



HOUSTON HEALTH
DEPARTMENT

Office of Surveillance & Public Health Preparedness
Program of Public Health Informatics

Influenza Surveillance Weekly Report
CDC MMWR Week 08: February 21—27, 2016

Influenza Activity by County, State, and National Levels

| Houston/ Harris County: Week 08 | Texas: Week 08 | CDC: Week 08 |
|------------------------------------|-------------------|-----------------|
| Elevated | Elevated | Elevated |

Highlights

- 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%.

Syndromic Surveillance: 2015-2016 Influenza Season

Influenza Like Illness results will be posted in next week's report

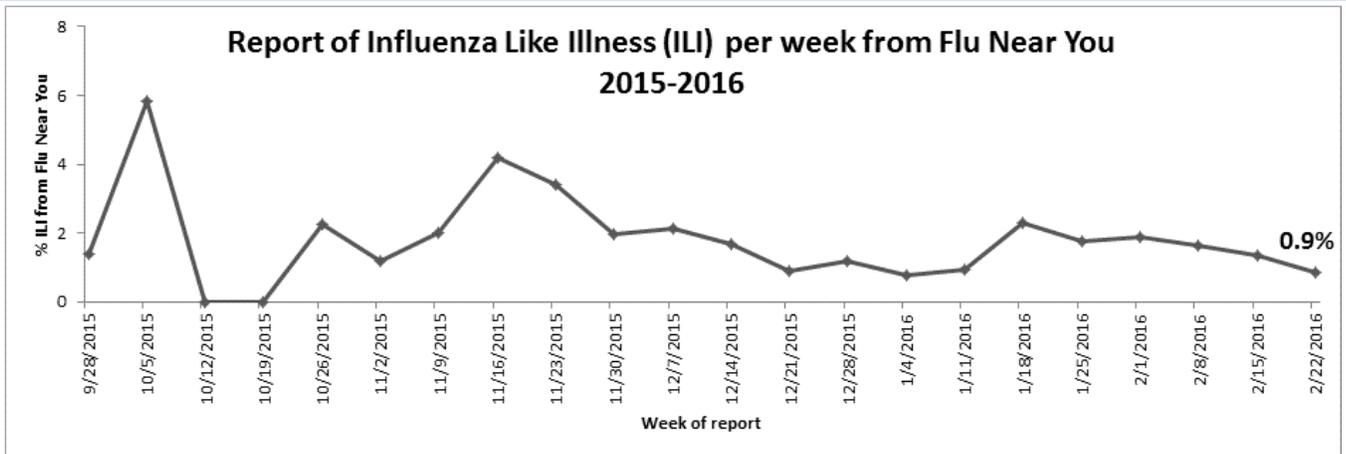
NOTE: Houston/Harris County ILI activity is assessed using information provided by surveillance participants in the Real-time Outbreak Disease Surveillance System (RODS). For week 08, 36 surveillance participants reported ILI information to Houston Health Department. Influenza-like illness (ILI) is defined 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.

Syndromic Surveillance: Geographic Distribution Map

**City of Houston map with Influenza Like Illness activity
will be posted in next week's report**

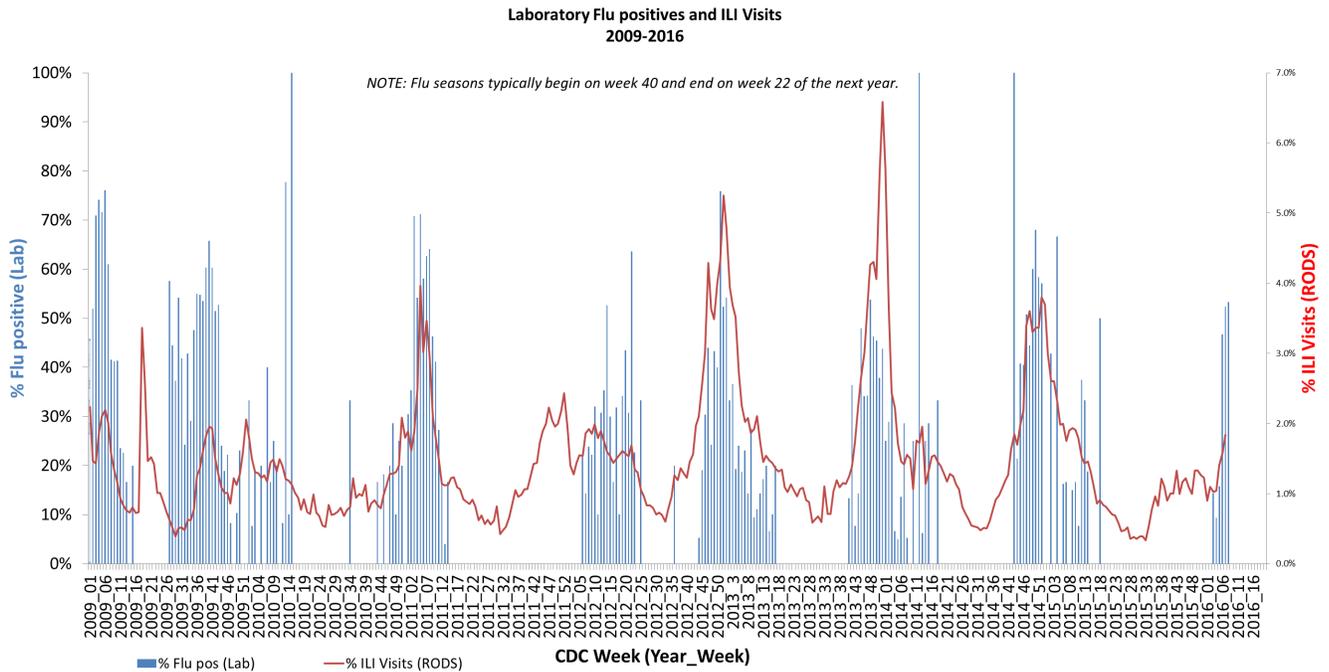
NOTE: Houston/Harris County ILI distribution map was created using data provided by 36 hospitals that voluntarily provide data based on chief complaints in the Real-time Outbreak Disease Surveillance System (RODS). This map reflects the percentage of ILI cases from each zip code from the total amount 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.

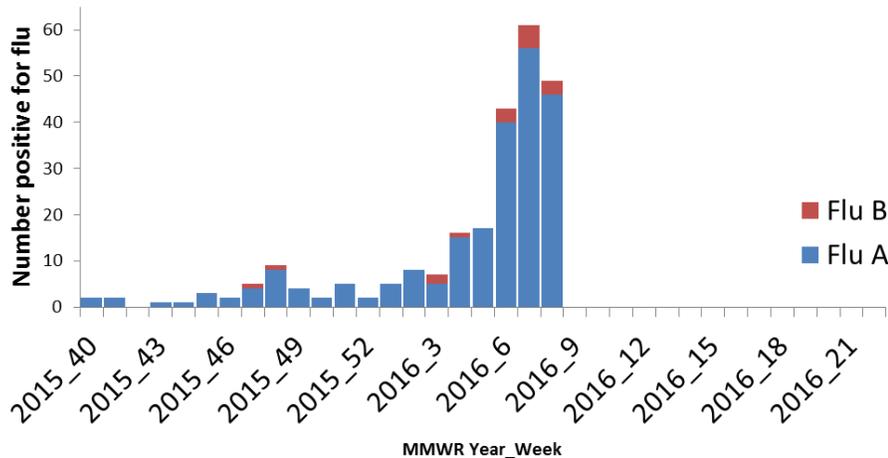
Laboratory Surveillance: Influenza Rapid Test Results, Houston



| CDC Week Number | 06 (Feb 07–13) | 07 (Feb 14–20) | 08 (Feb 21–27) |
|--------------------------------|-------------------|-------------------|-------------------|
| # of Influenza Tests Performed | 15 | 42 | 15 |
| % Influenza Positive | 46.7% | 52.4% | 53.3% |
| # Influenza A Positive | 1 | 17 | 4 |
| % Influenza A Positive | 14.3% | 77.3% | 50.0% |
| # Influenza B Positive | 6 | 3 | 4 |
| % Influenza B Positive | 85.7% | 13.6% | 50.0% |
| # Non-differentiated Positive | 0 | 2 | 0 |
| % Non-differentiated Positive | 0.0% | 9.1% | 0.0% |

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.



School Surveillance

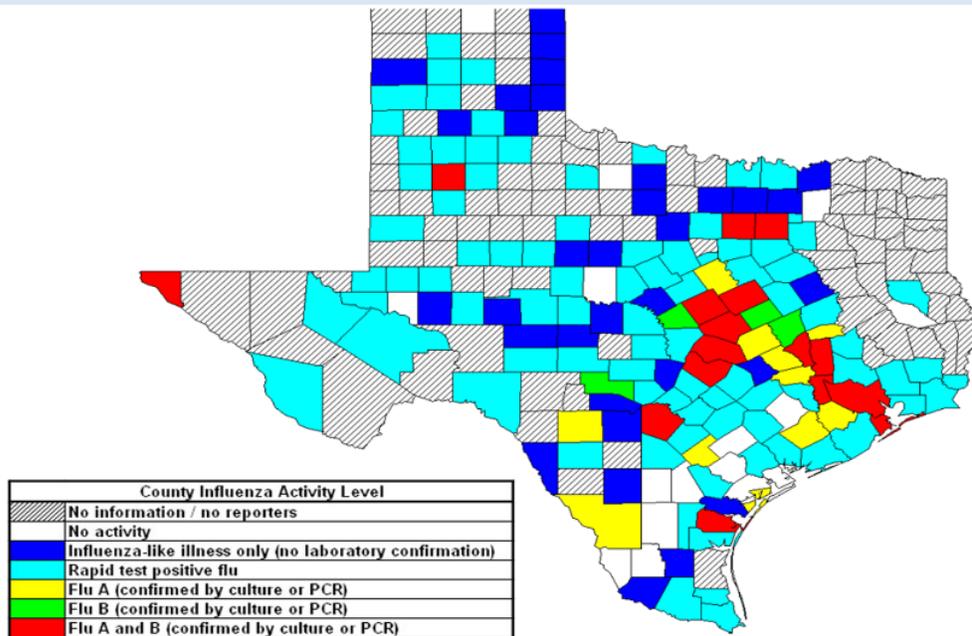
Table 1: ILI and Influenza Cases by Type and School Type¹ per Month

| | Total Cases | Lab Confirmed | | Flu A | Flu B | A+B | Unclassified | Elem Schools | Middle Schools | High Schools | Multi-Level Schools |
|-------|-------------|---------------|-----|-------|-------|-----|--------------|--------------|----------------|--------------|---------------------|
| | | # | % | | | | | | | | |
| Aug | - | - | - | - | - | - | - | - | - | - | - |
| Sep | 03 | 01 | 33% | - | - | - | 02 | 01 | 01 | 01 | 00 |
| Oct | 04 | 00 | 0% | - | - | - | 04 | 03 | 01 | 00 | 00 |
| Nov | 04 | 00 | 0% | - | - | - | 04 | 02 | 01 | 01 | 00 |
| Dec | 04 | 00 | 0% | - | - | - | 04 | 03 | 01 | 00 | 00 |
| Jan | 05 | 00 | 0 | - | - | - | 05 | 04 | 01 | 00 | 00 |
| Feb | | | | | | | | | | | |
| Mar | | | | | | | | | | | |
| Apr | | | | | | | | | | | |
| Total | | | | | | | | | | | |

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.

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

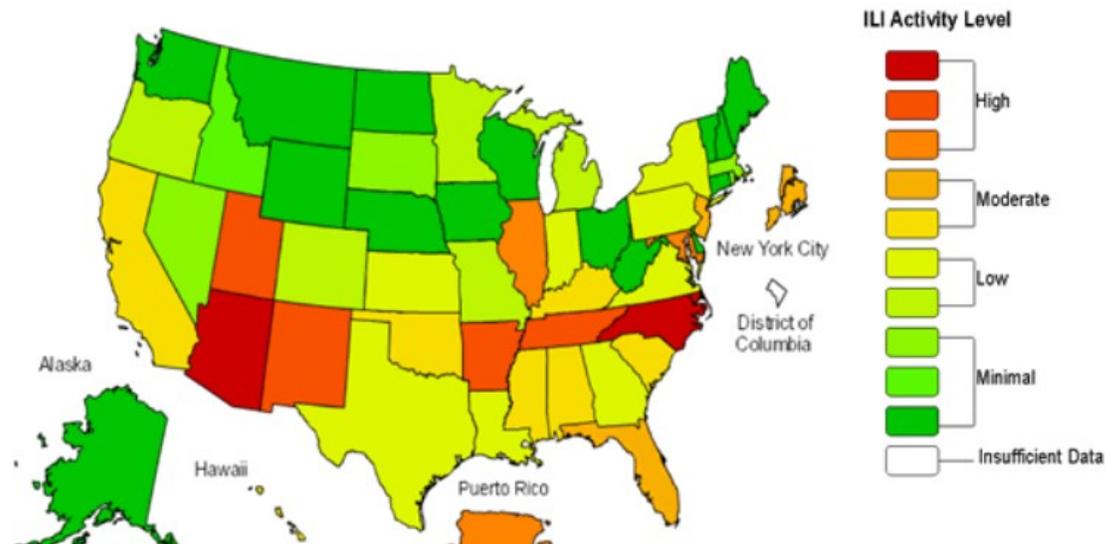
Texas and National Influenza and ILI Activity



Please note: The majority of influenza cases are not reportable by law in Texas. This map contains data from sentinel sites and only displays influenza and ILI cases that were reported to public health. Positive laboratory results are reported according to specimen collection date, or date received in the laboratory if the former is unknown.

NOTE: Influenza activity level corresponds to current MMWR week only and does not reflect previous weeks' activity. 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. Positive laboratory results are reported according to specimen collection date or date received in the lab if the former is unknown.
<http://www.dshs.state.tx.us/idcu/disease/influenza/surveillance/2015/>

**Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet
 2015-16 Influenza Season Week 8 ending Feb 27, 2016**



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 $\geq 100^{\circ}\text{F}$) 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://http://www.dshs.state.tx.us/idcu/disease/influenza/surveillance/2015/>

<http://www.cdc.gov/flu/weekly/>

<http://www.who.int/csr/don/en/>

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