



Houston Department of  
Health and Human Services

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

**Influenza Surveillance Weekly Report**  
CDC Week 46: November 9 —15, 2014

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

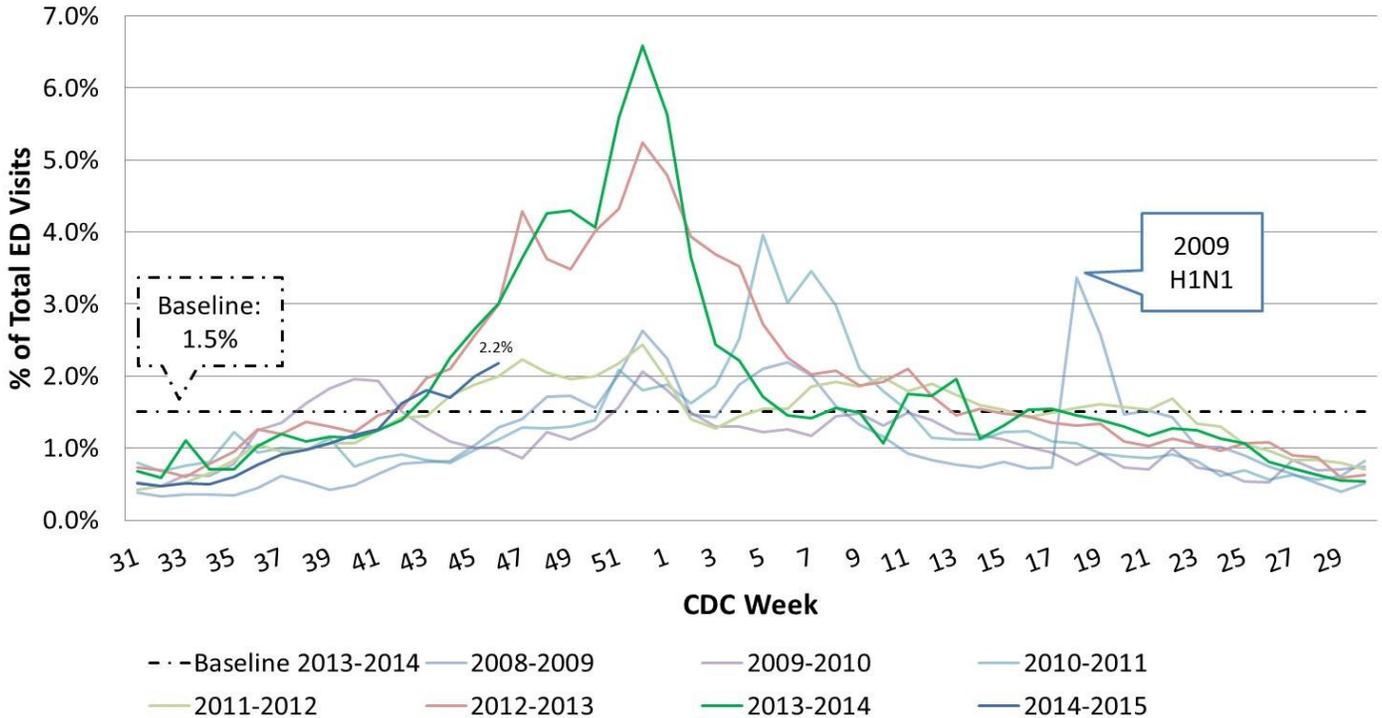
Houston/ Harris County: Week 46	Texas: Week 46	CDC: Week 46
Low	Regional	Low

### Highlights

- The percentage of reported influenza-like illness (ILI) in Houston/Harris county **increased** from 2.0% in week 45 to 2.2% in week 46.
- The percentage of flu test positives in Houston **remained similar** from 40.74% in week 45 to 40.48% in week 46.
- During the 2014-2015 influenza season, zero (0) Houston influenza-associated pediatric deaths have been reported.
- In week 46, 42 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 (16), Influenza A H1N1 (0), Influenza B (1).**
- Cumulatively this season, the City of Houston Bureau of Laboratory Services has tested 85 surveillance specimens. Of the 32 positive lab results, the Flu A H3 strain accounts for 28 (33.0%) and 2009 H1N1 strain accounts for 0 (0%) of the positives.
- At the national level during week 46, 9.3% of specimens tested and reported to the CDC were positive for influenza. The proportion of outpatient visits for ILI (1.6%) was **below** the national baseline (2.0%) and the proportion of deaths attributed to pneumonia and influenza (5.0%) was **below** the epidemic threshold of 6.4% for week 46.

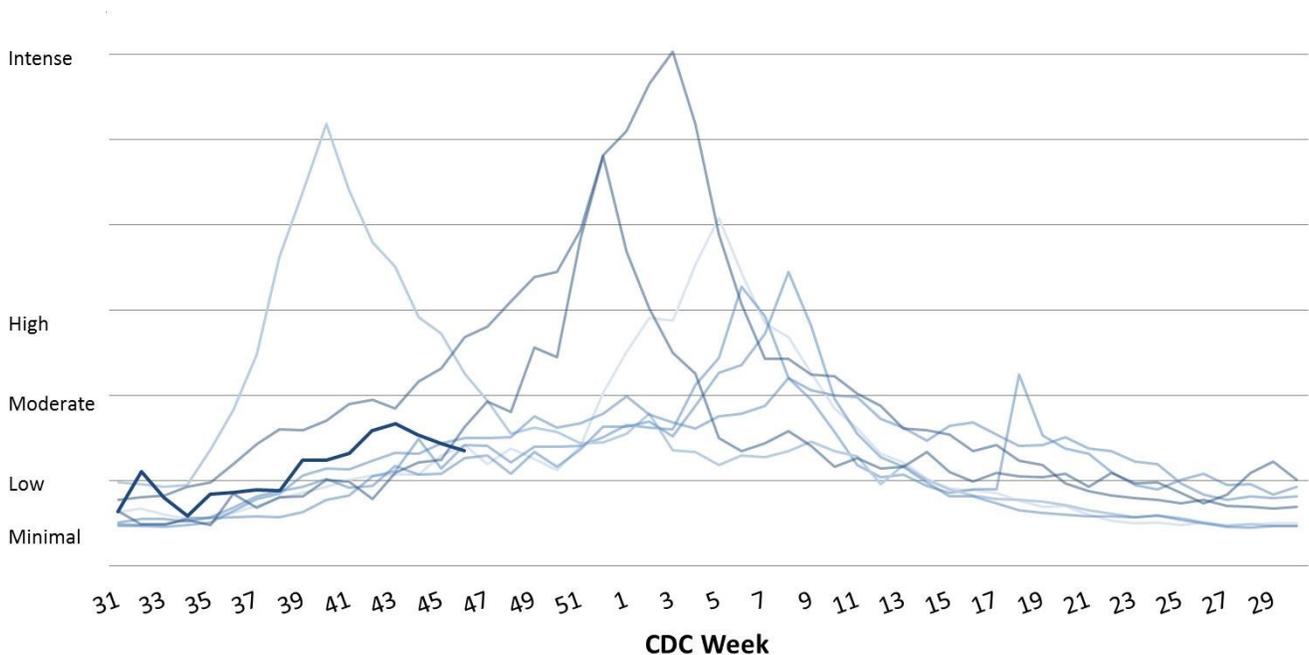
Syndromic Surveillance: 2014-2015 Influenza Season and Age Distribution

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



Google Flu Trends in Houston

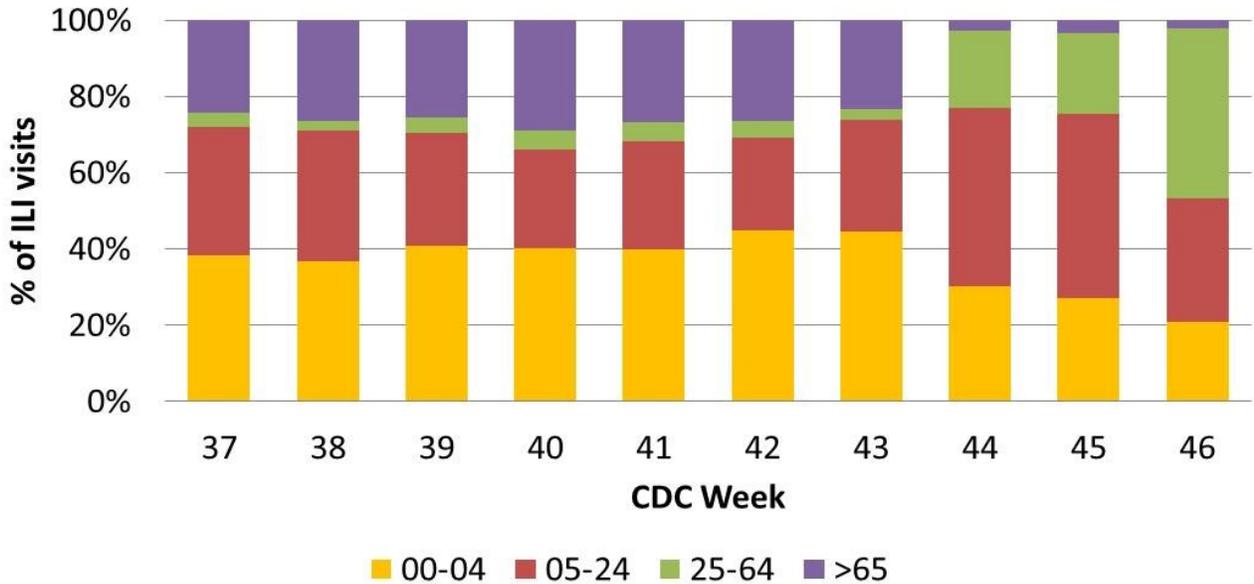
Data Source: Google Flu Trends  
(<http://www.google.org/flutrends>)



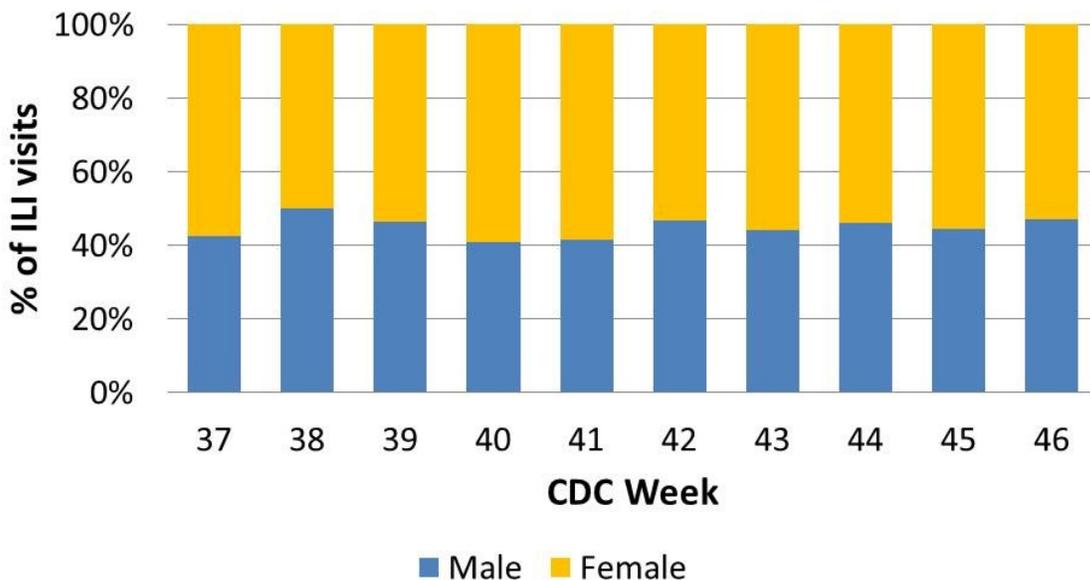
NOTE: Houston/Harris County ILI activity is assessed using information provided by surveillance participants in the Real-time Outbreak Disease Surveillance System (RODS). For week 8, 36 surveillance participants reported ILI information to Houston Department of Health and Human Services. Influenza-like 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 and Age Distribution

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



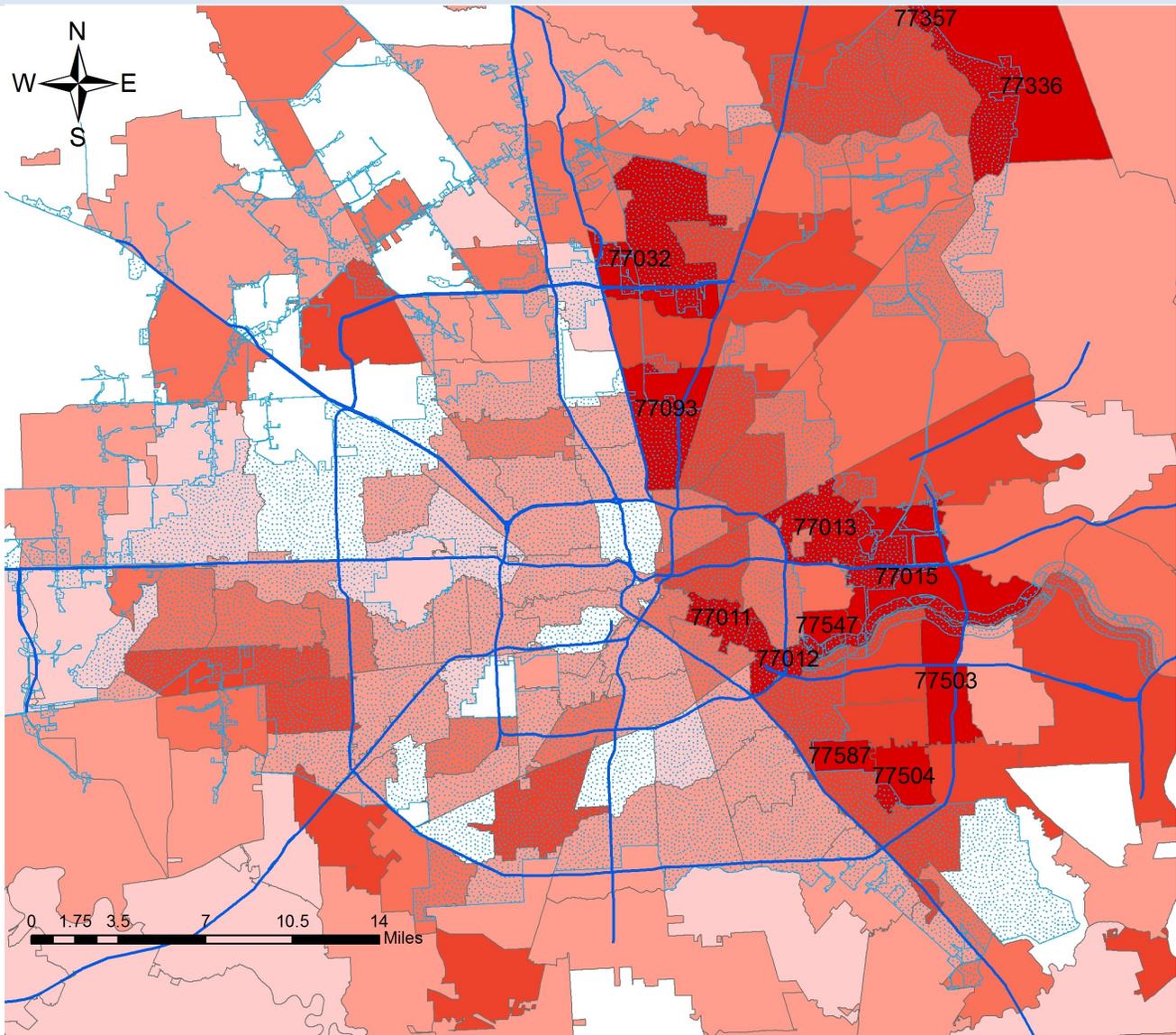
**ILI % by Gender, Houston/Harris County, 2014-2015**



In week 46, 2.2% of emergency department (ED) visits were due to influenza-like illness (ILI) complaints. Of the 778 patients presenting with ILI, the age group that recorded the most ED visits was the 25-64 year olds (45.0%).

*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 8, 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

**2014-2015 %ILI of ED Visits by Zip Code**

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

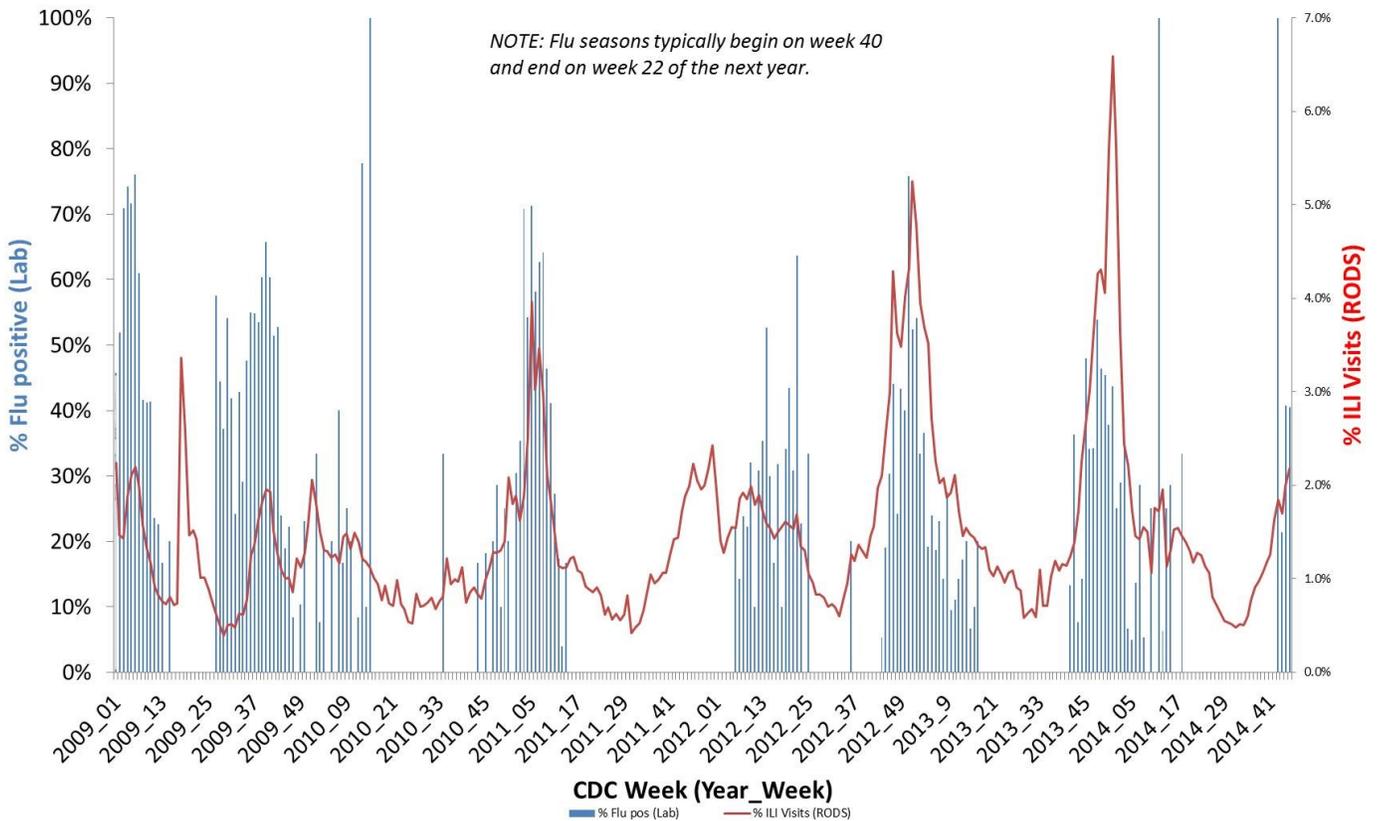
During week 46, the zip codes that have the greatest percentage of ED visits related to ILI (6.0% or greater) are: 77336, 77032, 77013, 77012, 77015, 77093, 77503, 77011, 77357, 77504, 77547, and 77587.

*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 (11/09/14, Week 46)

## Laboratory Surveillance: Influenza Rapid Test Results, Houston

Laboratory Flu positives and ILI Visits  
2009-2014

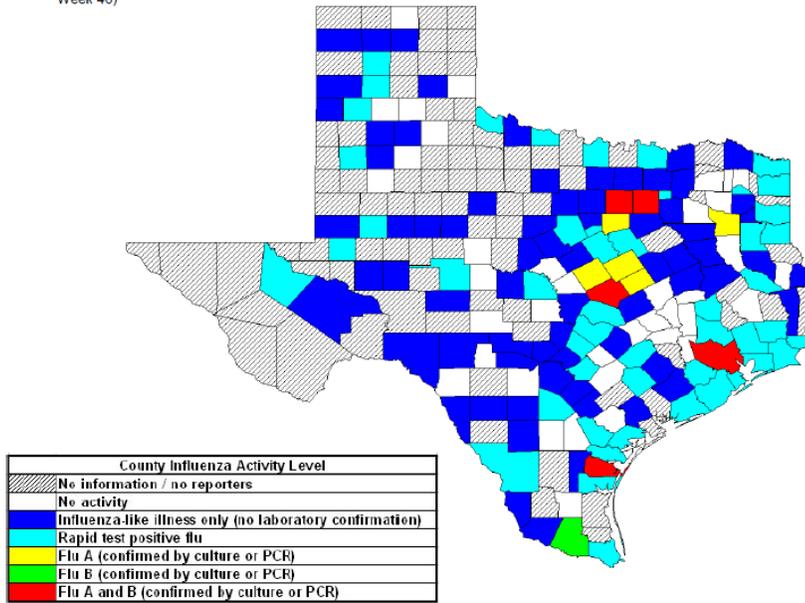


CDC Week Number	44 (Oct 26— Nov1)	45 (Nov 2—8)	46 (Nov 9—15)
# of Influenza Tests Performed	14	27	42
% Influenza Positive	21.43%	40.74%	40.48%
# Influenza A Positive	2	10	16
% Influenza A Positive	14.2%	37.0%	38.1%
# Influenza B Positive	1	1	1
% Influenza B Positive	7.14%	3.70%	2.38%
# Non-differentiated Positive	0	0	1
% Non-differentiated Positive	0.0%	0.0%	2.38%

Texas and National Influenza and ILI Activity

Statewide Influenza Activity Map

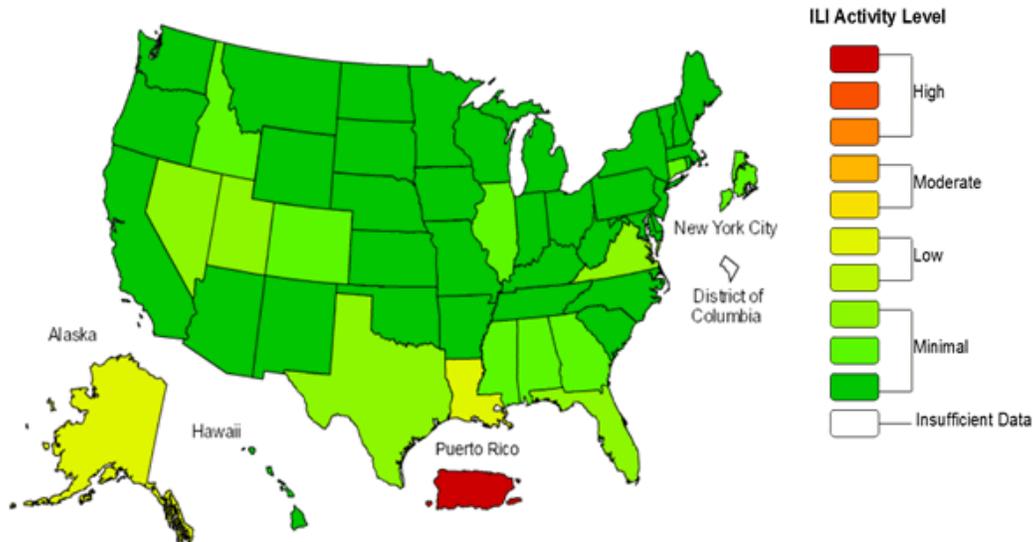
Figure 4: Texas Map Displaying the Highest Level of Influenza or ILI Activity Reported by County for the Week Ending November 15, 2014 (MMWR Week 46)



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/2013/>

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet  
 2014-15 Influenza Season Week 46 ending Nov 15, 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:  
[www.houstontx.gov/health/epidemiology/flu\\_report.html](http://www.houstontx.gov/health/epidemiology/flu_report.html)

**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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