Houston Department of
Health and Human Services

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

# Influenza Surveillance Weekly Report

CDC Week 6: February 2-8, 2014

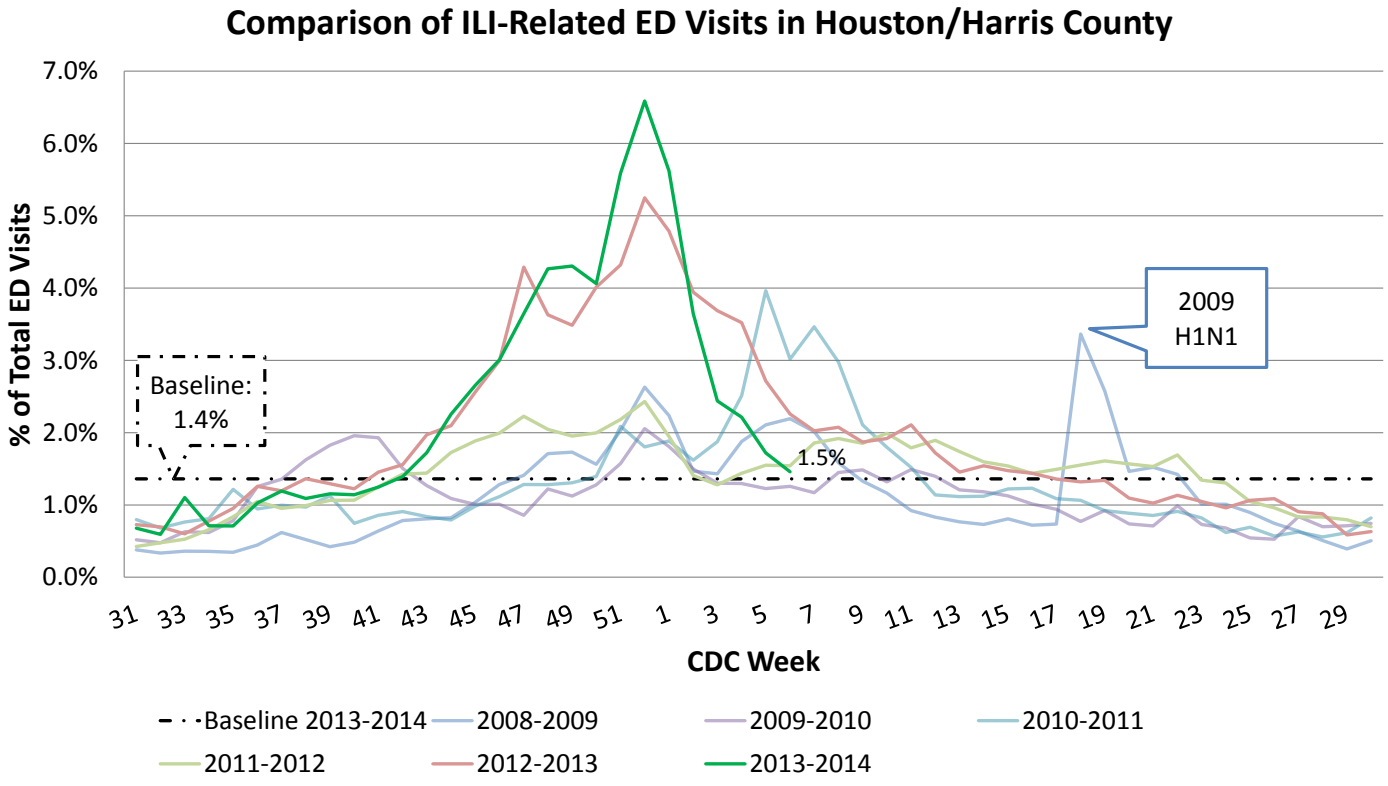
**Influenza Activity by County, State, and National Levels**

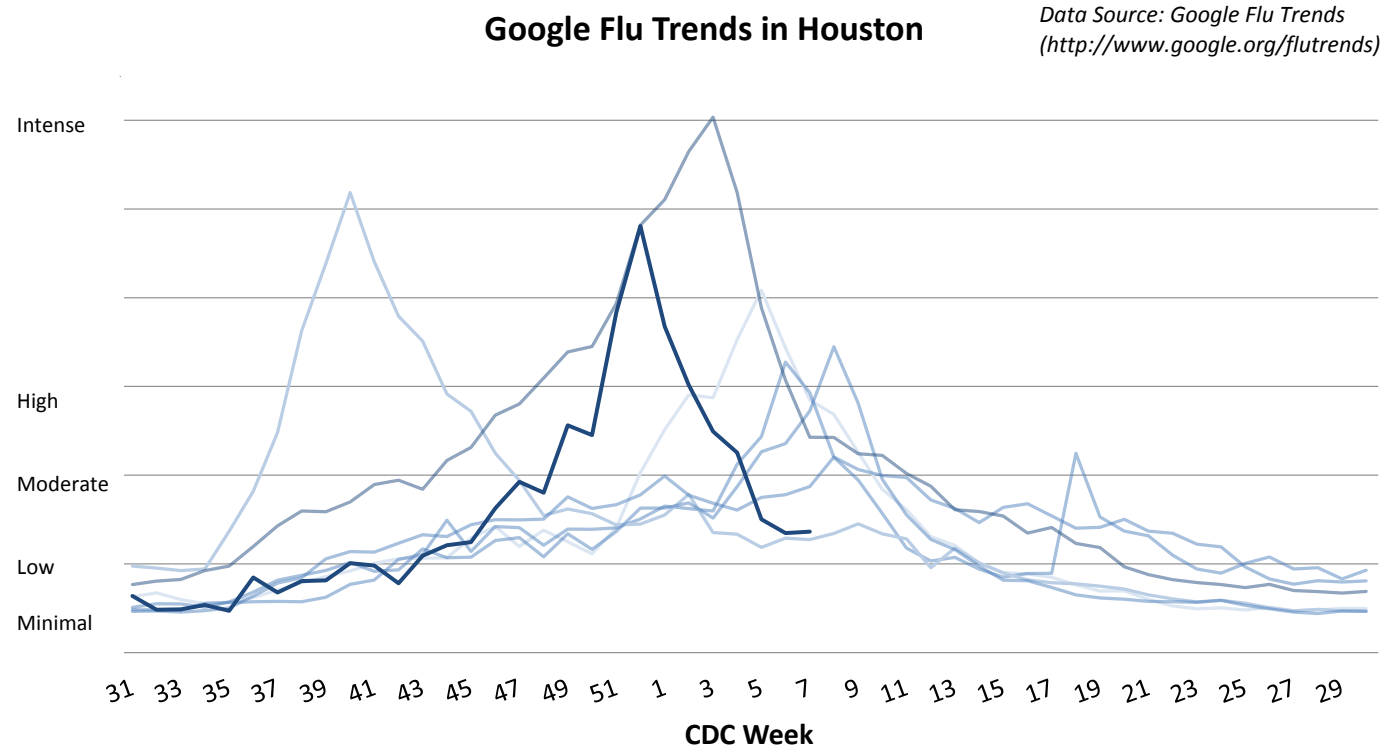
| Houston/ Harris County: Week 6 | Texas: Week 6 | CDC: Week 6 |
|---|---|---|
| Moderate | High | Elevated |

## Highlights

- The percentage of reported influenza-like illness (ILI) in Houston/Harris county ***decreased*** from 1.7% in week 5 to 1.5% in week 6.
- The percentage of flu test positives in Houston ***increased*** from 5.0% in week 5 to 13.6% in week 6.
- During the 2013-2014 influenza season, two (2) Houston influenza-associated pediatric deaths have been reported.
- In week 6, 22 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 (1), Influenza A H1N1 (1), Influenza B (1).**
- Cumulatively this season, the City of Houston Bureau of Laboratory Services has tested 444 surveillance specimens. Of the 135 positive lab results, the 2009 H1N1 strain accounts for 111 (82.2%) of the positives.
- At the national level during week 6, 16.8% of specimens tested and reported to the CDC were positive for influenza. The proportion of outpatient visits for ILI (3.0%) was ***above*** the national baseline (2.0%) and the proportion of deaths attributed to pneumonia and influenza (8.4%) was ***above*** the epidemic threshold of 7.3% for week 6.

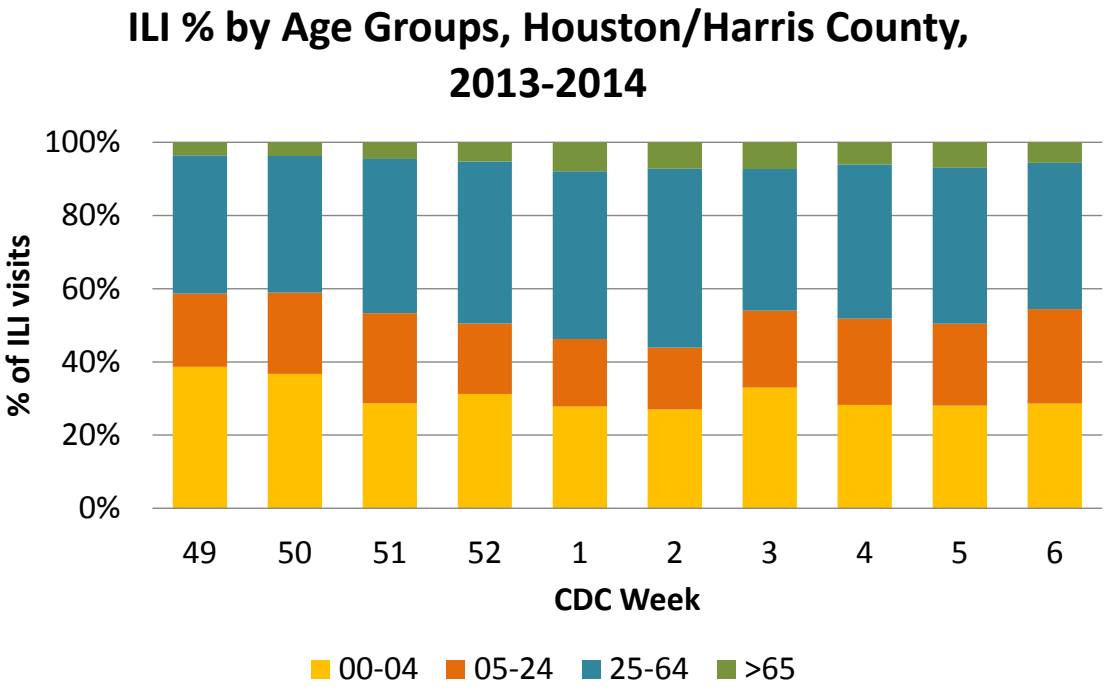
# Syndromic Surveillance: 2013-2014 Influenza Season and Age Distribution

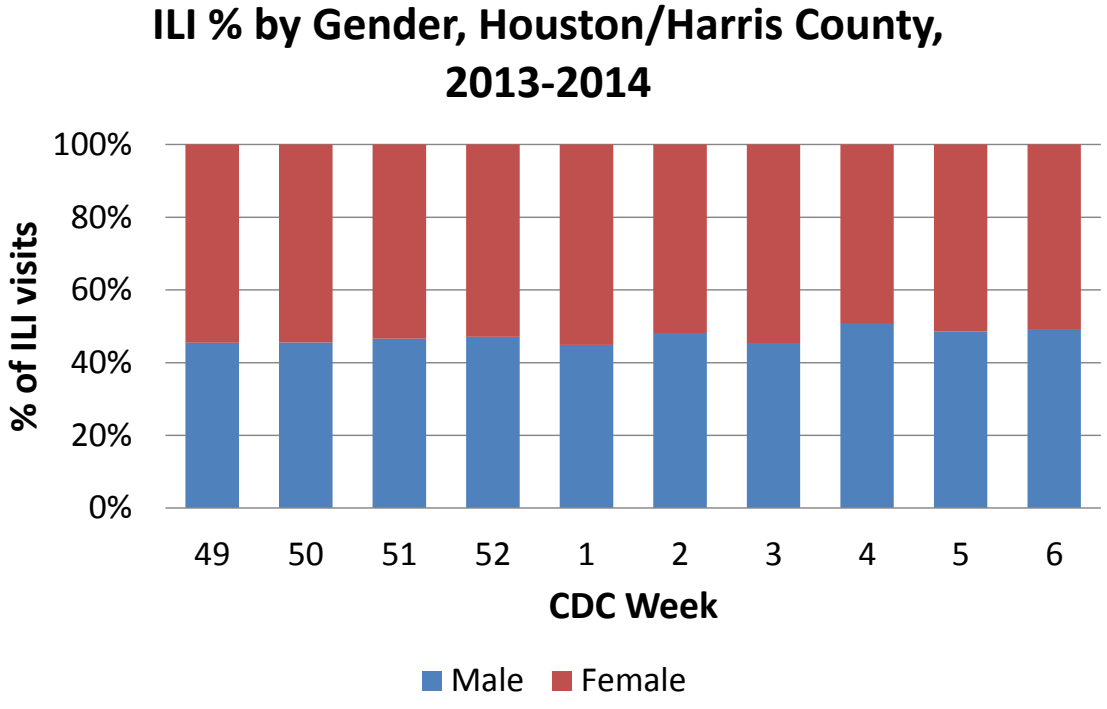



*NOTE: Houston/Harris County ILI activity is assessed using information provided by surveillance participants in the Real-time Outbreak Disease Surveillance System (RODS). For week 6, 36 surveillance participants reported ILI information to Houston Department of Health and Human Services. Influenza-like 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




In week 6, 1.5% of emergency department (ED) visits were due to influenza-like illness (ILI) complaints. Of the 555 patients presenting with ILI, the age group that recorded the most ED visits were the 25-64 year olds (40.0%).

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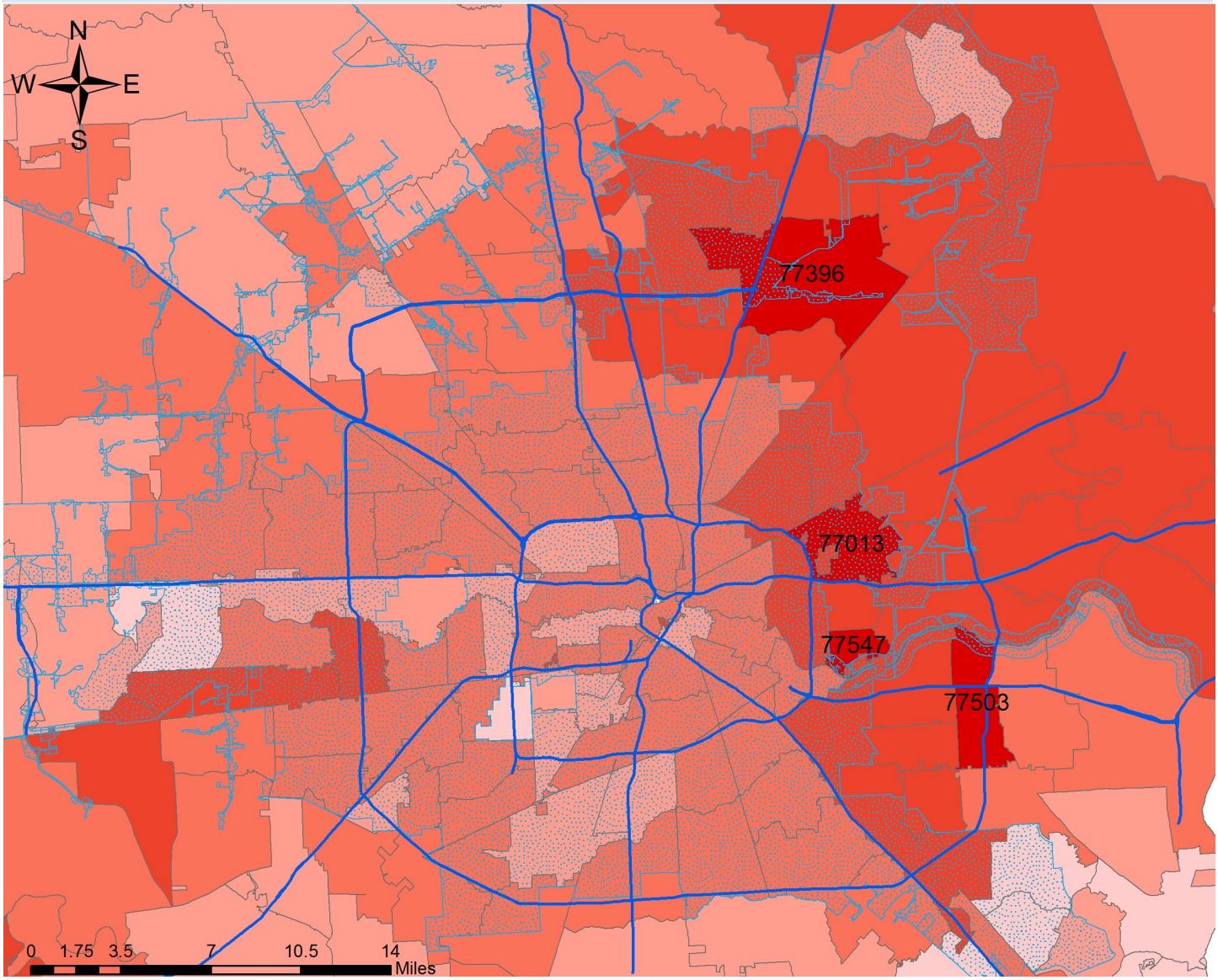
## Syndromic Surveillance: Geographic Distribution Map




**Legend**

City of Houston City Limit

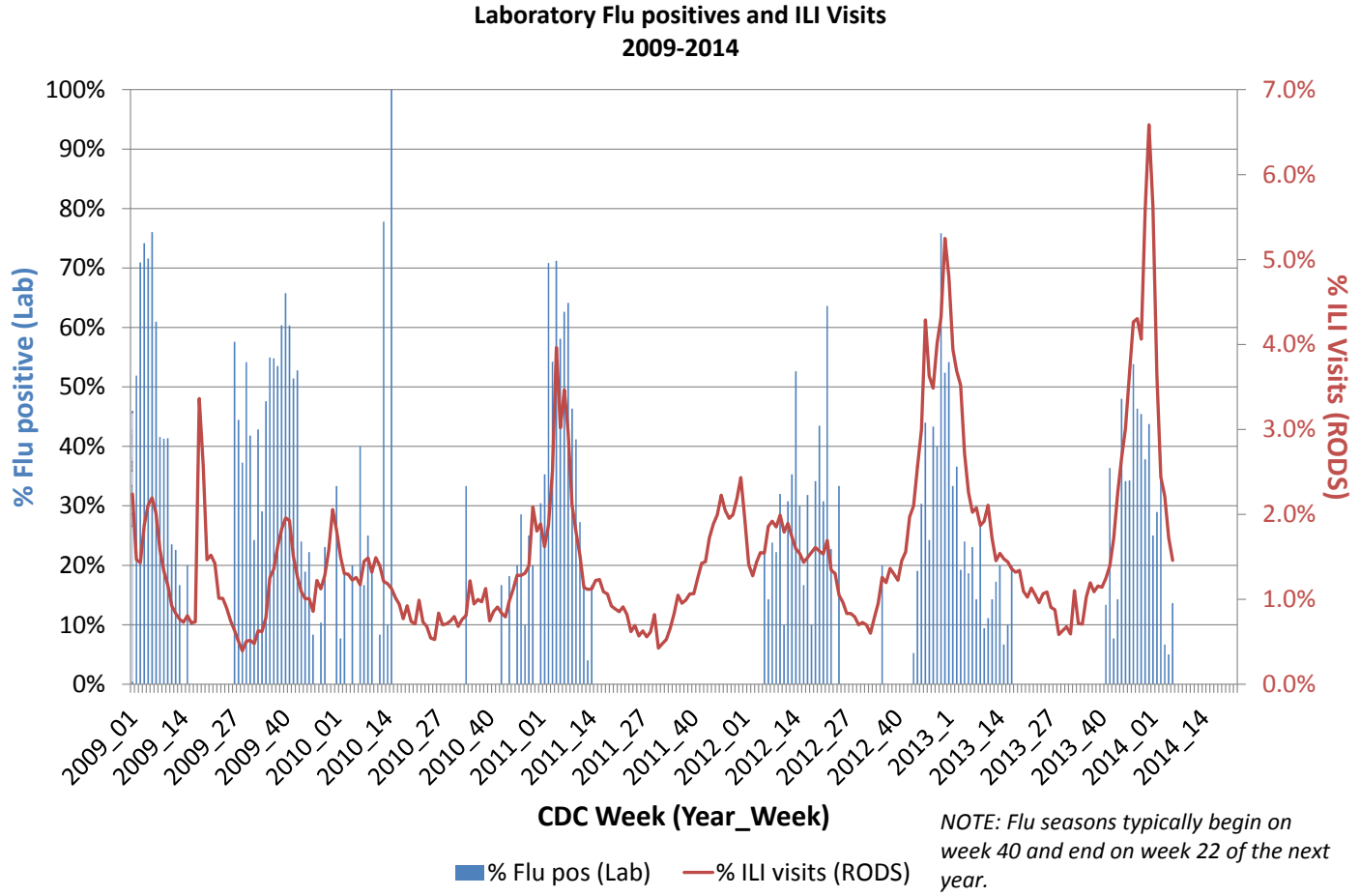
**2013-2014 %ILI of ED Visits by Zip Code**

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

As of week 6, the zip codes that have the greatest percentage of ED visits related to ILI (6.0% or greater) are: 77013, 77396, 77503, 77547.

*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.*

## Laboratory Surveillance: Influenza Rapid Test Results, Houston

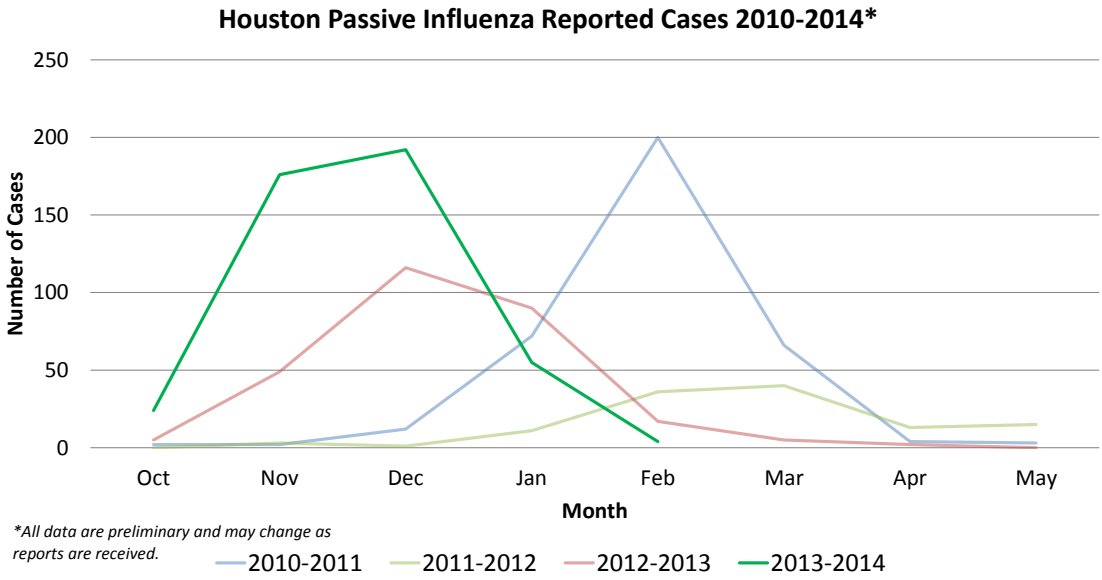



*NOTE: Flu seasons typically begin on week 40 and end on week 22 of the next year.*

| CDC Week Number | 4 (Jan 19-25) | 5 (Jan 26-Feb 1) | 6 (Feb 2–8) |
|---|---|---|---|
| # of Influenza Tests Performed | 15 | 20 | 22 |
| % Influenza Positive | 6.7% | 5.0% | 13.6% |
| # Influenza A Positive | 1 | 1 | 2 |
| % Influenza A Positive | 100% | 100% | 66.7% |
| # Influenza B Positive | 0 | 0 | 1 |
| % Influenza B Positive | 0.0% | 0.0% | 33.3% |
| # Non-differentiated Positive | 0 | 0 | 0 |
| % Non-differentiated Positive | 0.0% | 0.0% | 0.0% |

## Passive Surveillance

In week 6, there were (4) additional influenza cases from the prior week. The largest proportion of patients reported with influenza in February 2014 was among those in the age group of 25 to 64 years (3 cases).




## School Surveillance

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

| | Total Cases | Lab Confirmed | | Flu A | Flu B | A+B | Unclassified | Elem Schools | Middle Schools | High Schools | Multi-Level Schools |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | # | % | | | | | | | | |
| Aug | 1 | 0 | 0.0% | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Sep | 12 | 0 | 0.0% | 0 | 0 | 0 | 0 | 10 | 1 | 1 | 0 |
| Oct | 45 | 4 | 8.9% | 0 | 0 | 0 | 4 | 29 | 4 | 10 | 2 |
| Nov | 113 | 2 | 1.8% | 1 | 0 | 0 | 2 | 88 | 16 | 9 | 0 |
| Dec | 85 | 8 | 9.4% | 5 | 0 | 0 | 3 | 52 | 23 | 7 | 3 |
| Jan | 54 | 21 | 38.9% | 12 | 0 | 0 | 9 | 37 | 4 | 11 | 2 |
| Feb | | | | | | | | | | | |
| Mar | | | | | | | | | | | |
| Apr | | | | | | | | | | | |
| Total | 310 | 35 | 11.3% | 18 | 0 | 0 | 18 | 217 | 48 | 38 | 7 |

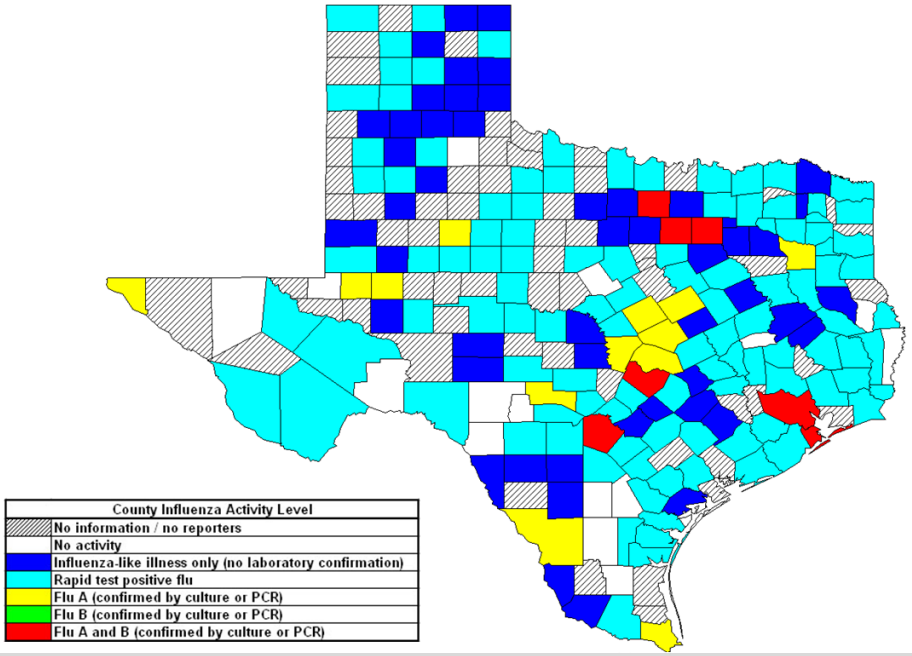
ILI cases in HISD students increased in January compared to December. There were 21 laboratory confirmed flu cases seen in January and 12 were confirmed as influenza A.

*NOTE: Absenteeism and student ILI 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 month.*

# Texas and National Influenza and ILI Activity

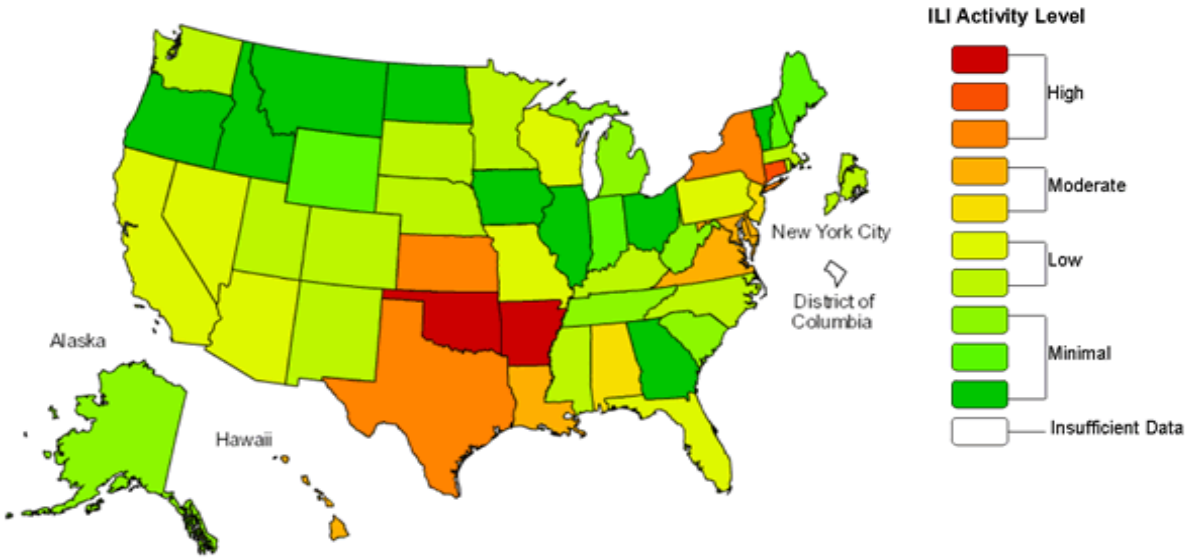
**Statewide Influenza Activity Map**

Figure 4: Texas Map Displaying the Highest Level of Influenza or ILI Activity Reported by County for the Week Ending February 8, 2014 (MMWR Week 06)




*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 6 ending Feb 08, 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/*