HOUSTON HEALTH
DEPARTMENT

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

Influenza Surveillance Weekly Report
CDC MMWR Week 44: November 01—07, 2015

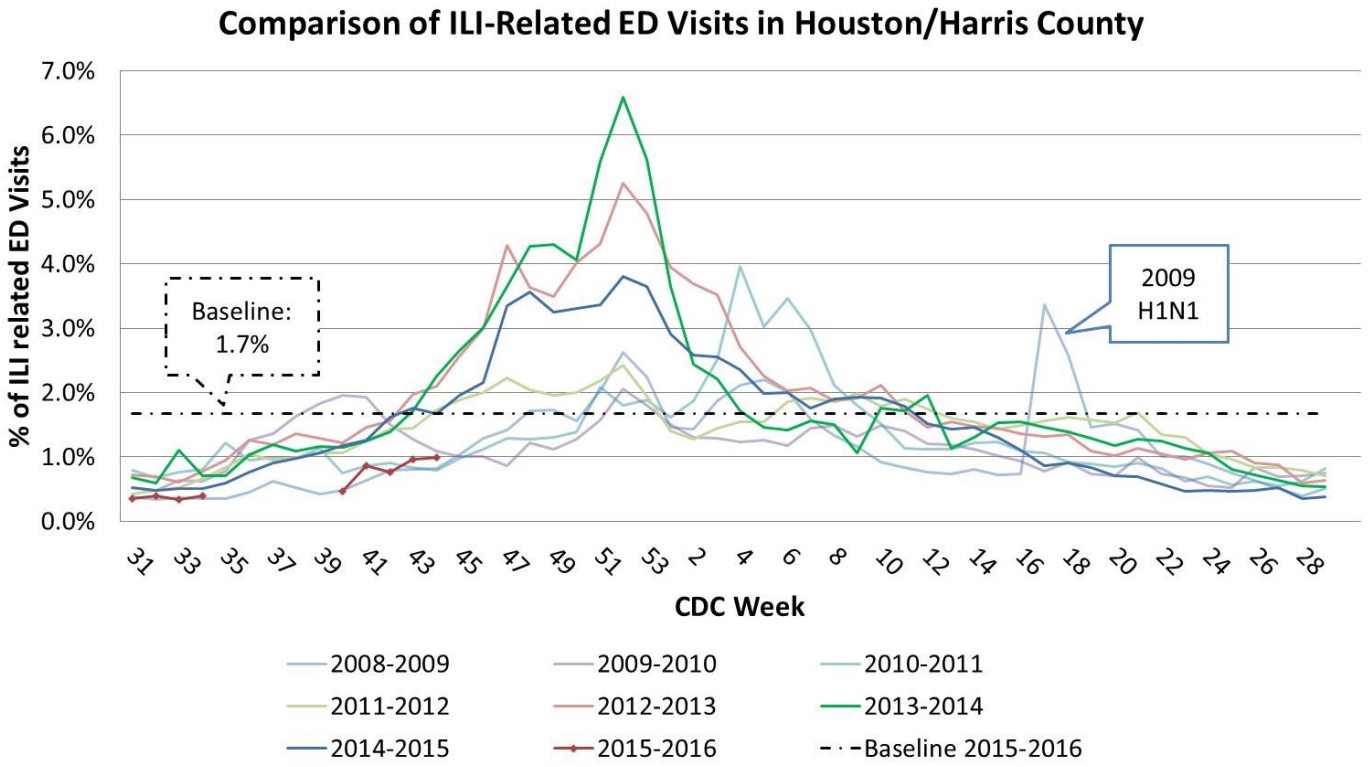
Influenza Activity by County, State, and National Levels

Houston/ Harris County: Week 44	Texas: Week 44	CDC: Week 44
Low	Low	Low

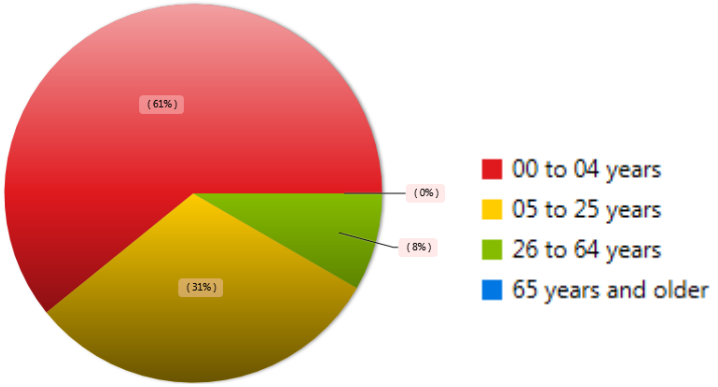
Highlights

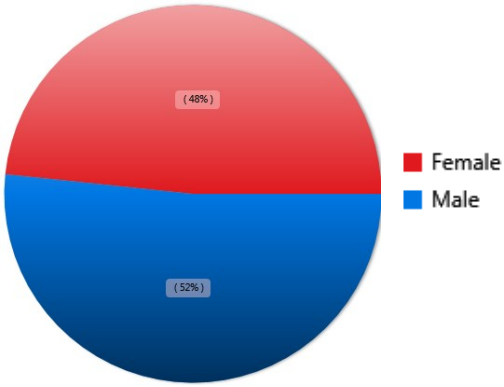
- The Houston Health Department (HHD) conducts seasonal influenza surveillance from October (Week 40) 2015 to May (Week 22) 2016
- The percentage of reported influenza-like illness (ILI) detected from emergency departments in Houston/Harris County ***did not change*** from 1.0% in week 43 to 1.0% in Week 44. The proportion of ILI was below/above the baseline of 1.7%.
- During the 2015-2016 influenza season, zero (0) Houston influenza-associated pediatric deaths have been reported.
- The percentage of flu test positives from sentinel providers in Houston ***did not change*** from 0% in week 43 to 0% in Week 44. HHD receives electronic lab reports from clinical labs. In Week 44, the number of flu positive labs from clinical laboratories was 1 in Week 44 which is the ***same*** from 1 in Week 43.
- In Week 44, 25 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 94 surveillance specimens. There are zero flu positive lab results and no predominant strain detected.
- At the national level during Week 44, 3.0% of specimens tested and reported by public health laboratories and 1.2% of specimens tested and reported to the CDC were positive for influenza. The proportion of outpatient visits for ILI 1.4% was ***below*** the national baseline 2.1% and the proportion of deaths attributed to pneumonia and influenza 5.7% was ***below*** the epidemic threshold of 6.2%.

Syndromic Surveillance: 2015-2016 Influenza Season



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

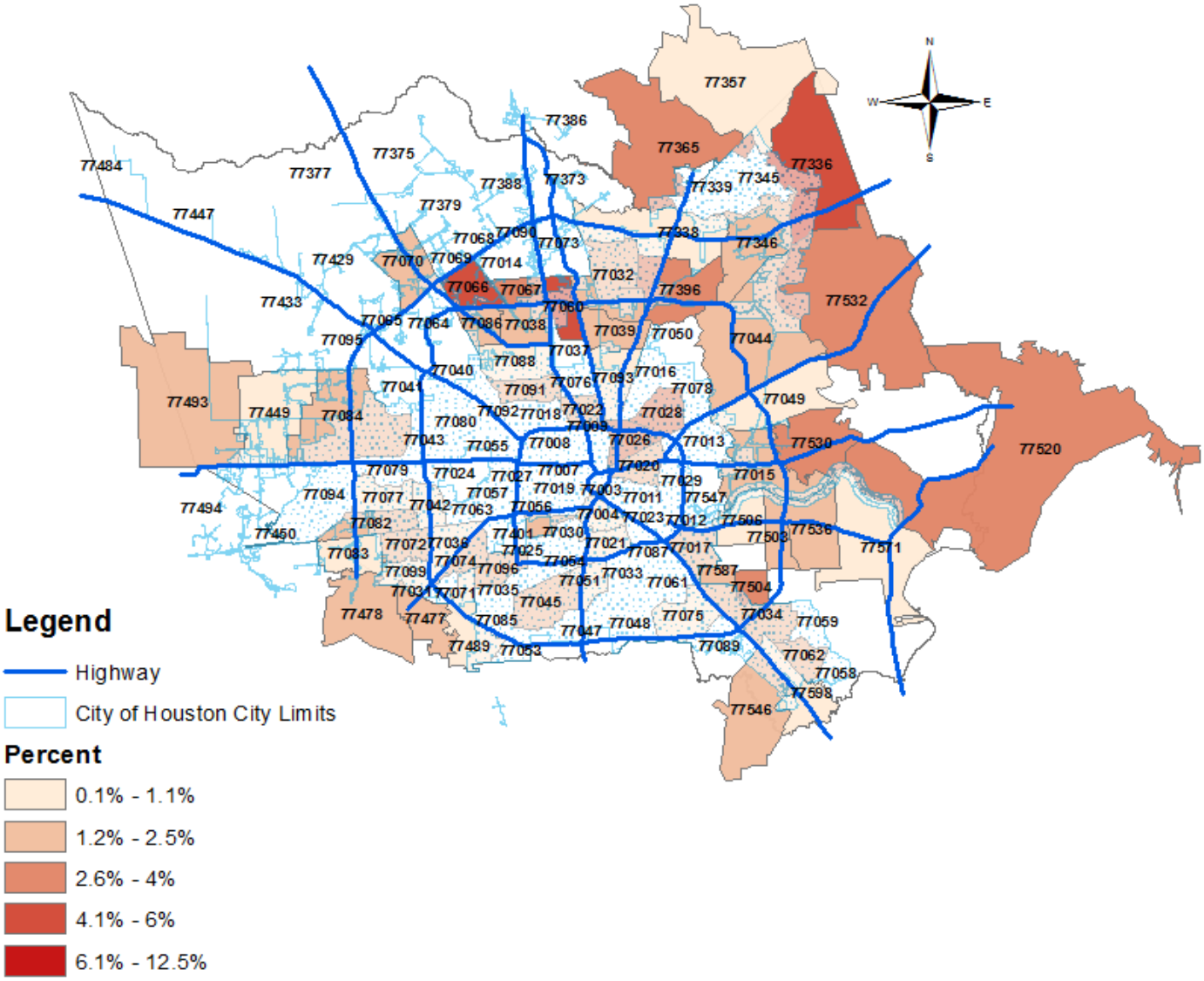




In Week 44, 1.0% of emergency department (ED) visits were due to influenza-like illness (ILI) complaints. Of the 120 patients presenting with ILI, the age group that recorded the most ED visits was the 00 to 04 year olds (61%). Males accounted for 52% of patients presenting with ILI.

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 44, 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



Legend

- Highway
- City of Houston City Limits

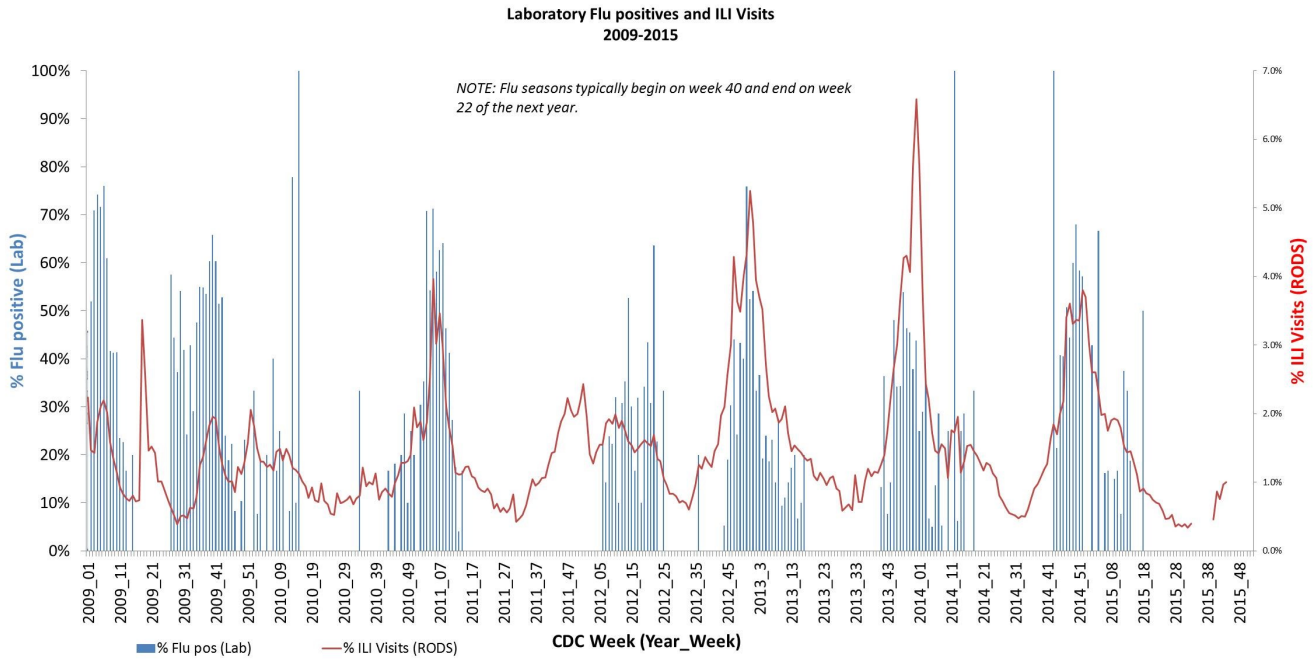
Percent

- 0.1% - 1.1%
- 1.2% - 2.5%
- 2.6% - 4%
- 4.1% - 6%
- 6.1% - 12.5%

During week 44, the ZIP codes that have the greatest percentage of ED visits related to ILI (6.0% or greater) are: None

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.

Laboratory Surveillance: Influenza Rapid Test Results, Houston

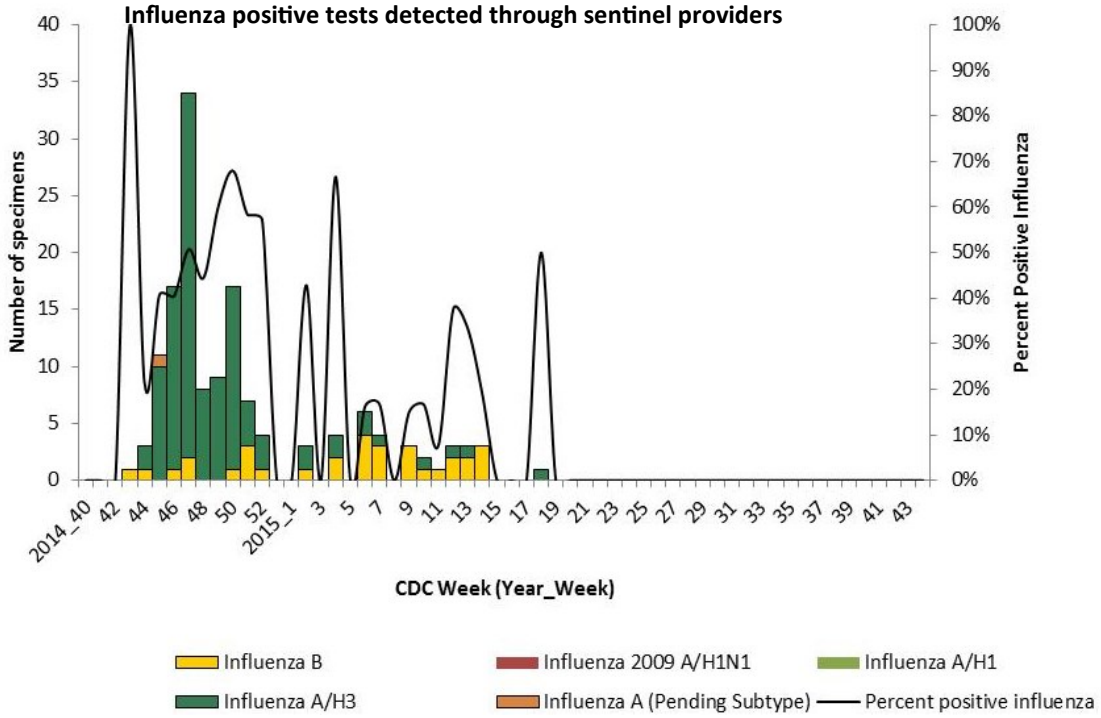


CDC Week Number	42 (Oct 18-24)	43 (Oct 25—31)	44 (Nov 01-07)
# of Influenza Tests Performed	22	15	25
% Influenza Positive	0%	0%	0%
# Influenza A Positive	0	0	0
% Influenza A Positive	0%	0%	0%
# Influenza B Positive	0	0	0
% Influenza B Positive	0%	0%	0%
# Non-differentiated Positive	0	0	0
% Non-differentiated Positive	0%	0%	0%

Laboratory Based Respiratory Viruses Surveillance: 2014-2015, 2015-2016

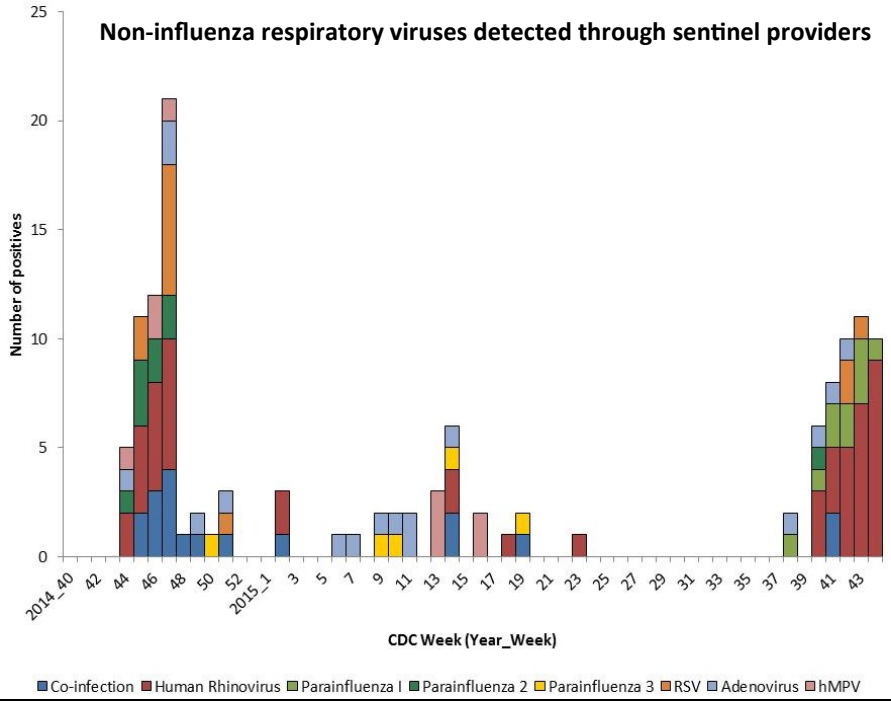
Influenza Viral Surveillance Summary

During the 2015-2016 flu season the HHD Office of Surveillance and Public Health Preparedness (OSPHP) tested 94 specimens from sentinel providers and detected zero influenza virus activity.



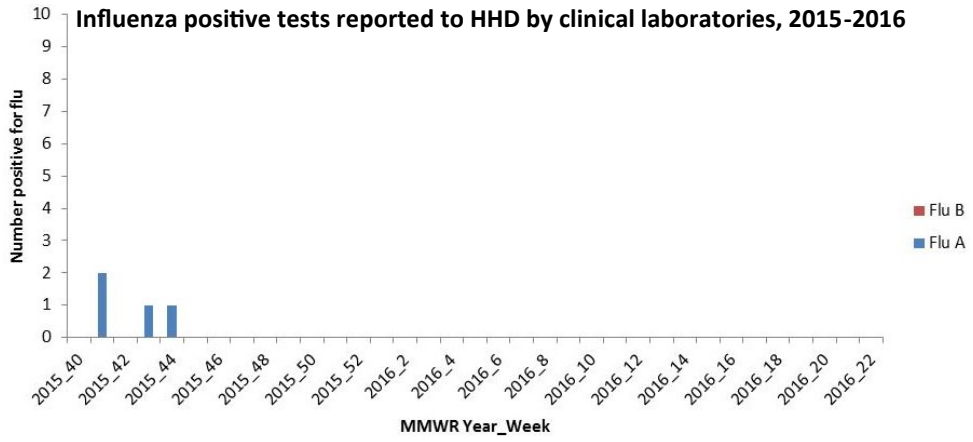
Non-influenza respiratory virus surveillance

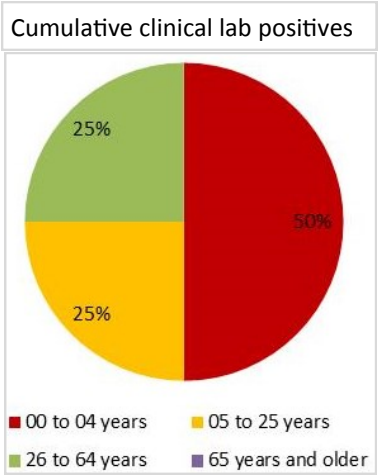
OSPHP tested for seven non-influenza viruses for 25 specimens. The virus types are listed with counts of lab positives in parenthesis. During week 44, the specimens tested detected the following: Human Rhinovirus (9), Parainfluenza I (1), Parainfluenza 2 (0), Parainfluenza 3 (0), RSV(0), Adenovirus (0), hMPV (0) and co-infection (0).



Passive Virologic Surveillance

HHD receives electronic lab reports from clinical laboratories. In week 44, there was 1 additional laboratory confirmed influenza case from the prior week. The percent of flu positives was 100% for Week 44. Cumulatively this season the flu positives were detected in 0-4 years (50%), 5-25 years (25%), 26-64 years (25%) and >65 years (0%).





School Surveillance

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

	Total Cases	Lab Confirmed #	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											
Dec											
Jan											
Feb											
Mar											
Apr											
Total											

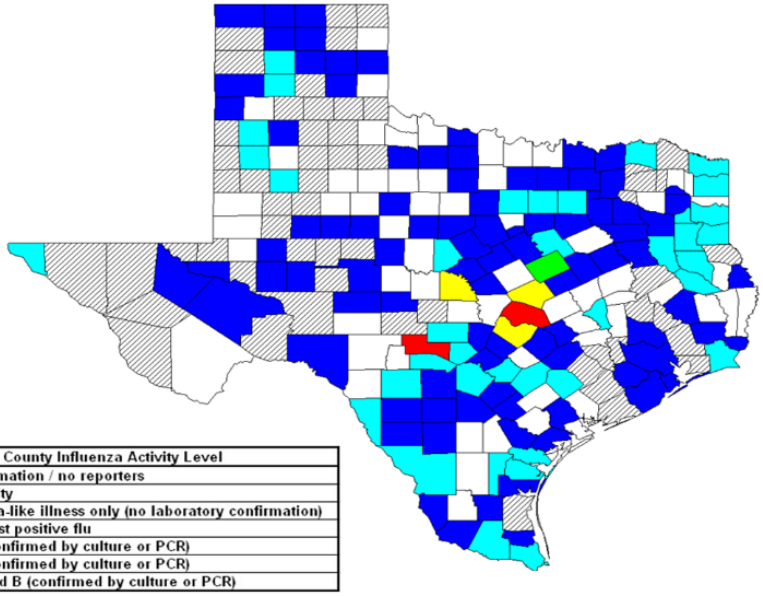
September was the first full month of 2015-2016 school year. ILI cases in HISD students increased in October compared to September. There were zero (0) laboratory confirmed flu cases seen in October.

NOTE: Data on student ILI and influenza cases is collected from 306 schools within Houston Independent School District. [1]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

Statewide Influenza Activity Map

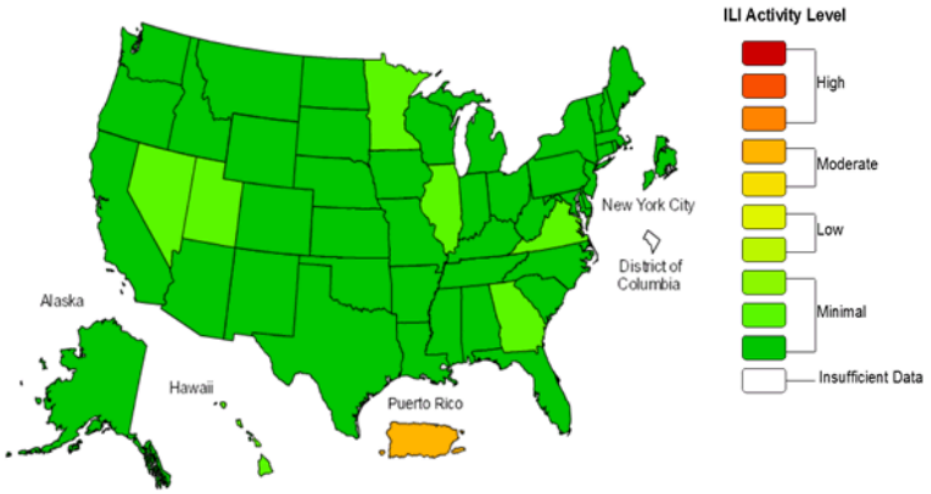
Figure 4: Texas Map Displaying the Highest Level of Influenza or ILI Activity Reported by County for the Week Ending Nov. 07, 2015 (MMWR Week 44)



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 44 ending Nov 07, 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

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://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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