



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



## **Travis County Influenza Surveillance**

### **Situation Update:**

- The number of influenza cases within the United States has increased rapidly from the start of the 2012-2013 Influenza Season. Travis County is showing indicators of influenza activity that is trending above previous flu seasons in Morbidity and Weekly Report (MMWR) week 49 (which is four to five weeks earlier than expected). A similar trend has been reported throughout Texas and the United States.
- The Center for Disease Control and Prevention (CDC) is showing multiple states experiencing a moderate to high flu activity.
- Key influenza activity indicators, such as ILINet, have continued to drop, while other indicators have just started to fall. The early initiation influenza activity this season may lead to an early peak of influenza activity this year; however, it is too early to tell. (For nearly half of the flu seasons since 1982, mid-February is when the peak of flu season usually occurs.)
- This report contains data for the 2012-2013 Influenza Season through January 26, 2013 (MMWR week 4).

### **Epidemiologic Overview:**

- The number of rapid tests<sup>1</sup> performed by Travis County sentinel providers has increased while the percentage of positive test results has leveled off. This increase in testing can indicate an increase in Influenza-like-Illness (ILI) and is supported with corresponding levels of positive tests.
- Travis County saw a high amount of Influenza B early in the season through both rapid testing and Polymerase Chain Reaction (PCR)<sup>2</sup> confirmatory testing. As the season has progressed, seasonal Influenza A (predominantly the H3<sup>3</sup> strain) has increased with reporting numbers equivalent to or higher than that of Influenza B.
- Reports of influenza deaths<sup>4</sup> in the adult population started in January. No pediatric Influenza deaths have been reported in Travis County this year.
- The Department of State Health Services (DSHS) reported two new pediatric influenza deaths which occurred during MMWR week 4 in Texas. There have been nine pediatric deaths this season in Texas.



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- Illnesses related to Rhinovirus, Adenovirus, and Parainfluenza have been identified for laboratory specimens in the Travis County area this season.

### 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 for live and/or care 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 and 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 \(WHO\)](#)

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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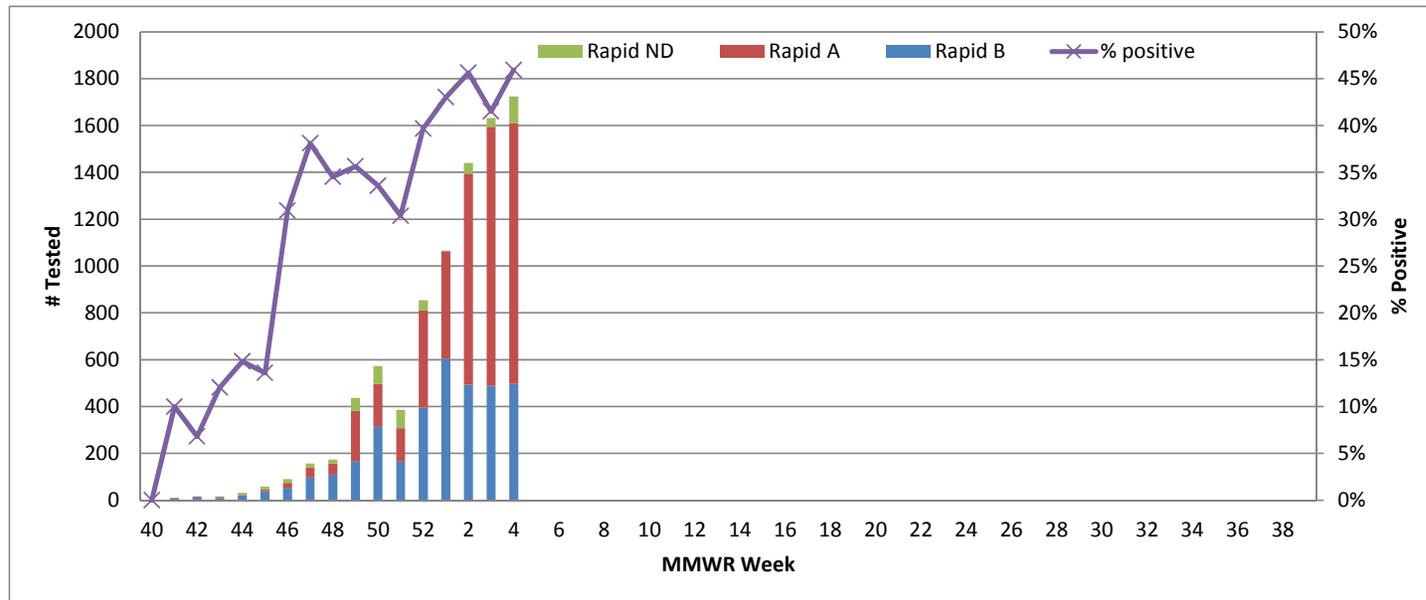


**Figure 1. Influenza Surveillance, Travis County Providers<sup>4,5,6</sup>**

Week Ending	12/8/2012	12/15/2012	12/22/2012	12/29/2012	1/5/2013	1/12/2013	1/19/2013	1/26/2013
MMWR Week	49	50	51	52	1	2	3	4
# Influenza Rapid Tests Performed	1226	1707	1271	2155	2477	3159	3932	3751
# Total Positive Influenza Tests	437	573	386	855	1066	1441	1632	1723
% Positive Influenza Tests	35.6%	33.6%	30.4%	39.7%	43.0%	45.6%	41.5%	45.9%
# Positive A Influenza	216	184	142	414	459	902	1106	1114
# Positive B Influenza	165	313	165	396	605	493	488	496
# Non-Differentiated Influenza <sup>3</sup>	56	76	79	45	2	46	38	113

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<sup>4,5,6,7</sup>**



Data source: Austin/Travis County Influenza surveillance reporters

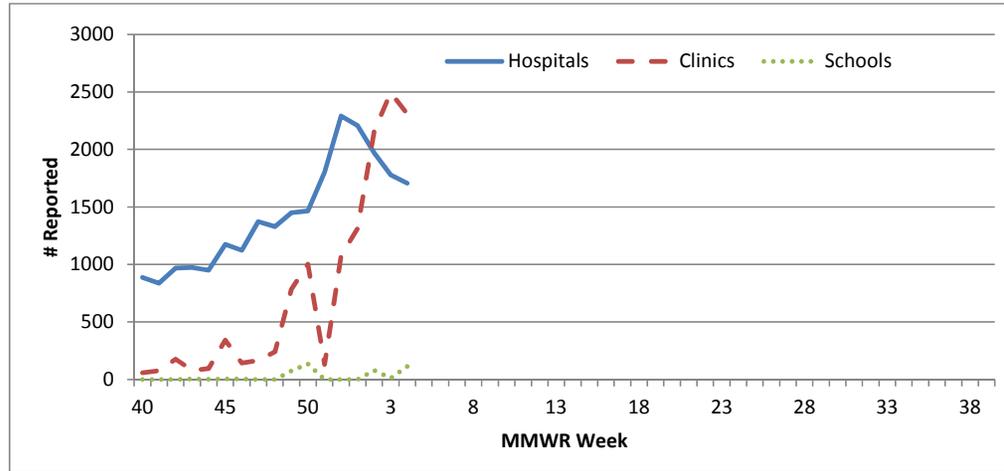
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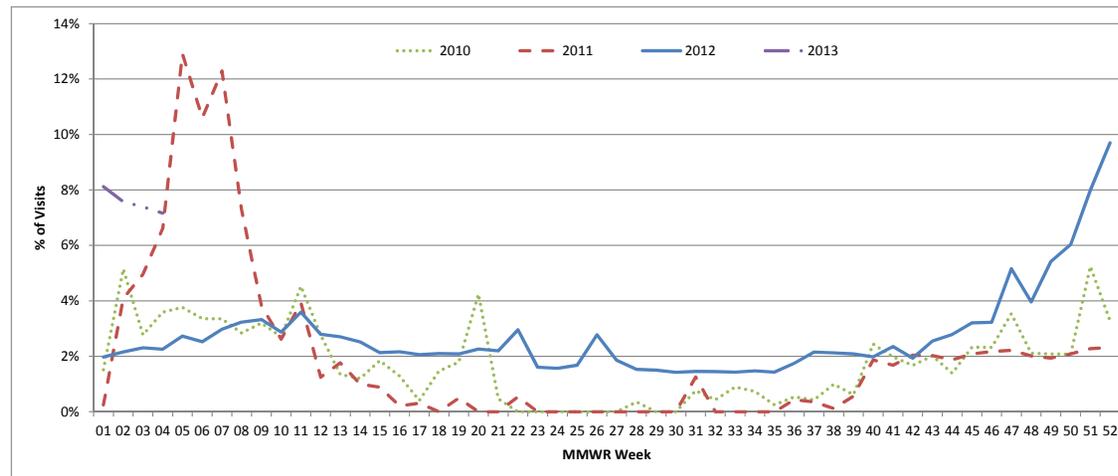


**Figure 3. Rapid Influenza Tests by Week and Provider Type, Travis County: 2012-2013 Influenza Season<sup>4,5,6,7</sup>**



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: 2009-2013<sup>8</sup>**



Data source: CDC ILI.net system

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**Figure 5. Travis County Confirmed Influenza Test Results:**<sup>1,9,10</sup>

	3/18/2012 - 5/19/2012	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
MMWR Week	11-19	20-28	29-37	38-46	47-3	4-12*
Influenza A (Total Positive PCR Tests)	13	1	0	3	20	14
Subtype	Seasonal H1N1	13	0	0	0	2
	Season H3N2	0	1	0	3	12
	Not Subtyped	0	0	0	0	0
Influenza B (Total Positive PCR Tests)	4	1	0	4	27**	1
PCR Negative Specimens	2	0	1	2	22	2

\* 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 4:**<sup>11</sup>

Since September 1, 2012, CDC has reported antigenic characterization results from one Influenza A (H1N1) virus, nine Influenza A (H3N2) viruses, and 13 Influenza B viruses received from the Texas Department of State Health Services (DSHS) Laboratory.

**Influenza A (H1N1) [1]**

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

**Influenza A (H3N2) [9]**

- Nine 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 [13]**

- Thirteen viruses were related to B/Wisconsin/01/2010 (B/Yamagata lineage). This Influenza B lineage was included in the 2012-2013 Influenza vaccine for the Northern Hemisphere.



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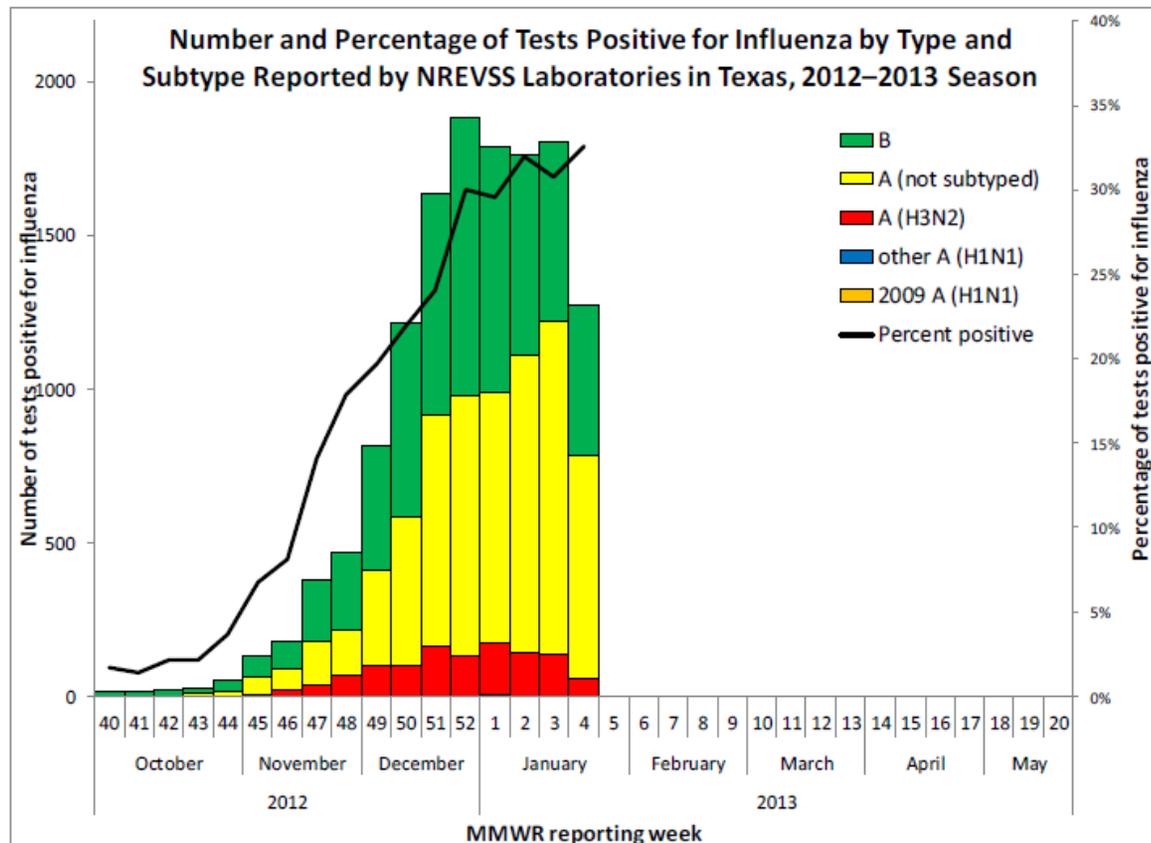


The national antigenic characterization and antiviral resistance testing results may be found in the CDC weekly flu report at <http://www.cdc.gov/flu/weekly/>. The DSHS Laboratory sends a representative sample of influenza viruses to the CDC throughout the flu season.

### Texas Antiviral Resistance Reported by MMWR Week 4:<sup>11</sup>

No antiviral resistance results for Texas for the 2012-2013 season are available at this time. 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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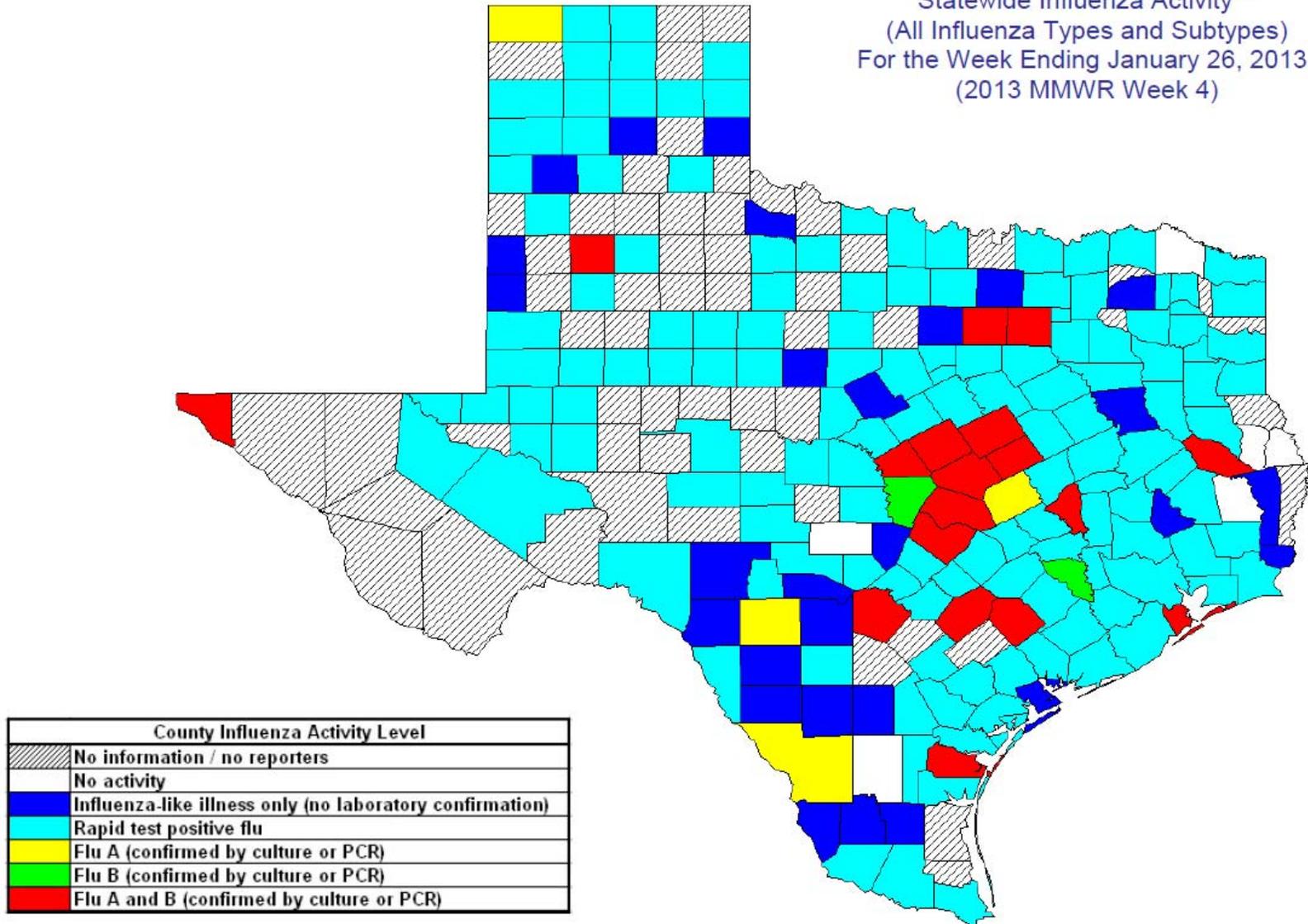


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Figure 7. Statewide Influenza Activity<sup>10,12,13</sup>

Statewide Influenza Activity  
(All Influenza Types and Subtypes)  
For the Week Ending January 26, 2013  
(2013 MMWR Week 4)



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

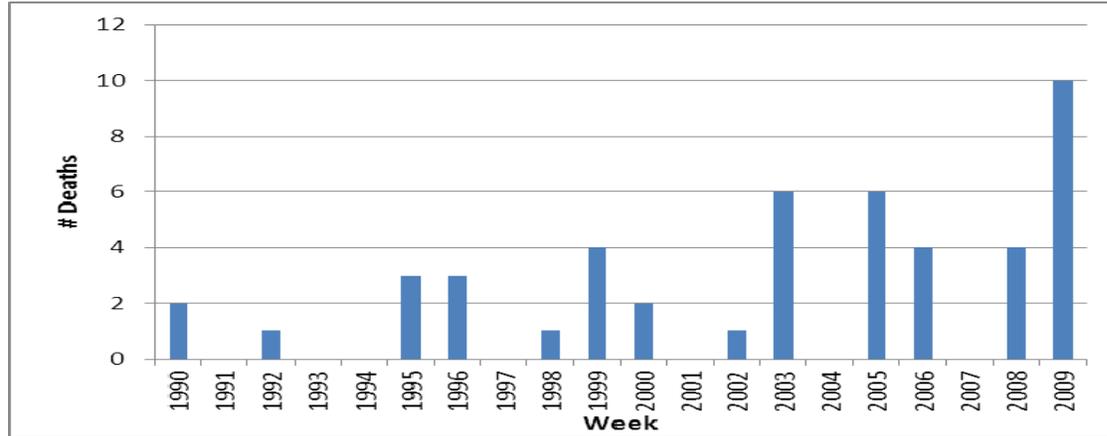
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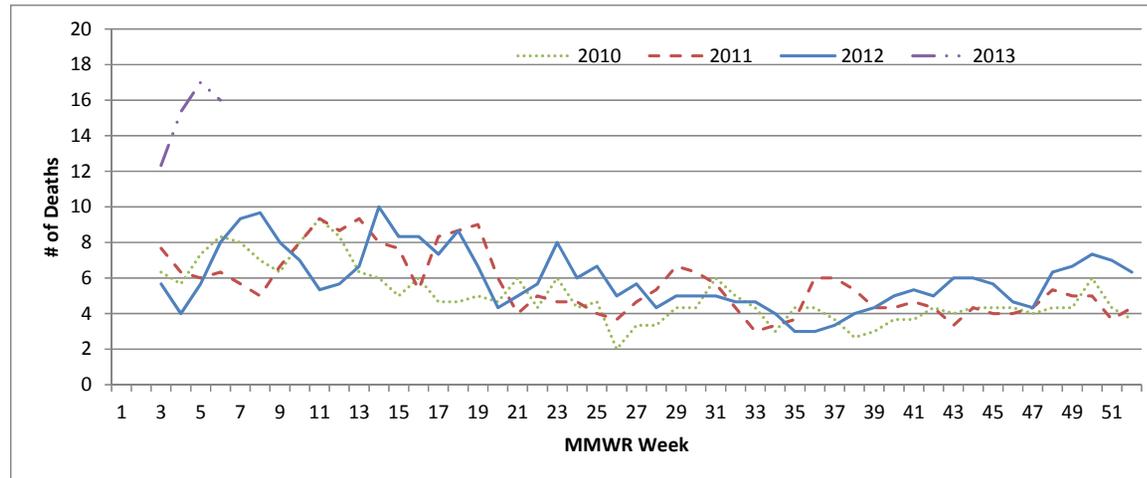


**Figure 8. Annual Influenza Related Mortality,  
Travis County: 1990-2009**



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/mmwmort.asp>

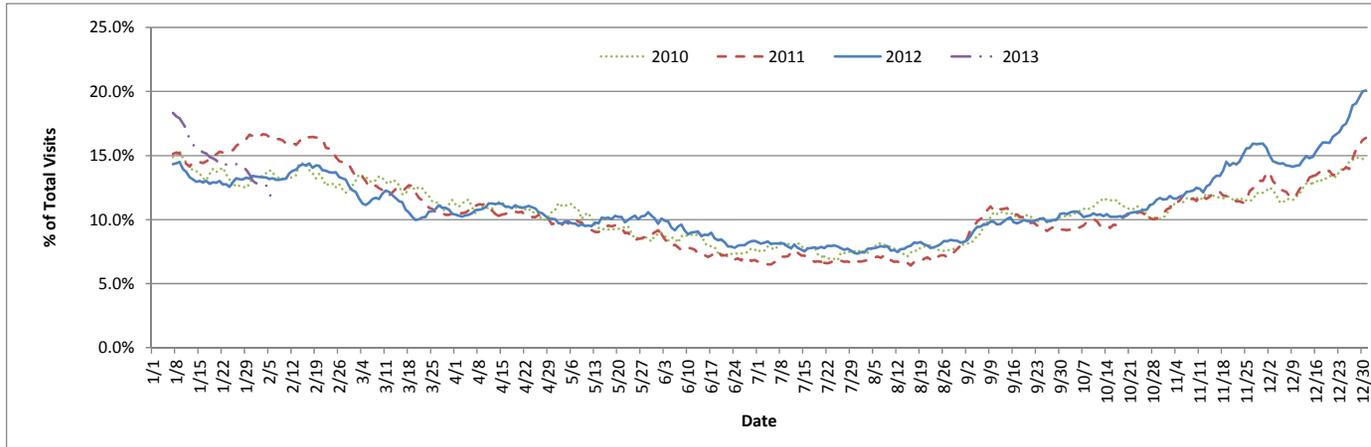
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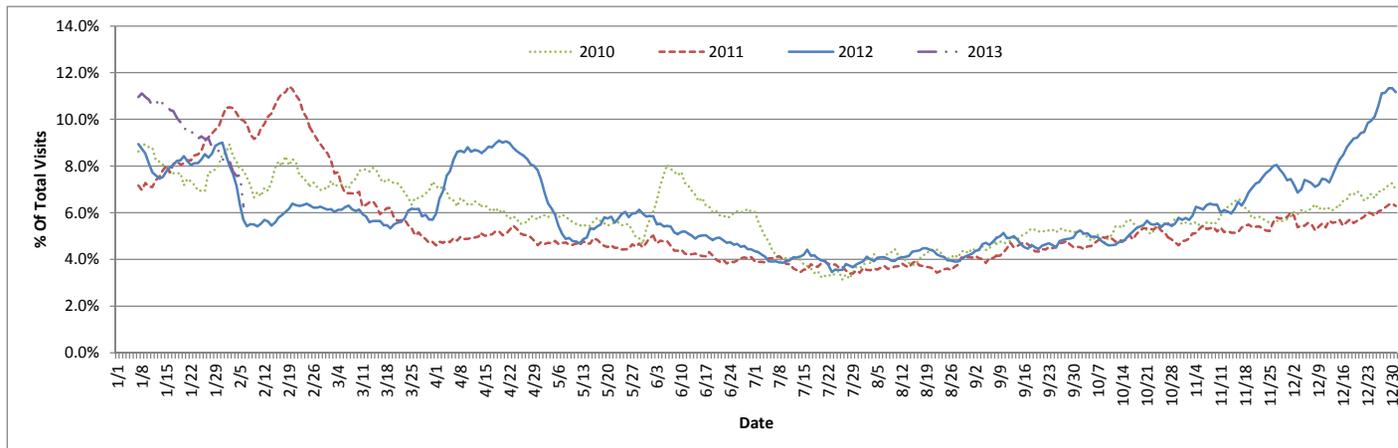


**Figure 10. RODS Syndromic Surveillance for the Respiratory Prodrome Category,  
Travis County: 2010-2013**



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 4**

Virus	Number of Laboratories Testing	Tests Performed	Positive Tests	Percentage of Tests Positive
Adenovirus (respiratory)	7	999	11	1.10%
HMPV	6	688	6	0.87%
Parainfluenza virus	7	999	16	1.60%
Rhinovirus	4	673	110	16.34%
RSV	21	1303	377	28.93%

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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