



HOUSTON HEALTH
DEPARTMENT

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

Influenza Surveillance Weekly Report
CDC MMWR Week 04: January 24—30, 2016

Influenza Activity by County, State, and National Levels

Houston/ Harris County: Week 04	Texas: Week 04	CDC: Week 04
Increased	Increased	Increased

Highlights

- The Houston Health Department (HHD) conducts flu surveillance from Oct (week 40) 2015 to May (week 22) 2016. In Week 04, flu activity **increased** from the previous week. Influenza-like Illness (ILI) activity is widespread. Flu activity typically peaks in Feb. There is still time to get a flu vaccine which covers the circulating flu types.
- ***NEW*** Highly pathogenic avian influenza was detected in poultry in Indiana. As of Feb 02, HHD monitors nine individuals for symptoms. There are no confirmed cases.
- ***NEW*** On Feb 1, 2016, CDC issued a health advisory to recommend the use of rapid antiviral treatment for certain patients ASAP regardless of testing. For more information visit: <http://emergency.cdc.gov/han/han00387.asp>

Influenza Like Illness

- The percentage of reported influenza-like illness (ILI) detected from emergency departments in Houston/Harris County **did not change** from 1.0% in week 03 to 1.0% in week 04. The proportion of ILI was below the baseline of 2.6%.
- ILI cases in HISD students **increased** in Jan 2016 (5) compared to Dec 2015 (4).
- The percentage of Flu Near You users reporting ILI **decreased** from 2.3% to 1.0% .

Virology

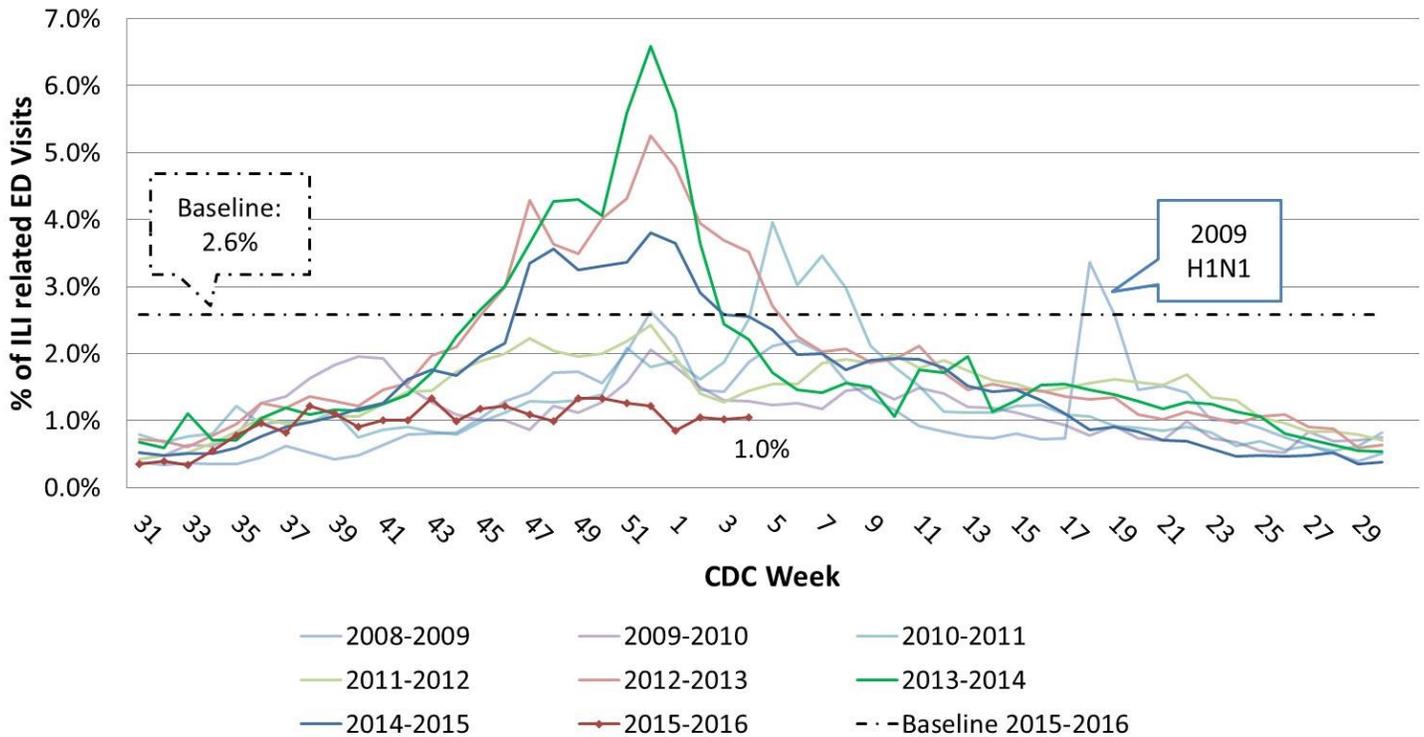
- The percentage of flu test positives from sentinel providers in Houston **decreased** from 14.3% in week 03 to 10.7% in week 04.
- In week 04, 28 surveillance specimens were tested by the City of Houston Bureau of Laboratory Services. The following types and number of viruses were detected in these specimens: **Influenza A H3 (1), Influenza A H1N1 (1), Influenza B (1)**.
- In Week 04, the number of flu positives labs from clinical laboratories was 15 which is an **increase** from 7 in Week 03.

Pediatric Mortality

- This season 0 influenza-associated pediatric deaths have been reported in Houston.

Syndromic Surveillance: 2015-2016 Influenza Season

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



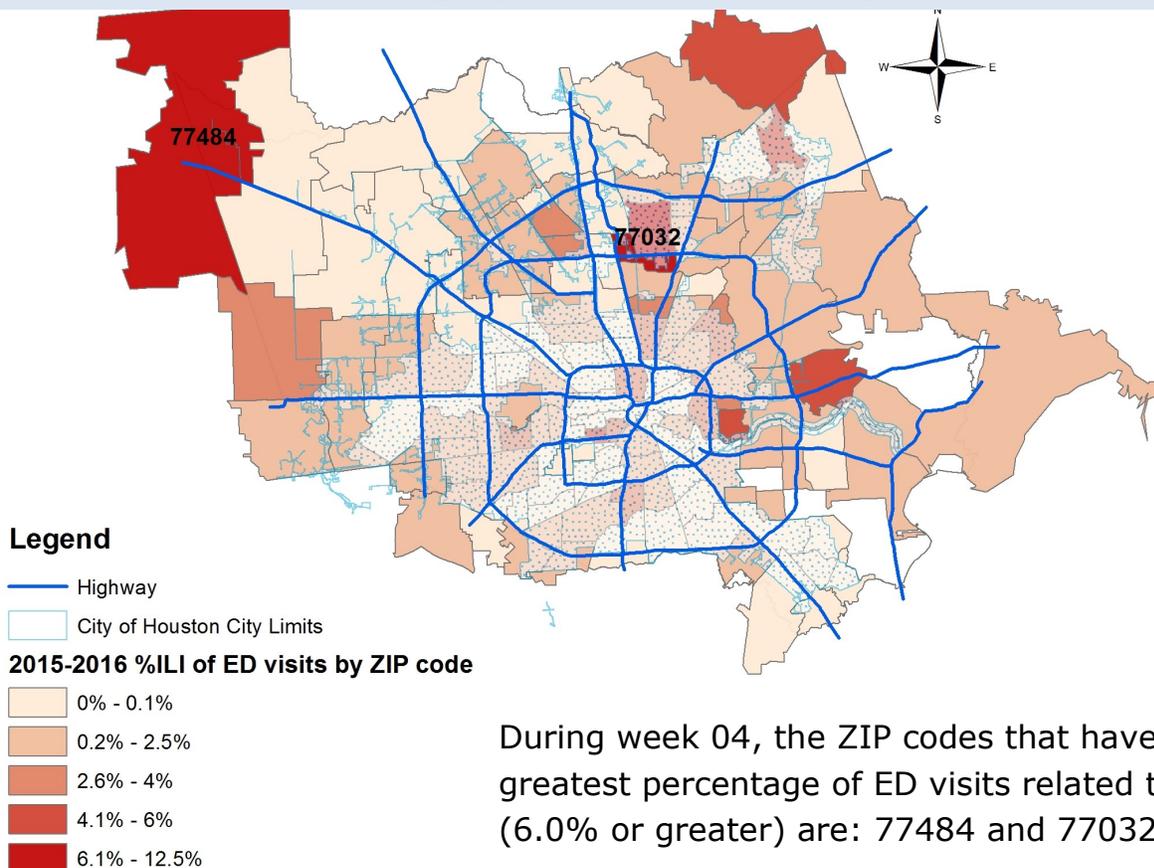
Syndromic Surveillance: 2015-2016 Influenza Season Age and Gender Distribution



In Week 04, 1.0% of emergency department (ED) visits were due to influenza-like illness (ILI) complaints. Of the 142 patients presenting with ILI, the age group that recorded the most ED visits was the 05 to 25 year olds (35%). Females accounted for 54% 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 04, 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.

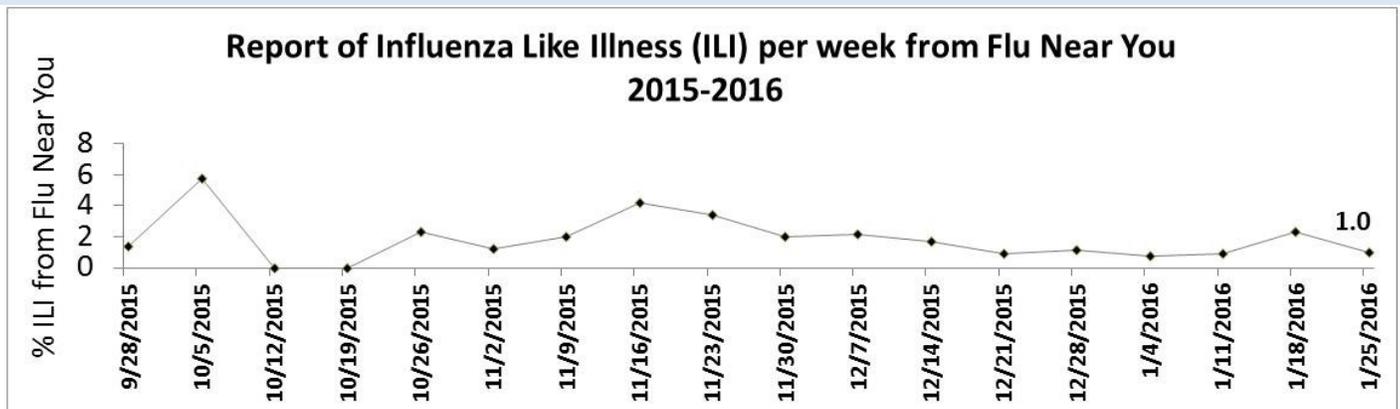
Syndromic Surveillance: Geographic Distribution Map



During week 04, the ZIP codes that have the greatest percentage of ED visits related to ILI (6.0% or greater) are: 77484 and 77032

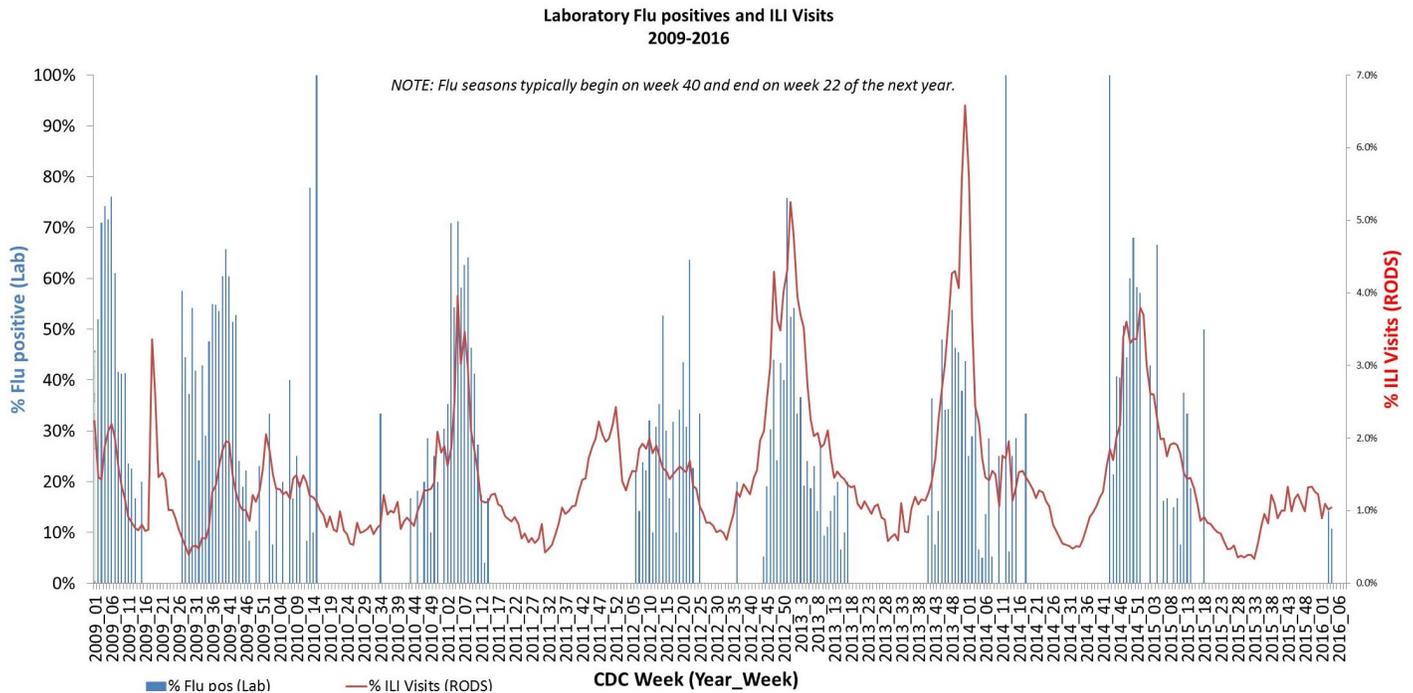
NOTE: Houston/Harris County ILI distribution map was created using data provided by 36 hospitals that voluntarily provide data based on chief complaints in the Real-time Outbreak Disease Surveillance System (RODS). This map reflects the percentage of ILI cases from each zip code from the total amount 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.

Flu Near You: ILI per week



Flu Near You (FNY) is a participatory surveillance tool which compliments traditional disease surveillance. The percentage of FNY users reporting ILI decreased from 2.3% on 01/18/2016 to 1% on 01/25/2016. See the last page for info on how to participate.

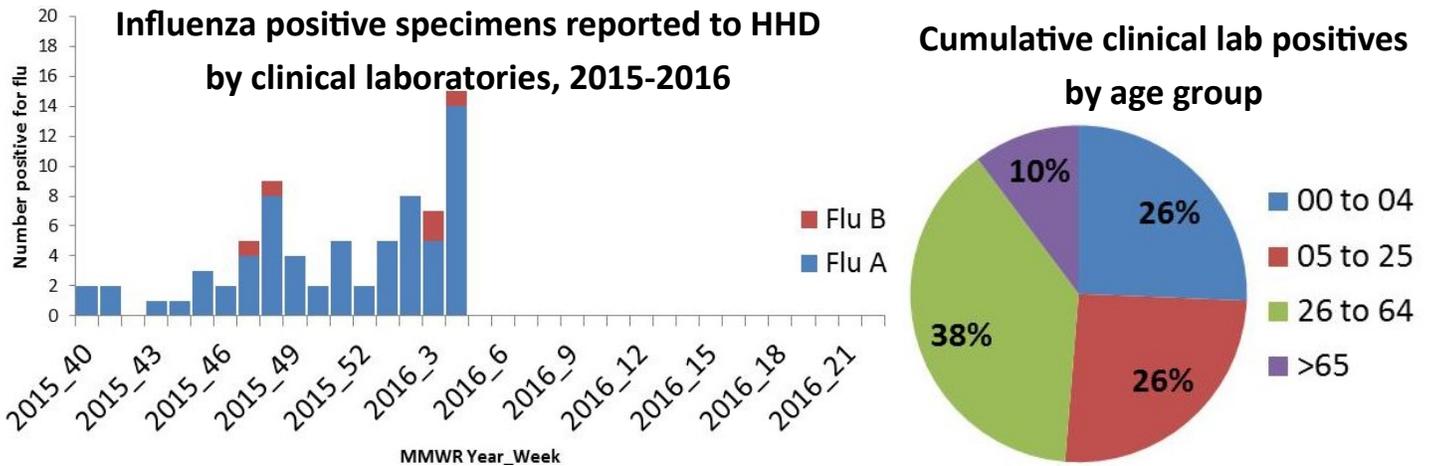
Laboratory Surveillance: Influenza Rapid Test Results, Houston



CDC Week Number	02 (Jan 10–16)	03 (Jan 17–23)	04 (Jan 24–30)
# of Influenza Tests Performed	0	21	28
% Influenza Positive	0%	14.3%	10.7%
# Influenza A Positive	0	3	2
% Influenza A Positive	0%	100%	66.7%
# Influenza B Positive	0	0	1
% Influenza B Positive	0%	0%	33.3%
# 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 04, there were 15 additional laboratory confirmed flu cases from the prior week. Flu A accounts for 93.2% of the flu positives. Cumulatively this season the 26 to 64 year age group accounts for 38% of flu positives and females accounted for 51% of flu positives.



School Surveillance

Table 1: ILI and Influenza Cases by Type and School Type¹ 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%				02		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	05	00	0	-	-	-	05		04	01	00	00
Feb												
Mar												
Apr												
Total												

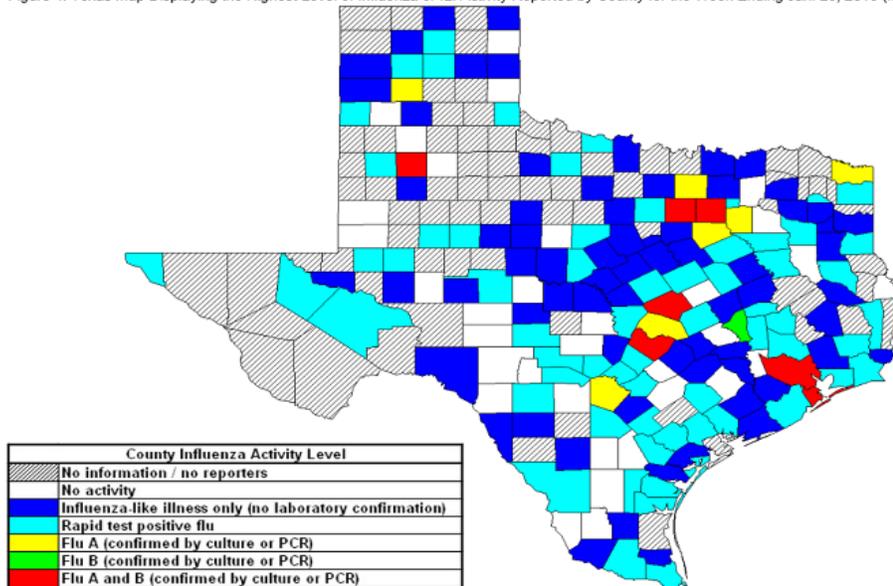
September was the first full month of 2015-2016 school year. ILI cases in HISD students increased in January 2016 (05) compared to December 2015 (04). There were zero laboratory confirmed flu cases seen in January.

NOTE: Data on student ILI and influenza cases 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

Texas and National Influenza and ILI Activity

Statewide Influenza Activity Map

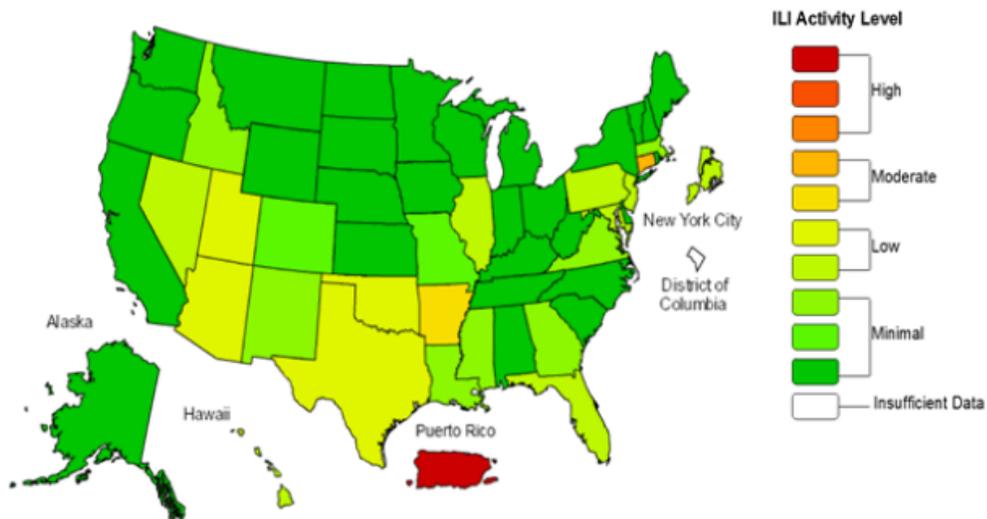
Figure 4: Texas Map Displaying the Highest Level of Influenza or ILI Activity Reported by County for the Week Ending Jan. 23, 2016 (MMWR Week 03)



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 4 ending Jan 30, 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/Epidemiology/flu_report.html

Flu Near You is a participatory surveillance (crowd sourcing) tool which complements 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 HHD 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://www.dshs.state.tx.us/idcu/disease/influenza/surveillance/2016/>

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

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

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