



Houston Department of
Health and Human Services

Office of Surveillance & Public Health Preparedness
Bureau of Epidemiology

Influenza Surveillance Weekly Report
CDC Week 41: October 6 - 12, 2013

Influenza Activity by County, State, and National Levels

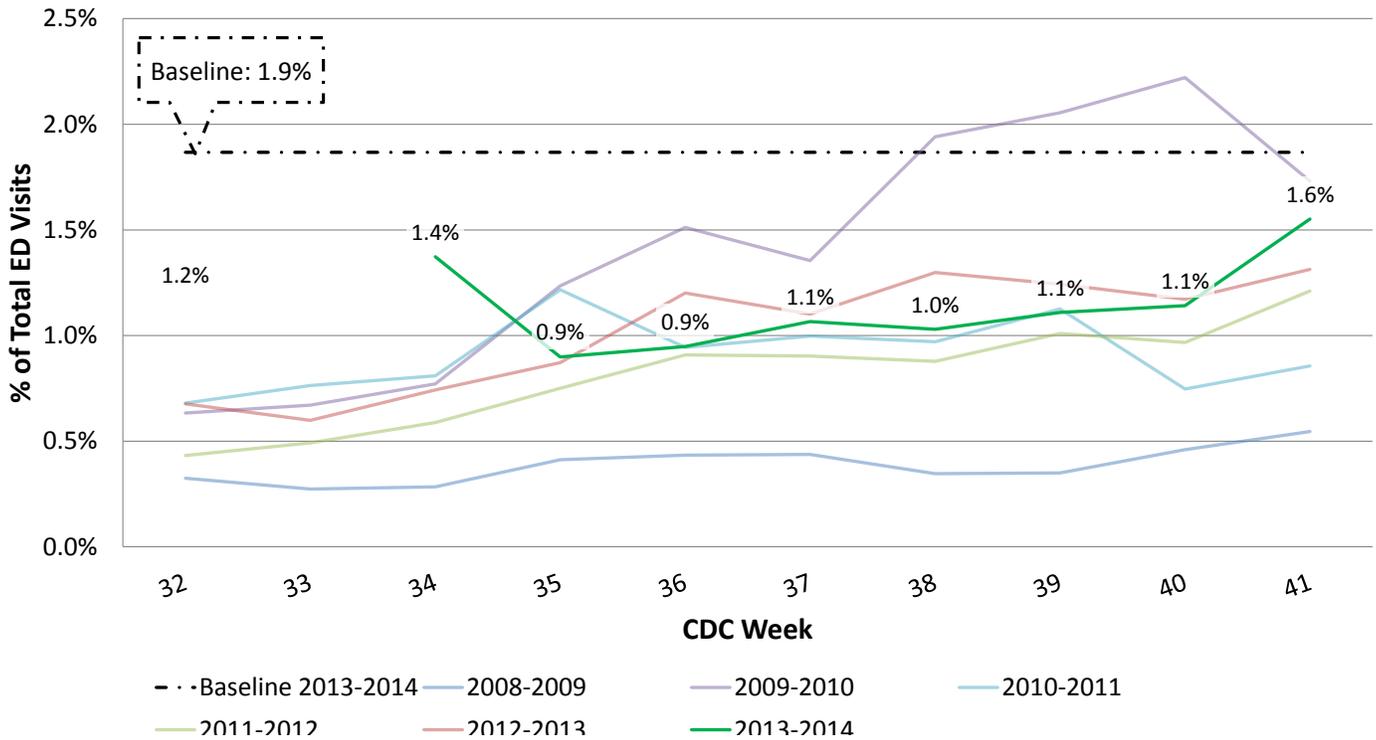
Houston/ Harris County: Week 41	Texas: Week 41	CDC: Week 41
Low	Low	Local

Highlights

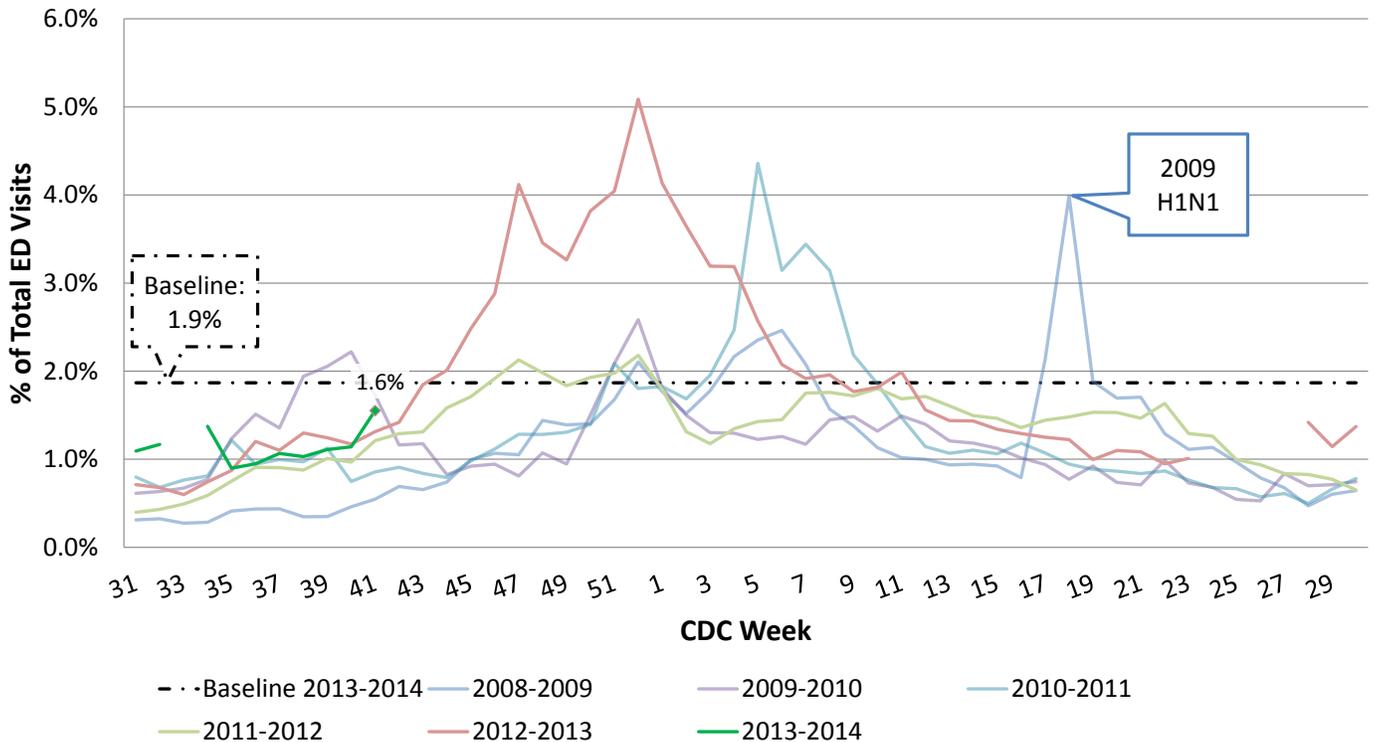
- The percentage of reported influenza-like illness (ILI) in Houston/Harris county **increased** from 1.1% in week 40 to 1.6% in week 41.
- The percentage of flu test positives in Houston **increased** from 0.0% in week 40 to 13.3% in week 41.
- During the 2013-2014 influenza season, zero (0) Houston influenza-associated pediatric deaths have been reported.
- Since last report, 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 (0), Influenza B (0).
- Cumulatively this season, the City of Houston Bureau of Laboratory Services has tested 28 surveillance specimens.
- The percentage of all cause absenteeism was unavailable for week 41.
- At the national level during week 41, 4.7% of specimens tested and reported to the CDC were positive for influenza. The proportion of outpatient visits for ILI (1.1%) was **below** the national baseline (2.0%) and the proportion of deaths attributed to pneumonia and influenza (5.6%) was **below** the epidemic threshold of 6.1% for week 41.

Syndromic Surveillance: 2013-2014 Influenza Season and Age Distribution

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



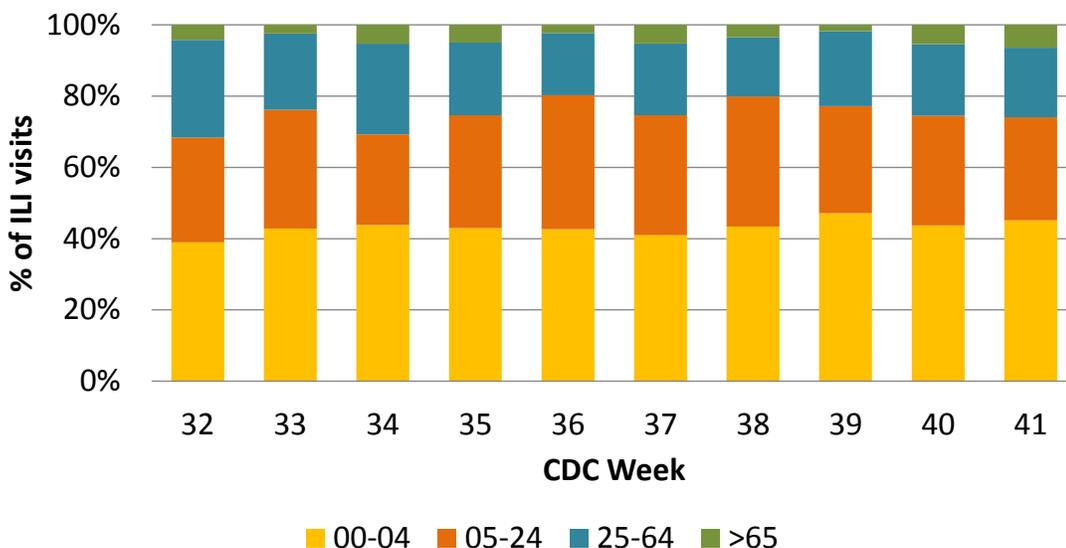
Comparison of ILI-Related ED Visits in Houston/Harris County



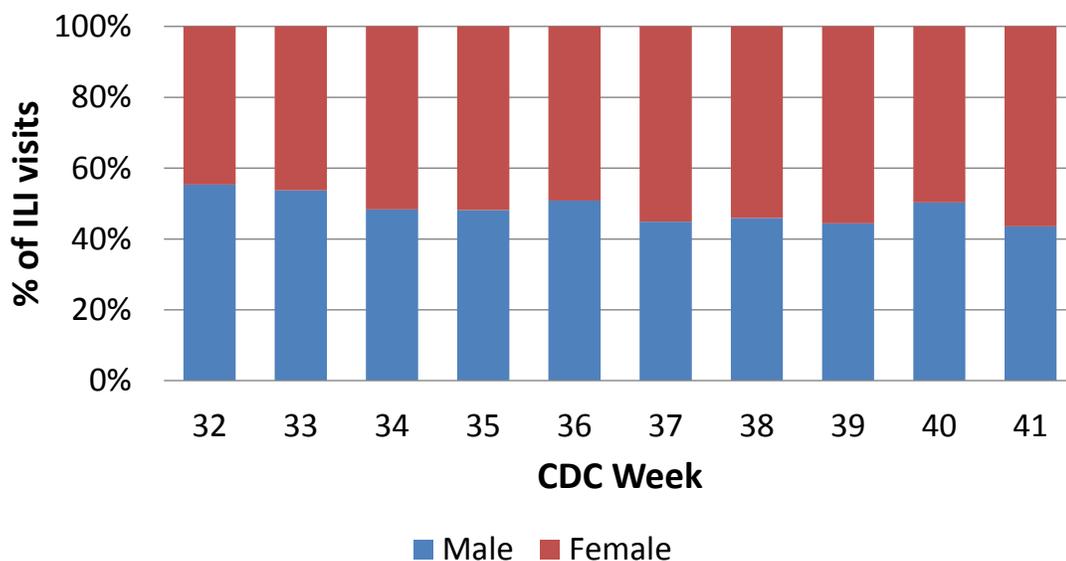
NOTE: Houston/Harris County ILI activity is assessed using information provided by surveillance participants in the Real-time Outbreak Disease Surveillance System (RODS). For week 41, 36 surveillance participants reported ILI information to Houston Department of Health and Human Services. Influenza-like 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: 2013-2014 Influenza Season and Age Distribution

ILI % by Age Groups, Houston/Harris County, 2013-2014



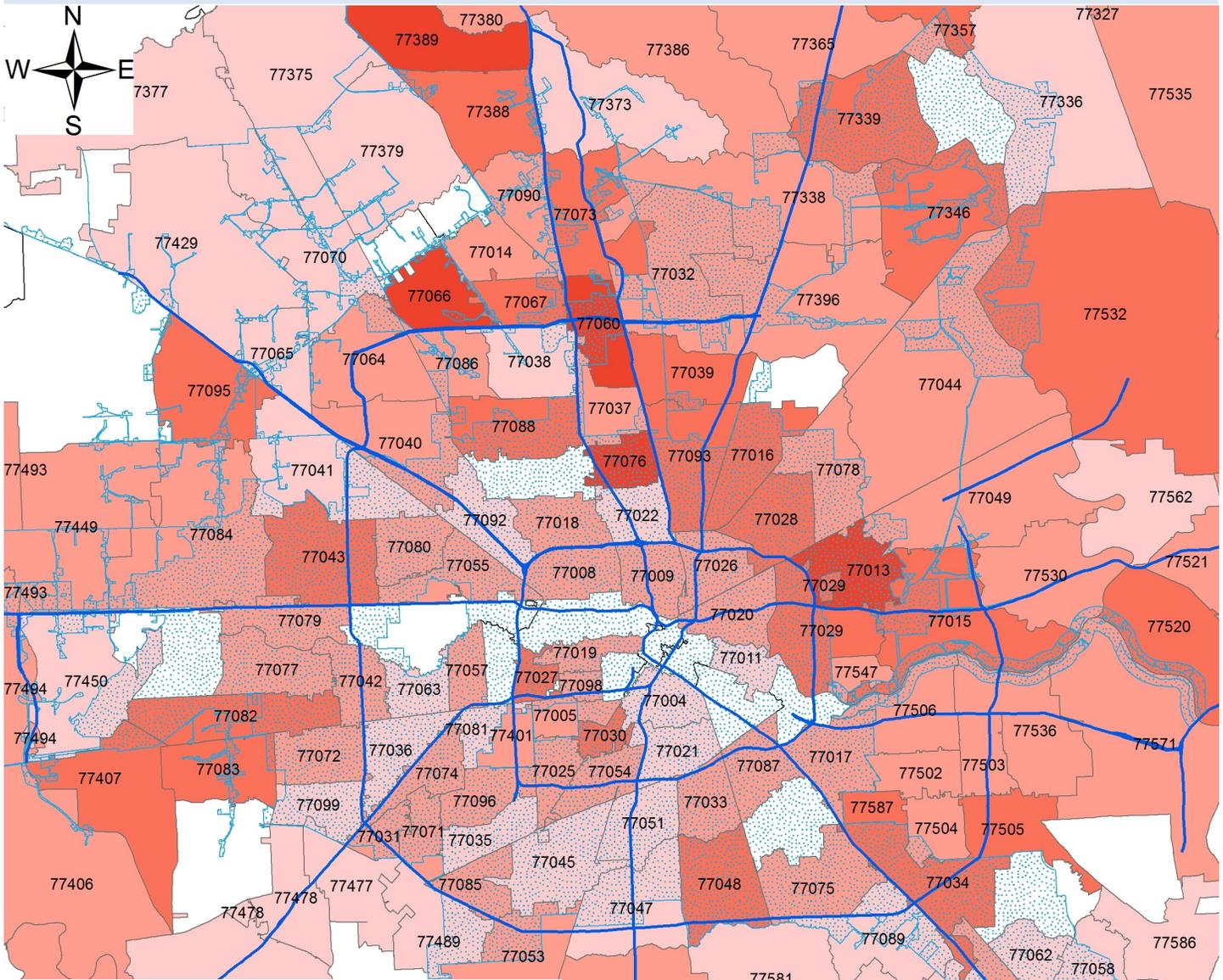
ILI % by Gender, Houston/Harris County, 2013-2014



In week 41, 1.6% of emergency department (ED) visits were due to influenza-like illness (ILI) complaints. Of the 656 patients presenting with ILI in Houston, the age group that recorded the most ED visits were the 0-4 year olds (45.8%).

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 41, 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%
- 1.2% - 2.5%
- 2.6% - 4.0%
- 4.1% - 6.0%
- 6.1% - 12.5%

As of week 41, the zip codes that have the greatest percentage of ED visits related to ILI (6.1% or greater) are: 77418*, 77665*.

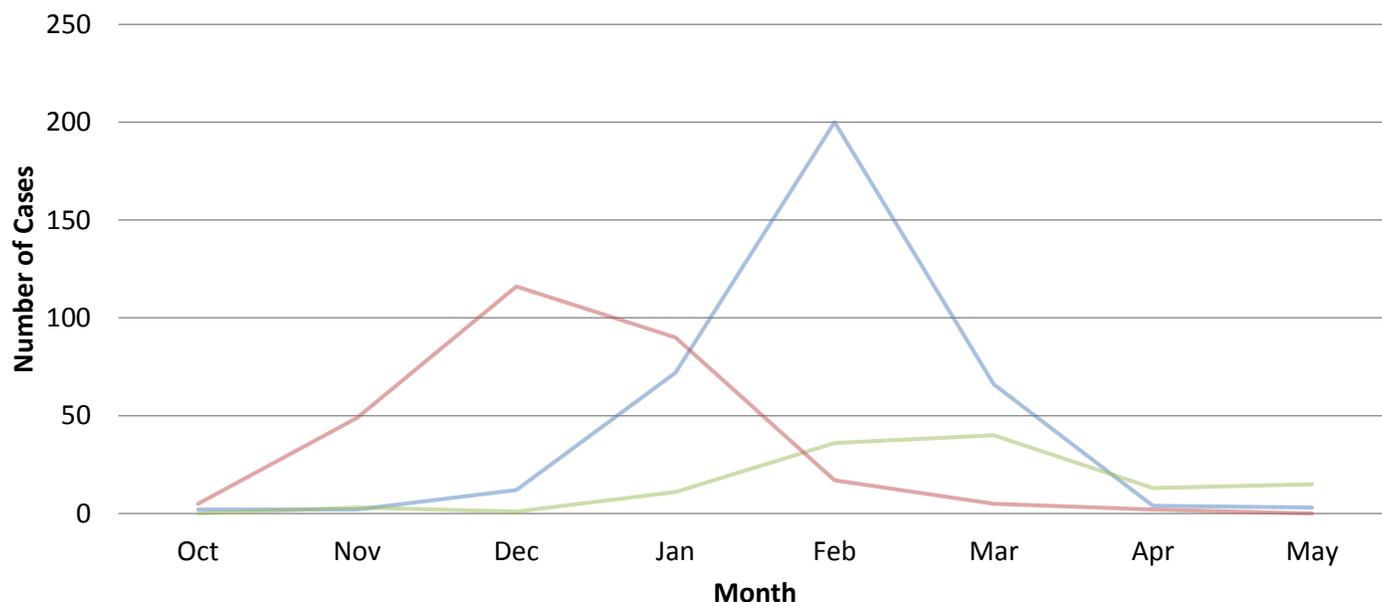
**Zip codes not displayed on map.*

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.

Passive Surveillance

In week 41, there were (1) additional influenza cases from the prior week. The largest proportion of patients reported with influenza in October 2013 was among those in the age group of 0 to 5 years (1 case).

Houston Passive Influenza Reported Cases 2010-2014*



*All data are preliminary and may change as reports are received.

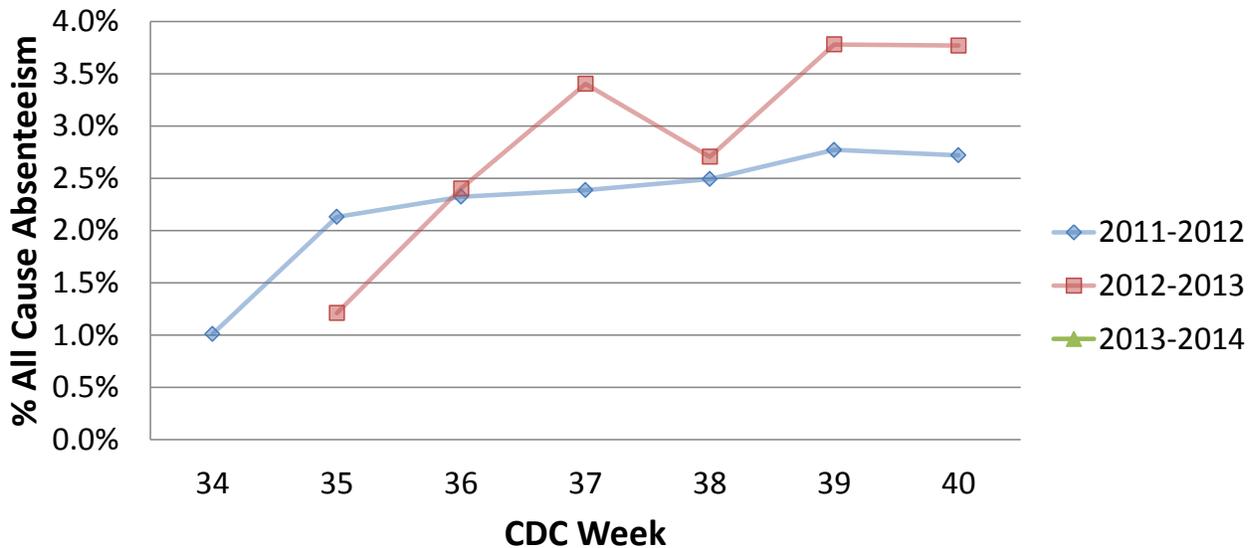
— 2010-2011 — 2011-2012 — 2012-2013 — 2013-2014

Laboratory Surveillance: Influenza Rapid Test Results, Houston

CDC Week Number	39 (Sep 22-28)	40 (Sep 29-Oct 5)	41 (Oct 6-12)
# of Influenza Tests Performed	5	12	15
% Influenza Positive	0.0%	0.0%	13.3%
# Influenza A Positive	0	0	2
% Influenza A Positive	0%	0%	100%
# Influenza B Positive	0	0	0
% Influenza B Positive	0.0%	0.0%	0.0%
# Non-differentiated Positive	0	0	0
% Non-differentiated Positive	0.0%	0.0%	0.0%

School Surveillance

Average Weekly % Absentism in HISD



The average daily % absenteeism for HISD schools was unavailable at the time of update.

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

	Total Cases	Lab Confirmed	Flu A	Flu B	A+ B	Unclassified	Elementary Schools	Middle Schools	High Schools	Multi-Level Schools
Aug	0	0	0	0	0	0	0	0	0	0
Sep	2	0	0	0	0	2	1	0	1	0
Oct										
Nov										
Dec										
Jan										
Feb										
Mar										
Apr										
Total	2	0 (0.0%)	0	0	0	2	1	0	1	0

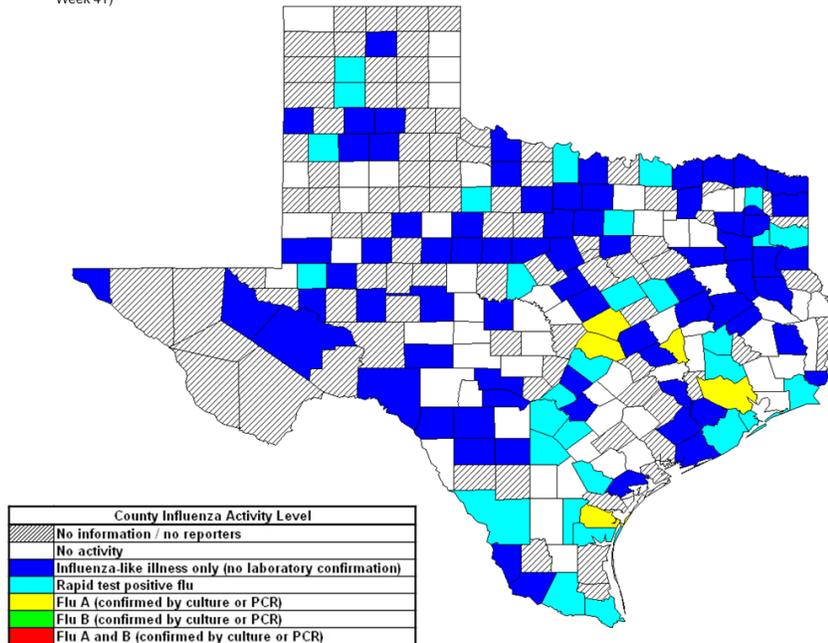
ILI cases in HISD students slightly increased in September compared to August. There were only two cases seen in September and were not confirmed by laboratory testing.

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 report month.

Texas and National Influenza and ILI Activity

Statewide Influenza Activity Map

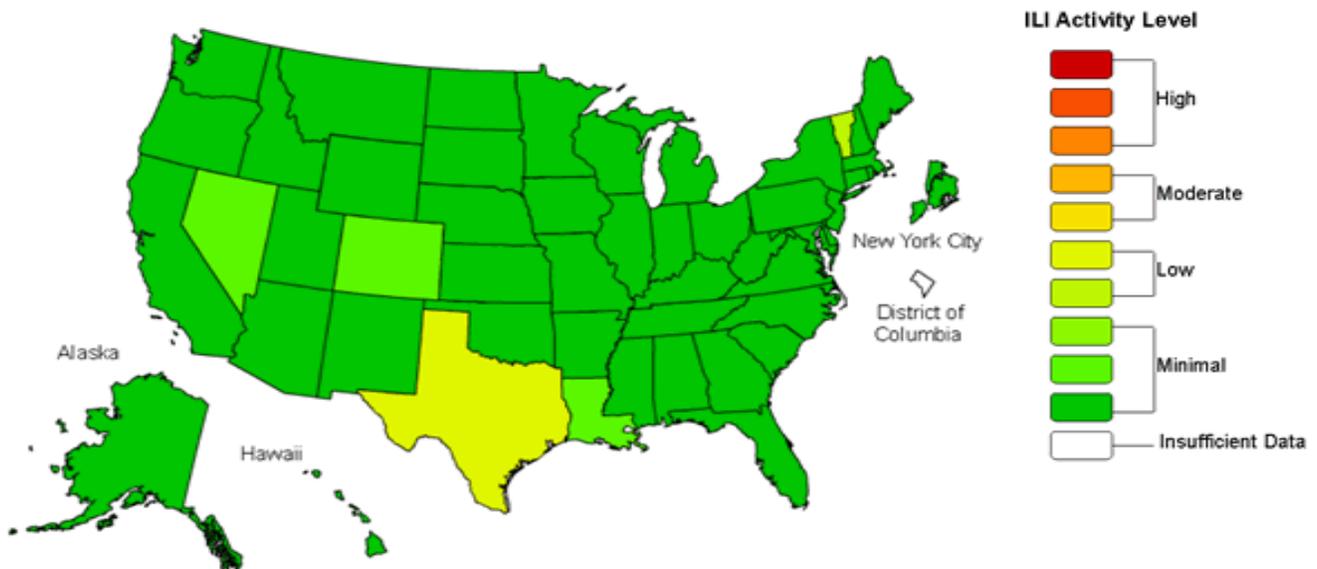
Figure 4: Texas Map Displaying the Highest Level of Influenza or ILI Activity Reported by County for the Week Ending October 12, 2013 (MMWR Week 41)



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/2013/>

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet 2013-14 Influenza Season Week 41 ending Oct 12, 2013



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:
www.houstontx.gov/health/

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/2014/>

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

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

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