



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



Travis County Influenza Surveillance

This report contains data for the 2014-2015 Influenza Season through December 27, 2014 (MMWR¹ week 52).

Situation Update:

- The CDC reports influenza activity continues to increase in intensity and is expanding geographically in many areas of the country; the CDC continues to recommend vaccination as long as flu viruses are circulating and prompt treatment with flu antiviral drugs for people at high risk of serious complications.
- Influenza A (H3N2) and influenza B viruses have all been identified as most common in the U.S. this season. Very few 2009 influenza A (H1N1) positive specimens have been reported. The severity of flu disease so far this season is similar to some previous seasons in which influenza A (H3N2) viruses have circulated predominately. H3N2 seasons cause more severe disease for young children and elderly adults, as indicated by hospitalizations and deaths, compared to H1N1.
- Nationally, the percentage of specimens testing positive for influenza viruses in the United States increased to 30.4%. Of the 7,289 specimens tested at the CDC, 7,041 (96.6%) were influenza A viruses and 248 (3.4%) were influenza B viruses. Of the 1,641 influenza A viruses that were subtyped, 99.6% were H3 viruses and 0.4% were H1N1.
- Flu activity in Texas continues to be widespread. Statewide, 30.11% specimens tested in influenza surveillance labs were positive for influenza; 1,849 (92.36%) of the 2,002 influenza-positive tests were influenza A viruses and 153 (7.64%) were influenza B viruses. Of the 210 influenza A viruses that were subtyped, 100.00% were H3 viruses. Eleven Travis County specimens were tested for influenza testing during week 52. Two of the specimens tested positive for H3N2, two specimens were influenza A but were not subtyped, and seven were negative.
- Nationwide, 5.9% 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 above the national baseline of 2.0% for the sixth consecutive week. In Texas, the percentage of visits for influenza-like illness as reported by ILINet providers was 8.44%, a high level of ILI activity. Locally, the percentage of visits was 1.49%.
- Twenty-one pediatric influenza related deaths have been reported nationally; five pediatric influenza deaths have been reported in Texas this season, none in Travis County.



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- Nationwide, the proportion of deaths attributed to pneumonia and influenza is below the epidemic threshold of 6.9%. Locally, the number of deaths attributed to pneumonia and influenza has trended near seasonal levels.
- There have been six deaths in Travis County residents that have listed influenza as a cause of death this season.

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 [H3N2v 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.



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Other Helpful Resources: [Texas Department of State Health Services \(DSHS\)](#)
[World Health Organization \(WHO\)](#)
[Centers for Disease Control and Prevention \(CDC\)](#)

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

Week Ending	10/25/2014	11/1/2014	11/8/2014	11/15/2014	11/22/2014	11/29/2014	12/6/2014	12/13/2014
MMWR Week	43	44	45	46	47	48	49	50
# Influenza Rapid Tests Performed	372	236	191	575	693	1125	1873	3208
# Total Positive Influenza Tests	18	5	12	47	148	321	622	1334
% Positive Influenza Tests	4.8%	2.1%	6.3%	8.2%	21.4%	21.4%	21.4%	41.6%
# Positive A Influenza	14	2	5	35	115	288	567	1261
# Positive B Influenza	4	3	7	11	31	31	49	68
# Non-Differentiated Influenza ³	0	0	0	1	2	2	6	5

Data source: Austin/Travis County Influenza surveillance reporters

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

	12/1/2013 - 2/1/2014	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
MMWR Week	49-5	6-14	15-23	24-32	25-41	42-6
Influenza A (Total Positive PCR Tests)	91	5	1	0	1	26
Subtype	Seasonal H1N1	83	2	0	0	0
	Season H3N2	2	3	1	0	1
	Not Subtyped	13	0	0	0	0
Influenza B (Total Positive PCR Tests)	1	6	0	0	0	0
PCR Negative Specimens	123	17	4	7	4	21

* 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

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Figure 3. Influenza Testing by Texas Laboratories^{11, 14}

Table 2: Influenza Testing Performed by Texas Laboratories for the Current Week

	Week 52
Number of labs reporting flu tests	22
Number of specimens tested	6649
Number of positive specimens (%) [†]	2002 (30.11%)
Percentage of total tests that were antigen detection tests	78.49%
Positive specimens by type/subtype [n (%)]	
Influenza A	1849 (92.36%)
Subtyping performed	210 (11.36%)
A (H1N1)	0 (0.0%)
A (H3N2)	210 (100.0%)
Subtyping not performed	1639 (88.64%)
Influenza B	153 (7.64%)

Texas Antigenic Characterization¹¹

Since September 28, 2014, CDC has reported antigenic characterization results from 10 influenza A (H3N2) viruses and 8 influenza B viruses received from the Texas Department of State Health Services (DSHS) Laboratory. The DSHS Laboratory sends a representative sample of influenza viruses to the CDC throughout the flu season.

Influenza A (H3N2) [10]

- Three (30%) viruses were related to A/Texas/50/2012, the influenza A (H3N2) component of the 2014-2015 Northern Hemisphere influenza vaccine.
- Seven (70%) viruses tested showed reduced titers with antiserum produced against A/Texas/50/2012 and were antigenically similar to A/Switzerland/9715293/2013, the H3N2 virus selected for the 2015 Southern Hemisphere influenza vaccine. A/Switzerland/9715293/2013 is related to, but antigenically and genetically distinguishable, from the A/Texas/50/2012 vaccine virus. A/Switzerland-like H3N2 viruses were first detected in the United States in small numbers in March of 2014 and began to increase through the spring and summer.

Influenza B [8]

- Yamagata lineage [1]: One (12.5%) influenza B/Yamagata-lineage virus has been characterized from Texas. A B/ Massachusetts/2/2012-like virus is included as an influenza B component of the 2014-2015 Northern Hemisphere trivalent and quadrivalent influenza vaccines.
- Victoria lineage [7]: Seven (87.5%) influenza B/Victoria-lineage viruses were characterized as B/Brisbane/60/2008-like, which is included as an influenza B component of the 2014-2015 Northern Hemisphere quadrivalent influenza vaccine.

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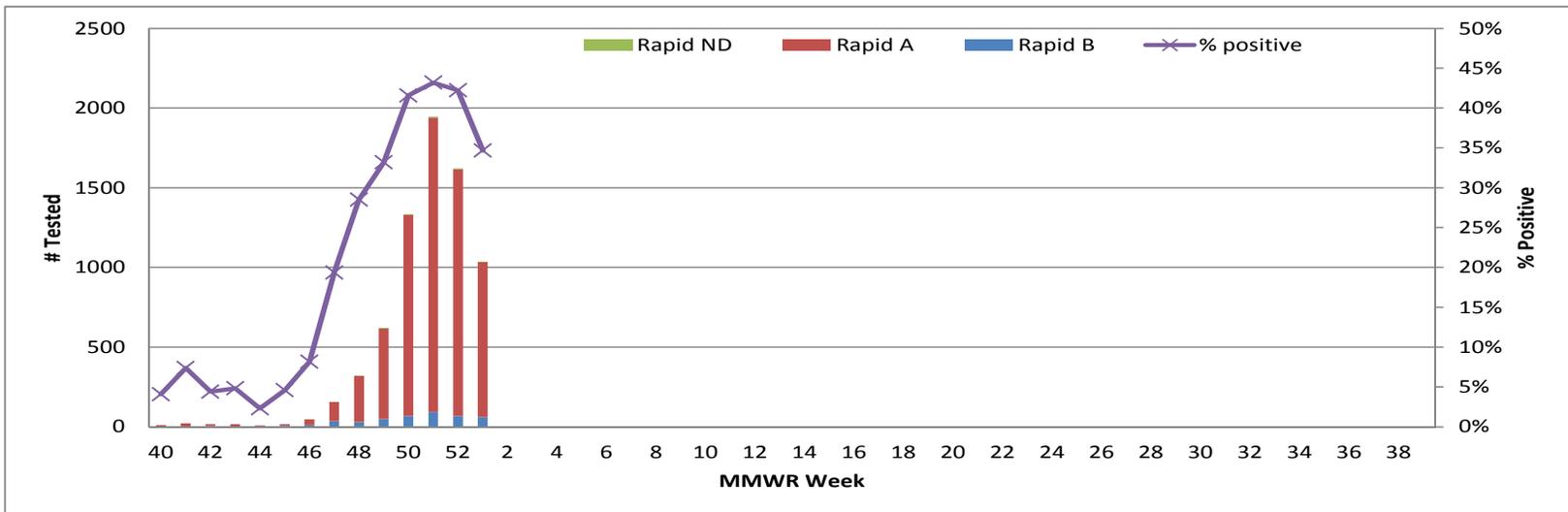
Texas Antiviral Resistance¹¹

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

Figure 4. Texas Respiratory Laboratory Results:

Virus	Number of Laboratories Testing	Tests Performed	Positive Tests	Percentage of Tests Positive
Adenovirus (respiratory)	8	948	28	2.95%
HMPV	8	976	30	3.07%
Parainfluenza virus	9	1148	25	2.18%
Rhinovirus	6	695	132	18.99%
RSV [†]	18	2392	706	29.52%

Figure 5. 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

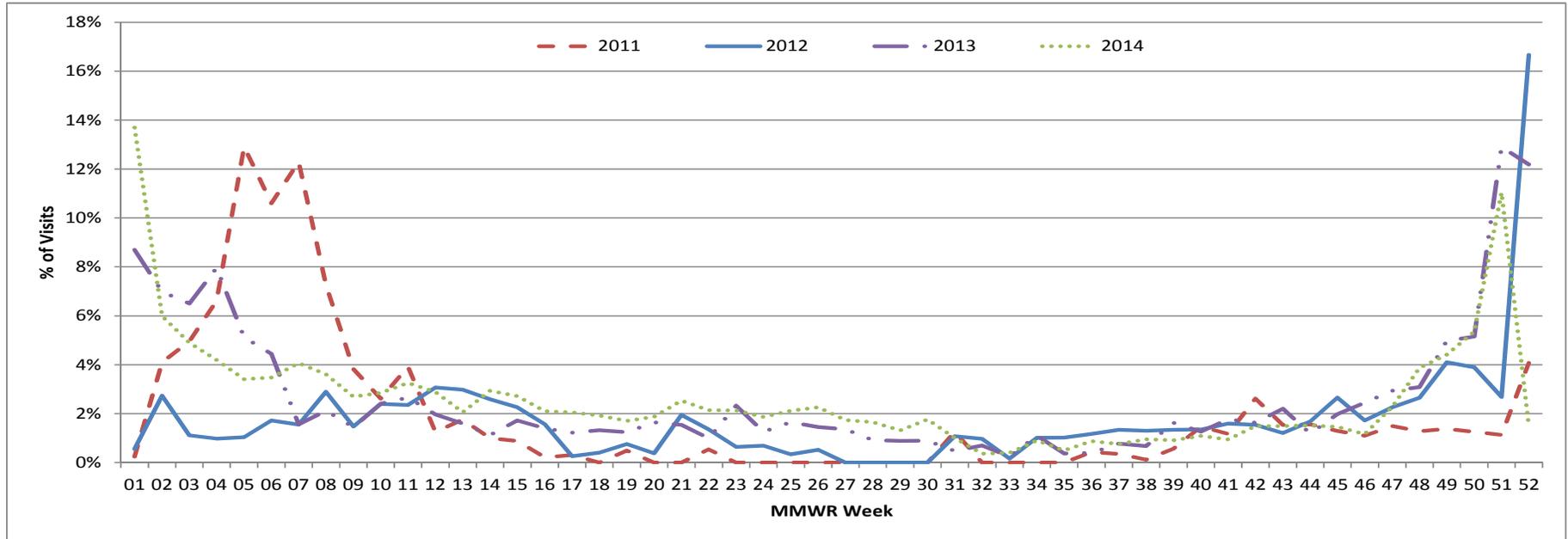
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Figure 4. Percentage of Visits Due to Influenza-like-Illness Reported by Travis County Participants in ILINet: 2009-2013⁸



Data source: CDC ILI.net system

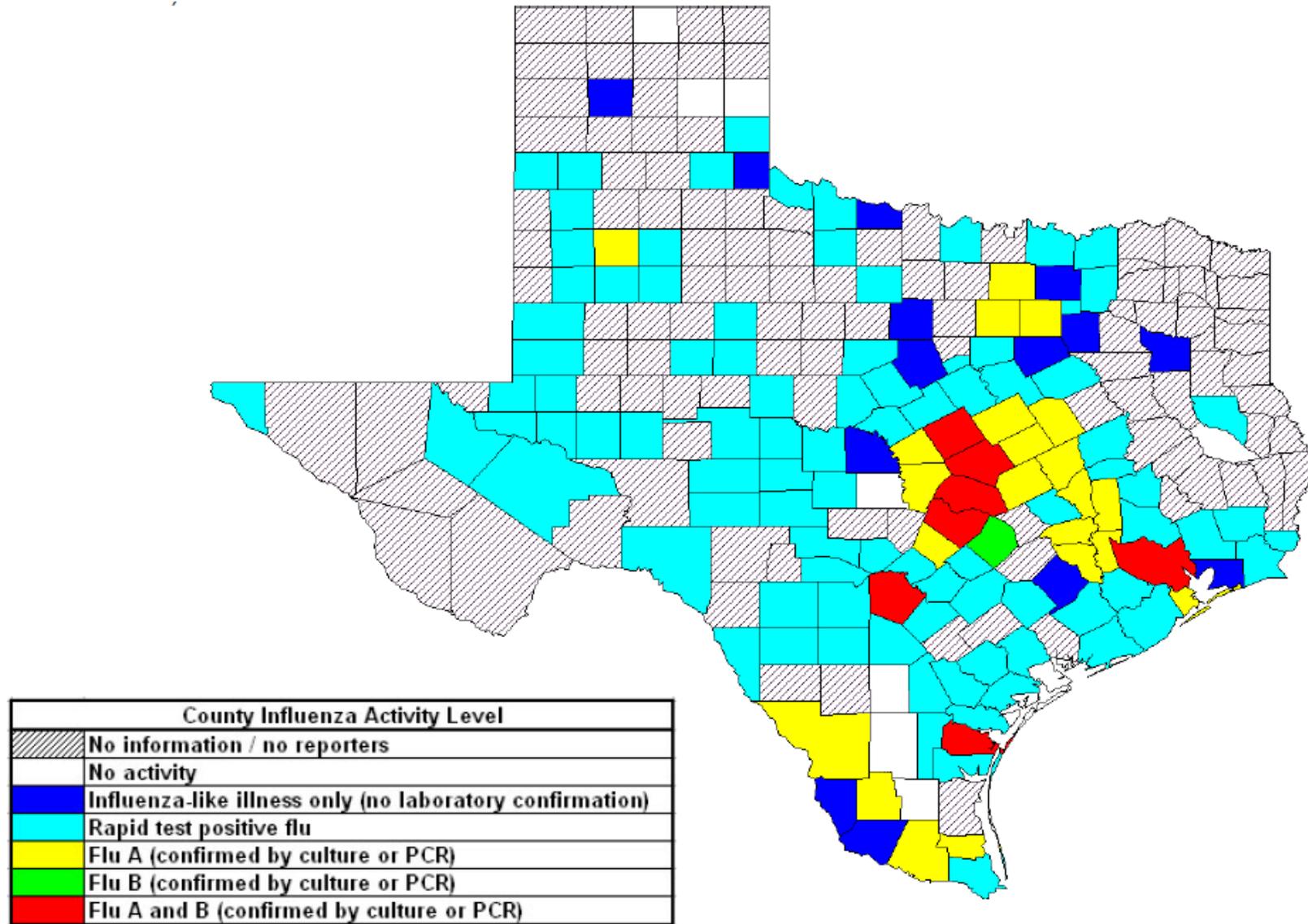
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Figure 5. Statewide Influenza Activity^{10,12,13}



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

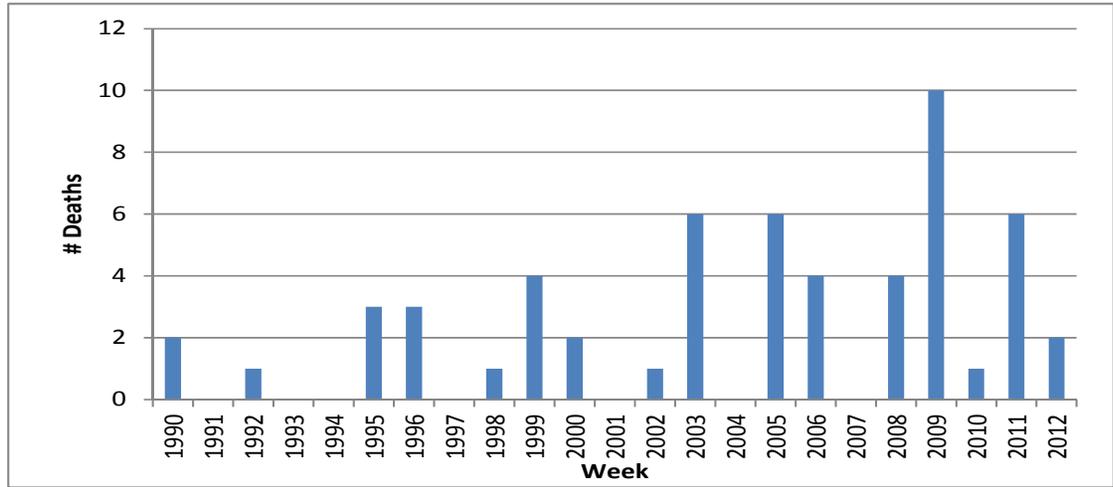
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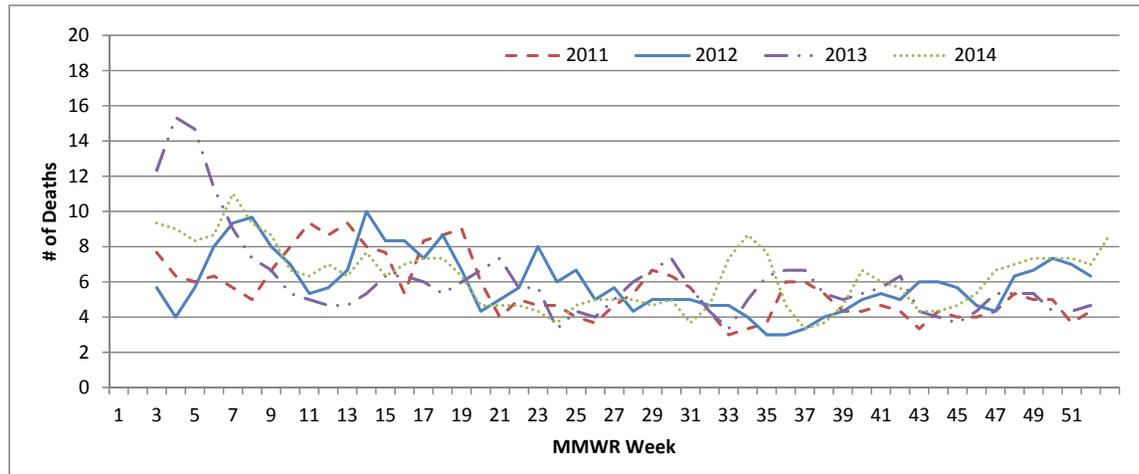


**Figure 6. Annual Influenza Related Mortality,
Travis County: 1990-2009**



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

**Figure 7. 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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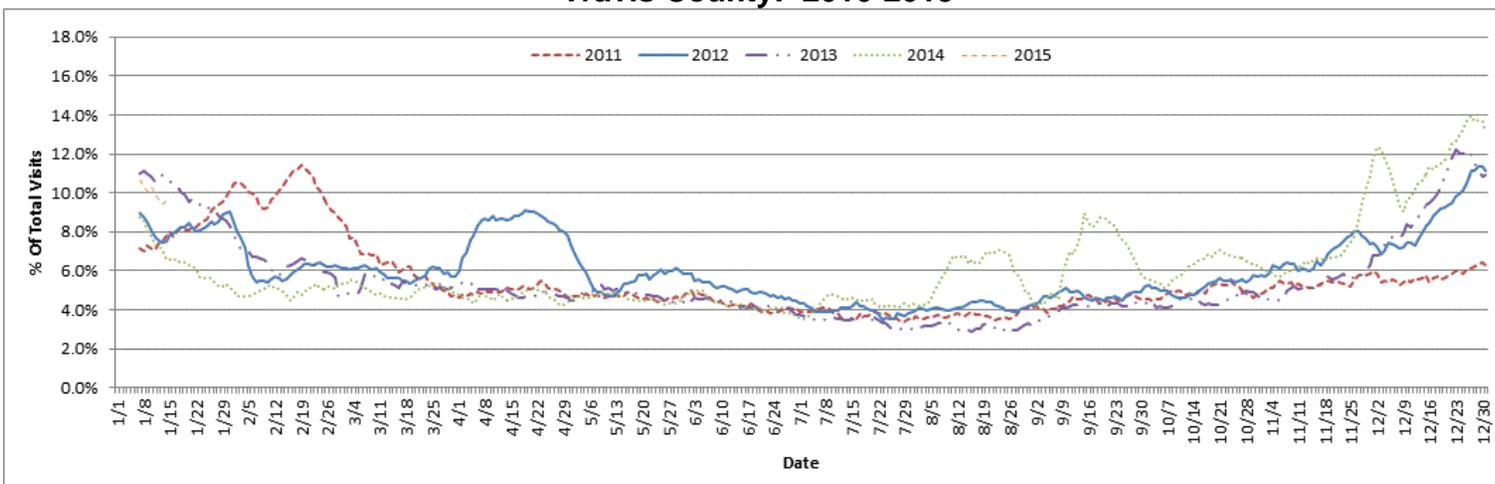


**Figure 10. RODS Syndromic Surveillance for the Respiratory Prodrome Category,
Travis County: 2010-2013**



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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For additional information about Influenza surveillance, contact:

The Austin/Travis County Health and Human Services Epidemiology and Health Statistics Unit at (512) 972-5555

- 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.
- 14 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.