



HOUSTON HEALTH
DEPARTMENT

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

Influenza Surveillance Weekly Report
CDC MMWR Week 51: December 20—26, 2015

Influenza Activity by County, State, and National Levels

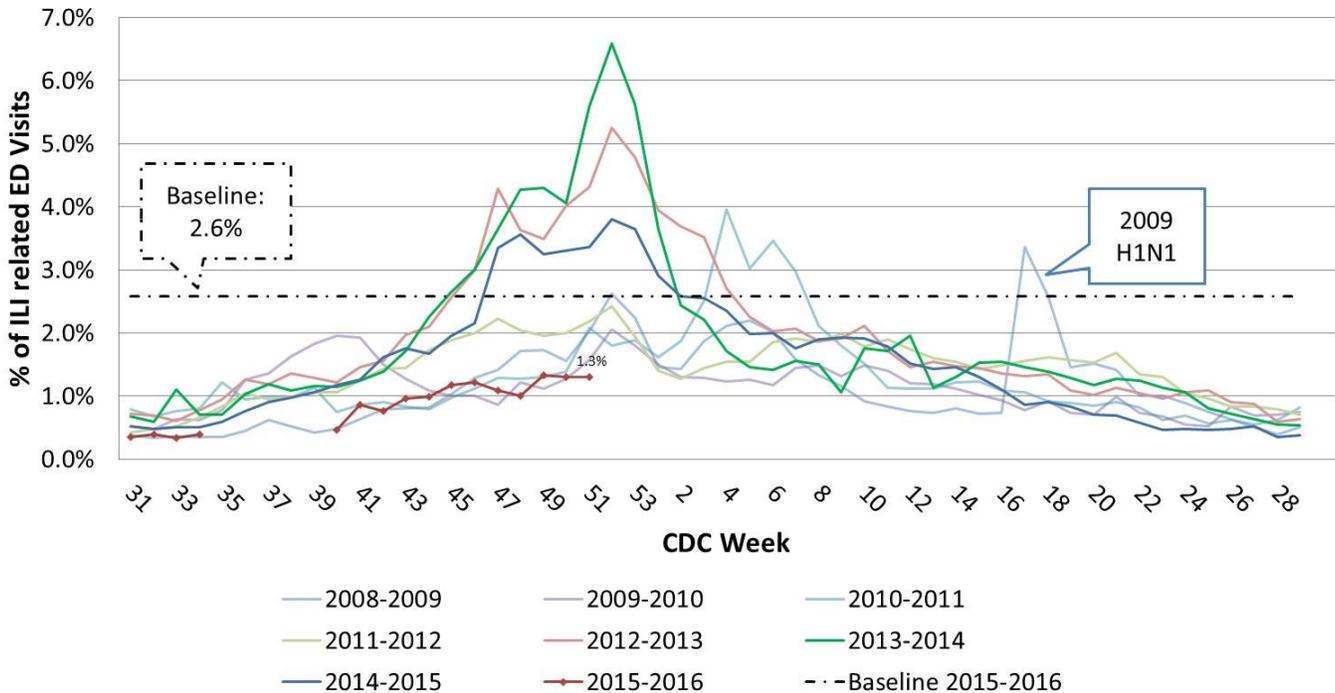
Houston/ Harris County: Week 51	Texas: Week 50	CDC: Week 50
Low	Low	Increased slightly

Highlights

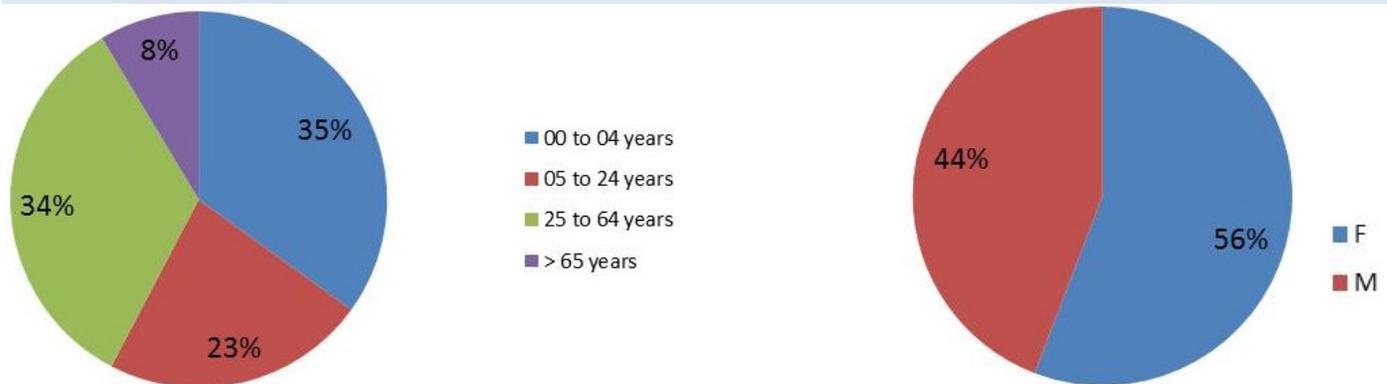
- The Houston Health Department (HHD) Conducts seasonal influenza surveillance from October (Week 40) 2015 to May (Week 22) 2016. During Week 51, influenza activity increased slightly from the previous week but remains low. This season flu activity was highest on Week 48. Flu activity is expected to increase in the coming weeks. The flu season reaches high levels in February.
- Flu vaccine is the most effective way to prevent flu. There is still time to obtain a vaccine.
- During the 2015-2016 influenza season, zero (0) Houston influenza-associated pediatric deaths have been reported.
- The percentage of reported influenza-like illness (ILI) detected from emergency departments in Houston/Harris County **did not change** from 1.3% in Week 50 to 1.3% in Week 51. The proportion of ILI was below/above the baseline of 2.6%.
- The percentage of flu test positives from sentinel providers in Houston **did not change** from 0% in Week 50 to 0% in Week 51. HHD receives electronic lab reports from clinical labs. In Week 51, the number of flu positives labs from clinical laboratories was 4 in Week 51 which is an **increase** from 2 in Week 50.
- In Week 51, ten 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 (0), Influenza A H1N1 (0), Influenza B (0).**
- Cumulatively this season, the City of Houston Bureau of Laboratory Services has tested 185 surveillance specimens. There are zero flu positive labs and no predominant strain.
- At the national level during Week 50, 7.8% of specimens tested and reported by U.S. public health laboratories to the CDC were positive for influenza and 2.9% of specimens tested and reported by clinical laboratories to CDC were positive for influenza. The proportion of outpatient visits for ILI 2.2% was **above** the national baseline (2.1%) and the proportion of deaths attributed to pneumonia and influenza (6.3%) was **below** the epidemic threshold of 6.8%.

Syndromic Surveillance: 2015-2016 Influenza Season

Comparison of ILI-Related ED Visits in Houston/Harris County



Syndromic Surveillance: 2015-2016 Influenza Season Age and Gender Distribution

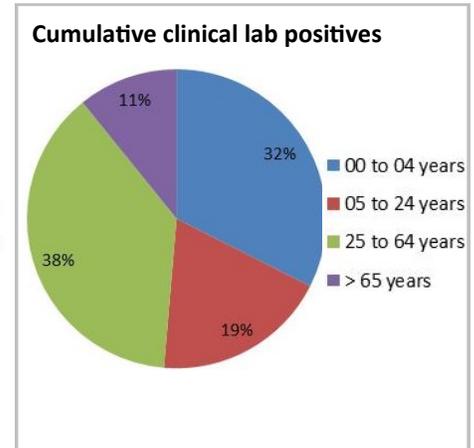
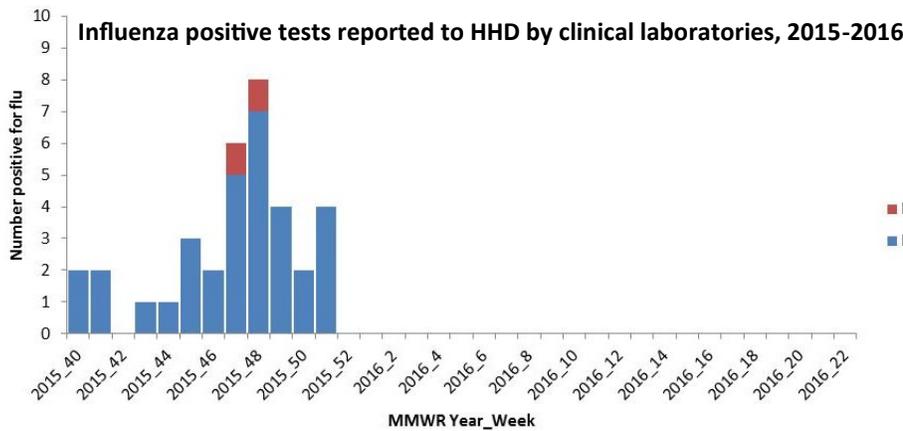


In Week 51, 1.3% of emergency department (ED) visits were due to influenza-like illness (ILI) complaints. Of the 163 patients presenting with ILI, the age group that recorded the most ED visits was the 00 to 04 year olds (35%). Females accounted for 56% of patients presenting with ILI.

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 [xx], 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.

Passive Viral Surveillance

HHD receives electronic lab reports from clinical laboratories. In Week 51, there were 4 additional laboratory confirmed influenza cases from the prior week. Flu A accounts for 94% of flu positives this season. Cumulatively this season the flu positives were detected in 00 to 04 years (32%), 05 to 24 years (19%), 25 to 64 years (38%), and > 65 years (11%).



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%				01	01	01	01	00
Oct	04	00	0%	-	-	-	04	03	01	00	00
Nov	04	00	0%	-	-	-	04	02	01	01	00
Dec											
Jan											
Feb											
Mar											
Apr											
Total											

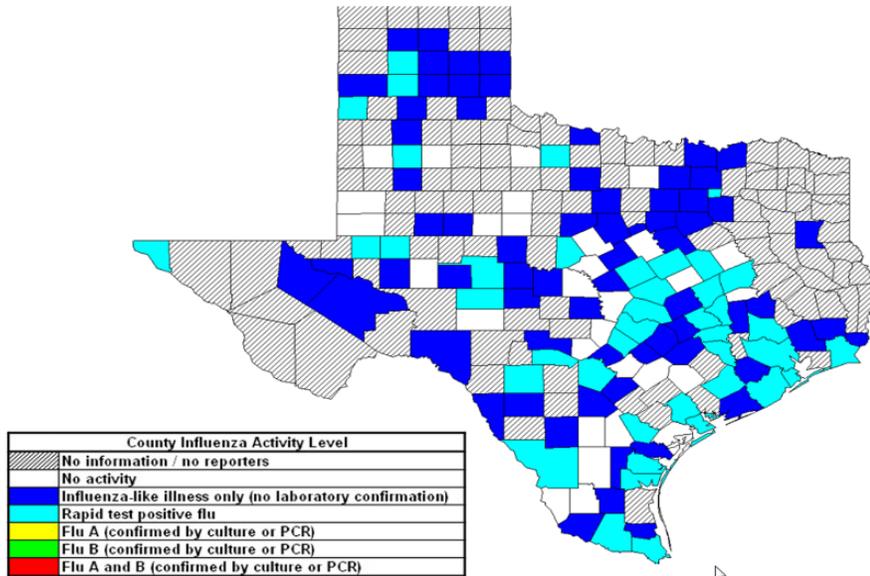
September was the first full month of 2015-2016 school year. ILI cases in HISD students increased in November compared to October. There were zero laboratory confirmed flu cases seen in November.

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

Statewide Influenza Activity Map

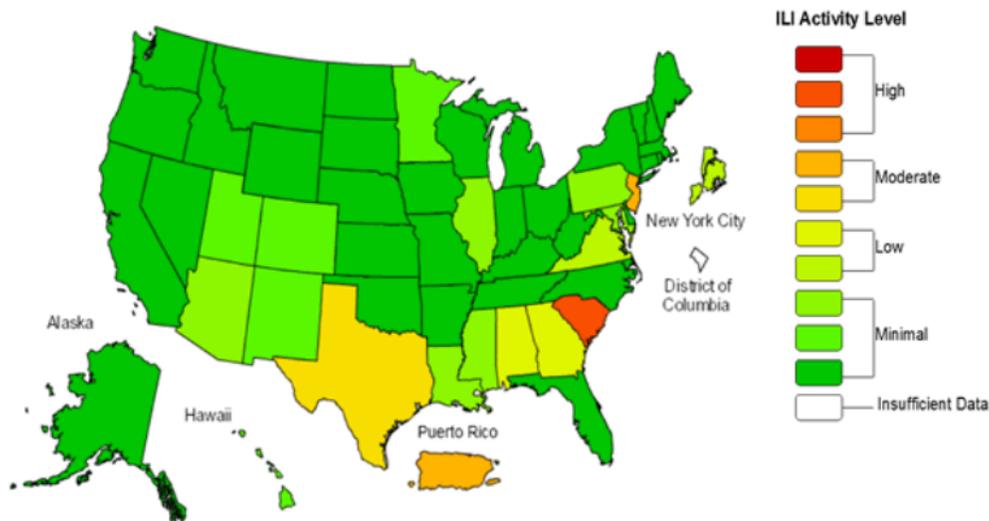
Figure 4: Texas Map Displaying the Highest Level of Influenza or ILI Activity Reported by County for the Week Ending Dec. 19, 2015 (MMWR Week 50)



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 50 ending Dec 19, 2015



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/>

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