The Houston Health Department (HHD) Conducts seasonal influenza surveillance from October (week 40) 2015 to May (week 22) 2016. In Week 08, flu activity remained the same compared to the previous week. Flu activity typically peaks in February. There is still time to get a flu vaccine which covers this season’s circulating types of influenza.

Influenza Like Illness (ILI)
- ILI activity based on hospital emergency center visits will be reported next week.
- The percentage of Flu Near You users reporting ILI decreased from 1.15% to 0.9%.

Virology
- The percentage of flu test positives from sentinel providers in Houston increased slightly from 52.4% in Week 07 to 53.3% in Week 08.
- In week 08, 15 surveillance specimens were tested by the City of Houston Bureau of Laboratory Services. The following types and number of viruses were detected in these specimens: Influenza A H3 (2), Influenza A H1N1 (2), Influenza B (4).
- Cumulatively this season, the City of Houston Bureau of Laboratory Services has tested 342 surveillance specimens. Of the 46 positive lab results, the Influenza A/H3 strain accounts for 23 (50%) of the positives.
- HHD receives electronic lab reports from clinical labs. In Week 08, There were 49 flu positive specimens.

Pediatric Mortality
- During the 2015-2016 influenza season, zero (0) Houston influenza-associated pediatric deaths have been reported.

National
- At the national level during Week 08, 53.6% of specimens tested and reported to the CDC were positive for influenza. The proportion of outpatient visits for ILI (3.2%) was above the national baseline (2.1%) and the proportion of deaths attributed to pneumonia and influenza (7.4%) was above the epidemic threshold of 7.2%.
Influenza Like Illness results will be posted in next week’s report
NOTE: Houston/Harris County ILI distribution map was created using data provided by 36 hospitals that voluntarily provide data based on chief complaints in the Real-time Outbreak Disease Surveillance System (RODS). This map reflects the percentage of ILI cases from each zip code from the total amount of cases seen in each zip code during the current week of reporting. Influenza-like illness (ILI) is defined as the mention of fever AND cough, OR fever AND sore throat, OR flu in the patient’s ED chief complaint. These data do not represent laboratory confirmed cases of influenza nor do they represent all ED visits in Houston/Harris County.

Flu Near You: ILI per week

Flu Near You (FNY) is a participatory surveillance tool which compliments traditional disease surveillance. The percentage of FNY users reporting ILI decreased from 1.3% on 02/15/2016 to 0.9% on 02/22/2016. See the last page for information on how to participate.
Laboratory Surveillance: Influenza Rapid Test Results, Houston

<table>
<thead>
<tr>
<th>CDC Week Number</th>
<th>06 (Feb 07–13)</th>
<th>07 (Feb 14–20)</th>
<th>08 (Feb 21–27)</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Influenza Tests Performed</td>
<td>15</td>
<td>42</td>
<td>15</td>
</tr>
<tr>
<td>% Influenza Positive</td>
<td>46.7%</td>
<td>52.4%</td>
<td>53.3%</td>
</tr>
<tr>
<td># Influenza A Positive</td>
<td>1</td>
<td>17</td>
<td>4</td>
</tr>
<tr>
<td>% Influenza A Positive</td>
<td>14.3%</td>
<td>77.3%</td>
<td>50.0%</td>
</tr>
<tr>
<td># Influenza B Positive</td>
<td>6</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>% Influenza B Positive</td>
<td>85.7%</td>
<td>13.6%</td>
<td>50.0%</td>
</tr>
<tr>
<td># Non-differentiated Positive</td>
<td>0</td>
<td>2</td>
<td>0</td>
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<tr>
<td>% Non-differentiated Positive</td>
<td>0.0%</td>
<td>9.1%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>
Influenza Viral Surveillance Summary

- During the 2015-2016 flu season the HHD Office of Surveillance and Public Health Preparedness tested 342 specimens from sentinel providers and detected Influenza A/H3 (50.0%), Influenza 2009 A/H1N1 (26.1%), Influenza B/Yamagata (17.4%), Influenza co-infection (4.3%), and Influenza B/Victoria (2.2%). Among weeks with 5% or greater positive influenza lab results, the average percent of positive influenza lab results was 32.0%.

- For MMWR Week 08, twenty-two (08) specimens tested positive for influenza virus. This season MMWR Week 07 and 08 had the highest percentage of positive influenza lab results.

Non-influenza respiratory virus surveillance

- During the 2015-2016 season, among the specimens tested by culture or respiratory virus panel the following non-influenza respiratory viruses were detected: human rhinovirus (50.6%), respiratory syncytial virus (11.2%), parainfluenza 1 (11.2%), parainfluenza 2 (1.1%), parainfluenza 3 (2.2%), adenovirus (9.0%), human metapneumovirus (9.0%) and co-infection (12.4%).
HHD Influenza Surveillance Report (02/27/16, Week 08)

Passive Viral Surveillance

HHD receives electronic lab reports from clinical laboratories. In week 08, there were 49 additional laboratory confirmed influenza cases from the prior week. Flu A accounts for 93.8% of the flu positives.

![Bar chart showing number of flu cases by month and type]

School Surveillance

Table 1: ILI and Influenza Cases by Type and School Type\textsuperscript{1} per Month

<table>
<thead>
<tr>
<th></th>
<th>Total Cases</th>
<th>Lab Confirmed</th>
<th>Flu A</th>
<th>Flu B</th>
<th>A+B</th>
<th>Unclassified</th>
<th>Elem Schools</th>
<th>Middle Schools</th>
<th>High Schools</th>
<th>Multi-Level Schools</th>
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<tbody>
<tr>
<td></td>
<td>#</td>
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<td>Sep</td>
<td>03</td>
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<td>01</td>
<td>01</td>
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<td>Oct</td>
<td>04</td>
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<td>04</td>
<td>03</td>
<td>01</td>
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<td>Nov</td>
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<td>04</td>
<td>02</td>
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<td>Dec</td>
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</table>

September was the first full month of 2015-2016 school year. ILI cases in HISD students increased in January 2016 (05) compared to December 2015 (04). There were zero laboratory confirmed flu cases in January.

\textsuperscript{1}NOTE: Data on student ILI and influenza cases is collected from 306 schools within Houston Independent School District. School will be counted more than once if more than one case from the same school is reported during the
Texas and National Influenza and ILI Activity

NOTE: Data collected in ILINet are used to produce a measure of ILI activity by state. Activity levels are based on the percent of outpatient visits in a state due to ILI and are compared to the average percent of ILI visits that occur during spring and fall weeks with little or no influenza virus circulation. This map uses the proportion of outpatient visits to health care providers for influenza-like illness to measure the ILI activity level within a state. It does not, however, measure the extent of geographic spread of flu within a state. Therefore, outbreaks occurring in a single city could cause the state to display high activity levels. Data collected in ILINet may disproportionately represent certain populations within a state, and therefore, may not accurately depict the full picture of influenza activity for the whole state. http://www.cdc.gov/flu/weekly/
The Houston Influenza Surveillance Weekly Report is available on the Houston Health Department web site at:
http://www.houstontx.gov/health/weekly-flu-report

Flu Near You is a participatory surveillance (crowd sourcing) tool which compliments traditional disease surveillance activities. Registered users can obtain real-time information on flu activity and influenza vaccine in the Greater Houston Metropolitan Area. Flu Near You features include:
- Report symptoms
- Find vaccines
- Map flu cases in the Greater Houston Metropolitan area
- Get flu news
- Share on social media

This season HHD invites you to register for Flu Near You at https://flunearyou.org

NOTE:
Influenza-like Illness (ILI) is defined as fever (temperature ≥ 100°F) plus a cough OR a sore throat, in the absence of a known cause other than influenza.

Houston ILI baselines were determined using the same method as the Centers for Disease Control and Prevention Regional ILI baselines. The baseline is developed by calculating the mean percentage ILI of ED visits during non-influenza weeks for the previous three seasons and adding two standard deviations. A non-influenza week is defined as periods of two or more consecutive weeks in which each week accounted for less than 2% of the season’s total number of specimens that tested positive for influenza.

Additional information regarding Houston, Texas and national ILI activity can be accessed at:
http://www.houstontx.gov/health/
http://www.cdc.gov/flu/weekly/
http://www.who.int/csr/don/en/

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Program of Public Health Informatics
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Main Phone Number: (832) 393-5080
Disease Reporting Fax Number: (832) 393-5232
24-Hour Disease Reporting Number: (832) 393-5080