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 April 20, 2013 (MMWR[1] week 16).

Situation Update:

- Nationwide Influenza activity continues to decline with influenza like illness (ILI) falling below baseline nationally for the fifth week in a row. Locally, data points have returned to normal seasonal trends.
- While influenza continues to decline nationally, flu viruses circulate in the US and Travis County throughout the year.
- The Centers for Disease Control and Prevention (CDC) reports one state at low levels of ILI activity and the remaining 49 states (including Texas) report low or minimal ILI activity.
- Nationally, the number of deaths attributed to pneumonia and Influenza remains below the epidemic threshold. Locally, deaths associated with pneumonia and Influenza have decreased slightly but remain around baseline.

Epidemiologic Overview:

- CDC reports that Influenza A H3N2[3] has been the predominate strain this 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 H3[3] 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; and, percent positives fell below 10% for the first time this season similar to national trends.
- The Department of State Health Services (DSHS) reports no new pediatric Influenza deaths this past week. There have been 17 pediatric deaths this season in Texas.

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H7N9:

- Austin/Travis County Health and Human Services continues to monitor the H7N9 situation. No cases of H7N9 have been reported in the United States.

  For information you may visit: H7N9 Influenza

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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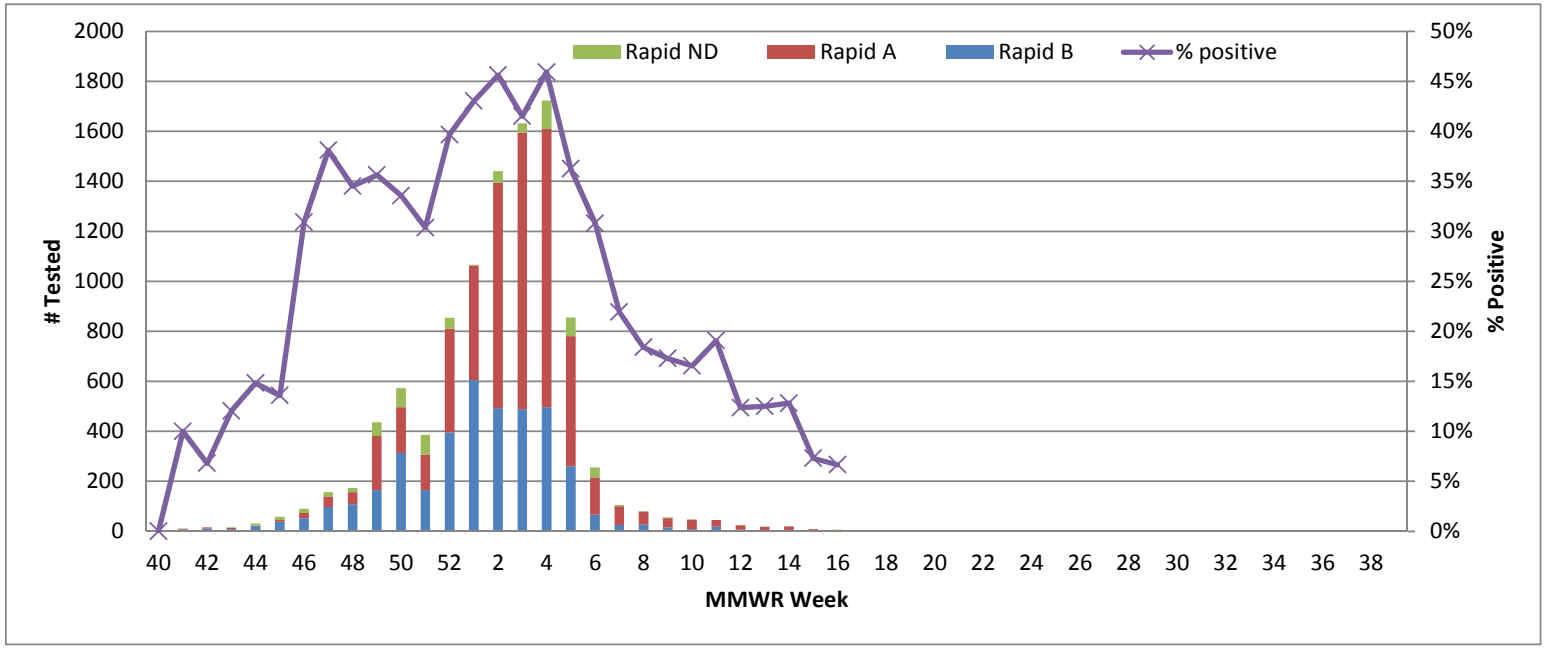
Figure 1. Influenza Surveillance, Travis County Providers [4,5,6]

Week Ending	3/2/2013	3/9/2013	3/16/2013	3/23/2013	3/30/2013	4/6/2013	4/13/2013	4/20/2013
MMWR Week	9	10	11	12	13	14	15	16
# Influenza Rapid Tests Performed	324	289	208	210	210	155	123	105
# Total Positive Influenza Tests	56	48	37	26	26	20	9	7
% Positive Influenza Tests	17.3%	16.6%	17.8%	12.4%	12.4%	12.9%	7.3%	6.7%
# Positive A Influenza	37	38	22	17	17	14	4	3
# Positive B Influenza	16	9	15	7	7	6	5	2
# Non-Differentiated Influenza[3]	3	1	0	2	2	0	0	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[4,5,6,8]



Data source: Austin/Travis County Influenza surveillance reporters

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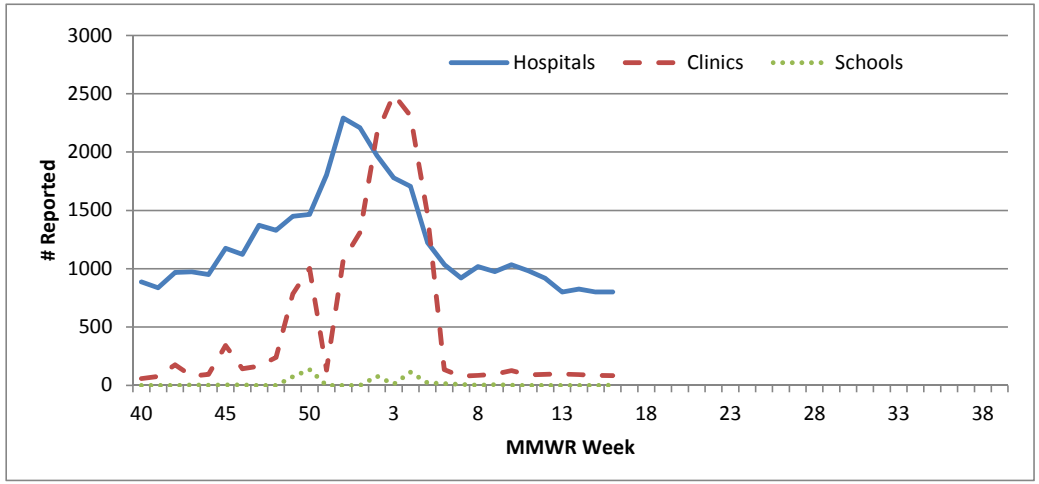
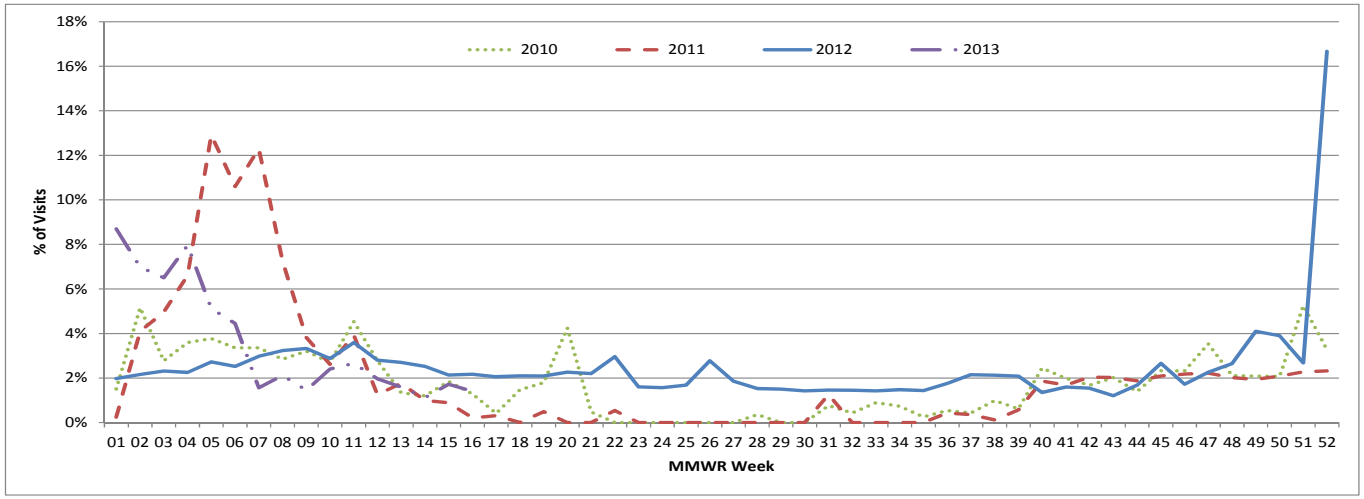
Figure 3. Rapid Influenza Tests by Week and Provider Type, Travis County: 2012-2013 Influenza Season[4,5,6,8]



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[8]



Data source: CDC ILI.net system

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Figure 5. Travis County Confirmed Influenza Test Results:[2,9,10]

		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	3/24/2013 - 5/25/2013
MMWR Week		20-28	29-37	38-46	47-3	4-12	13-21*
Influenza A (Total Positive PCR Tests)		1	0	3	20	29	1
Subtype	Seasonal H1N1	0	0	0	0	3	1
	Season H3N2	1	0	3	20	26	0
	Not Subtyped	0	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	4

* 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 16:[11]

Since September 1, 2012, CDC has reported antigenic characterization results from thirteen Influenza A (H1N1) viruses, 53 Influenza A (H3N2) viruses, and 38 Influenza B viruses received from the Texas Department of State Health Services (DSHS) Laboratory.

Influenza A (H1N1) [13]
• Thirteen 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) [53]
• Fifty-three 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 [38]
• Thirty-three (86.8%) 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 (13.2%) 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.

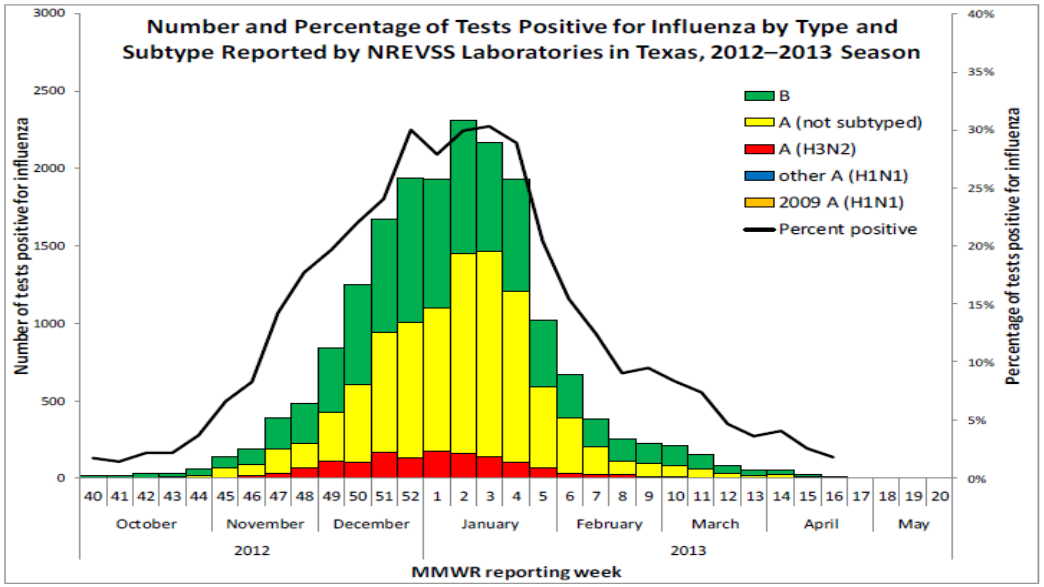
Texas Antiviral Resistance Reported by MMWR Week 16:[11]

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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Figure 7. Statewide Influenza Activity[10,12,13]

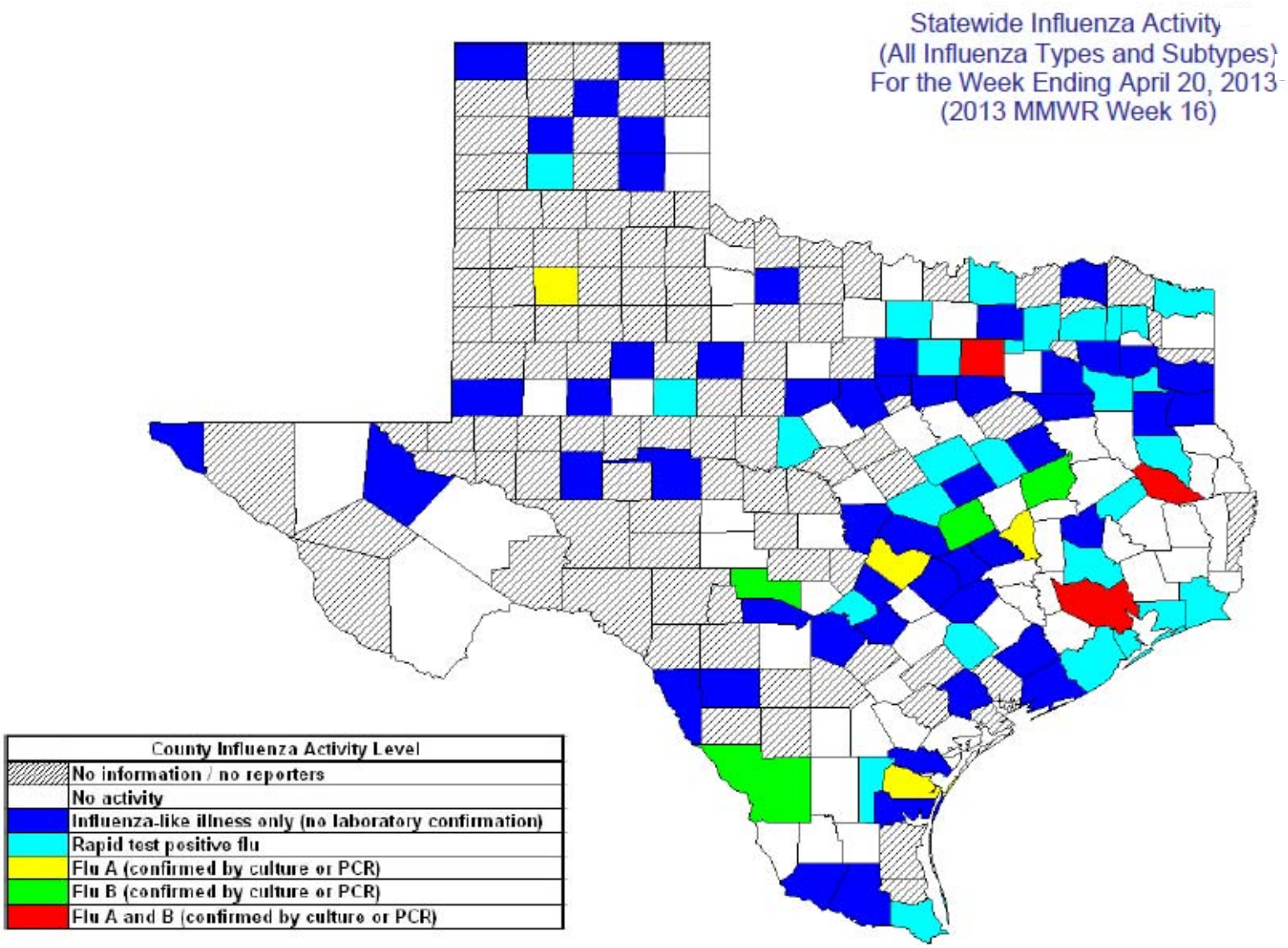

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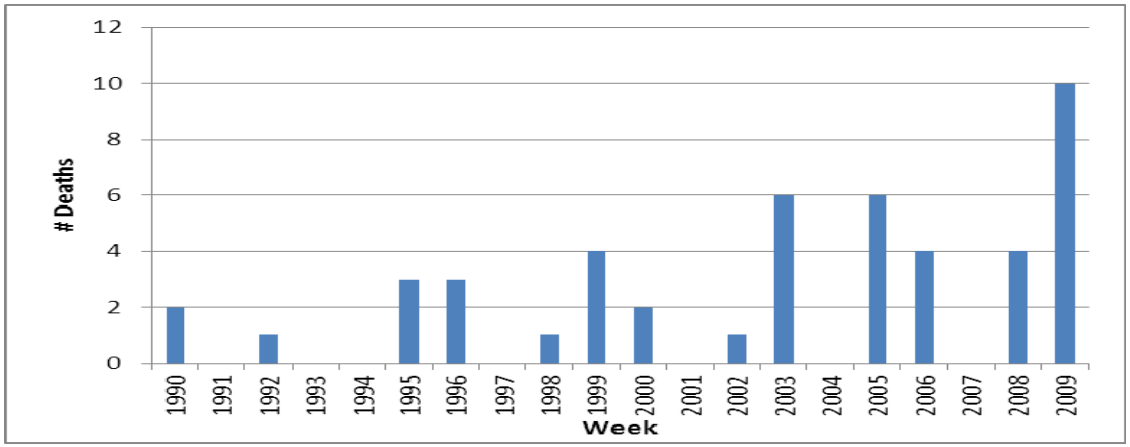
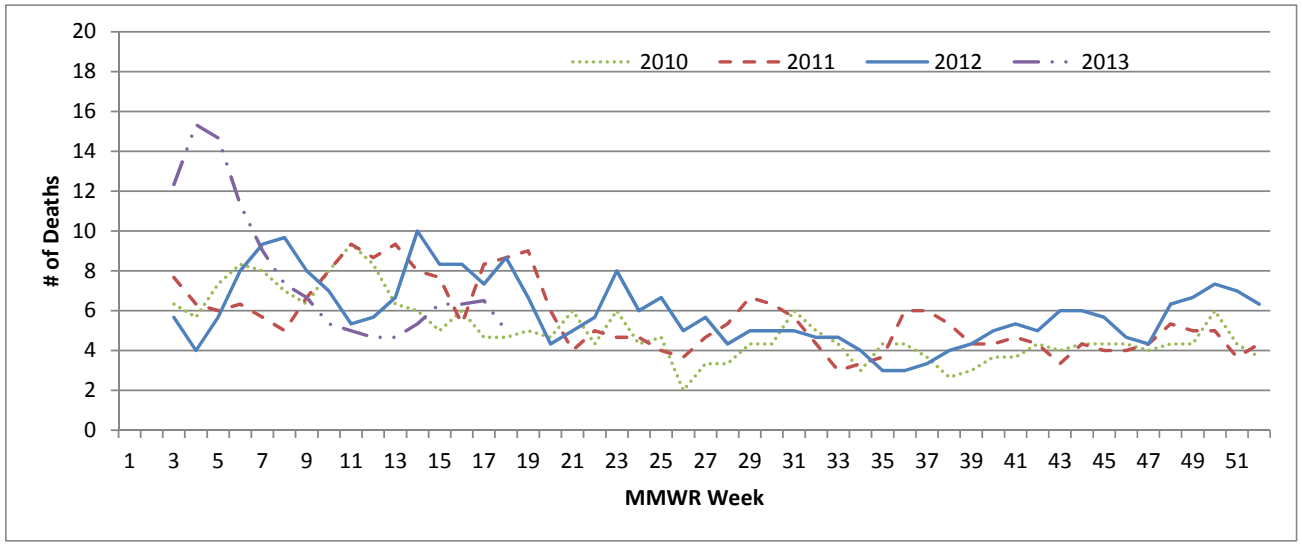
Figure 8. Annual Influenza Related Mortality, Travis County: 1990-2009



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

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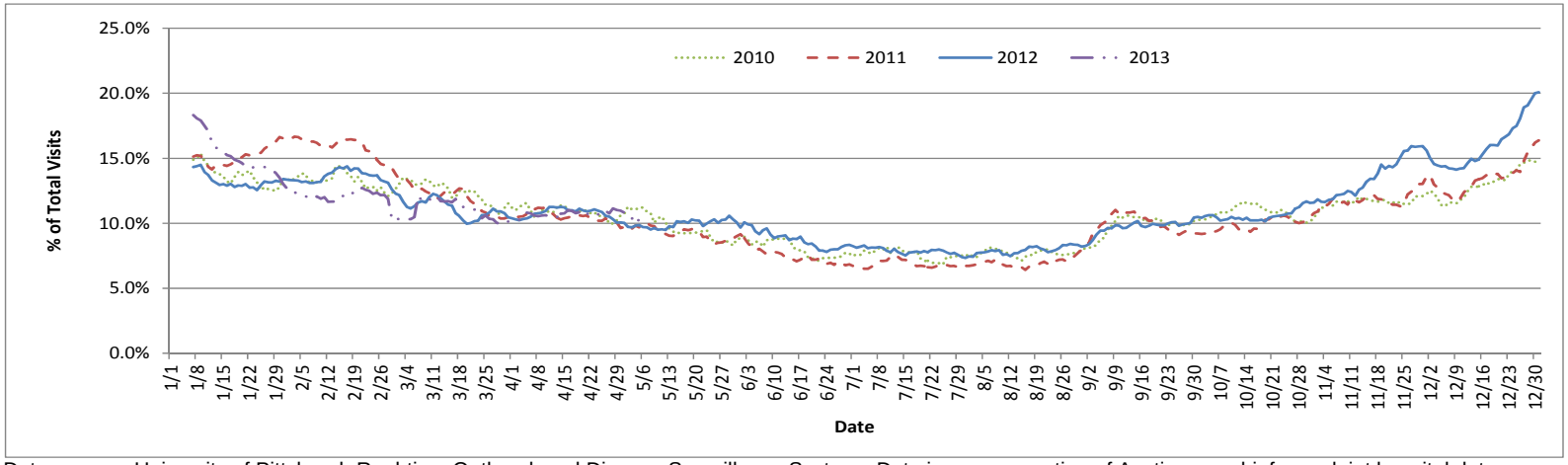
Figure 10. RODS Syndromic Surveillance for the Respiratory Prodrome Category, Travis County: 2010-2013



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

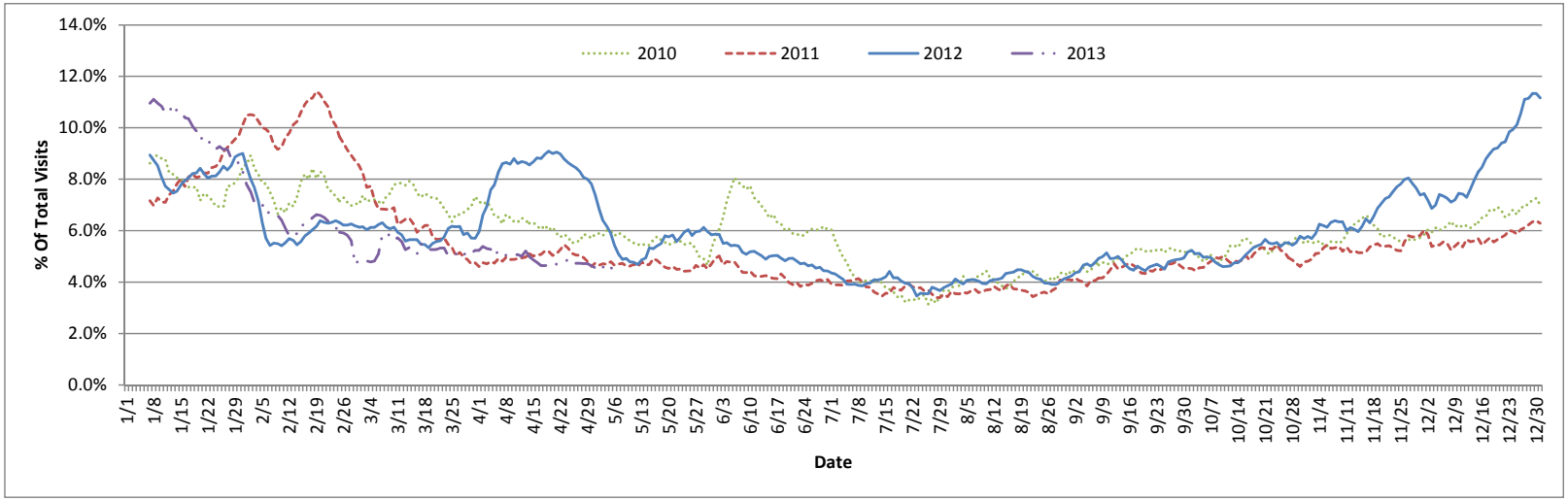


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Figure 12. Other Respiratory Viruses Reported for Texas: MMWR Week 16

Virus	Number of Laboratories Testing	Tests Performed	Positive Tests	Percentage of Tests Positive
Adenovirus (respiratory)	6	399	17	4.26%
HMPV	4	296	53	17.91%
Parainfluenza virus	6	399	10	2.51%
Rhinovirus	4	286	104	36.36%
RSV	22	311	21	6.75%

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

1 MMWR is the Morbidity and Mortality weekly report week published by the CDC.

2 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.

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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