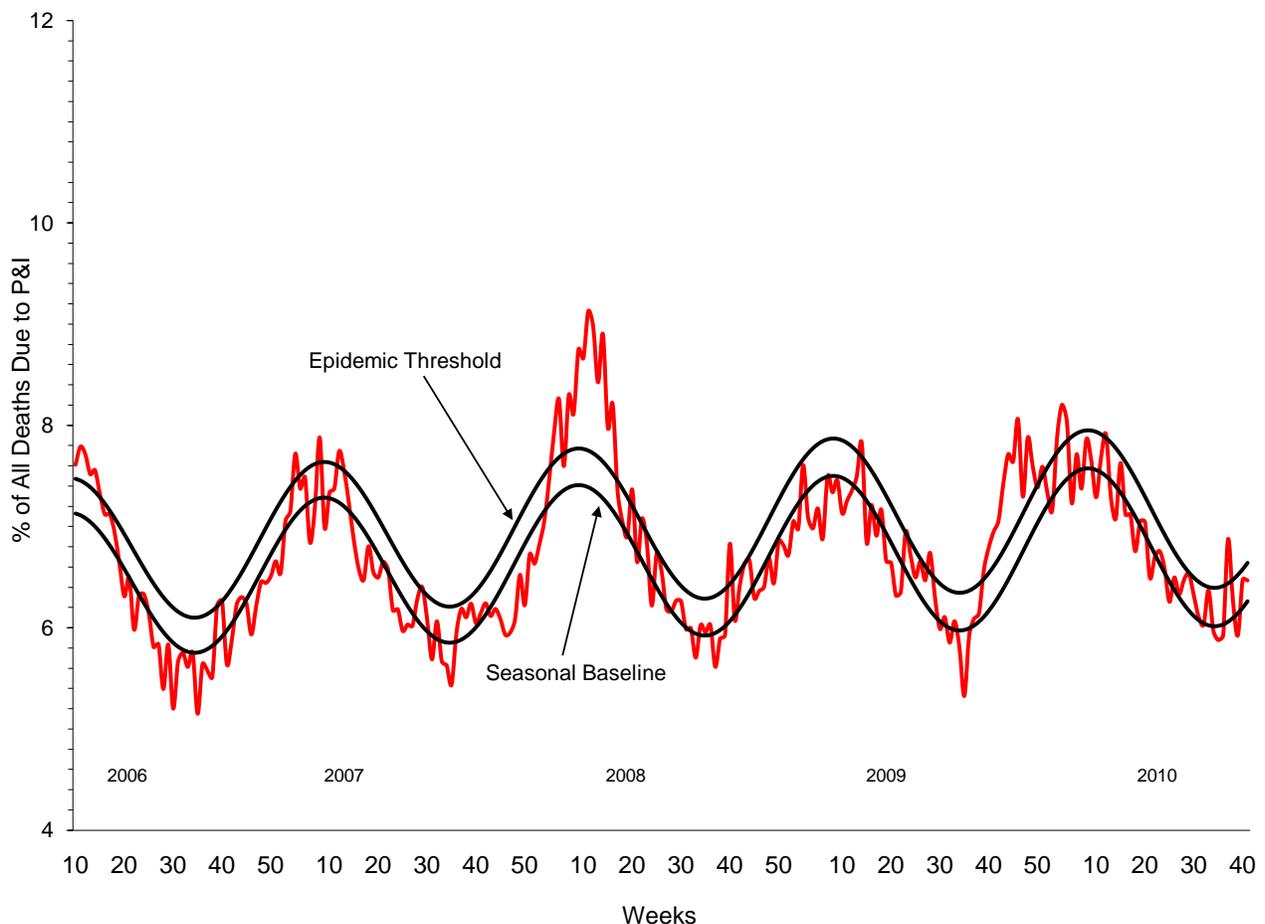
**Antiviral Resistance:** No antiviral resistance data is available for influenza viruses collected after October 1, 2010. Among 2009 influenza A (H1N1), influenza A (H3N2), and influenza B viruses collected during June – September 2010, no viruses were found to be resistant to the neuraminidase inhibitor antiviral medications oseltamivir and zanamivir. High levels of resistance to the adamantanes (amantadine and rimantadine) persist among 2009 influenza A (H1N1) and A (H3N2) viruses (the adamantanes are not effective against influenza B viruses).

Antiviral treatment with oseltamivir or zanamivir is recommended for all patients with confirmed or suspected influenza virus infection who are hospitalized or who are at higher risk for influenza complications. Use of the adamantanes is not recommended. Additional information on antiviral recommendations for treatment and chemoprophylaxis of influenza virus infection is available at <http://www.cdc.gov/flu/antivirals/index.htm>.

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. To prevent the spread of antiviral resistant virus strains, CDC reminds clinicians and the public of the need to continue hand and cough hygiene measures for the duration of any symptoms of influenza, even while taking antiviral medications (<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5832a3.htm>).

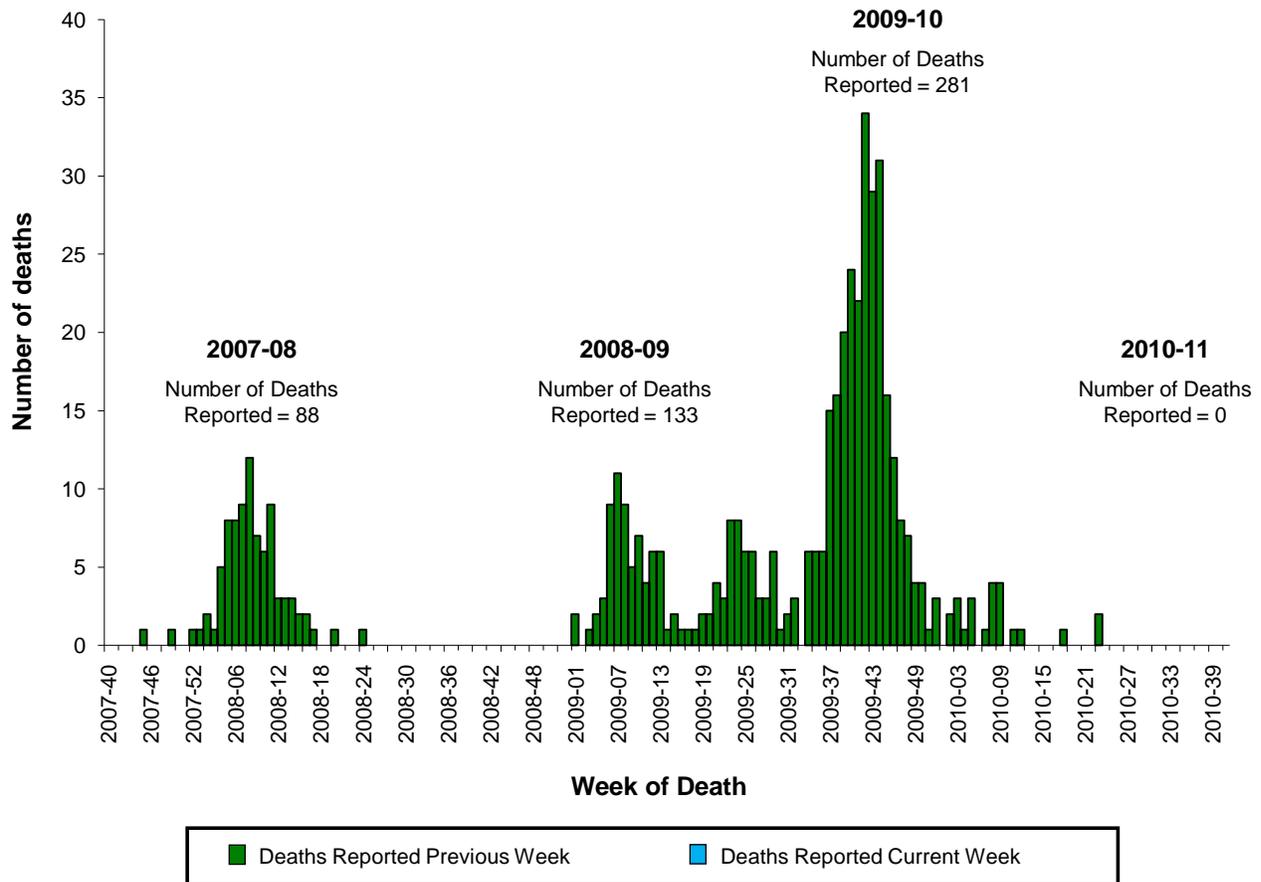
**Pneumonia and Influenza (P&I) Mortality Surveillance:** During week 41, 6.5% of all deaths reported through the 122-Cities Mortality Reporting System were due to P&I. This percentage was below the epidemic threshold of 6.6% for week 41.

### Pneumonia and Influenza Mortality for 122 U.S. Cities Week ending 10/16/2010



**Influenza-Associated Pediatric Mortality:** No influenza-associated pediatric deaths were reported to CDC during week 41.

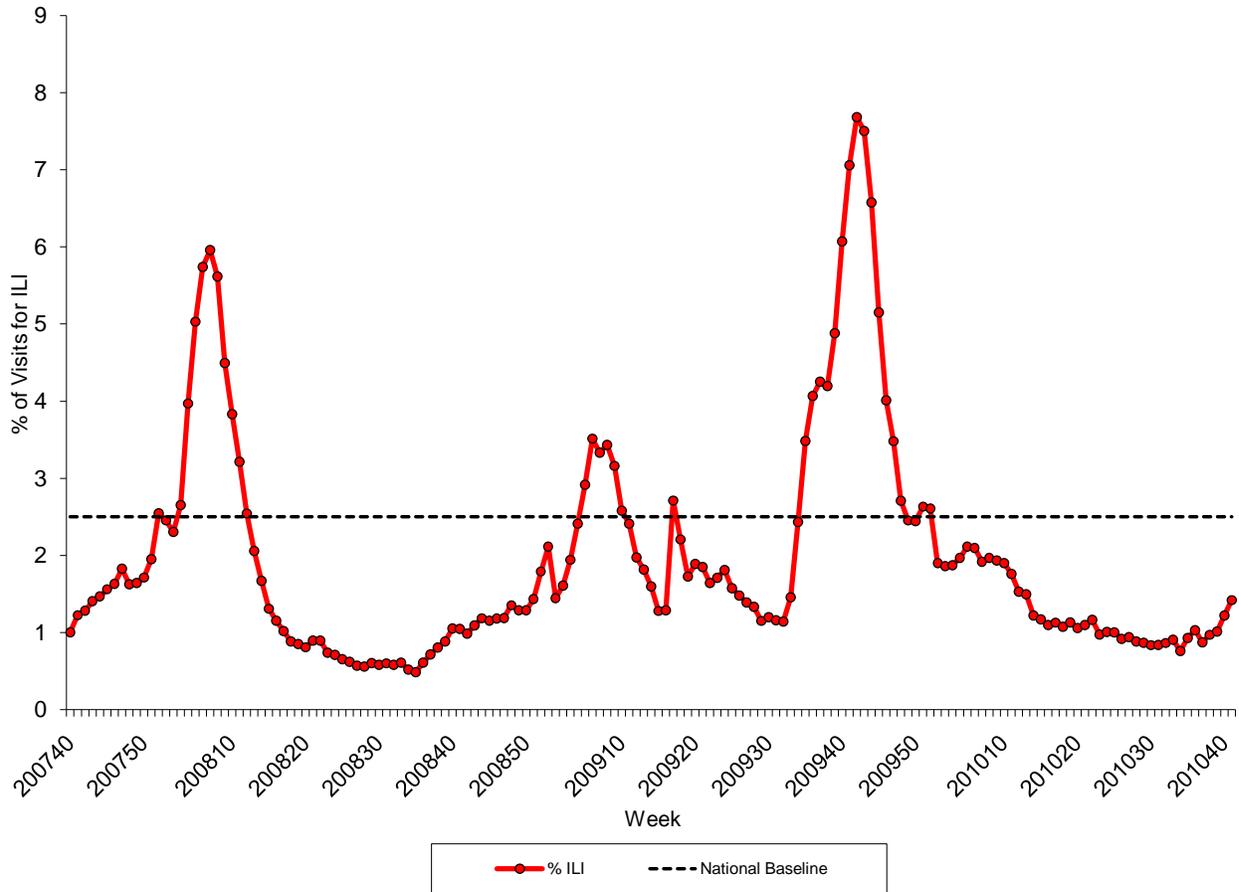
### Number of Influenza-Associated Pediatric Deaths by Week of Death: 2007-08 season to present



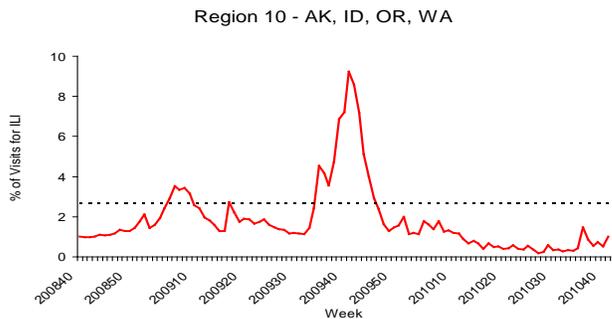
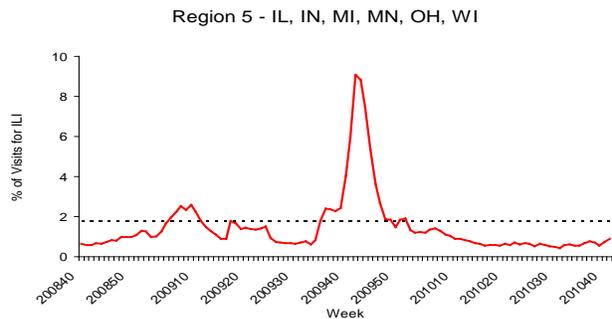
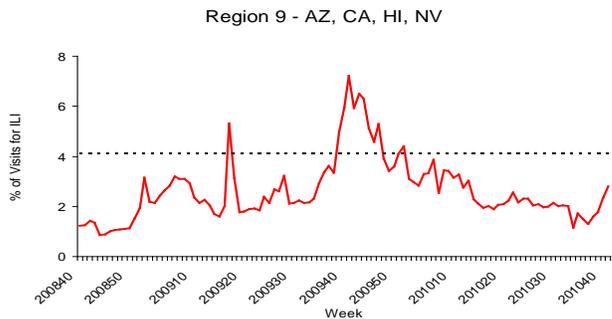
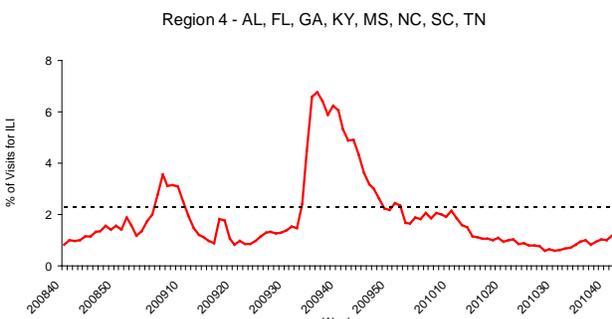
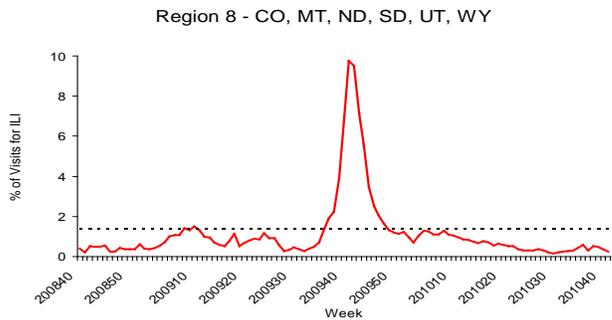
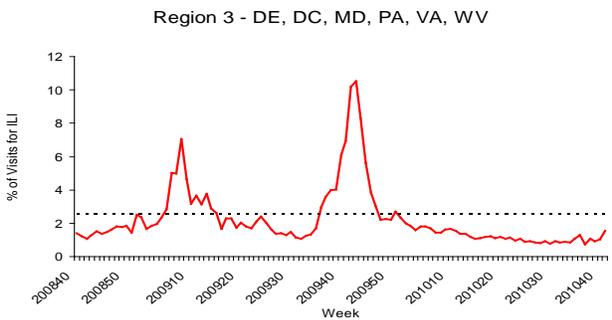
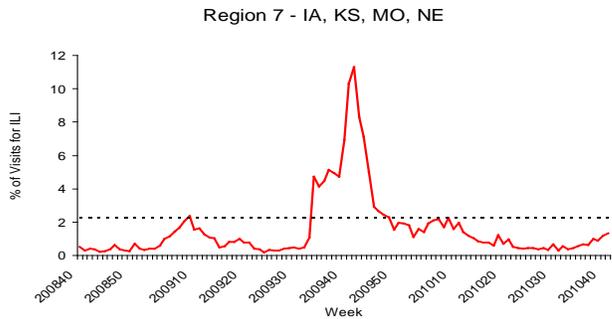
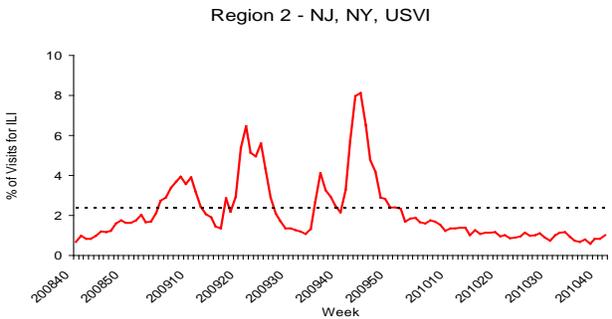
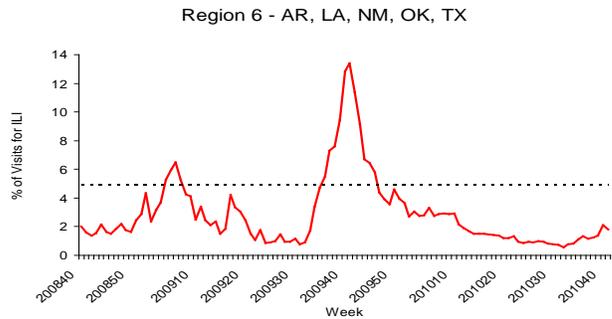
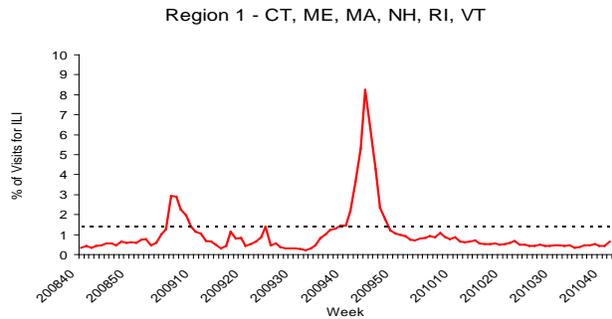
**Influenza-Associated Hospitalizations:** The Influenza Hospitalization Network (FluSurv-NET) conducts surveillance for population-based, laboratory-confirmed influenza related hospitalizations in children (persons less than 18 years) and adults. The network covers over 80 counties in the 10 Emerging Infections Program (EIP) states (CA, CO, CT, GA, MD, MN, NM, NY, OR, and TN) and six additional states (ID, MI, OH, OK, RI and UT). FluSurv-NET estimated hospitalization rates will be updated every two weeks starting later this season.

**Outpatient Illness Surveillance:** Nationwide during week 41, 1.4% of patient visits reported through the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) were due to influenza-like illness (ILI). This percentage is below the national baseline of 2.5%.

Percentage of Visits for Influenza-like Illness (ILI) Reported by the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), Weekly National Summary, September 30, 2007 – October 16, 2010



On a regional level, the percentage of outpatient visits for ILI ranged from 0.2% to 2.8% during week 41. All 10 regions reported a proportion of outpatient visits for ILI below their region-specific baseline levels.



— % ILI      - - - - - Baseline\*

NOTE: Scales differ between regions

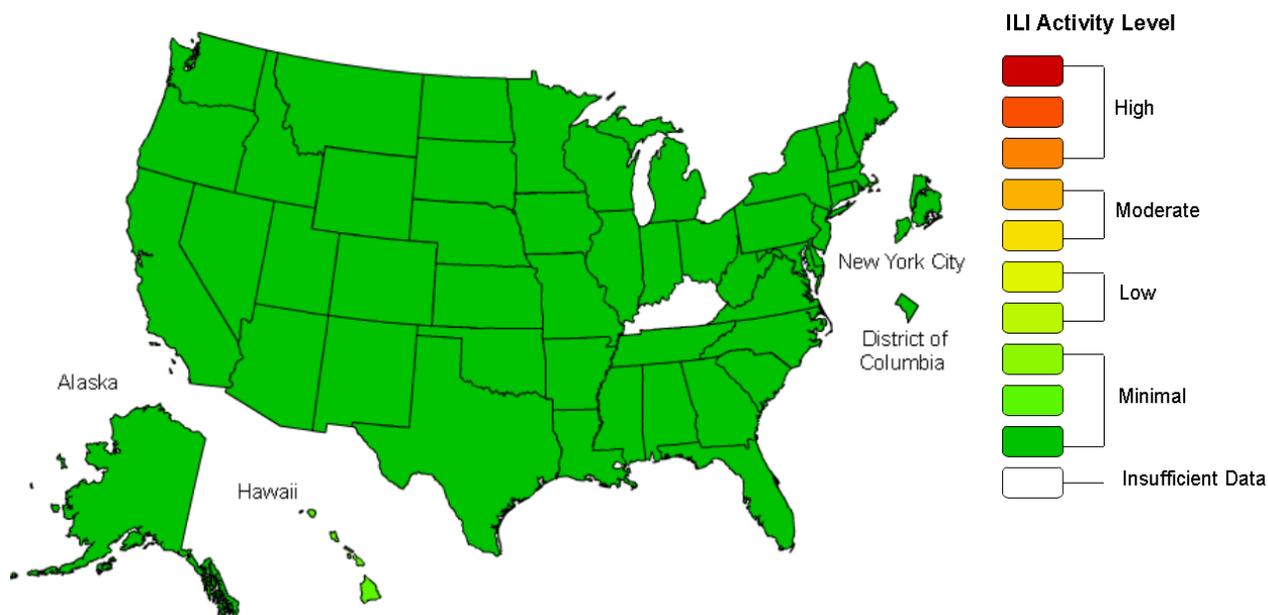
\*Use of the regional baselines for state data is not appropriate.

**ILINet Activity Indicator Map:** Data collected in ILINet are used to produce a measure of ILI activity\* by state. Activity levels are based on the percent of outpatient visits in a state due to ILI and are compared to the average percent of ILI visits that occur during spring and fall weeks with little or no influenza virus circulation. Activity levels range from minimal, which would correspond to ILI activity from outpatient clinics being below the average, to high, which would correspond to ILI activity from outpatient clinics being much higher than the average.

During week 41, the following ILI activity levels were experienced:

- Forty-nine states, New York City, and the District of Columbia were experiencing minimal ILI activity (Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming).
- Data were insufficient to calculate an ILI activity level from one state (Kentucky).

**Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet  
2010-11 Influenza Season Week 41 ending Oct 16, 2010**



\*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.

Data collected in ILINet may disproportionately represent certain populations within a state, and therefore, may not accurately depict the full picture of influenza activity for the whole state.

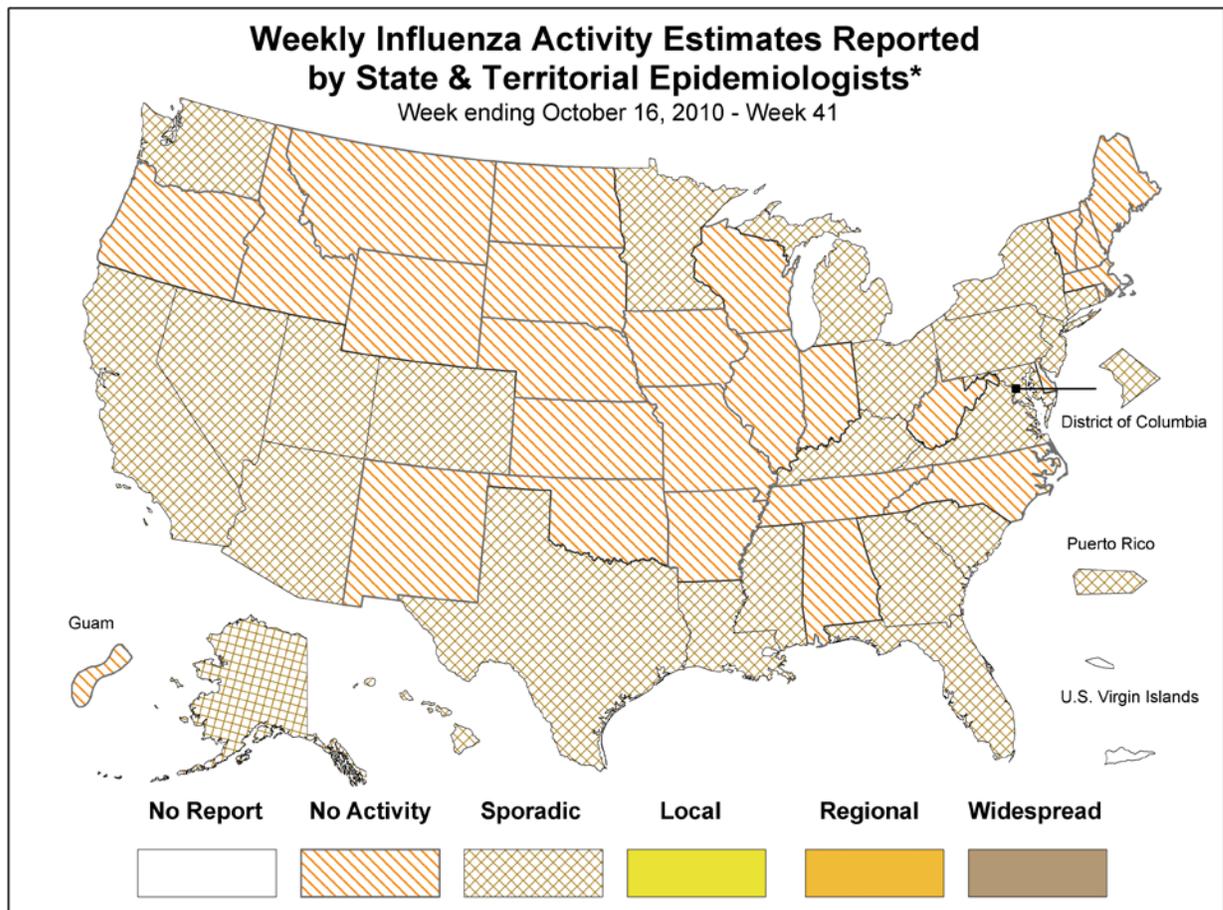
Data displayed in this map are based on data collected in ILINet, whereas the State and Territorial flu activity map are based on reports from state and territorial epidemiologists. The data presented in this map is preliminary and may change as more data is received.

Differences in the data presented by CDC and state health departments likely represent differing levels of data completeness with data presented by the state likely being the more complete.

**Geographic Spread of Influenza as Assessed by State and Territorial Epidemiologists:** The influenza activity reported by state and territorial epidemiologists indicates geographic spread influenza viruses, but does not measure the severity of influenza activity.

During week 41, the following influenza activity was reported:

- Sporadic influenza activity was reported by the District of Columbia, Puerto Rico, and 24 states (Alaska, Arizona, California, Colorado, Connecticut, Florida, Georgia, Hawaii, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Nevada, New Jersey, New York, Ohio, Pennsylvania, South Carolina, Texas, Utah, Virginia, and Washington).
- No influenza activity was reported by Guam and 26 states (Alabama, Arkansas, Delaware, Idaho, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Missouri, Montana, Nebraska, New Hampshire, New Mexico, North Carolina, North Dakota, Oklahoma, Oregon, Rhode Island, South Dakota, Tennessee, Vermont, West Virginia, Wisconsin, and Wyoming).
- The U.S. Virgin Islands did not report.



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

A description of surveillance methods is available at: <http://www.cdc.gov/flu/weekly/overview.htm>  
Report prepared: October 22, 2010.