



Houston Department of
Health and Human Services

Office of Surveillance & Public Health Preparedness
Bureau of Epidemiology

Influenza Surveillance Weekly Report
CDC Week 47: November 16- 22, 2014

Influenza Activity by County, State, and National Levels

Houston/ Harris County: Week 47	Texas: Week 47	CDC: Week 47
Increased	No change	Increased

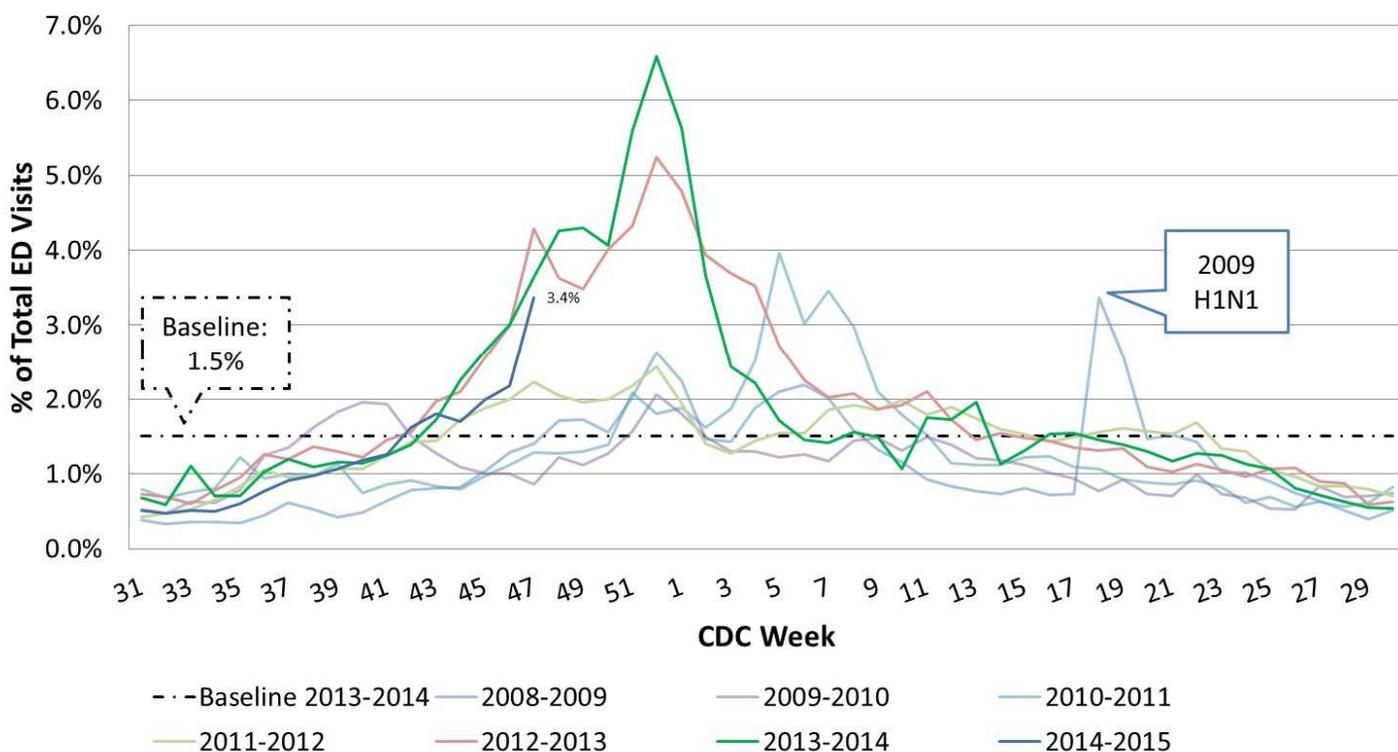
Highlights

- The percentage of reported influenza-like illness (ILI) in Houston/Harris county **increased** from 2.1% in week 46 to 3.4% in week 47.
- The percentage of flu test positives in Houston **increased** from 40.48% in week 46 to 52.24% in week 47.
- During the 2014-2015 influenza season, zero (0) Houston influenza-associated pediatric deaths have been reported.
- In week 47, 67 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 (33), Influenza A H1N1 (0), Influenza B (2).
- Cumulatively this season, the City of Houston Bureau of Laboratory Services has tested 325 surveillance specimens. Of the 112 positive lab results, the Influenza A/H3 strain accounts for 74 (66%) of the positives.
- At the national level during week 47, 12.6 % of specimens tested and reported to the CDC were positive for influenza. The proportion of outpatient visits for ILI (2.0%) was **equal to** the national baseline (2.0%) and the proportion of deaths attributed to pneumonia and influenza (5.3%) was **below** the epidemic threshold of 6.4% for week 47.
- CDC Health Advisory Regarding the Potential for Circulation of Drifted Influenza A (H3N2) Viruses: <http://emergency.cdc.gov/han/han00374.asp>

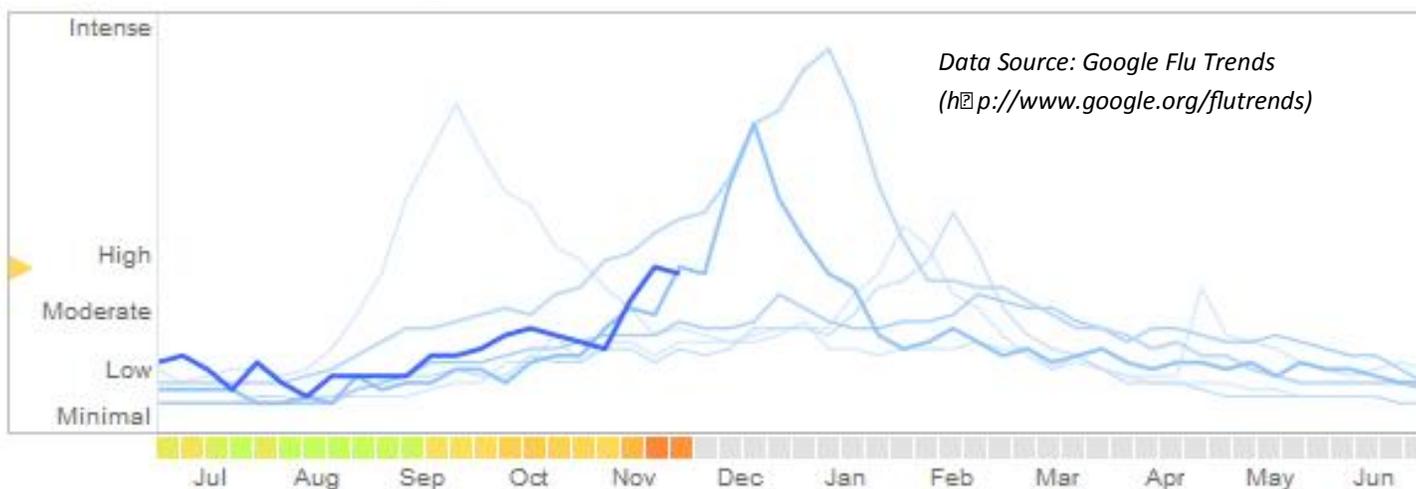
HDHHS Influenza Surveillance Report (11/16/14, Week 47)

Syndromic Surveillance: 2014-2015 Influenza Season

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

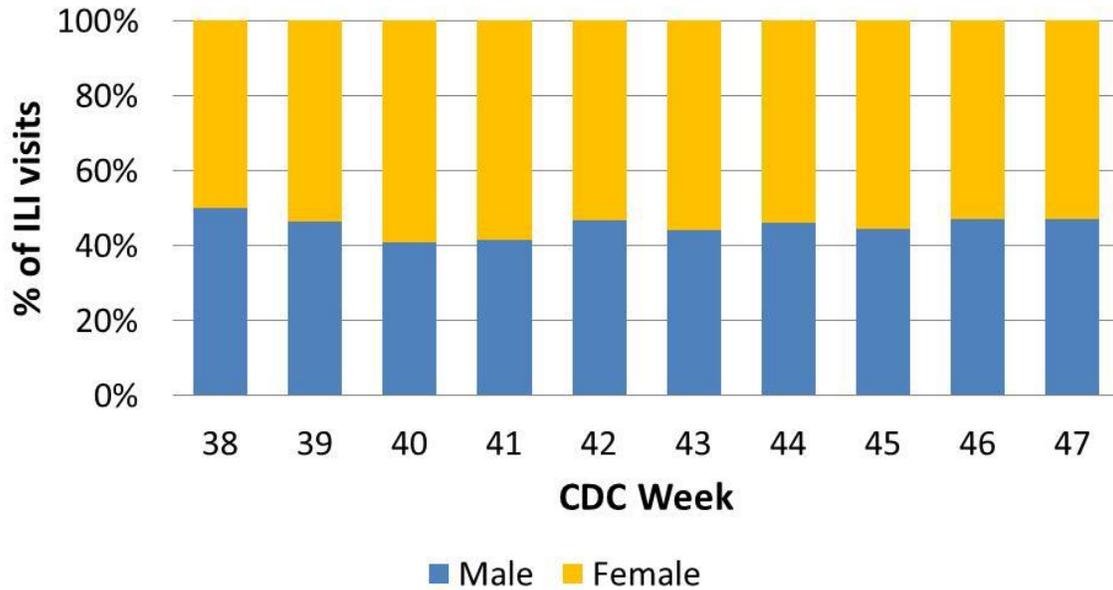


Google Flu Trends in Houston

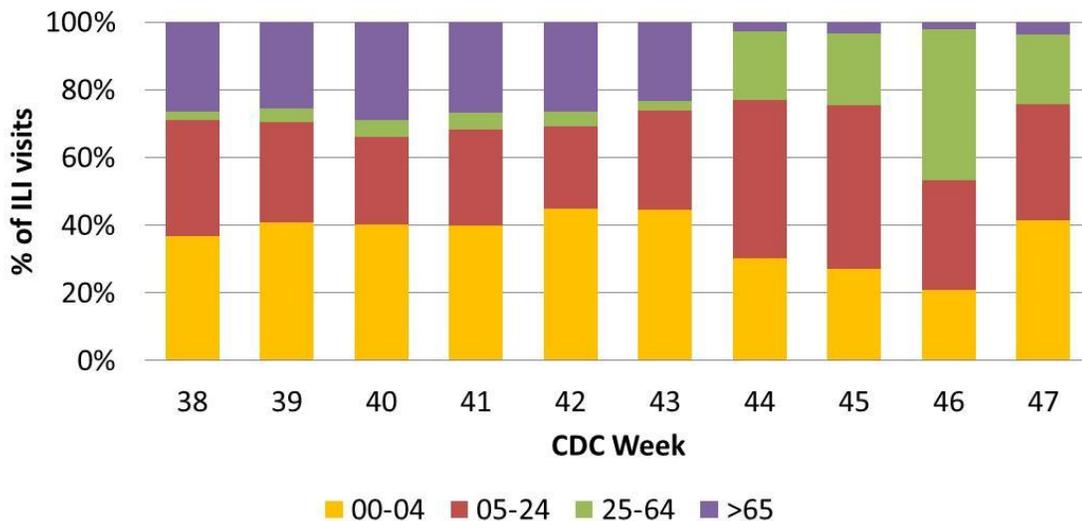


NOTE: Houston/Harris County ILI activity is assessed using information provided by surveillance participants in the Real-time Outbreak Disease Surveillance System (RODS). For week 47, 36 surveillance participants reported ILI information to Houston Department of Health and Human Services. Influenza-like 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.

ILI % by Gender, Houston/Harris County, 2014-2015



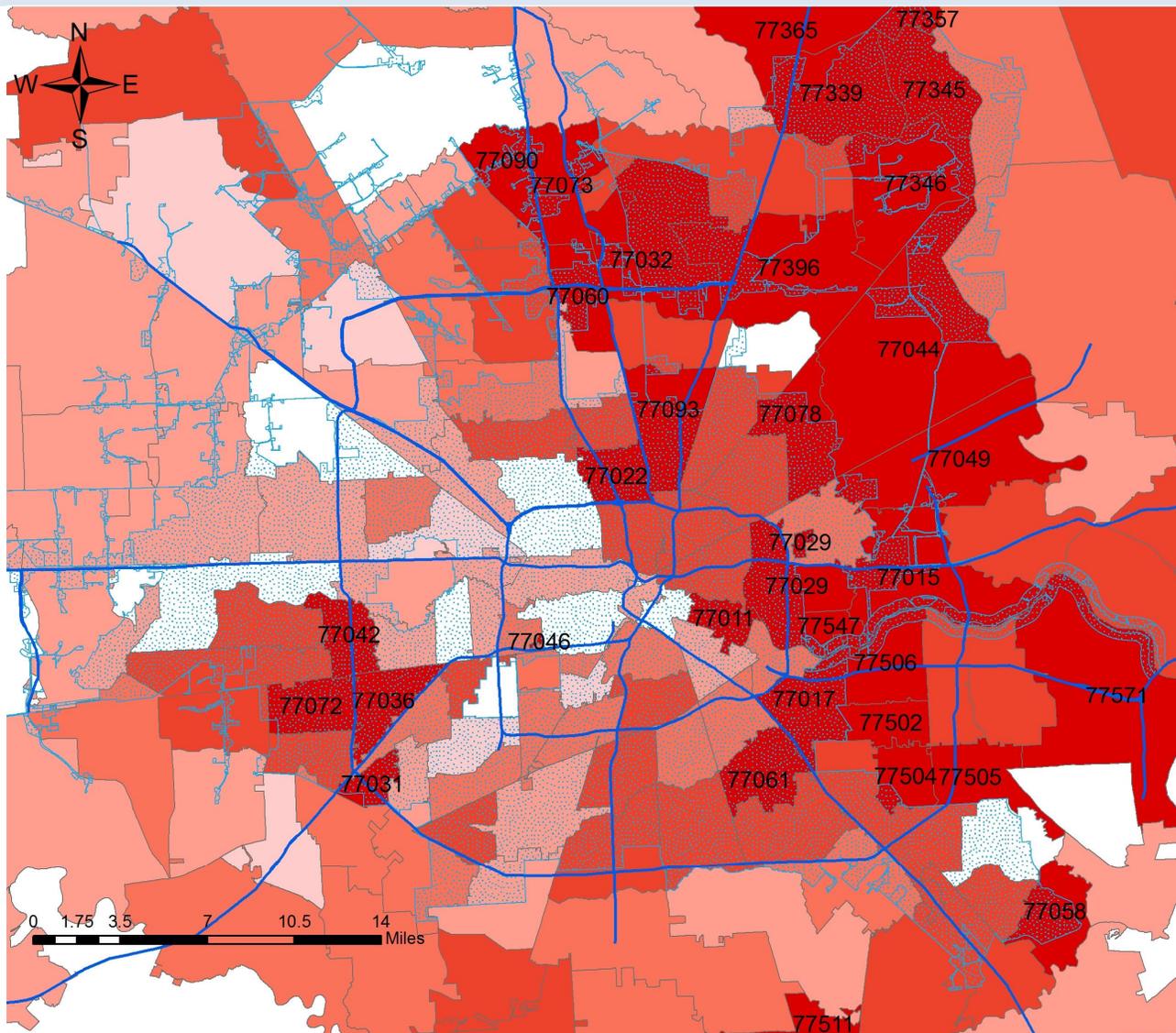
ILI % by Age Groups, Houston/Harris County, 2014-2015



In week 47, 3.4% of emergency department (ED) visits were due to influenza-like illness (ILI) complaints. Of the 1233 patients presenting with ILI, the age group that recorded the most ED visits was the 00-04 year olds (42%).

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Syndromic Surveillance: Geographic Distribution Map



Legend

City of Houston City Limit

2013-2014 %ILI of ED Visits by Zip Code

- 0% - 1.1%
- 1.11% - 2.5%
- 2.51% - 4%
- 4.01% - 6%
- 6.01% - 12.5%

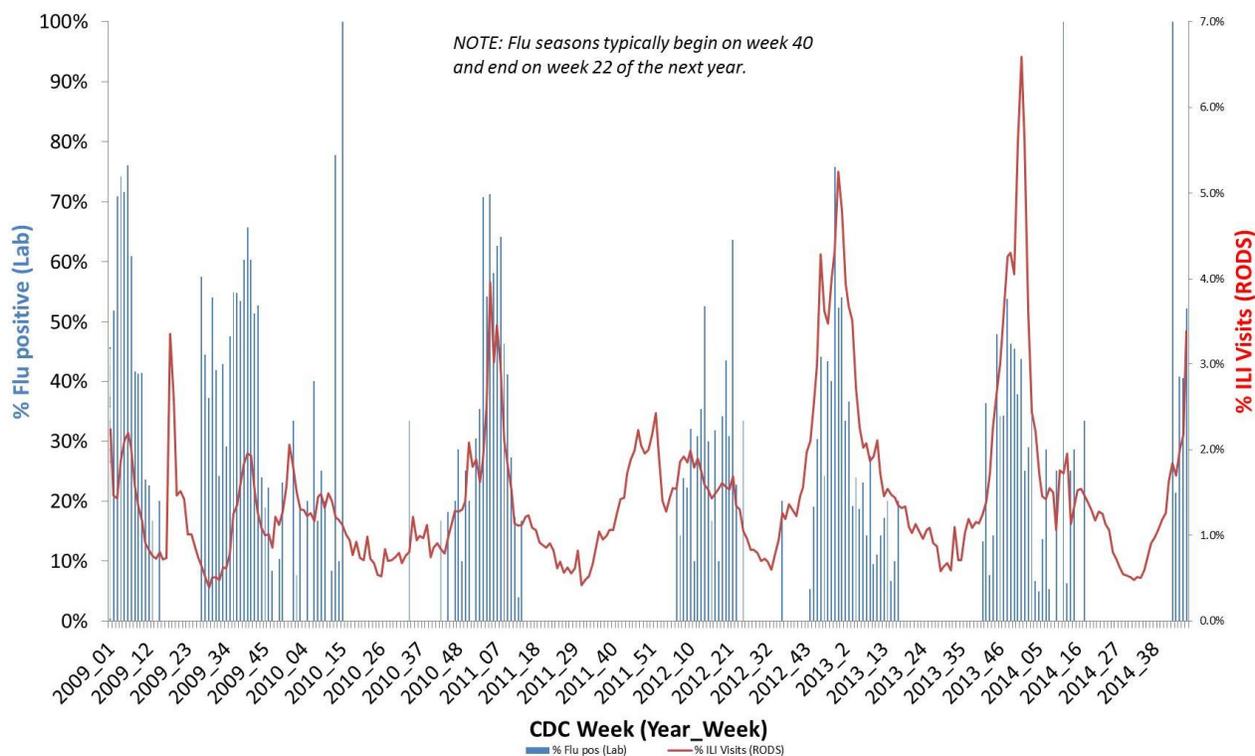
In week 47, the zip codes that have the greatest percentage of ED visits related to ILI (6.0% or greater) are: 77011, 77046, 77029, 77547, 77017, 77061, 77022, 77093, 77078, 77015, 77506, 77052, 77504, 77505, 77060, 77044, 77049, 77031, 77036, 77042, 77032, 77396, 77072, 77090, 77073, 77346, 77571, 77058, 77511, 77339, 77345, 77365, and 77357.

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 up to 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.

HDHHS Influenza Surveillance Report (11/16/14, Week 47)

Laboratory Surveillance: Influenza Test Results, Houston

Laboratory Flu positives and ILI Visits
2009-2014

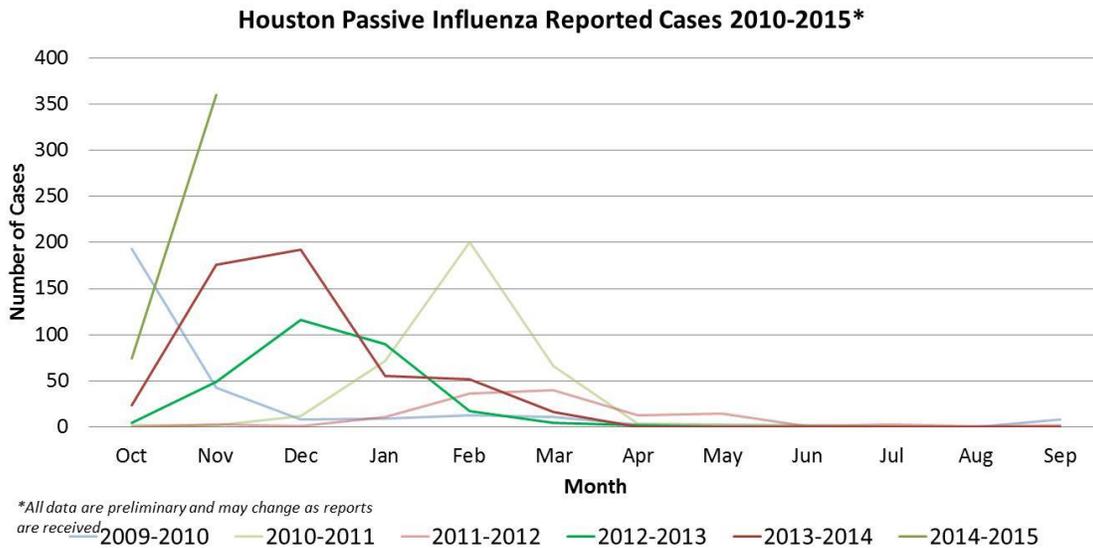


CDC Week Number	45 (Nov 2—8)	46 (Nov 9—15)	47 (Nov 16-22)
# of Influenza Tests Performed	27	42	67
% Influenza Positive	40.74%	40.48%	52.24%
# Influenza A Positive	10	16	33
% Influenza A Positive	37.0%	38.1%	49.2%
# Influenza B Positive	1	1	2
% Influenza B Positive	3.70%	2.38%	3.0%
# Non-differentiated Positive	0	1	0
% Non-differentiated Positive	0.0%	2.38%	0.0%

HDHHS Influenza Surveillance Report (11/16/14, Week 47)

Passive Surveillance

In week 47, there were (102) additional influenza cases from the prior week. The largest proportion of patients reported with influenza in November 2014 was among those in the age group of 5-24 years (134 cases).



School Surveillance

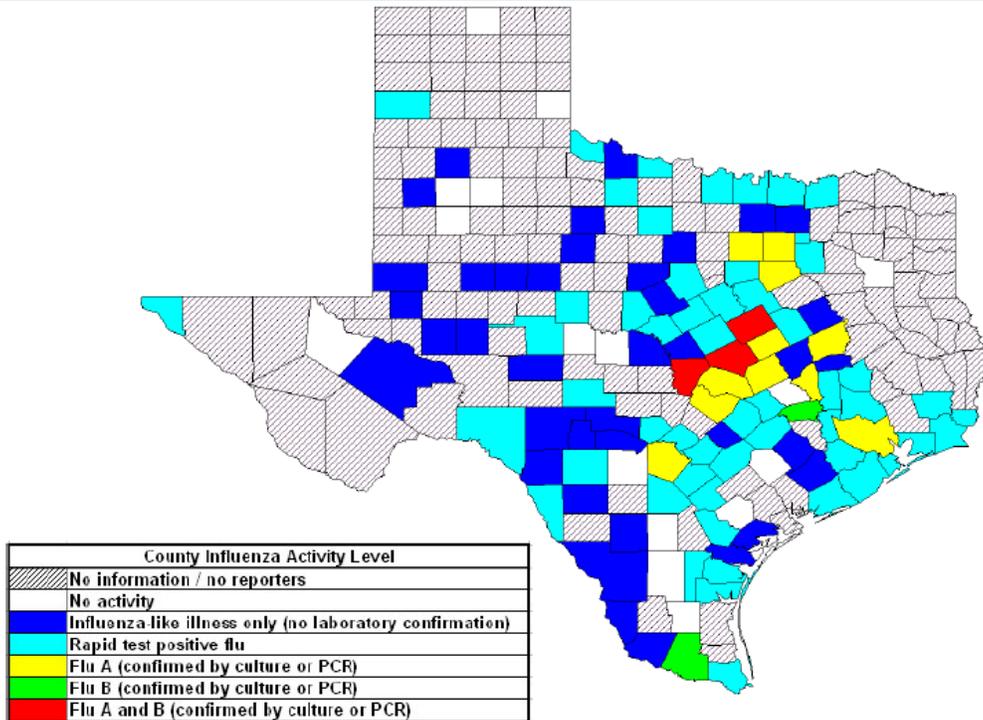
Table 1: ILI and Influenza Cases by Type and School Type¹ per Month

	Total Cases	Lab Confirmed		Flu A	Flu B	A+B	Unclassified		Elem Schools	Middle Schools	High Schools	Multi-Level Schools
		#	%									
Aug												
Sep	1	0	0%	0	0	0	0		1	0	0	0
Oct	131	8	6%	3	0	0	5		127	4	0	0
Nov												
Dec												
Jan												
Feb												
Mar												
Apr												
Total												

ILI cases in HISD students increased in October compared to September. There were 8 laboratory confirmed flu cases seen in October and 3 were confirmed as influenza A.

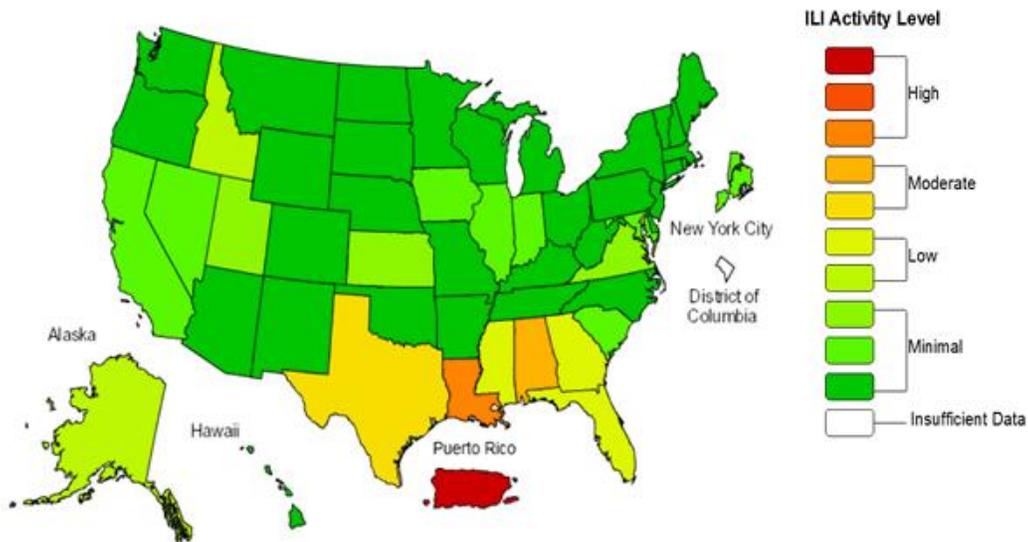
NOTE: Absenteeism and student ILI is collected from 306 schools within Houston Independent School District.
¹School will be counted more than once if more than one case from the same school is reported during the month.

Texas and National Influenza and ILI Activity



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
 2014-15 Influenza Season Week 47 ending Nov 22, 2014



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 Department of Health and Human Services web site at:
<http://www.houstontx.gov/health/weekly-flu-report>

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://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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