



HOUSTON HEALTH  
DEPARTMENT



Office of Surveillance & Public Health Preparedness  
Program of Public Health Informatics

Influenza Surveillance Weekly Report  
CDC MMWR Week 01: January 03—09, 2016

Influenza Activity by County, State, and National Levels

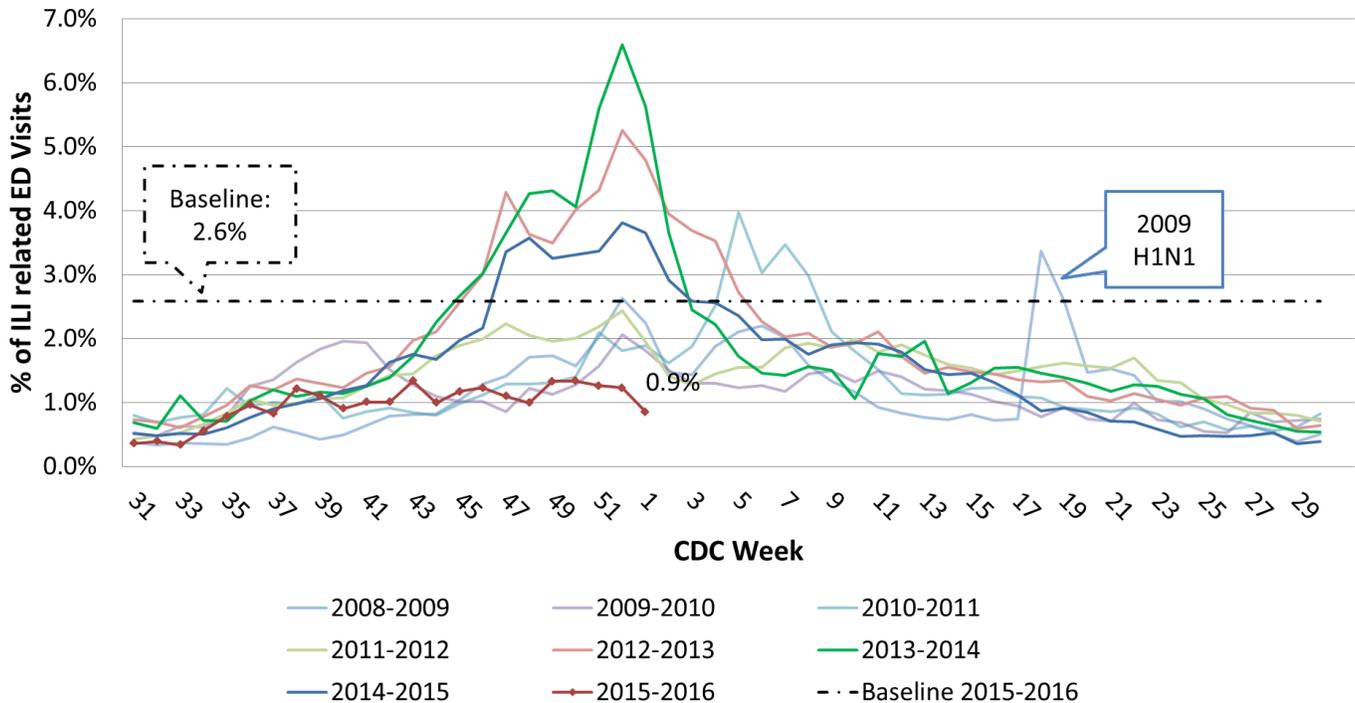
Houston/ Harris County: Week 01	Texas: Week 01	CDC: Week 01
Low	Low	Increased slightly

Highlights

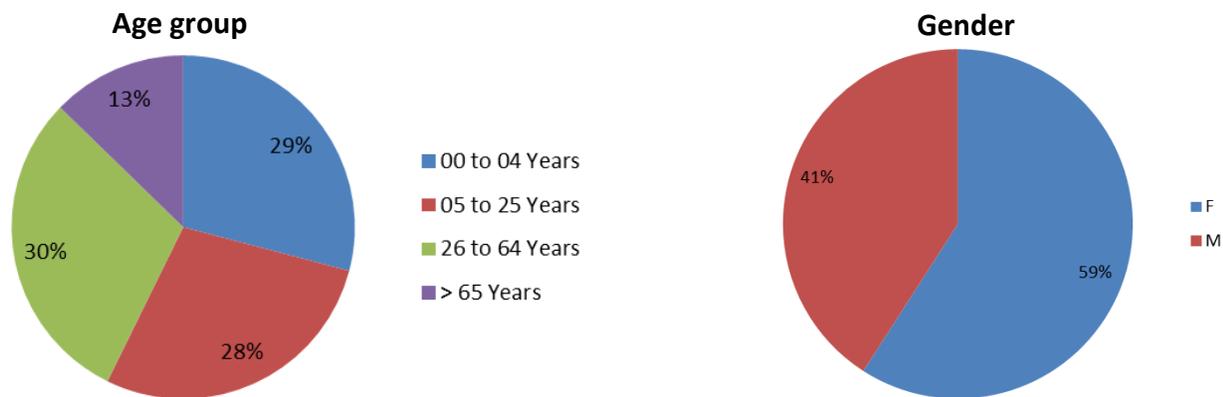
- The Houston Health Department (HHD) conducts seasonal influenza surveillance from October (week 40) 2015 to May (week 22) 2016. During week 01, influenza activity **increased slightly** from the previous week but remains low. Flu activity is expected to increase in the coming weeks. The flu season reaches high levels in February.
- Flu vaccine is the most effective way to prevent flu. There is still time to obtain a vaccine.
- During the 2015-2016 influenza season, zero (0) Houston influenza-associated pediatric deaths have been reported.
- The percentage of reported influenza-like illness (ILI) detected from emergency departments in Houston/Harris County **decreased** from 1.3% in week 52 to 0.9% in week 01. The proportion of ILI was below/above the baseline of 2.6%.
- **\*NEW\*** Flu Near You (FNY) collects ILI through participatory surveillance. From Jan 04 to Jan 10, ten out of 113 reports (9%) were for ILI. This season the highest percentage of ILI reports (18%) was captured on the week of Nov 23, 2015 through (FNY).
- The percentage of flu test positives from sentinel providers in Houston **did not change** from 0% in week 52 to 0% in week 01. HHD receives electronic lab reports from clinical labs. The number of flu positives labs from clinical laboratories was 5 in Week 01 which is an **increase** from 0 in Week 52. This season the highest number of flu positives were detected during Week 48.
- In week 01, 10 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 A H1N1 (0), Influenza B (0).**
- Cumulatively this season, the City of Houston Bureau of Laboratory Services has tested 198 surveillance specimens. There are zero flu positive labs and no predominant strain.

Syndromic Surveillance: 2015-2016 Influenza Season

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



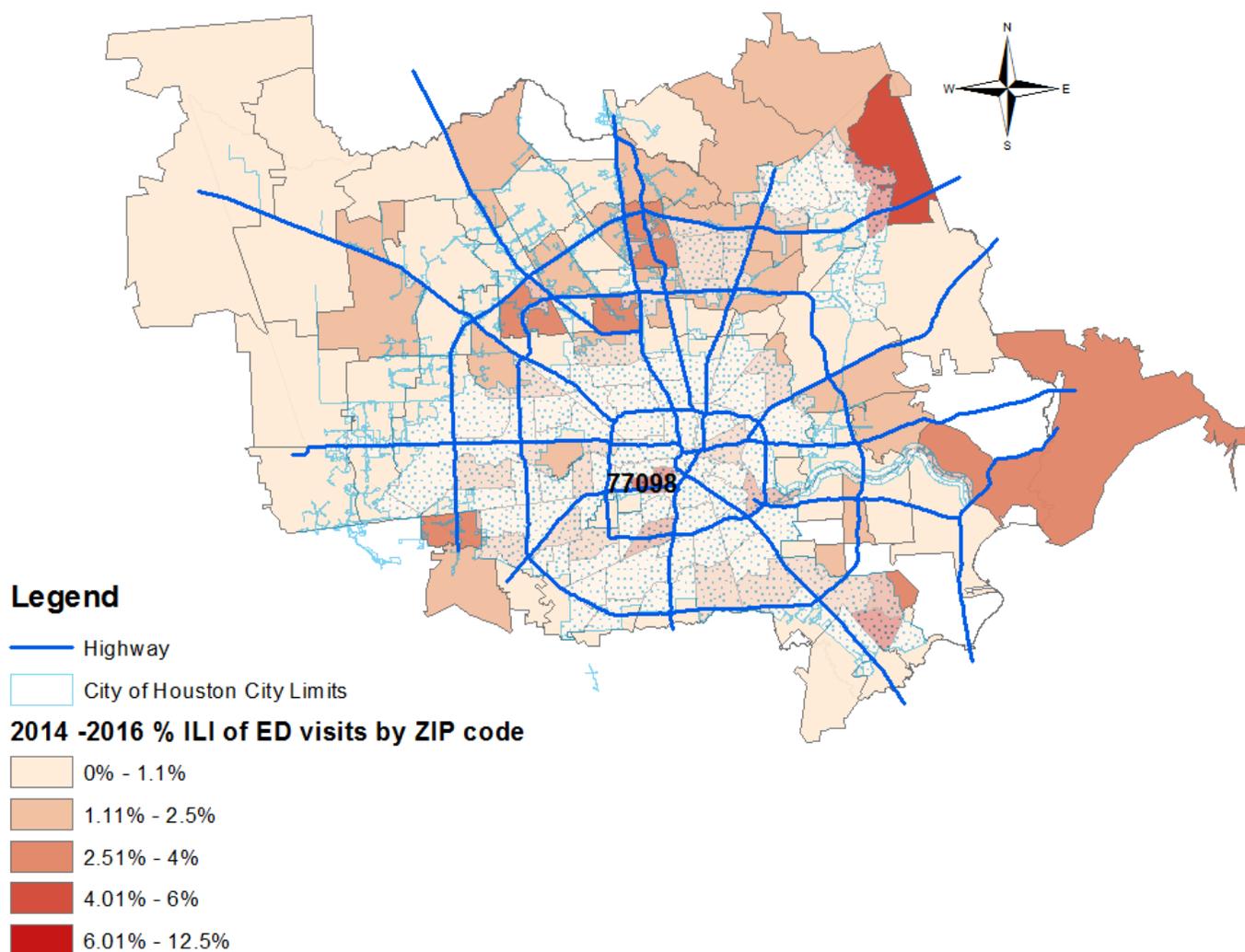
Syndromic Surveillance: 2015-2016 Influenza Season Age and Gender Distribution



In Week 01, 0.9% of emergency department (ED) visits were due to influenza-like illness (ILI) complaints. Of the 110 patients presenting with ILI, the age groups 05 to 25, 05 to 25, and 26 to 64 years had an equal distribution of ED visits (between 28% to 30%). Males accounted for 59% of patients presenting with ILI.

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 01, 36 surveillance participants reported ILI information to Houston Health Department. 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



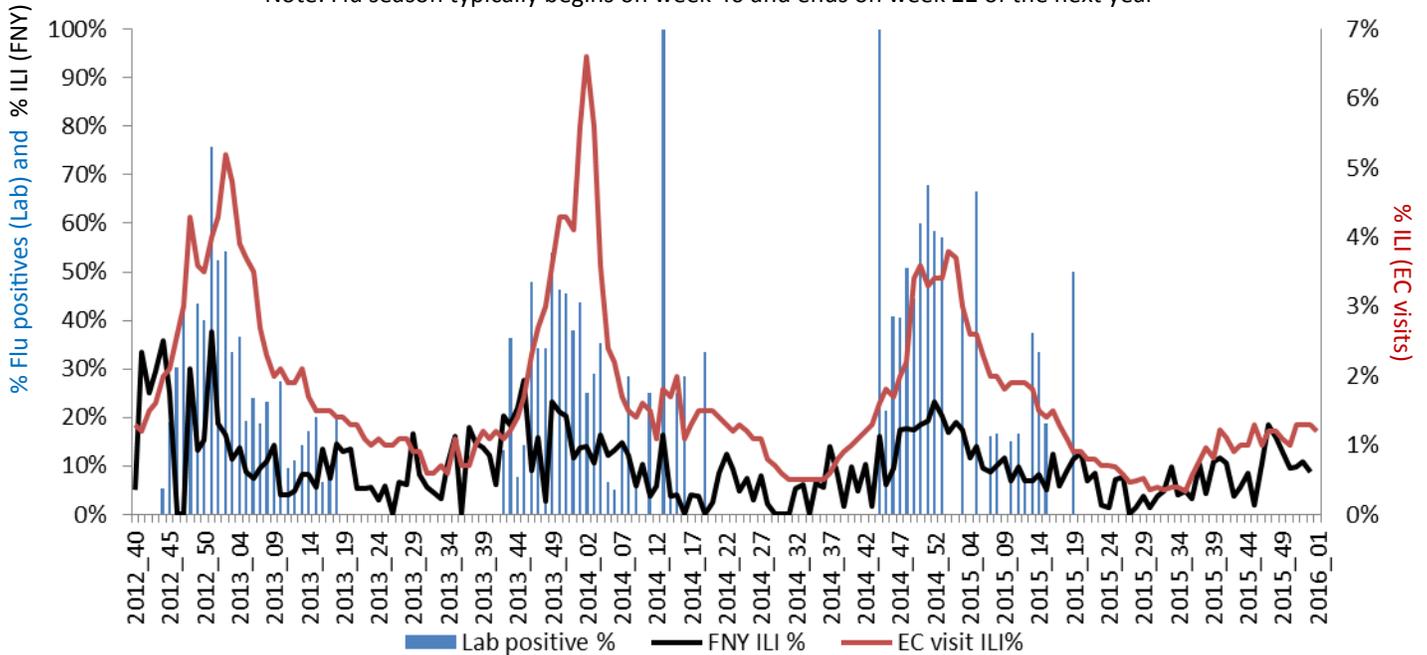
During week 01, the ZIP codes that have the greatest percentage of ED visits related to ILI (6.01% or greater) are: 77098

*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 Surveillance: Influenza Rapid Test Results, Houston

Percent of Laboratory flu positives, FNY ILI, and EC visit ILI, 2012 to 2016

Note: Flu season typically begins on week 40 and ends on week 22 of the next year

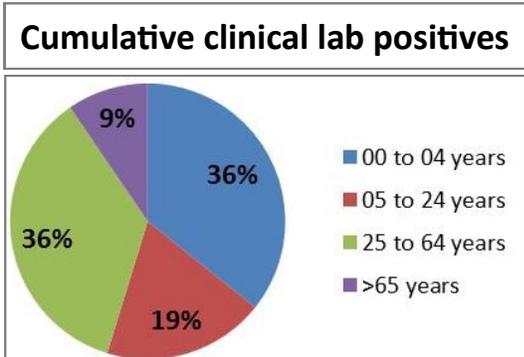
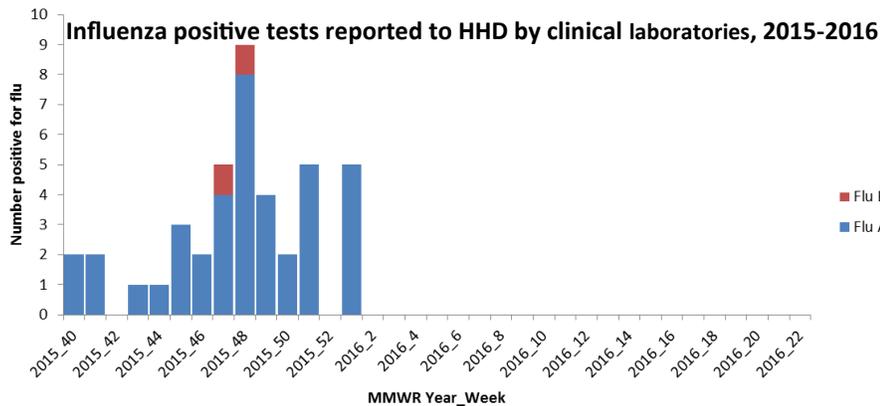


CDC Week Number	51 (Dec 20–26)	52 (Dec 27–Jan 02)	01 (Jan 03–09)
# of Influenza Tests Performed	10	3	10
% Influenza Positive	0%	0%	0%
# Influenza A Positive	0	0	0
% Influenza A Positive	0%	0%	0%
# Influenza B Positive	0	0	0
% Influenza B Positive	0%	0%	0%
# Non-differentiated Positive	0	0	0
% Non-differentiated Positive	0%	0%	0%



## Passive Viral Surveillance

HHD receives electronic lab reports from clinical laboratories. In week 01, there were five (5) additional laboratory confirmed influenza cases from the prior week. Flu A accounts for 95% of the flu positives. Cumulatively this season, the 00 to 04 and 05 to 24 year age group each account for 36% of flu positives.



## 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	03	01	33%				01	01	01	01	00
Oct	04	00	0%	-	-	-	04	03	01	00	00
Nov	04	00	0%				04	02	01	01	00
Dec	04	00	0%	-	-	-	04	03	01	00	00
Jan											
Feb											
Mar											
Apr											
Total											

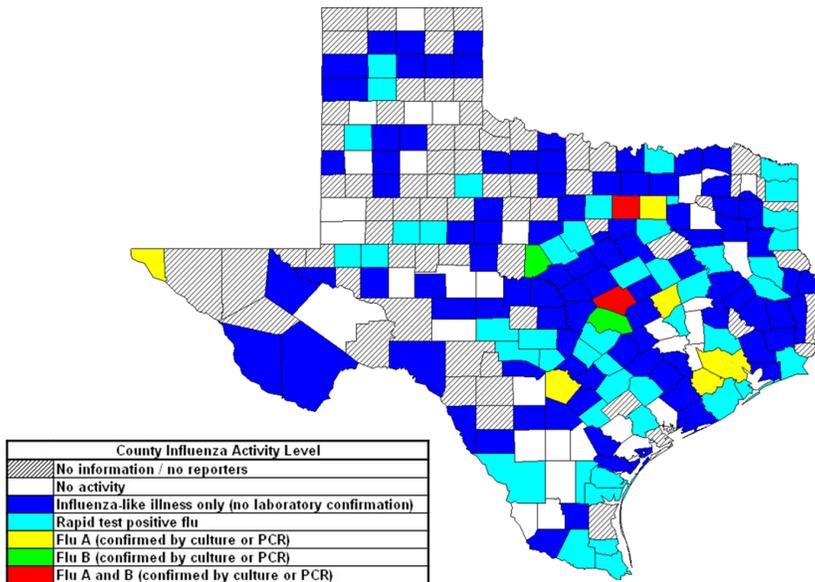
September was the first full month of 2015-2016 school year. ILI cases in HISD students remained the same in December compared to November. There were zero laboratory confirmed cases seen in December.

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

### Statewide Influenza Activity Map

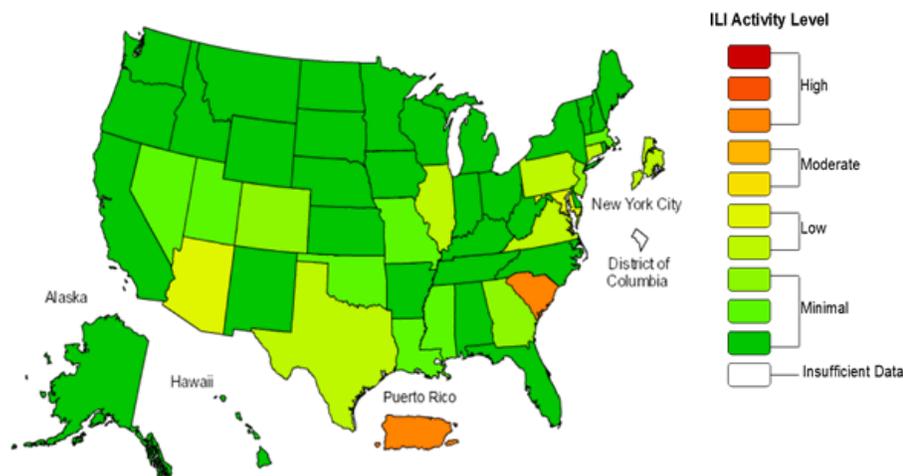
Figure 4: Texas Map Displaying the Highest Level of Influenza or ILI Activity Reported by County for the Week Ending Jan. 09, 2016 (MMWR Week 01)



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/2015/>

### Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet 2015-16 Influenza Season Week 1 ending Jan 09, 2016



**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 Health Department web site at:

<http://www.houstontx.gov/health/weekly-flu-report>

Flu Near You is a participatory surveillance (crowd sourcing) tool which compliments traditional disease surveillance activities. Registered users can obtain real-time information on flu activity and influenza vaccine in the Greater Houston Metropolitan Area. Flu Near You features include:

- Report symptoms
- Find vaccines
- Map flu cases in the Greater Houston Metropolitan area
- Get flu news
- Share on social media



This season HHS invites you to register for Flu Near You at <https://flunearyou.org>

**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/>

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