Travis County Influenza Surveillance

This report contains data for the 2012-2013 Influenza Season through February 16, 2013 (MMWR week 7).

Situation Update:

- Nationwide Influenza activity is decreasing overall, but persists in some parts of the country. Travis County is also experiencing decreases in Influenza-Like-Illness (ILI) and other indicators. Data points have started to return to average seasonal Influenza levels in the past few weeks.

- The CDC is showing only three states experiencing a high level of flu activity. Texas reports moderate Influenza activity.

- The Centers for Disease Control and Prevention (CDC) reports that it is likely that, in the United States, ILI has peaked at this time. Nationally, ILI has continued to decrease for the fourth consecutive week. Travis County has also seen a decrease in ILI in our chief complaint and sentinel Influenza provider data for the past four weeks.

- Nationally, the number of deaths attributed to pneumonia and Influenza has decreased over the past week but continues to be above the expected threshold. Locally, deaths associated with pneumonia and Influenza have leveled off in the past three weeks.

Epidemiologic Overview:

- Travis County saw a high amount of Influenza B early in the season through both rapid testing and Polymerase Chain Reaction (PCR) confirmatory testing. As the season has progressed, seasonal Influenza A (predominantly the H3 strain) has increased with reporting numbers equivalent to or higher than that of Influenza B.

- The Department of State Health Services (DSHS) reported no new pediatric Influenza death during week 7. There have been 13 pediatric deaths this season in Texas.
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

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>MMWR Week</td>
<td>52</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td># Influenza Rapid Tests Performed</td>
<td>2155</td>
<td>2477</td>
<td>3159</td>
<td>3932</td>
<td>3751</td>
<td>2360</td>
<td>831</td>
<td>479</td>
</tr>
<tr>
<td># Total Positive Influenza Tests</td>
<td>855</td>
<td>1066</td>
<td>1441</td>
<td>1632</td>
<td>1723</td>
<td>856</td>
<td>256</td>
<td>106</td>
</tr>
<tr>
<td>% Positive Influenza Tests</td>
<td>39.7%</td>
<td>43.0%</td>
<td>45.6%</td>
<td>41.5%</td>
<td>45.9%</td>
<td>36.3%</td>
<td>30.8%</td>
<td>22.1%</td>
</tr>
<tr>
<td># Positive A Influenza</td>
<td>414</td>
<td>459</td>
<td>902</td>
<td>1106</td>
<td>1114</td>
<td>520</td>
<td>149</td>
<td>76</td>
</tr>
<tr>
<td># Positive B Influenza</td>
<td>396</td>
<td>605</td>
<td>493</td>
<td>488</td>
<td>496</td>
<td>261</td>
<td>67</td>
<td>25</td>
</tr>
<tr>
<td># Non-Differentiated Influenza</td>
<td>45</td>
<td>2</td>
<td>46</td>
<td>38</td>
<td>113</td>
<td>75</td>
<td>40</td>
<td>5</td>
</tr>
</tbody>
</table>

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

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

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

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Influenza A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Total Positive PCR Tests)</td>
<td>13</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Subtype</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seasonal H1N1</td>
<td>13</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Season H3N2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>20</td>
<td>18</td>
</tr>
<tr>
<td>Not Subtyped</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Influenza B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Total Positive PCR Tests)</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>27**</td>
<td>3</td>
</tr>
<tr>
<td>PCR Negative Specimens</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>22</td>
<td>15</td>
</tr>
</tbody>
</table>

*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 7:¹¹

Since September 1, 2012, CDC has reported antigenic characterization results from three Influenza A (H1N1) viruses, 14 Influenza A (H3N2) viruses, and 25 Influenza B viruses received from the Texas Department of State Health Services (DSHS) Laboratory.

Influenza A (H1N1) [3]
- Three 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) [14]
- Fourteen 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 [25]
- Twenty-three (92%) 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.
- Two (8%) 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 7:

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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Figure 7. Statewide Influenza Activity

This chart was obtained from the Texas Influenza Surveillance Report [http://www.dshs.state.tx.us/dcu/disease/Influenza/surveillance/2013/](http://www.dshs.state.tx.us/dcu/disease/Influenza/surveillance/2013/)
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Figure 10. RODS Syndromic Surveillance for the Respiratory Prodrome Category, Travis County: 2010-2013

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

Figure 12. Other Respiratory Viruses Reported for Texas: MMWR Week 7

<table>
<thead>
<tr>
<th>Virus</th>
<th>Number of Laboratories Testing</th>
<th>Tests Performed</th>
<th>Positive Tests</th>
<th>Percentage of Tests Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adenovirus (respiratory)</td>
<td>5</td>
<td>452</td>
<td>5</td>
<td>1.11%</td>
</tr>
<tr>
<td>HMPV</td>
<td>4</td>
<td>334</td>
<td>18</td>
<td>5.39%</td>
</tr>
<tr>
<td>Parainfluenza virus</td>
<td>5</td>
<td>452</td>
<td>10</td>
<td>2.21%</td>
</tr>
<tr>
<td>Rhinovirus</td>
<td>3</td>
<td>322</td>
<td>112</td>
<td>34.78%</td>
</tr>
<tr>
<td>RSV</td>
<td>14</td>
<td>885</td>
<td>260</td>
<td>29.38%</td>
</tr>
</tbody>
</table>

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


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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