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#### Surveillance

En Español



Influenza (Flu)

ICD-9 487; ICD-10 J10,11

Related Topics: Protecting Yourself During the Cold and Flu Season, Avian Flu, Vaccine Preventable Diseases and SARS

#### 2008 - 2009 Texas Influenza Surveillance Information

## **Influenza Surveillance Report for MMWR Week 7**

The influenza (flu) activity level for Texas for the week ending February 21, 2009 was "widespread." Widespread activity indicates that at least half of the regions in the state are experiencing an increase in influenza-like illness (ILI) and have recent culture-confirmed influenza. During week 7, 505 (26.7%) specimens tested by NREVSS laboratories in Texas were positive for influenza. The percentage of visits for influenza-like illness as reported by ILINet providers in Texas exceeded the regional baseline.

## **Reports from Health Service Regions**

Reports were received from all Health Service Regions (HSRs) for week 7. HSR 11 reported a decrease in flu activity compared to week 6. HSRs 7 and 9/10 reported an increase in flu activity compared to week 6. All other HSRs reported the same level of flu activity compared to week 6. For a map of Health Service Regions, please visit the following website:

http://www.dshs.state.tx.us/regions/state.shtm

#### **Laboratory Results**

During week 7, ten hospital laboratories and public health agencies across Texas reported conducting a total of 1,888 influenza tests (antigen, culture, and PCR) to the National Respiratory and Enteric Virus Surveillance System (NREVSS ©) sponsored by the Centers for Disease Control and Prevention (CDC). Of the 1,694 antigen detection tests that were performed, 245 were positive for influenza A/not subtyped and 197 were positive for influenza B. The positive results were reported from Bell, Bexar, Collin, Harris, Lubbock, and Tarrant counties. Forty-four PCR tests positive for influenza A/H1, one PCR test positive for influenza A/H3, four PCR tests positive for influenza A/not subtyped, and fifty-two PCR tests positive for influenza B were reported for Anderson, Bell, Coryell, Guadalupe, Henderson, Harris, Rains, Smith, Tarrant, and Van Zandt counties. [There may be some overlap in the PCR and culture positive results described in this report (i.e., some of the PCR results may be from some of the same patients as the culture results).] A total of 329 reports of culture-confirmed influenza were received from public health laboratories in Austin, Dallas, and Houston; Scott & White Memorial Hospital in Temple; Texas Children's Hospital in Houston; the United States Air Force School of Aerospace Medicine (USAFSAM) and other sources for the following counties:

Influenza A/H1	Influenza A/H3	Influenza A/not subtyped	Influenza B
Bexar County (9)	(none)	Bell County (14)	Bell County (6)
Deaf Smith County (2)		Bexar County (88)	Bexar County (37)
Erath County (2)		Brazos County (3)	Brazos County (4)
Wichita County (3)		Dallas County (22)	Burleson County
		Deaf Smith County (5)	Dallas County (19)
		Harris County (26)	Grimes County
		Madison County	Harris County (48)
		McLennan County (21)	McLennan County (9)
		Milam County	Travis County (4)
		Tarrant County	Williamson County (2)

Additional positive results from point-of-care rapid flu tests were reported by providers throughout the state (see Texas map below).

## **Antigenic Characterization**

CDC has reported antigenic characterization results from 33 influenza isolates [14 influenza A/H1, 1 influenza A/H3, and 18 influenza B viruses] received from the DSHS Laboratory since the beginning of the 2008–09 flu season.

Influenza A/H1 [14]

- All 14 viruses were characterized as A/Brisbane/59/2007, the influenza A/H1 component of the 2008–09 influenza vaccine for the Northern Hemisphere.
- One virus was characterized as A/Brisbane/10/2007, the influenza A/H3 component of the 2008-09 influenza vaccine for the Northern Hemisphere. Influenza B (B/Victoria/02/87 and B/Yamagata/16/88 lineages) [18]

Victoria lineage [12]

- Two (17%) of the twelve viruses were characterized as B/Ohio/01/2005-like viruses.
- Ten (83%) of the twelve viruses showed somewhat reduced titers with antisera produced against B/Malaysia/2506/2004 and B/Ohio/01/2005.

Yamagata lineage [6]

• Six viruses were characterized as B/Florida/4/2006, the influenza B component for the 2008-09 influenza vaccine for the Northern Hemisphere.

### **Antiviral Resistance**

Since September 28, 2008, 15 influenza A/H1 isolates, 1 influenza A/H3 isolate, and 17 influenza B isolates from the DSHS laboratory have been tested by CDC for antiviral resistance.

	Isolates Tested (n)	Resistant Numbe		Isolates Tested (n)	Resistant Viruses, Number (%)	
		Oseltamivir	Zanamivir		Adamantanes	
Influenza A/H1	15	14 (93%)	0 (0)	15	0 (0)	

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Influenza A/H3	1	0 (0)	0 (0)	1	1 (100%)
Influenza B	17	0 (0)	0 (0)	N/A*	N/A*

<sup>\*</sup>Adamantanes are not effective against influenza B viruses.

CDC has issued interim recommendations for use of antiviral medications in the 2008-09 influenza season. Those recommendations are available at: http://www.cdc.gov/flu/professionals/antivirals/index.htm..

#### Influenza-Associated Pediatric Mortality

One influenza-associated pediatric fatality was reported during week 7. The death occurred in a 12-year-old resident of Health Service Region 1 with no significant underlying medical conditions. A specimen obtained from the child was positive by PCR for influenza A/H1. Another specimen from the child was positive for methicillin-resistant Staphylococcus aureus (MRSA). The child was not vaccinated for influenza for the current season. Texas has reported five influenza-associated pediatric fatalities during the 2008-09 influenza season.

#### **School Closures and Institutional Outbreaks**

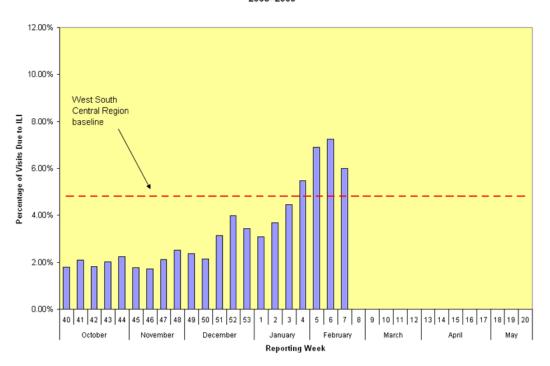
No school closures or institutional outbreaks were reported in week 7.

## **U.S. Outpatient Influenza-like Illness Surveillance Network**

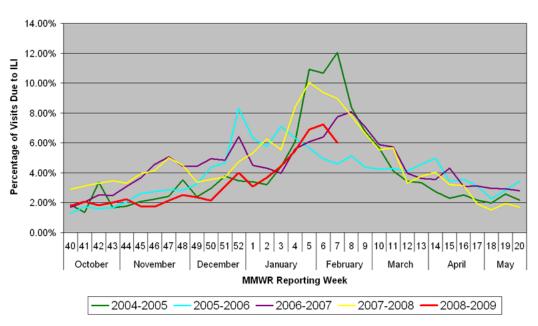
Fifty-six providers in Texas reported data to the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) (formerly known as the U.S. Influenza Sentinel Provider Surveillance System) on patients with influenza-like illness (ILI) and total patients seen for any reason during week 7. Of the 54 providers who saw patients, 43 (80%) saw at least one patient with ILI. Of all patient visits during this week, 6.01% were due to ILI. The ILI baseline for the West South Central Region (Arkansas, Louisiana, Oklahoma, and Texas) of the United States is 4.8% for the 2008-2009 season. The baseline is the mean percentage of patient visits for ILI during non-influenza weeks for the previous three seasons plus two standard deviations.

Percenta	Percentage of Visits for Influenza-Like Illness Reported by the US Outpatient Influenza-Like Illness Surveillance Network (ILINet) in Texas as of 2/27/2009 11:58:31 AM								
Week	# Reporting	Age 0-4	Age 5-24	Age 25-64	Age over 64	Total ILI	Total Patients	% ILI	
2008-40	78	84	133	127	22	366	20333	1.80	
2008-41	78	114	163	124	19	420	20105	2.09	
2008-42	79	107	156	90	7	360	19746	1.82	
2008-43	79	120	152	106	20	398	19740	2.02	
2008-44	80	136	199	103	26	464	20737	2.24	
2008-45	78	110	111	122	27	370	20835	1.78	
2008-46	73	110	106	103	23	342	19771	1.73	
2008-47	75	137	143	122	19	421	19806	2.13	
2008-48	79	131	132	125	37	425	16905	2.51	
2008-49	77	143	159	153	24	479	20343	2.35	
2008-50	75	133	146	108	28	415	19330	2.15	
2008-51	69	172	177	175	24	548	17531	3.13	
2008-52	76	194	153	154	34	535	13431	3.98	
2008-53	76	167	137	165	46	515	15037	3.42	
2009-01	78	162	182	188	38	570	18518	3.08	
2009-02	76	178	287	233	41	739	19995	3.70	
2009-03	76	172	462	337	40	1011	22728	4.45	
2009-04	75	257	675	328	45	1307	23896	5.47	
2009-05	70	282	892	457	39	1670	24231	6.89	
2009-06	70	281	907	378	57	1623	22414	7.24	
2009-07	56	260	624	285	54	1223	20359	6.01	

# Percentage of Visits Due to Influenza-Like Illness (ILI), Texas Providers in the U.S. Outpatient Influenza-like Illness Surveillance Network, 2008–2009

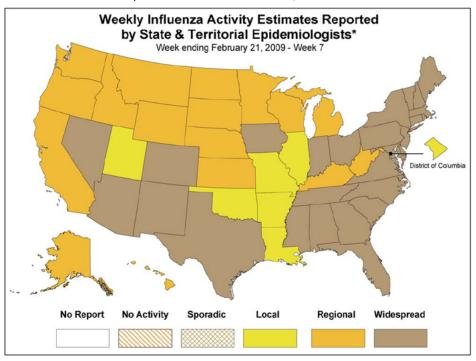


Influenza-Like Illness (ILI) Data Texas Providers in the U.S. Outpatient Influenza-like Illness Surveillance Network Flu Seasons 2004–2009



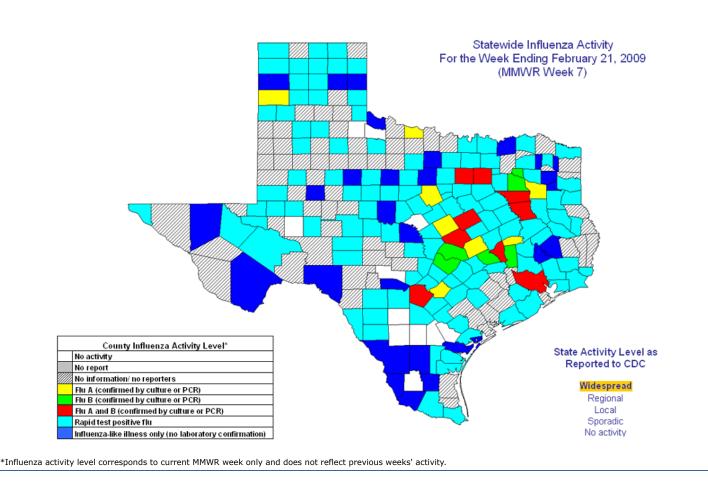
## **National Influenza Activity Map**

The map showing influenza activity in the United States for MMWR week 7 is displayed below. The current U.S. flu weekly report may be found at: here.



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

For more information on flu surveillance activities in the State of Texas, please visit our main surveillance page.



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