

Office of Surveillance & Public Health Preparedness  
*Bureau of Epidemiology*

**Influenza Surveillance Weekly Report**  
CDC MMWR Week 09: March 01- 07, 2015

**Influenza Activity by County, State, and National Levels**

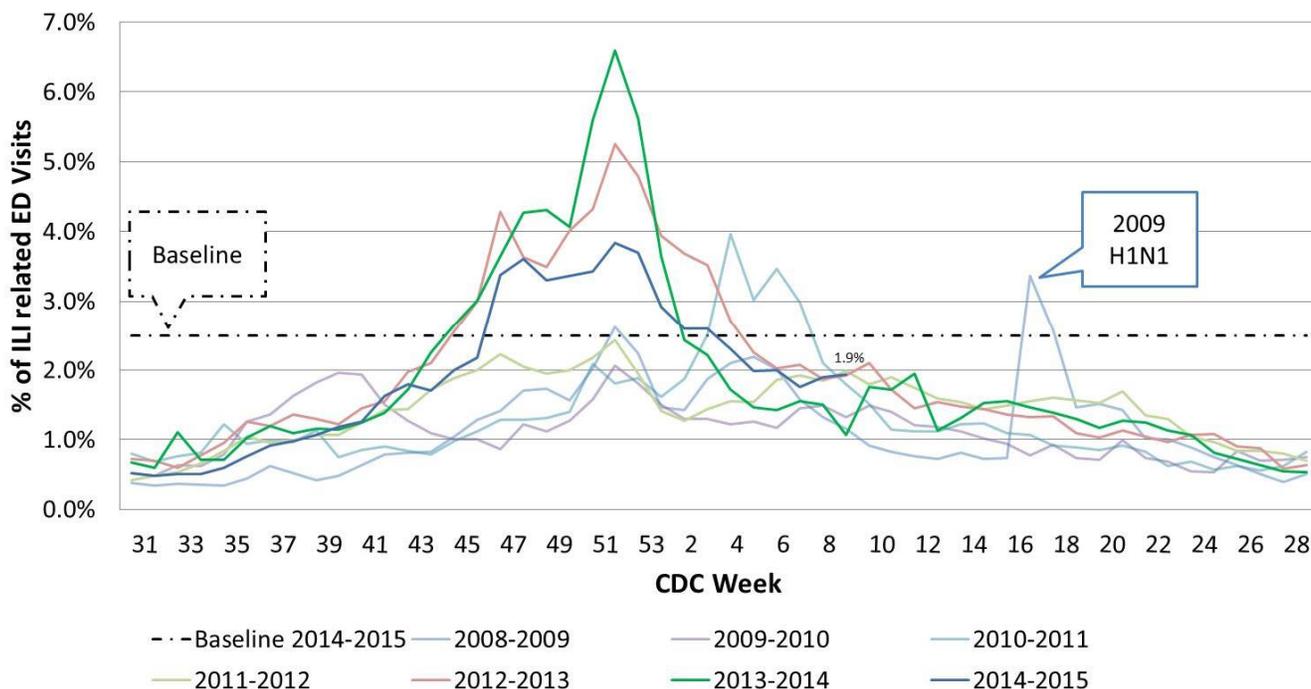
Houston/ Harris County: Week 09	Texas: Week 09	CDC: Week 09
Elevated	Elevated	Elevated

**Highlights**

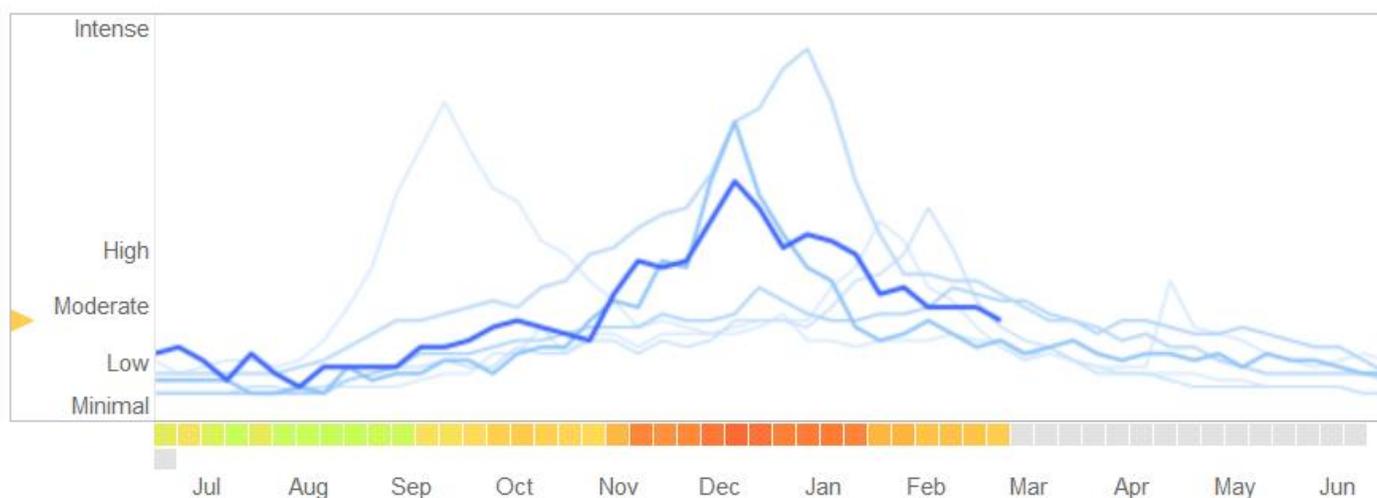
- The percentage of reported influenza-like illness (ILI) in Houston/Harris county **increased** from 1.8% in week 08 to 1.9% in week 09.
- The percentage of flu test positives in Houston **decreased** from 16.67% in week 07 to 15% in week 09.
- During the 2014-2015 influenza season, zero (0) Houston influenza-associated pediatric deaths have been reported.
- In week 09, 20 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 B/Victoria (3).**
- Cumulatively this season, the City of Houston Bureau of Laboratory Services has tested 325 surveillance specimens. Of the 131 positive lab results, the A/H3 accounts for 107 (32.9%) of the positives.
- At the national level during week 09, 11.4% of specimens tested and reported to the CDC were positive for influenza. The proportion of outpatient visits for ILI 2.4% was **above** the national baseline 2.0% and the proportion of deaths attributed to pneumonia and influenza 7.6% was **above** the epidemic threshold of 7.2% for week 09

Syndromic Surveillance: 2014-2015 Influenza Season

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



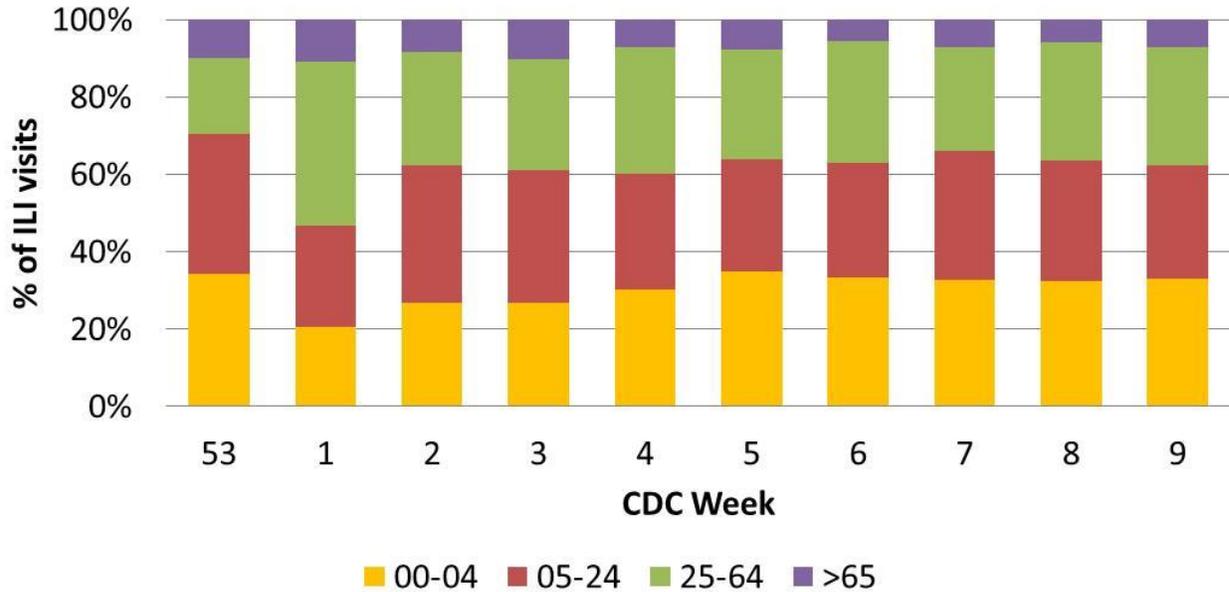
Google flu trends



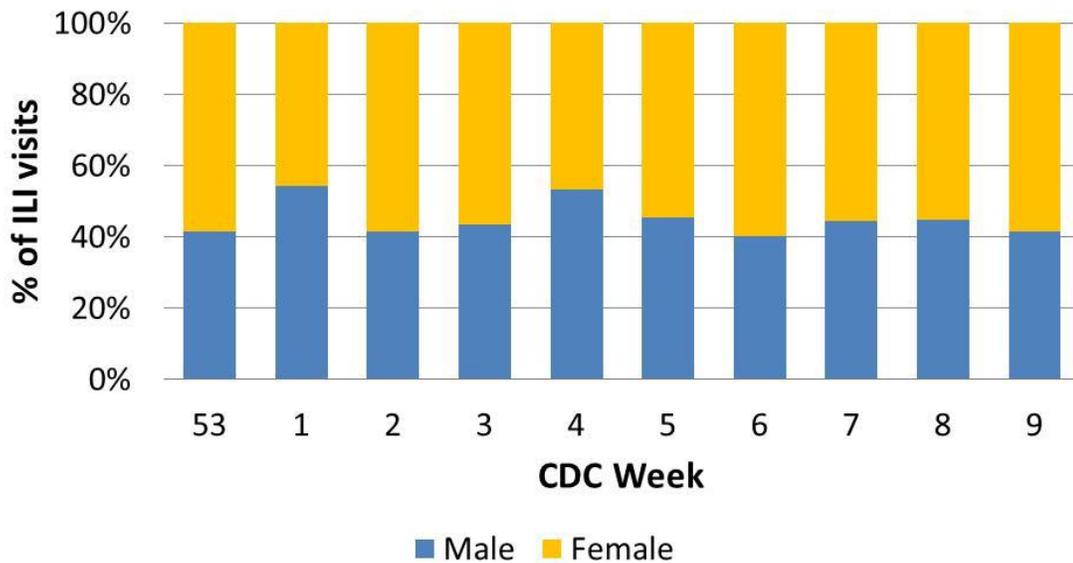
NOTE: Houston/Harris County ILI activity is assessed using information provided by surveillance participants in the Real-time Outbreak Disease Surveillance System (RODS). For week 09, 36 surveillance participants reported ILI information to Houston Department of Health and Human Services. Influenza-like 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.

Syndromic Surveillance: 2014-2015 Influenza Season Age and Gender Distribution

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



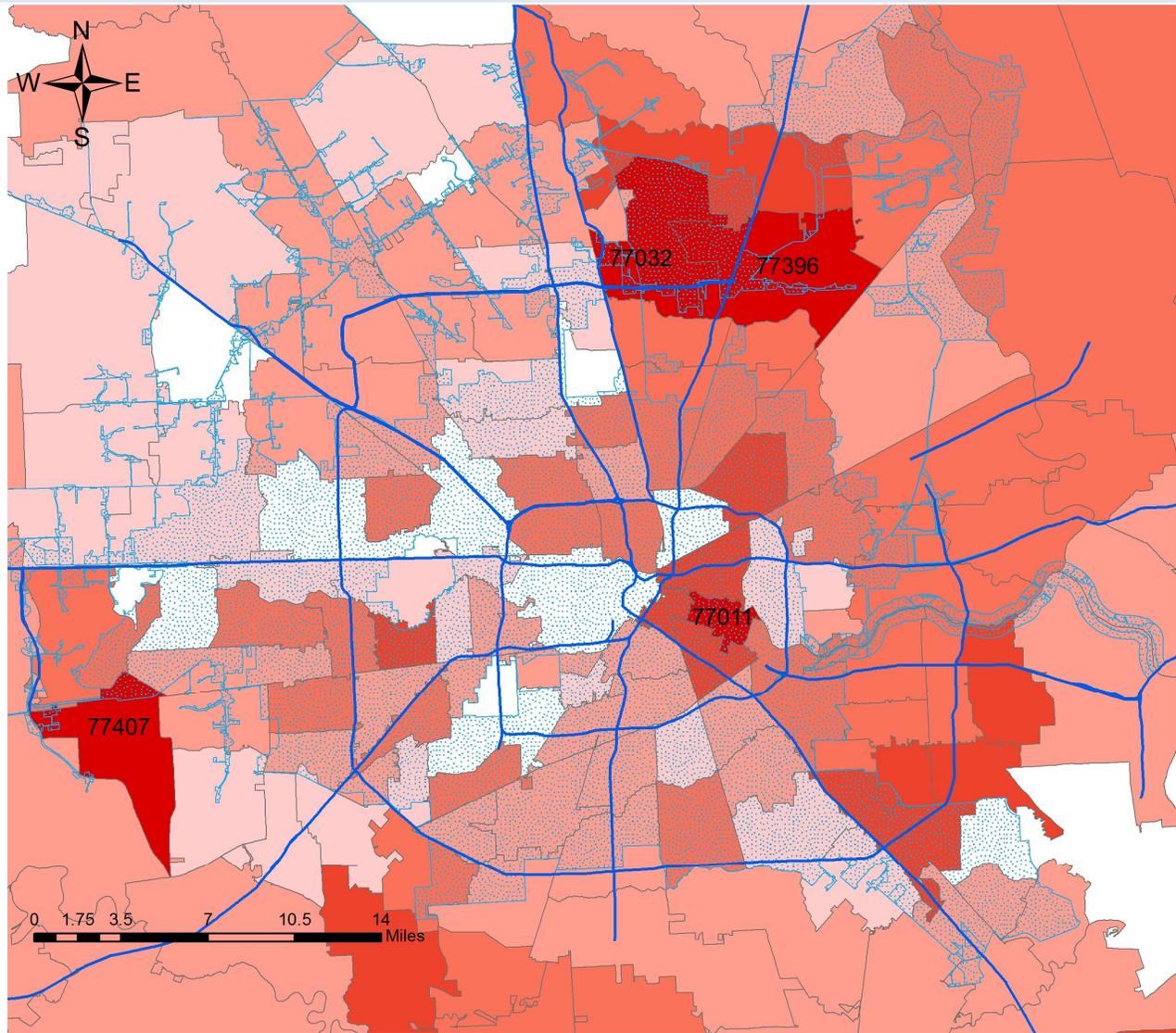
**ILI % by Gender, Houston/Harris County, 2014-2015**



In week 09, 1.9% of emergency department (ED) visits were due to influenza-like illness (ILI). Of the 747 patients presenting with ILI, the age groups that recorded the most ED visits was the 00 to 04 year olds (33%), 05 to 24 year olds (29%), and 25 to 64 year olds (31%).

*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 09, 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.*

Syndromic Surveillance: Geographic Distribution Map



**Legend**

City of Houston City Limit

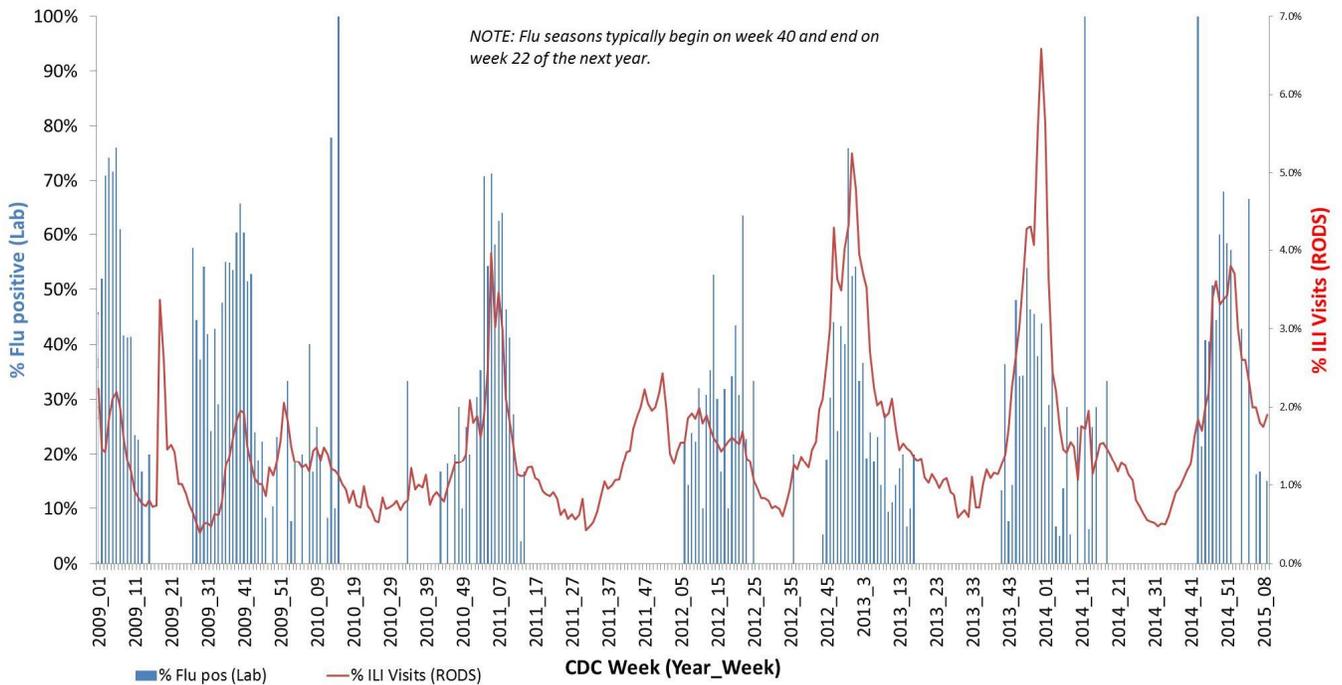
**2013-2014 %ILI of ED Visits by Zip Code**

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

During week 09, the zip codes that have the greatest percentage of ED visits related to ILI (6.0% or greater) are: 77032, 77396, 77011, and 77407

*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 Flu Positives and ILI visits, 2009 to 2015



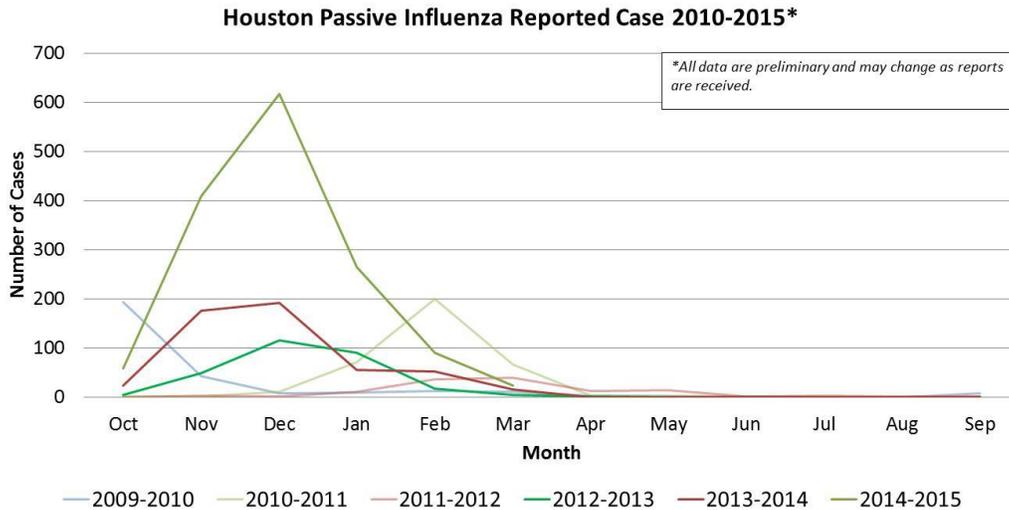
Laboratory Surveillance: Sentinel Provider Program, Houston

CDC Week Number	07 (Feb 15–21)	08 (Feb 22–28)	09 (Mar 01–07)
# of Influenza Tests Performed	24	0	20
% Influenza Positive	16.7%	0%	15.0%
# Influenza A Positive	1	0	0
% Influenza A Positive	25.0%	0%	0%
# Influenza B Positive	03	0	3
% Influenza B Positive	75.0%	0%	100.0%
# Non-differentiated Positive	0	0	0
% Non-differentiated Positive	0%	0%	0%



## Passive Surveillance

In week 09, there were 24 additional laboratory confirmed influenza cases from the prior week. The largest proportion of patients reported with influenza in March 2015 was among those in the age group of 25 to 64 (12 cases). Among lab confirmed influenza cases, males represented 54.2% of affected individuals.



## School Surveillance

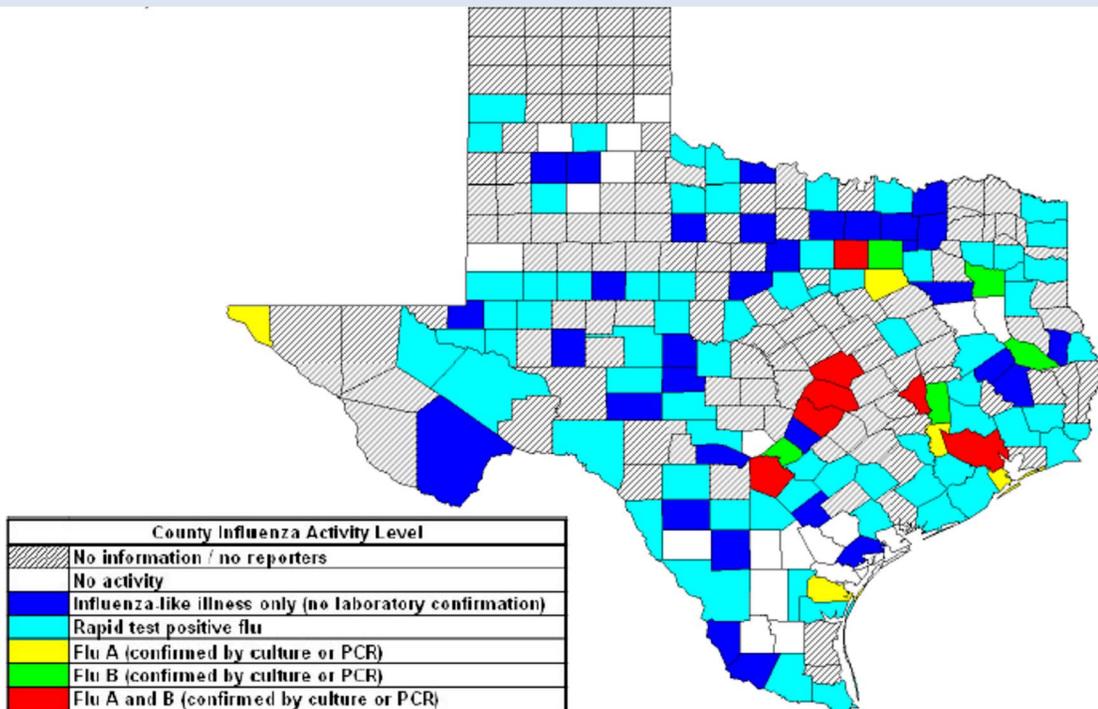
Table 1: ILI and Influenza Cases by Type and School Type<sup>1</sup> per Month

	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	307	49	16%	12	2	1	25	218	24	21	44
Dec	279	45	16%	9	1	0	35	161	26	46	46
Jan	101	32	32%	6	2	0	25	76	11	04	10
Feb											
Mar											
Apr											
Total											

ILI cases in HISD students decreased in January 2015 compared to December 2014. There were 32 laboratory confirmed flu cases seen in January and six (6) were confirmed as influenza Flu A and two (2) were confirmed as influenza Flu B.

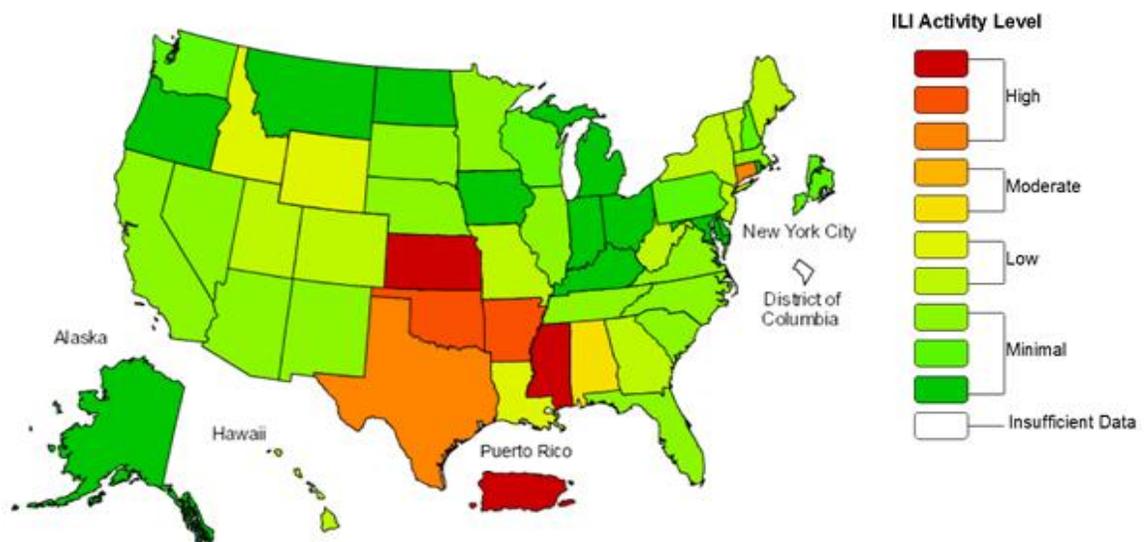
NOTE: Data on student ILI and influenza cases is collected from 306 schools within Houston Independent School District. <sup>1</sup>School will be counted more than once if more than one case from the same school is reported during the

Texas and National Influenza and ILI Activity



NOTE: 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 9 ending Mar 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 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://http://www.dshs.state.tx.us/idcu/disease/influenza/surveillance/2015/>*

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

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

Houston Department of Health and Human Services

Office of Surveillance and Public Health Preparedness

Bureau of Epidemiology

8000 N. Stadium Dr, 4th Floor

Houston, TX 77054

**Main Epidemiology Phone Number: (832) 393-5080**

**Disease Reporting Fax Number: (832) 393-5232**

**24-Hour Contact Number: (832) 393-5080**