

**2007-2008 Influenza Season**  
**Week 49, ending December 8, 2007**

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

**Synopsis:** During week 49 (December 2-8, 2007), a low level of influenza activity was reported in the United States.

- One hundred twenty-one (4.7%) specimens tested by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories were positive for influenza.
- The proportion of deaths attributed to pneumonia and influenza was below the epidemic threshold.
- The proportion of outpatient visits for influenza-like illness (ILI) and acute respiratory illness (ARI) was below national and region-specific baseline levels.
- One state reported regional activity, six states reported local influenza activity; 32 states, the District of Columbia, and Puerto Rico reported sporadic influenza activity; and 11 states reported no influenza activity.

**National and Regional Summary of Select Surveillance Components**

	Data for current week				Data cumulative for the season				
	Sentinel Provider ILI*	DoD and VA ARI*	% pos. for flu†	# jurisdictions reporting regional or widespread activity‡	A (H1)	A (H3)	A Unsub-typed	B	Pediatric Deaths
<b>Nation</b>	Normal	Normal	4.7%	0 of 51	125	28	497	58	1
<b>New England</b>	Normal	Normal	0.8%	0 of 6	5	0	7	2	0
<b>Mid-Atlantic</b>	Normal	Normal	0.5%	0 of 3	1	0	8	4	0
<b>East North Central</b>	Normal	Normal	1.5%	0 of 5	1	1	4	3	0
<b>West North Central</b>	Normal	Normal	1.4%	0 of 7	3	2	13	4	0
<b>South Atlantic</b>	Normal	Normal	4.9%	0 of 9	2	8	149	22	0
<b>East South Central</b>	Normal	Normal	0.0%	0 of 4	1	1	0	0	0
<b>West South Central</b>	Normal	Normal	7.6%	1 of 4	4	14	246	7	1
<b>Mountain</b>	Normal	Normal	10.3%	0 of 8	78	0	12	11	0
<b>Pacific</b>	Normal	Normal	1.9%	0 of 5	30	2	58	5	0

\* Elevated means the % of visits for ILI or ARI is at or above the national or region-specific baseline

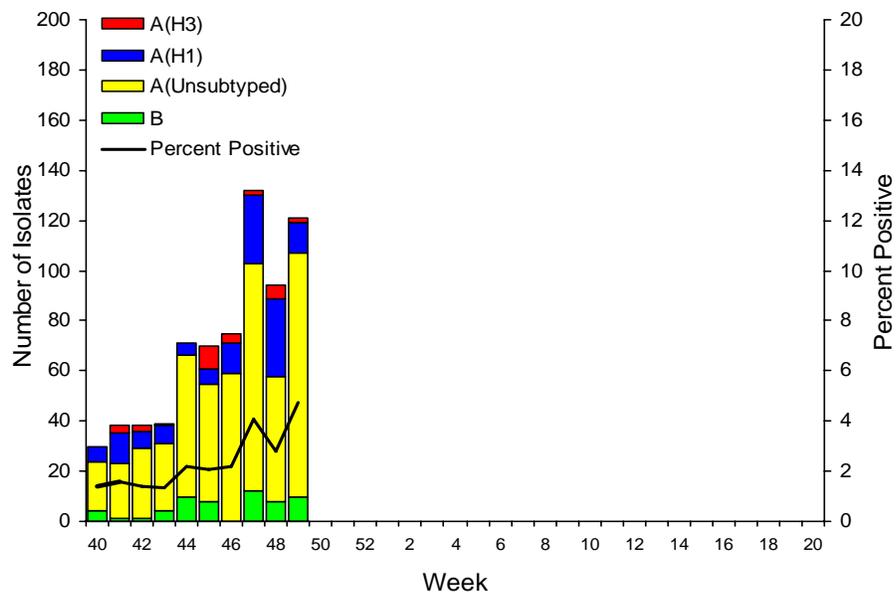
† National data are for current week; regional data are for the most recent 3 weeks.

‡ Includes all 50 states and the District of Columbia

**Laboratory Surveillance:** During week 49, WHO and NREVSS laboratories reported 2,559 specimens tested for influenza viruses, 121 (4.7%) of which were positive, including 12 influenza A (H1) viruses, two influenza A (H3) viruses, 97 influenza A viruses that were not subtyped, and 10 influenza B viruses. The District of Columbia and 35 states from all nine surveillance regions have reported laboratory-confirmed influenza this season.

Since September 30, 2007, WHO and NREVSS laboratories have tested a total of 29,488 specimens for influenza viruses and 708 (2.4%) were positive. Among the 708 influenza viruses, 650 (91.8%) were influenza A viruses and 58 (8.2%) were influenza B viruses. One hundred fifty-three (23.5%) of the 650 influenza A viruses have been subtyped: 125 (81.7%) were influenza A (H1) viruses and 28 (18.3%) were influenza A (H3) viruses.

### U.S. WHO/NREVSS Collaborating Laboratories National Summary, 2007-08



**Antigenic Characterization:** CDC has antigenically characterized 33 influenza viruses [19 influenza A (H1), 11 influenza A (H3), and three influenza B viruses] collected by U.S. laboratories since September 30, 2007.

#### Influenza A (H1) [19]

- All 19 viruses were characterized as A/Solomon Islands/3/2006, the influenza A (H1) component of the 2007-08 influenza vaccine for the Northern Hemisphere and the 2008 influenza A (H1) component for the Southern Hemisphere. A/Solomon Islands/3/2006 is a recent antigenic variant of A/New Caledonia/20/99.

#### Influenza A (H3) [11]

- Four viruses were characterized as A/Wisconsin/67/2005-like, the influenza A (H3) component of the 2007-08 influenza vaccine
- Seven viruses were characterized as A/Brisbane/10/2007-like. A/Brisbane/10/2007 is a recent antigenic variant which evolved from A/Wisconsin/67/2005-like.

A/Brisbane/10/2007-like virus is the recommended influenza A (H3) component for the 2008 Southern Hemisphere vaccine.

### Influenza B (B/Victoria/02/87 and B/Yamagata/16/88 lineages) [3]

#### Victoria lineage [0]

- The recommended influenza B component for the 2007-08 influenza vaccine is a B/Malaysia/2506/2004-like virus, belonging to the B/Victoria lineage.

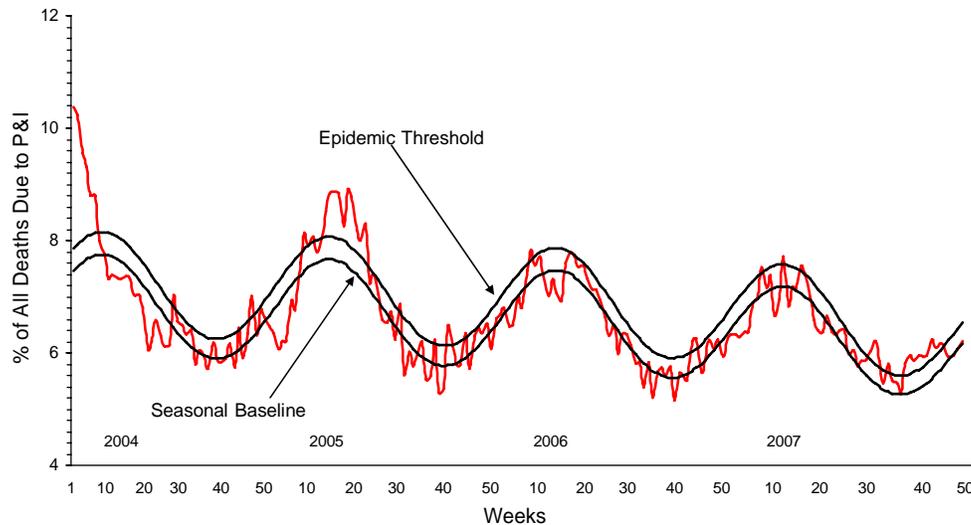
#### Yamagata lineage [3]

- All three viruses were identified as belonging to the B/Yamagata lineage.

It is too early in the influenza season to determine which influenza viruses will predominate or how well the vaccine and circulating strains will match.

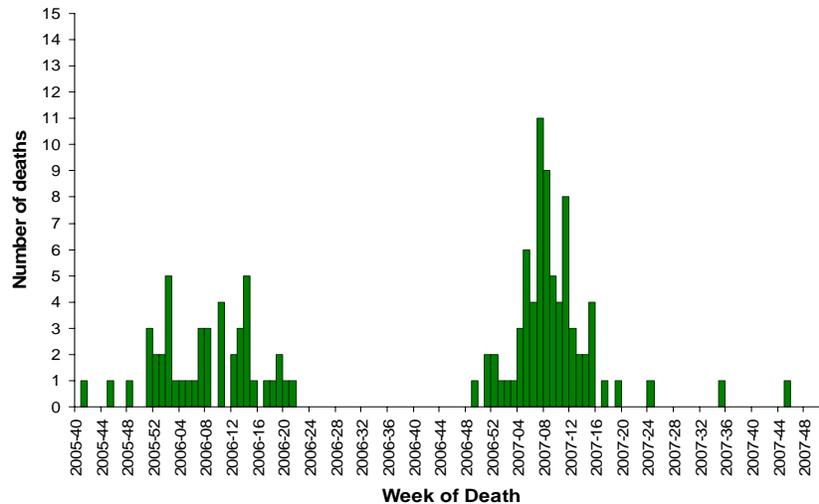
**Pneumonia and Influenza (P&I) Mortality Surveillance:** During week 49, 6.2% of all deaths reported through the 122-Cities Mortality Reporting System were reported as due to P&I. This percentage is below the epidemic threshold of 6.5% for week 49.

### Pneumonia and Influenza Mortality for 122 U.S. Cities Week Ending 12/08/2007



**Influenza-Associated Pediatric Mortality:** No influenza-associated pediatric deaths were reported during week 49. One influenza-associated pediatric death has been reported during the 2007-08 season.

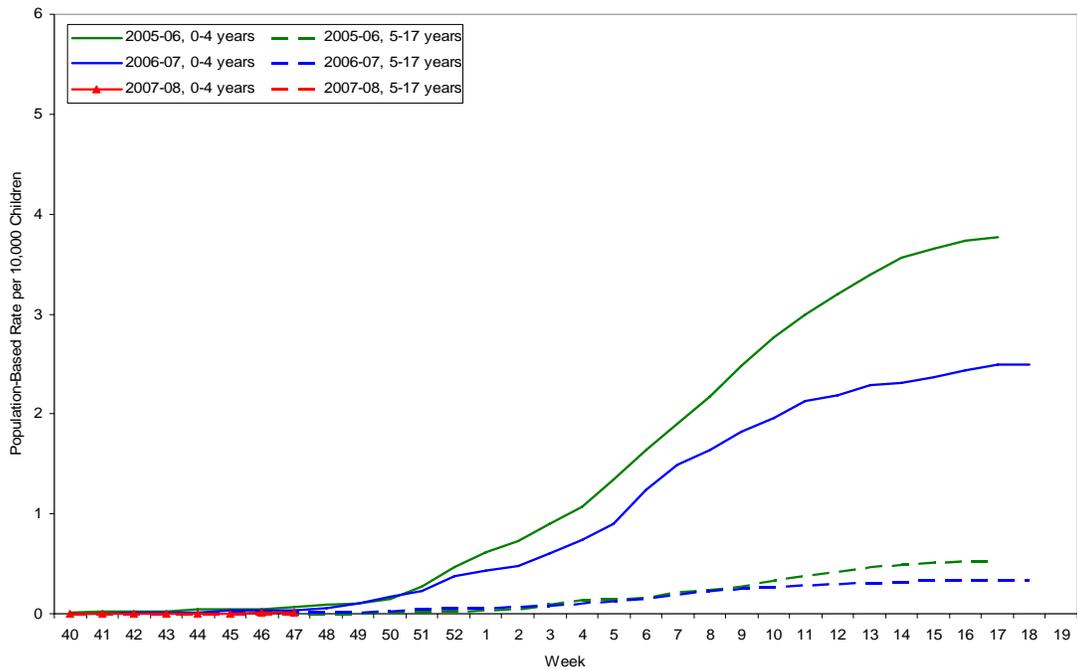
## Number of Influenza-Associated Pediatric Deaths by Week of Death: 2005-06 season to present



**Influenza-Associated Pediatric Hospitalizations:** Laboratory-confirmed influenza-associated pediatric hospitalizations are monitored in two population-based surveillance networks: the New Vaccine Surveillance Network (NVSN) and the Emerging Infections Program (EIP). No influenza-associated pediatric hospitalizations have been reported from the NVSN.

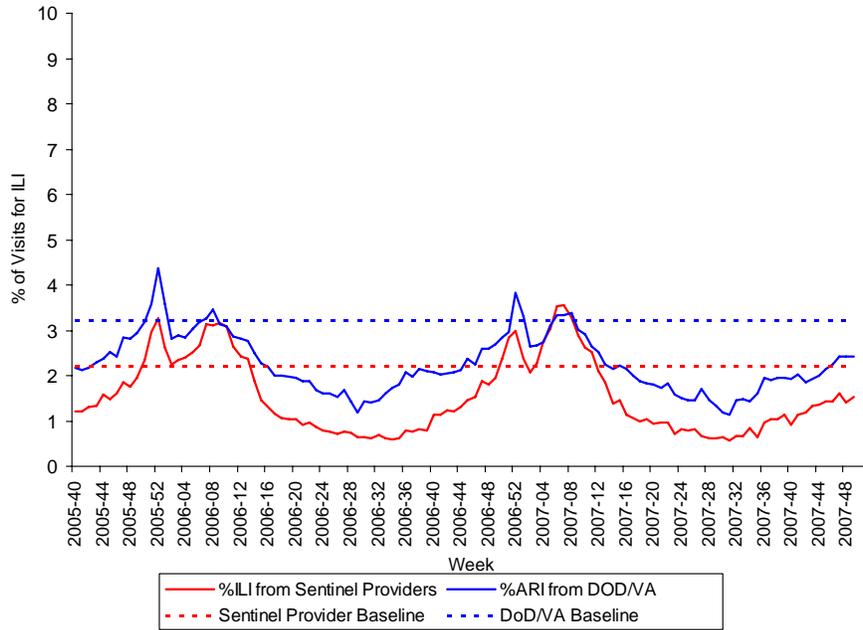
During September 30–November 24, 2007, the preliminary laboratory-confirmed influenza-associated hospitalization rate reported by the EIP for children 0–17 years old was 0.006 per 10,000. For children aged 0–4 years and 5–17 years, the rate was 0.01 per 10,000 and 0.003 per 10,000, respectively.

## EIP Influenza Laboratory-Confirmed Cumulative Hospitalization Rates for Children Aged 0-4 and 5-17 yrs, 2007-08 and Previous 2 Seasons

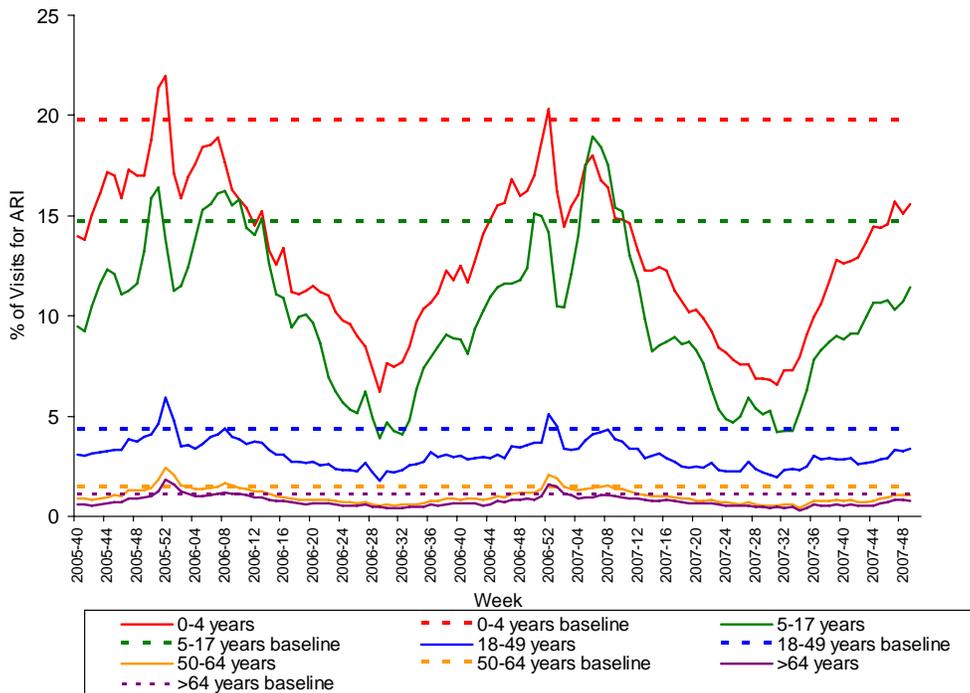


**Outpatient Illness Surveillance:** Nationwide during week 49, 1.5% of patient visits reported through the U.S. Influenza Sentinel Provider Surveillance Network were due to influenza-like illness (ILI) and 2.4% of patient visits to Department of Veteran’s Affairs (VA) and Department of Defense (DoD) outpatient treatment facilities were for acute respiratory illness (ARI). These percentages are less than the national baselines of 2.2% and 3.2%, respectively. On a regional level, the percentage of visits for ILI ranged from 0.4% to 2.8% and the percentage of visits for ARI ranged from 1.2% to 3.0%. All nine regions reported percentages of visits for ILI and ARI below their respective region-specific baselines. All five age groups reported percentages of visits for ARI below their respective age-specific baselines.

## Percentage of Visits for ILI & ARI Reported by Sentinel Providers and BioSense Outpatient Facilities, National Summary

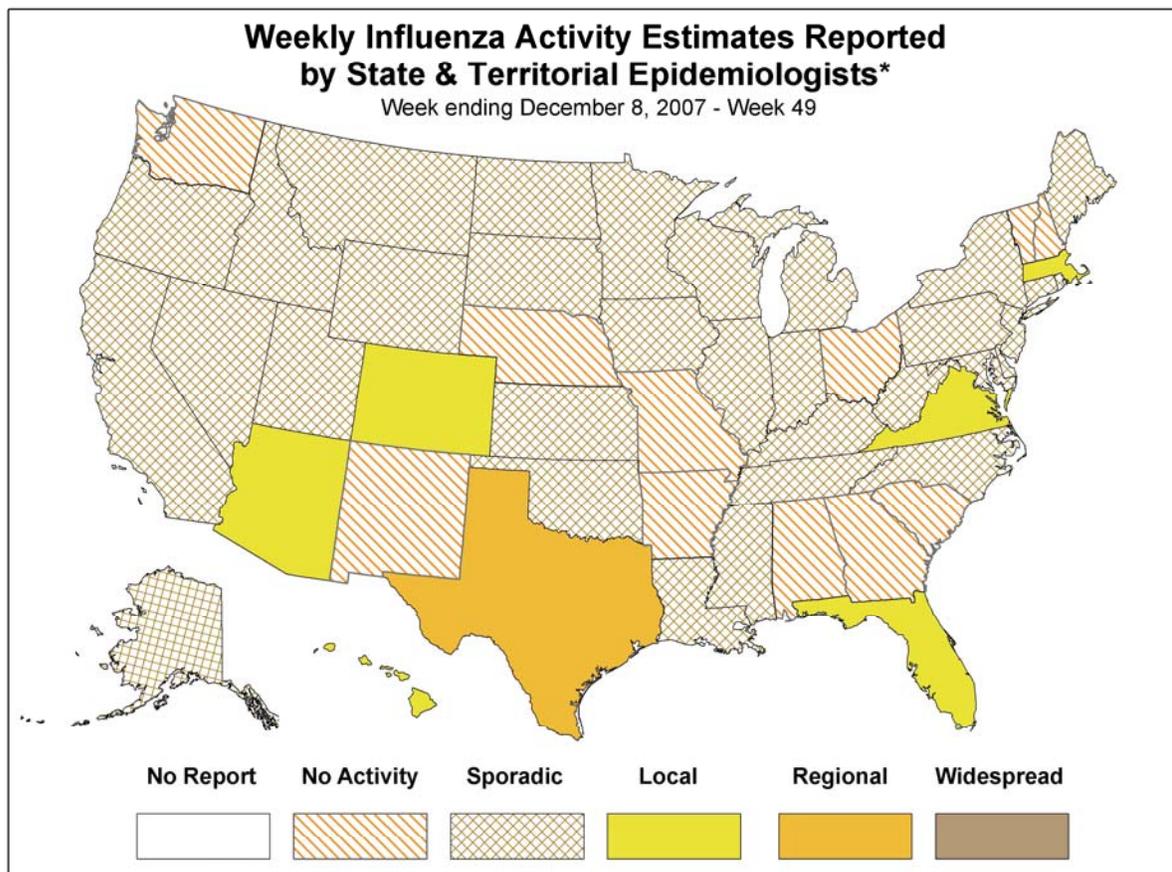


## Percentage of Visits for ARI by Age Group Reported by DoD/VA Outpatient Clinics - National Summary



## Geographic Spread of Influenza as Assessed by State and Territorial Epidemiologists:

Influenza activity was reported as regional in one state (Texas), local in six states (Arizona, Colorado, Florida, Hawaii, Massachusetts, and Virginia) and as sporadic in 32 states (Alaska, California, Connecticut, Delaware, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Montana, Nevada, New Jersey, New York, North Carolina, North Dakota, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Tennessee, Utah, West Virginia, Wisconsin, and Wyoming), the District of Columbia, and Puerto Rico. Eleven states reported no influenza activity.



\* 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/fluactivity.htm>

Report prepared: December 14, 2007.