



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



Travis County Influenza Surveillance

This report contains data for the 2012-2013 Influenza Season through March 30, 2013 (MMWR week 13).

Situation Update:

- Nationwide Influenza activity continues to decline with influenza like illness (ILI) falling below baseline nationally for the second week in a row. Locally, data points have returned to normal seasonal trends.
- The Centers for Disease Control and Prevention (CDC) reports no states at high or moderate levels of ILI activity and all 50 states reported low or minimal ILI activity. Texas reports minimal influenza levels.
- Nationally, the number of deaths attributed to pneumonia and Influenza has decreased to 7.4% this week, and has fallen below epidemic threshold levels. Locally, deaths associated with pneumonia and Influenza have leveled off to baseline.

Epidemiologic Overview:

- CDC reports that Influenza A H3N2³ has been the predominate strain this influenza season; however, they report that Influenza B comprised 75% of the positive influenza tests in the past week continuing to occur at levels above Influenza A. Texas has seen higher than expected levels of Influenza B throughout the influenza season.
- Travis County saw a high amount of Influenza B early in the season through both rapid testing and Polymerase Chain Reaction (PCR)² confirmatory testing. As the season has progressed, seasonal Influenza A (predominantly the H3³ strain) has increased with reporting numbers equivalent to or higher than that of Influenza B.
- In Travis County the percent positive influenza tests, both rapid and PCR, show a decrease in the past week; however, percent positives remain above 10% similar to national trends.
- The Department of State Health Services (DSHS) reported one new pediatric Influenza death, occurring in MMWR 6. There have been 16 pediatric deaths this season in Texas.



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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:
 - Persons 65 years of age and older
 - Pregnant women
 - Individuals with certain chronic medical conditions, including diabetes, asthma, heart and lung disease
 - Health care workers
 - 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:
 - Wash your hands often with soap and water, or use an alcohol-based hand sanitizer if soap is not available.
 - Practice proper sneezing and coughing measures.
 - Avoid touching your nose, mouth and eyes.
 - Avoid coming into contact with an individual who is sick.
 - 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 \(WHO\)](#)



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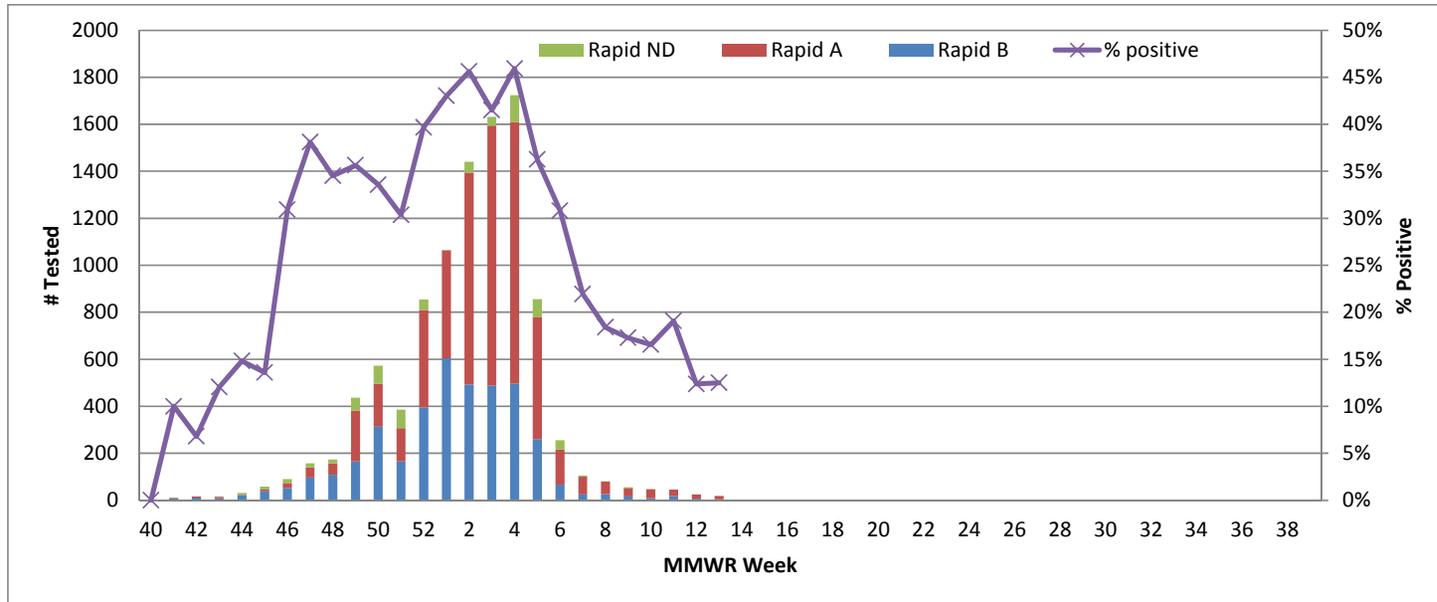


Figure 1. Influenza Surveillance, Travis County Providers^{4,5,6}

Week Ending	2/9/2013	2/16/2013	2/23/2013	3/2/2013	3/9/2013	3/16/2013	3/23/2013	3/30/2013
MMWR Week	6	7	8	9	10	11	12	13
# Influenza Rapid Tests Performed	831	479	440	324	289	208	210	210
# Total Positive Influenza Tests	256	106	81	56	48	37	26	26
% Positive Influenza Tests	30.8%	22.1%	18.4%	17.3%	16.6%	17.8%	12.4%	12.4%
# Positive A Influenza	149	76	53	37	38	22	17	17
# Positive B Influenza	67	25	27	16	9	15	7	7
# Non-Differentiated Influenza ³	40	5	1	3	1	0	2	2

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^{4,5,6,7}



Data source: Austin/Travis County Influenza surveillance reporters

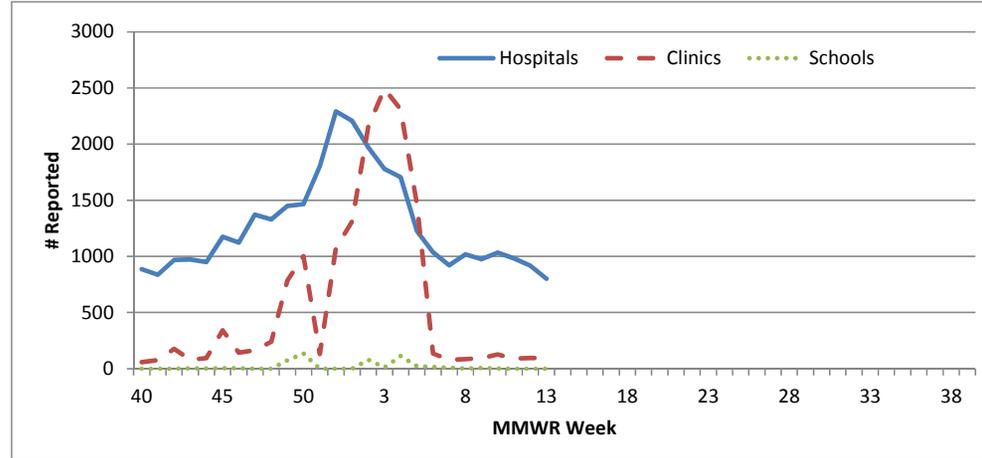
Austin/Travis County influenza surveillance does not attempt to capture all cases of influenza or influenza-like illness. These data should be used for trending purposes over time and for identifying types/strains of influenza that are occurring in the Austin area rather than for estimating the total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



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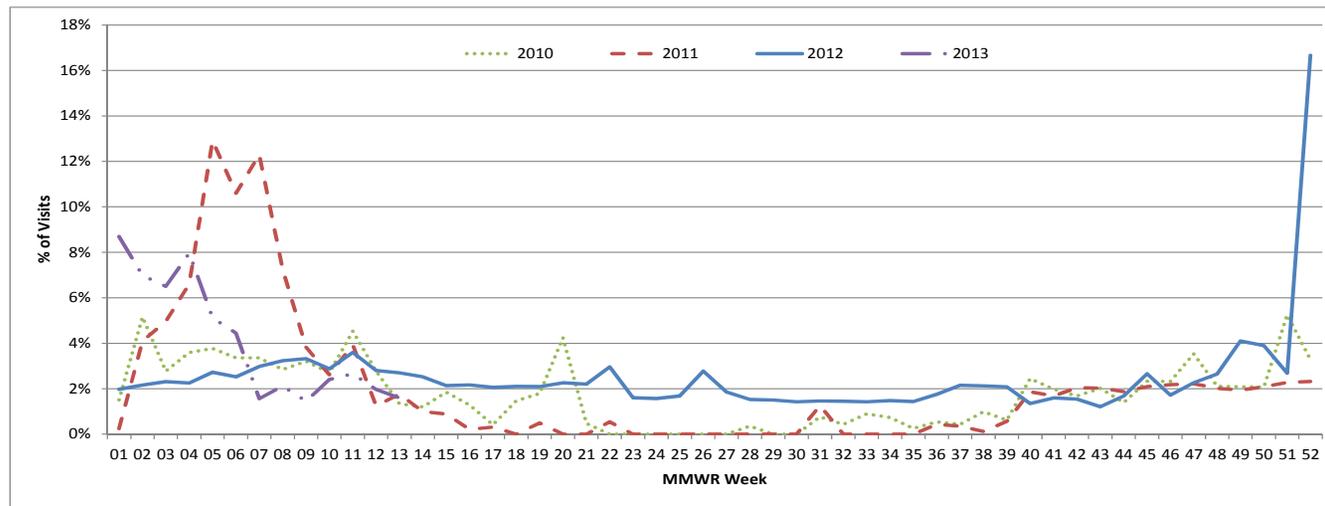


Figure 3. Rapid Influenza Tests by Week and Provider Type, Travis County: 2012-2013 Influenza Season^{4,5,6,7}



Data source: Austin/Travis County Influenza surveillance reporters

Figure 4. Percentage of Visits Due to Influenza-like-Illness Reported by Travis County Participants in ILINet: 2009-2013⁸



Data source: CDC ILI.net system

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Figure 5. Travis County Confirmed Influenza Test Results:^{1,9,10}

	05/20/2012 - 7/21/2012	07/22/2012 - 9/22/2012	09/23/2012 - 11/24/2012	11/25/2012 - 1/26/2013	1/27/2013 - 3/23/2013	3/18/2012 - 5/19/2012
MMWR Week	20-28	29-37	38-46	47-3	4-12	11-19*
Influenza A (Total Positive PCR Tests)	1	0	3	20	29	0
Subtype	Seasonal H1N1	0	0	0	3	0
	Season H3N2	1	0	3	20	0
	Not Subtyped	0	0	0	0	0
Influenza B (Total Positive PCR Tests)	1	0	4	27**	4	0
PCR Negative Specimens	0	1	2	22	28	0

* Incomplete data

** 1 test was culture confirmed rather than PCR confirmed

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

Texas Antigenic Characterization Reported by MMWR Week 13:¹¹

Since September 1, 2012, CDC has reported antigenic characterization results from nine Influenza A (H1N1) viruses, 46 Influenza A (H3N2) viruses, and 37 Influenza B viruses received from the Texas Department of State Health Services (DSHS) Laboratory.

Influenza A (H1N1) [9]

- Nine viruses were related to A/California/07/2009. This virus strain was included in the 2012-2013 Influenza vaccine for the Northern Hemisphere.

Influenza A (H3N2) [46]

- Forty-six viruses were related to A/Victoria/361/2011. This virus strain was included in the 2012-2013 Influenza vaccine for the Northern Hemisphere.

Influenza B [37]

- Thirty-two (86.5%) viruses were related to B/Wisconsin/01/2010 (Yamagata lineage). This Influenza B lineage was included in the 2012-2013 Influenza vaccine for the Northern Hemisphere.
- Five (13.5%) viruses were related to B/Brisbane/60/2008 (Victoria lineage). This Influenza B lineage was not included in the 2012-2013 Influenza vaccine for the Northern Hemisphere.

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The national antigenic characterization and antiviral resistance testing results may be found in the CDC weekly flu report at <http://www.cdc.gov/flu/weekly/>. The DSHS Laboratory sends a representative sample of Influenza viruses to the CDC throughout the flu season.

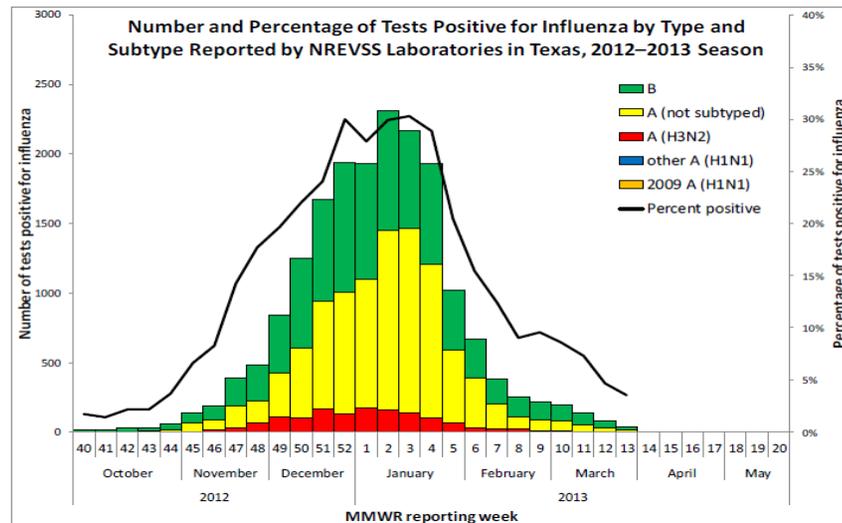
Texas Antiviral Resistance Reported by MMWR Week 13:¹¹

Since October 1, 2013, 95 influenza viruses from Texas have been tested for antiviral resistance. The results are displayed below.

	Oseltamivir		Zanamivir	
	Virus samples tested (n)	Resistant viruses, number (%)	Virus samples tested (n)	Resistant viruses, number (%)
2009 influenza A (H1N1)	12	0 (0%)	12	0 (0%)
Influenza A (H3N2)	65	1 (1.5%)	65	0 (0%)
Influenza B	48	0 (0%)	48	0 (0%)

For more information on antiviral medications please see <http://www.cdc.gov/flu/professionals/antivirals/index.htm>.

Figure 6. DSHS NREVSS Laboratory Data



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

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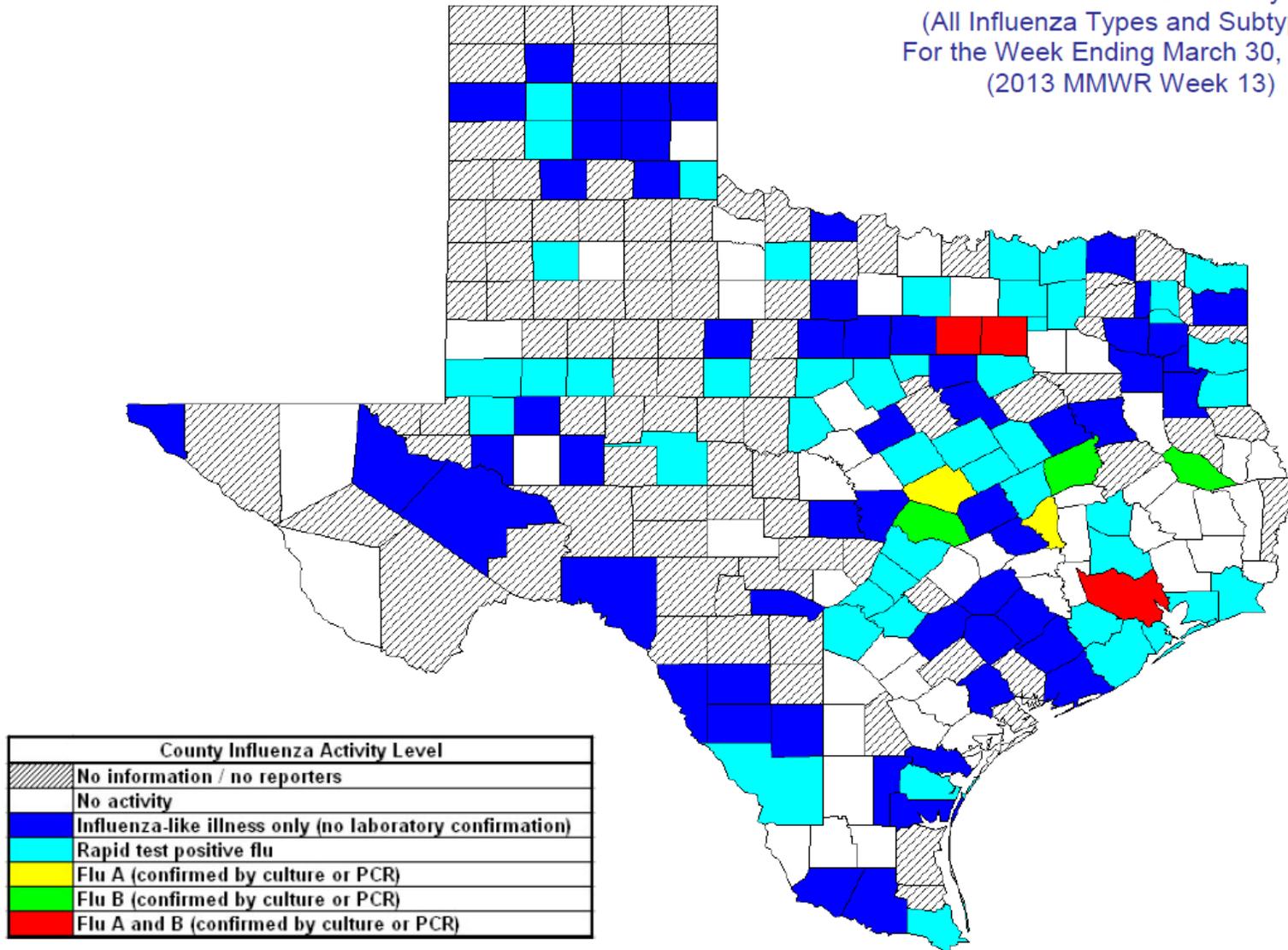


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Figure 7. Statewide Influenza Activity^{10,12,13}

Statewide Influenza Activity
(All Influenza Types and Subtypes)
For the Week Ending March 30, 2013
(2013 MMWR Week 13)



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

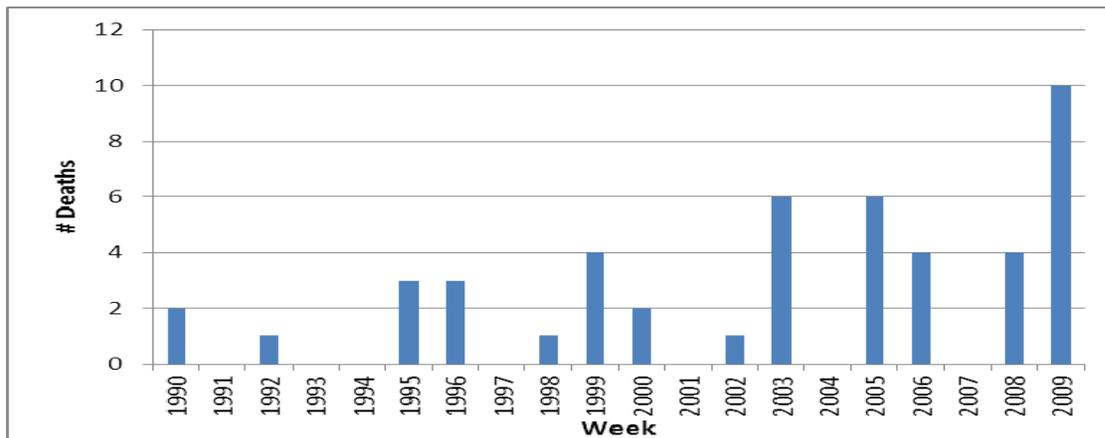
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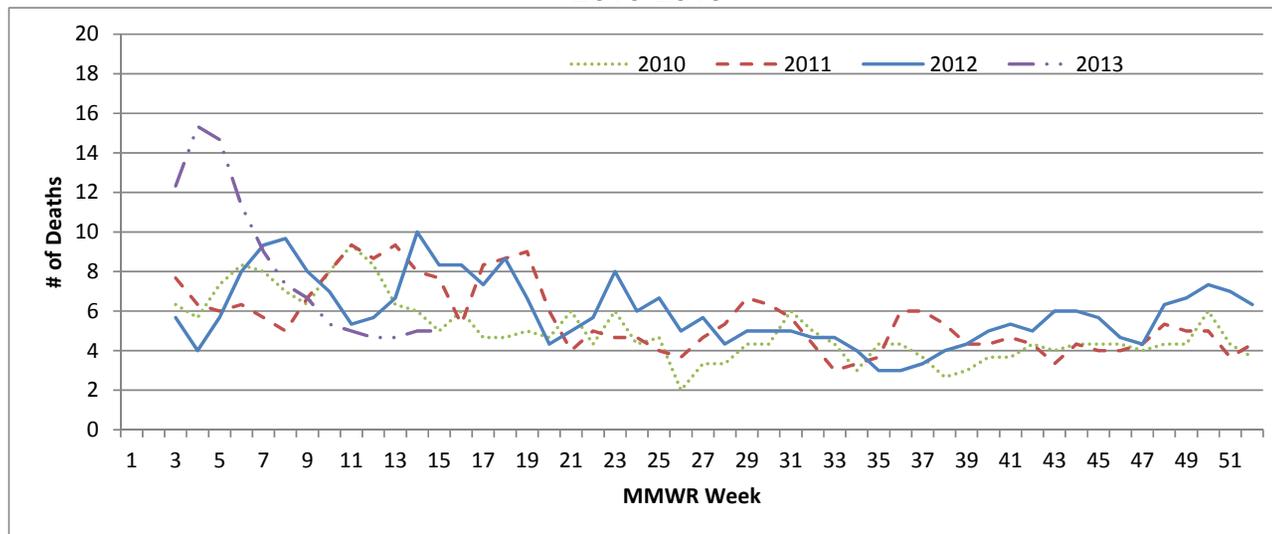


**Figure 8. Annual Influenza Related Mortality,
Travis County: 1990-2009**



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

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



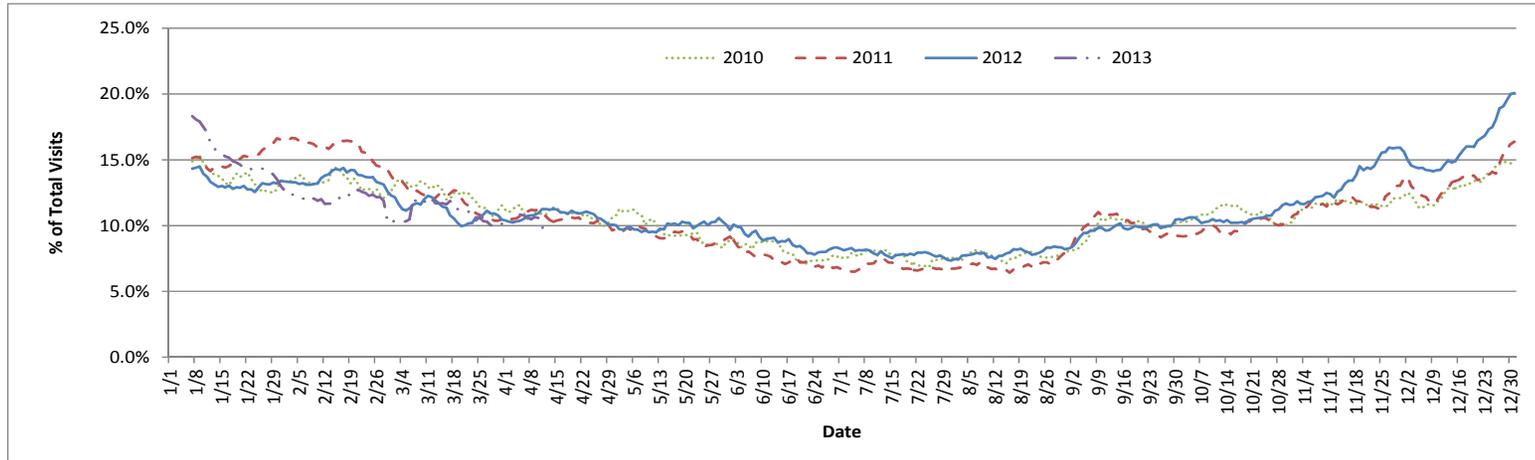
Data source: Center for Disease Control and Prevention 122 Cities Mortality: <http://wonder.cdc.gov/mmwr/mmwrmort.asp>

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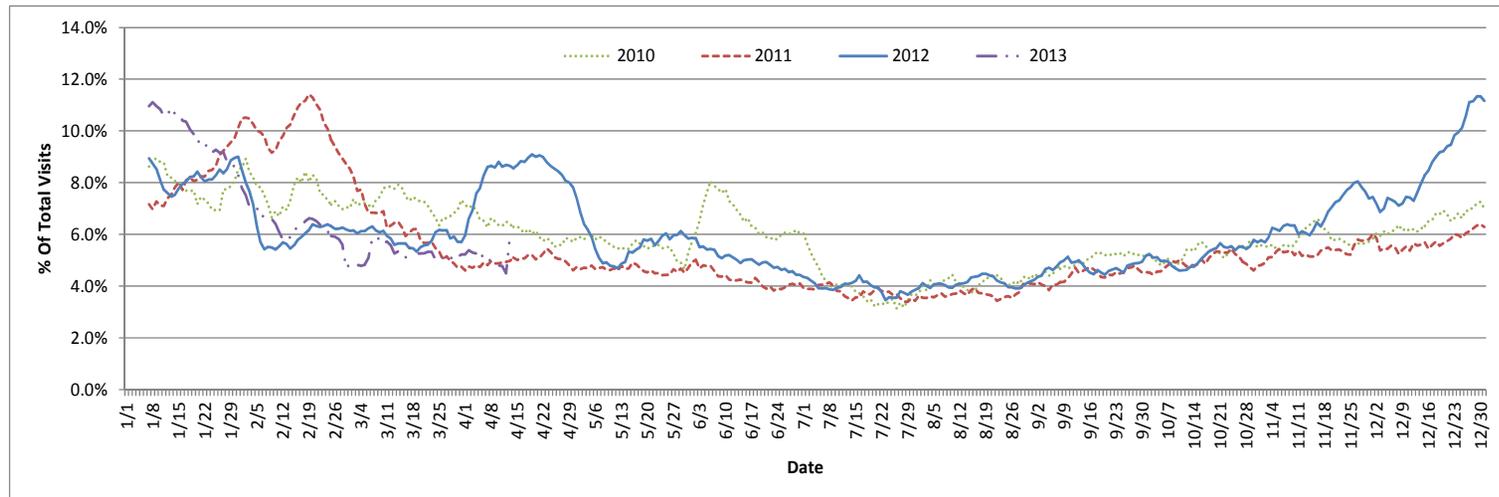
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Figure 10. RODS Syndromic Surveillance for the Respiratory Prodrome Category, Travis County: 2010-2013



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

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Figure 12. Other Respiratory Viruses Reported for Texas: MMWR Week 13

Virus	Number of Laboratories Testing	Tests Performed	Positive Tests	Percentage of Tests Positive
Adenovirus (respiratory)	10	654	31	4.74%
HMPV	7	498	64	12.85%
Parainfluenza virus	9	640	39	6.09%
Rhinovirus	5	343	66	19.24%
RSV	24	586	65	11.09%

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

- 1 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.
- 2 Influenza A is commonly split into 2 subtypes: H1N1 and H3N2. Both strains can circulate each Influenza season.
- 3 Influenza deaths, other than pediatric deaths, are not reportable in Texas. Current season mortality data is obtained from the City of Austin Office of Vital Records and only reflect deaths that occur within the city limits and list Influenza as a cause of death on the death certificate.
- 4 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.
- 5 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.
- 7 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.
- 9 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.
- 10 Positive laboratory results are reported according to specimen collection date or date received in the lab if the former is unknown.
- 11 Antigenic characterization and antiviral resistance is obtained from the Texas Influenza Surveillance Report <http://www.dshs.state.tx.us/idcu/disease/Influenza/surveillance/2013/>.
- 12 Influenza activity level corresponds to the current MMWR week only and does not reflect the previous weeks' activity.
- 13 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.

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