



Travis County Influenza Surveillance

This report contains data for the 2012-2013 Influenza Season through October 25, 2013 (MMWR¹ week 43).

Situation Update:

- CDC reports that overall influenza activity remains low; but, activity is increasing and is expected to increase in the coming weeks.
- Nationally, the percentage of specimens testing positive for influenza viruses in the United States increased to 4.8%. Influenza A (H3N2), 2009 influenza A (H1N1), and influenza B viruses have all been identified in the U.S. this season. 268 (66.5%) of the 403 influenza-positive tests reported to CDC were influenza A viruses and 135 (33.5%) were influenza B viruses. Of the 99 influenza A viruses that were subtyped, 97% were H3 viruses and 3% were 2009 H1N1 viruses.
- Statewide, 81 (6.38%) specimens tested in influenza surveillance labs in Texas were positive for influenza. Influenza A (H3N2) and influenza B viruses have all been identified in Texas this season; 53 (65.43%) of the 81 influenza-positive tests were influenza A viruses and 28 (34.57%) were influenza B viruses. Of the 53 influenza A viruses that were subtyped, 100% were H3 viruses. Locally, five specimens submitted have been submitted for further testing, all were negative for influenza.
- Nationwide, 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 2.0%.
- In Texas, the percentage of visits for influenza-like illness as reported by ILINet providers was 4.06%, a minimal level of ILI activity. Locally, the percentage of visits was 1.75%.
- Two pediatric influenza deaths have been reported nationally; no pediatric influenza deaths have been reported in Texas this season, none in Travis County.
- Nationwide, the proportion of deaths attributed to pneumonia and influenza is below the epidemic threshold (6.0%).
 Locally, the number of deaths attributed to pneumonia and influenza has trended near seasonal levels locally. None of these deaths have been attributed to influenza.





H3N2v:

- One infection with an influenza A (H3N2) variant virus (H3N2v) was reported by Wisconsin. The patient is reported to have had close contact with swine in the week prior to illness onset. No ongoing human-to-human transmission has been identified. This is the first H3N2v infection reported for the 2014-2015 influenza season.
- All cases of H3N2v have mostly been associated with prolonged exposure to pigs at agricultural fairs. Limited human-to-human spread of this virus has been detected in the past but no sustained or community spread has been identified.
 CDC reports that it is possible for sporadic infections and even localized outbreaks to continue to occur.
- For more information, visit <u>H3N2v Influenza</u>.

Preventive Actions:

- The CDC recommends that anyone six months of age and older should be vaccinated for the flu every flu season. Individuals who are at high risk are especially advised to be vaccinated. High risk individuals are as follows:
 - o Persons 65 years of age and older
 - o Pregnant women
 - o Individuals with certain chronic medical conditions, including diabetes, asthma, heart and lung disease
 - o Health care workers
 - o Individuals who live with and/or care for high risk individuals
- In addition to the vaccine, there are certain preventive measures an individual can take to prevent the flu:
 - o Wash your hands often with soap and water, or use an alcohol-based hand sanitizer if soap is not available.
 - o Practice proper sneezing and coughing measures.
 - o Avoid touching your nose, mouth and eyes.
 - o Avoid coming into contact with an individual who is sick.
 - o If you are sick, stay home until you are fever free for 24 hours without the use of fever-reducing medications.





Although these preventive actions are highly recommended they do not take the place of the flu vaccine.

For additional information about Influenza surveillance, contact:
The Austin/Travis County Health and Human Services Epidemiology and Health Statistics Unit at (512) 972-5555

Other Helpful Resources:

Texas Department of State Health Services (DSHS)

Centers for Disease Control and Prevention (CDC)

World Health Organization (WHO)

Figure 1. Influenza Surveillance, Travis County Providers ^{4,5,6}

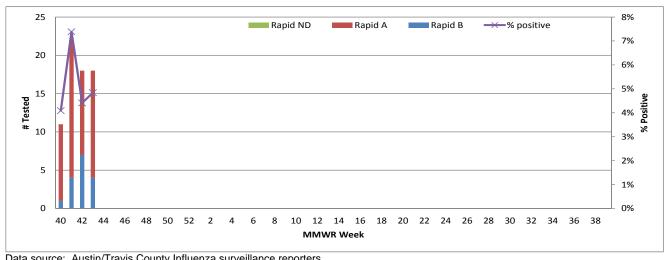
Week Ending	9/6/2014	9/13/2014	9/20/2014	9/27/2014	10/4/2014	10/11/2014	10/18/2014	10/25/2014
MMWR Week	36	37	38	39	40	41	42	43
# Influenza Rapid Tests Performed	48	69	89	107	139	181	408	372
# Total Positive Influenza Tests	8	5	9	11	7	7	18	18
% Positive Influenza Tests	16.7%	7.2%	10.1%	10.3%	5.0%	3.9%	4.4%	4.8%
# Positive A Influenza	6	4	7	6	6	5	11	14
# Positive B Influenza	1	0	1	2	1	2	7	4
# Non-Differentiated Influenza ³	1	1	1	3	0	0	0	0

Data source: Austin/Travis County Influenza surveillance reporters



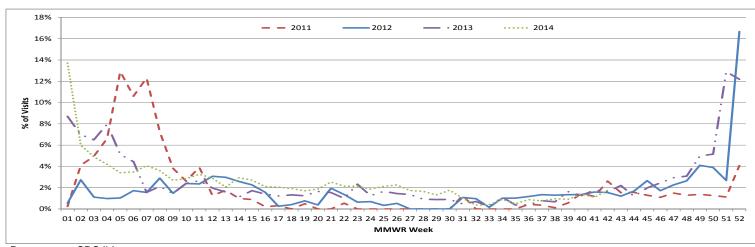


Figure 2. Number Tested and Percent Positive Rapid Influenza Tests by Week, Travis County: 2012-2013 Influenza Season^{4,5,6,8}



Data source: Austin/Travis County Influenza surveillance reporters

Figure 3. Percentage of Visits Due to Influenza-like-Illness Reported by Travis County Participants in ILINet: 2009-20138



Data source: CDC ILI.net system





Figure 4. Travis County Confirmed Influenza Test Results:^{2,9,10}

		12/1/2013 - 2/1/20143	2/2/2014 - 4/5/2014	4/6/2014 - 6/7/2014	6/8/2014 - 8/9/2014	8/10/2014 - 10/11/2014	10/12/2014 - 02/14/2015
N	MMWR Week	49-5	6-14	15-23	24-32	25-41	42-6*
(Total F	Influenza A Positive PCR Tests)	91	5	1	0	1	0
	Seasonal H1N1	83	2	0	0	0	0
Subtype	Season H3N2	2	3	1	0	1	0
	Not Subtyped	13	0	0	0	0	0
(Total F	Influenza B Positive PCR Tests)	1	6	0	0	0	0
PCR N	legative Specimens	123	17	4	7	4	3

^{*} Incomplete data.

Data source: Austin/Travis County Influenza surveillance reporters and the Department of State Health Services lab

Figure 5. Influenza Testing by Texas Laboratories for Week 40^{11, 14}

ga. or	Week 42				
Number of labs reporting flu tests	14				
Number of specimens tested	1270				
Number of positive specimens (%) [†]	81 (6.38%)				
Percentage of total tests that were antigen detection tests	61.97%				
Positive specimens by type/subtype [n (%)]					
Influenza A	53 (65.43%)				
Subtyping performed	4 (7.55%)				
A (H1N1)	0 (0.00%)				
A (H3N2)	4 (100.00%)				
Subtyping not performed	49 (92.45%)				
Influenza B	28 (34.57%)				

^{** 1} test was culture confirmed rather than PCR confirmed





Texas Antigenic Characterization¹¹

No antigenic characterization data for Texas specimens are available at this time. The DSHS Laboratory sends a representative sample of influenza viruses to the CDC throughout the flu season.

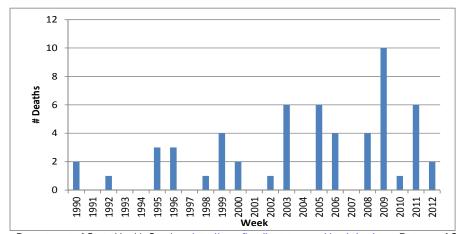
Texas Antiviral Resistance¹¹

No antiviral resistance testing data for Texas specimens are available at this time.

Figure 6. Texas Respiratory Laboratory Results: MMWR Week 40¹⁵

Virus	Number of Laboratories Testing	Tests Performed	Positive Tests	Percentage of Tests Positive	
Adenovirus (respiratory)	5	411	20	4.87%	
HMPV	5	430	0	0.00%	
Parainfluenza virus	6	538	18	3.35%	
Rhinovirus	3	267	82	30.71%	
RSV	11	595	48	8.07%	

Figure 8. Annual Influenza Related Mortality, Travis County: 1990-2009



Data source: Texas Department of State Health Services http://soupfin.tdh.state.tx.us/deathdoc.htm Data as of September 12, 2012

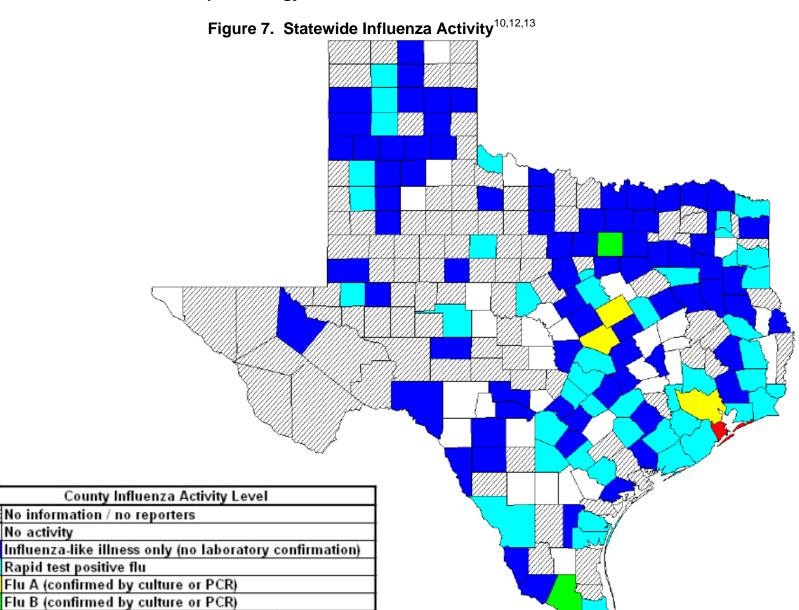


No activity

Flu A and B (confirmed by culture or PCR)

Austin/Travis County Health and Human Services Department Epidemiology and Health Statistics Unit





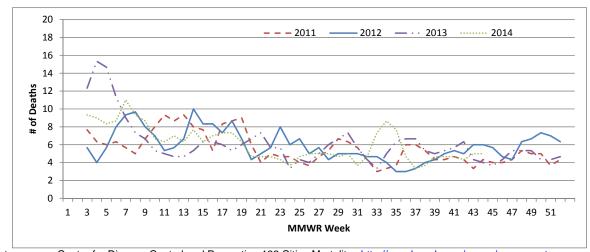
This chart was obtained from the Texas Influenza Surveillance Report http://www.dshs.state.tx.us/idcu/disease/Influenza/surveillance/2013/

Austin/Travis County influenza surveillance does not attempt to capture all cases of influenza or influenza-like illness. These data should be used for trending purposes over time and for identifying types/strains of influenza that are occurring in the Austin area rather than for estimating the total number of cases.



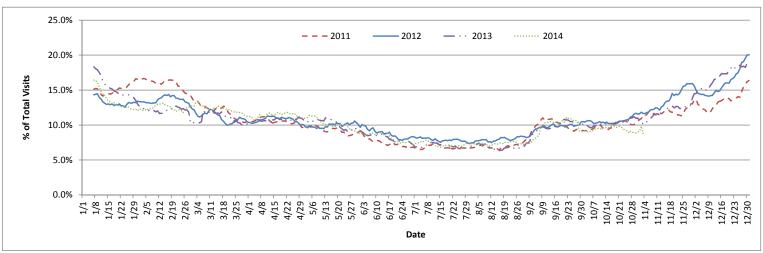


Figure 9. City of Austin Pneumonia and Influenza Mortality: 2010-2013



Data source: Center for Disease Control and Prevention 122 Cities Mortality: http://wonder.cdc.gov/mmwr/mmwrmort.asp

Figure 10. RODS Syndromic Surveillance for the Respiratory Prodrome Category, Travis County: 2010-2013

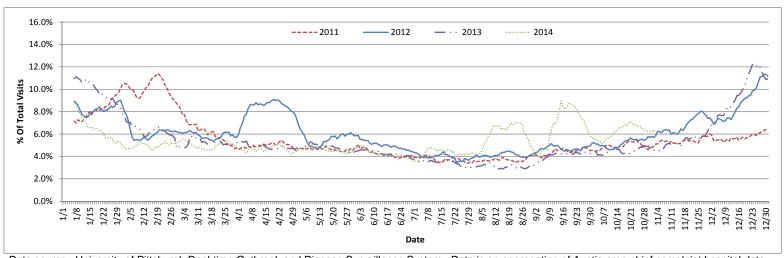


Data source: University of Pittsburgh Real-time Outbreak and Disease Surveillance System. Data is an aggregation of Austin area chief complaint hospital data





Figure 11. RODS Syndromic Surveillance for Influenza-Like-Illness, Travis County: 2010-2013



Data source: University of Pittsburgh Real-time Outbreak and Disease Surveillance System. Data is an aggregation of Austin area chief complaint hospital data

- MMWR is the Morbidity and Mortality weekly report week published by the CDC.
- PCR testing is performed for specimens referred by area sentinel Influenza surveillance reporters. Providers interested in becoming sentinel providers may call the Austin/Travis County Health and Human Services Epidemiology and Health Statistics Unit at (512) 972-5555.
- ³ Influenza A is commonly split into 2 subtypes: H1N1 and H3N2. Both strains can circulate each Influenza season.
- Influenza is not a reportable condition in Texas; therefore, data is provided by sentinel surveillance reporters and is only a sample of the Influenza activity occurring in the Austin/Travis County area.
- Data represent rapid Influenza testing; these tests provide quick results reporting only Influenza A or B (no subtyping). Early in the flu season, results should be used with caution due to false positive results which can occur, especially during times when Influenza activity is low.
- ⁶ Influenza data is collected from a variety of reporters; the number of reporters can vary from week to week.
- Non-Differentiated refers to rapid test results that do not differentiate between Influenza A and B.
- ⁸ Data for Austin/Travis County ILI reporters only; the number of reporters can vary from week to week.
- Influenza is confirmed via PCR testing and a further subtyping may be performed. PCR testing is performed for specimens referred by area Influenza surveillance reporters.
- Positive laboratory results are reported according to specimen collection date or date received in the lab if the former is unknown.





- Antigenic characterization and antiviral resistance is obtained from the Texas Influenza Surveillance Report http://www.dshs.state.tx.us/idcu/disease/Influenza/surveillance/2013/.
- Influenza activity level corresponds to the current MMWR week only and does not reflect the previous weeks' activity.
- The majority of Influenza cases are not reportable by law to the Texas Department of State Health Services. This map contains data from sentinel sites and does not represent all Influenza cases in the state.
- Laboratory data in 2013-2014 season reports may not be comparable to reports from previous seasons because of the inclusion of DSHS and LRN laboratory data for the current season.
- ¹⁵ Some non-NREVSS reporters also contribute to the RSV data.