



HOUSTON HEALTH
DEPARTMENT



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

Influenza Surveillance Weekly Report
CDC MMWR Week 19: May 15 to 21, 2016

Influenza Activity by County, State, and National Levels

Houston/ Harris County: Week 19	Texas: Week 19	CDC: Week 19
Decreased	Decreased	Decreased

Highlights

- The Houston Health Department (HHD) conducts seasonal influenza surveillance from Oct (week 40) 2015 to May (week 22) 2016. In Week 19, flu activity **decreased** compared to the previous week. Influenza Like Illness remains near the baseline. In Houston, this flu season peaked in late Feb and early Mar. Flu viruses usually continue to circulate at low levels in the summer. Flu vaccine is recommended for everyone 6 months and older.

Influenza Like Illness

- The percentage of reported influenza-like illness (ILI) detected from emergency centers in Houston/Harris County **decreased** from 1.7% in week 18 to 1.3% in Week 19. The proportion of ILI was below the baseline of 1.4%.
- The percentage of Flu Near You users reporting ILI **decreased** from 3.5% to 2.5%.
- The percentage of ILI among HISD students **decreased** from Mar (123) to Apr (116).

Virology

- The percentage of flu test positives from sentinel providers in Houston **increased** from 8.3% in week 19 to 23.1% in week 19.
- In week 19, 13 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 (1).**
- Cumulatively this season, the City of Houston Bureau of Laboratory Services has tested 507 surveillance specimens. Of the 119 positive lab results, the A/H3 accounts for 59 (49.6%) of the positives.
- HHD receives electronic lab reports from clinical labs. In week 19 there was **no change** in flu positives. Flu A activity accounts for 89.8% of the flu positives this season. Week 11 had the highest count (85) of flu positives this season.
- HHD receives non-electronic lab reports from clinical labs. This season Mar showed the highest flu activity. Flu A accounts for 83.3% of flu positives.

Pediatric Mortality

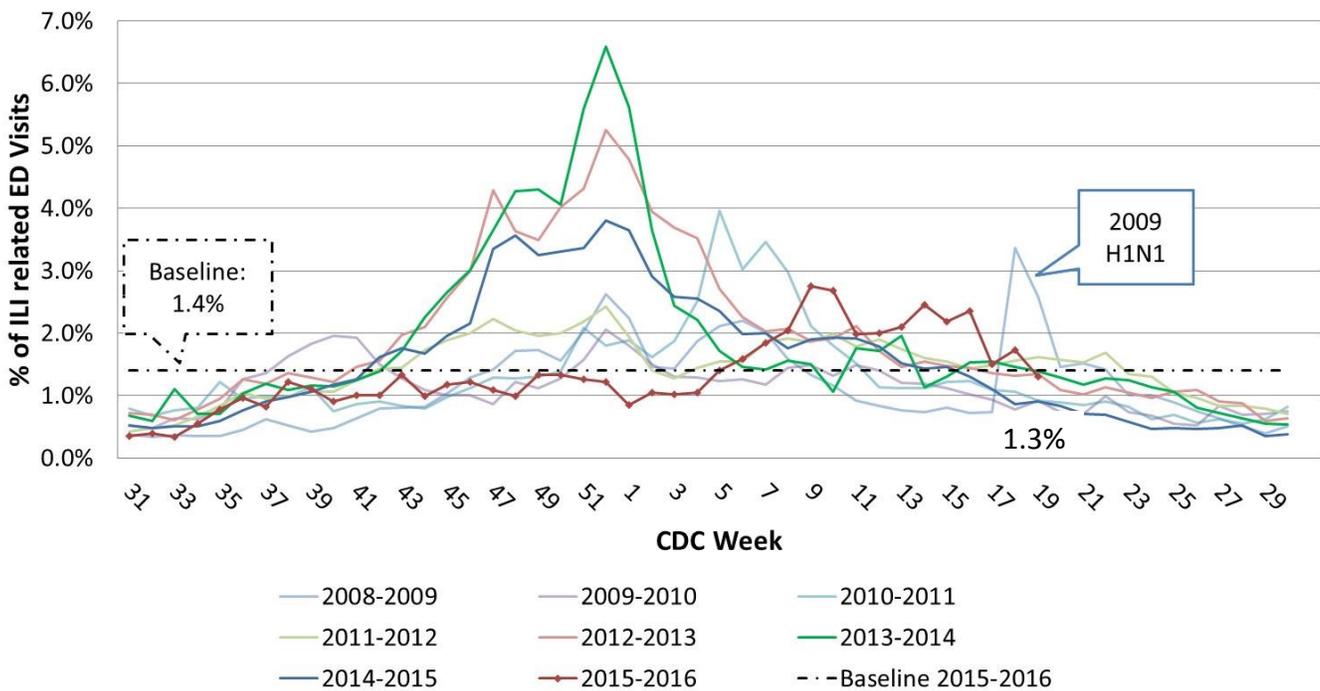
- During the 2015-2016 influenza season, zero (0) Houston influenza-associated pediatric deaths have been reported.

National

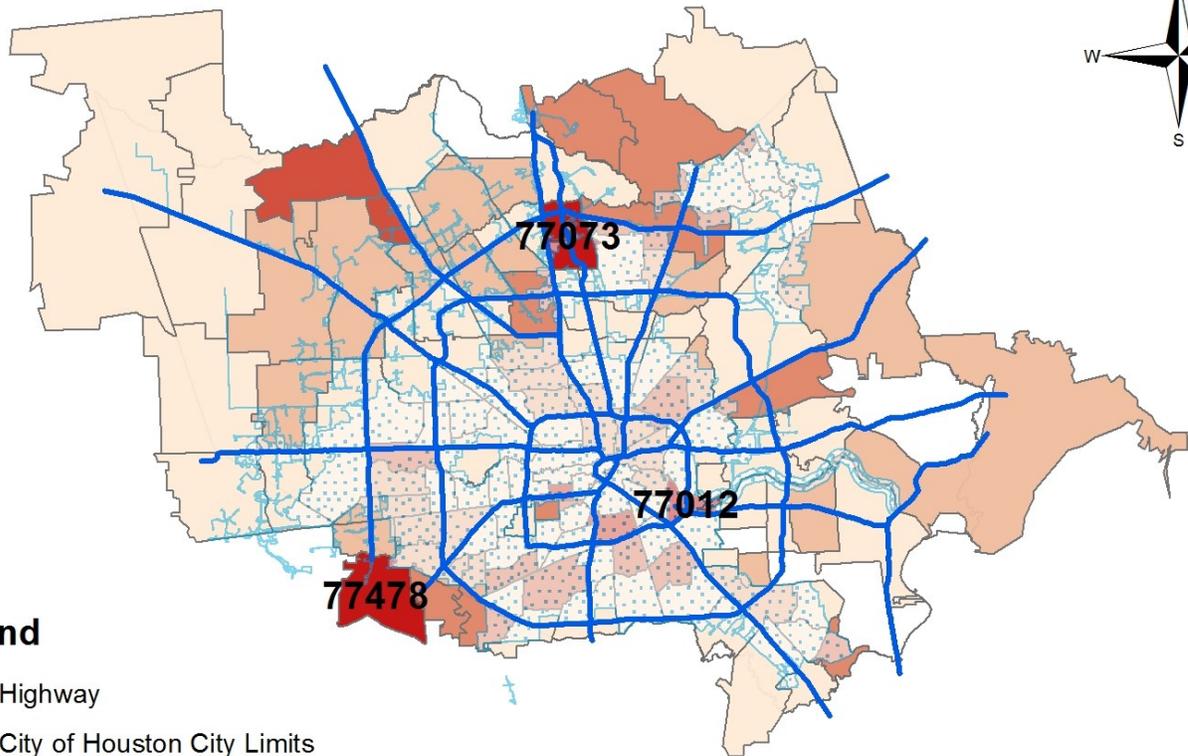
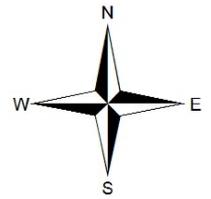
- At the national level during week 19, 7.1% of specimens tested and reported to the CDC by clinical labs were positive for influenza. The proportion of outpatient visits for ILI 1.4% was **below** the national baseline (2.1%) and the proportion of deaths attributed to pneumonia and influenza (6.7%) was **at** the epidemic threshold of 6.7%.

Syndromic Surveillance: 2015-2016 Influenza Season

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



Syndromic Surveillance: Geographic Distribution Map of ILI



Legend

-  Highway
-  City of Houston City Limits

PercentILI

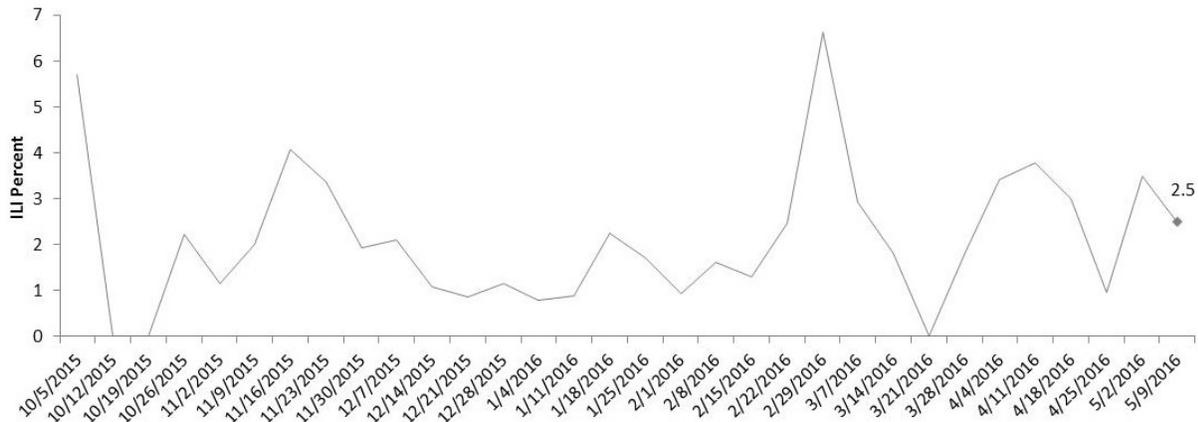
-  0% - 1.1%
-  1.2% - 2.5%
-  2.6% - 4%
-  4.1% - 6%
-  6.1% - 13%

During week 19, the ZIP codes that have the greatest percentage of ED visits related to ILI (6.0% or greater) are: 77012, 77073, and 77478

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

Report of Influenza Like Illness (ILI) per week from Flu Near You



Flu Near You (FNY) is a participatory surveillance tool which compliments traditional disease surveillance. The percentage of FNY users reporting ILI decreased from 3.5% on 05/02/2016 to 2.5% on 05/09/2016. The highest ILI percent (6.6%) occurred on week of 02/29/2016. This season the average ILI percent is 2.1%. See the last page for information on how to participate.

School Surveillance

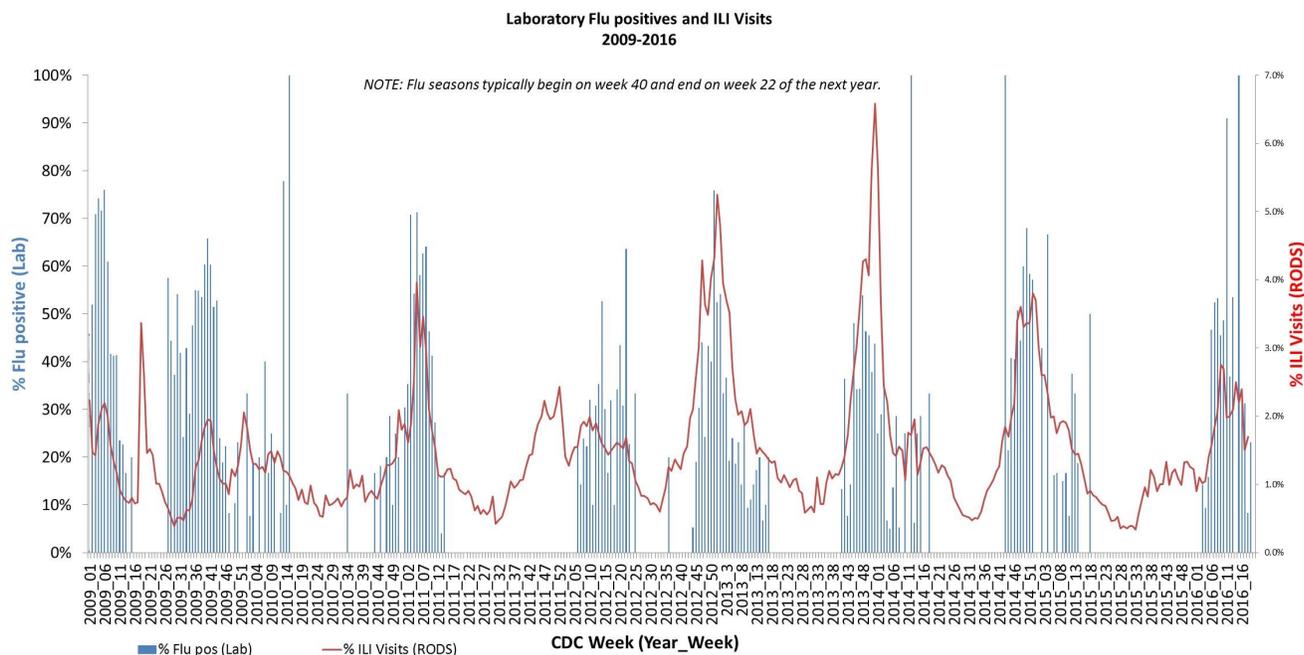
Table 1: ILI and Influenza Cases by Type and School Type¹ per Month

	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%	-	-	-	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	05	00	0%	-	-	-	05	04	01	00	00
Feb	67	09	13%	05	00	-	04	52	08	04	03
Mar	123	31	25%	08	01	-	22	104	04	08	07
Apr	116	15	13%	1	3	-	11	79	1	4	32
Total	326	56	-	14	04	-	55	248	18	18	42

Sep was the first full month of 2015-2016 school year. ILI cases in HISD students decreased in Apr (116) compared to Mar (123). There were 15 laboratory confirmed flu cases seen in Apr. Eleven were unclassified and 3 were confirmed as influenza B.

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 month.

Laboratory Surveillance: Influenza Rapid Test Results, Houston

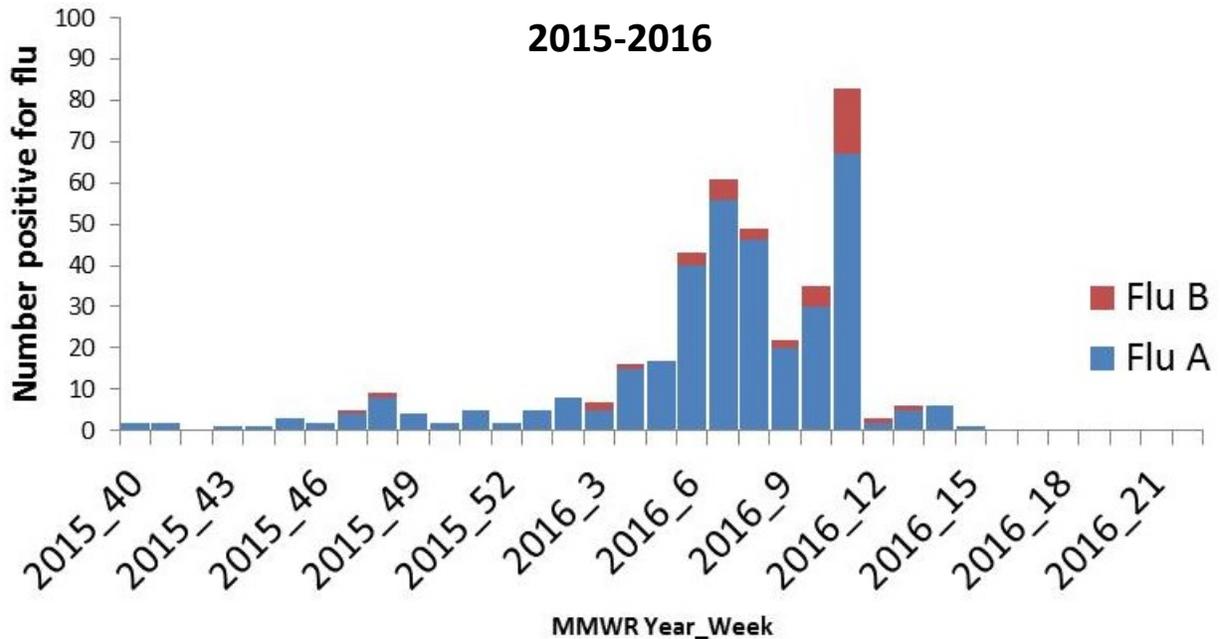


CDC Week Number	17 (Apr 24–30)	18 (May 01–07)	19 (May 08–14)
# of Influenza Tests Performed	16	12	13
% Influenza Positive	31.3%	8.3%	23.1%
# Influenza A Positive	2	0	2
% Influenza A Positive	40%	0%	67%
# Influenza B Positive	3	1	1
% Influenza B Positive	60%	100%	33%
# Non-differentiated Positive	0	0	0
% Non-differentiated Positive	0%	0%	0%

Passive Viral Surveillance, Electronic lab reports

HHD receives electronic lab reports from clinical laboratories. Flu A activity accounts for 89.8% of the flu positives this season. Week 11 had the highest count (85) of flu positives this season.

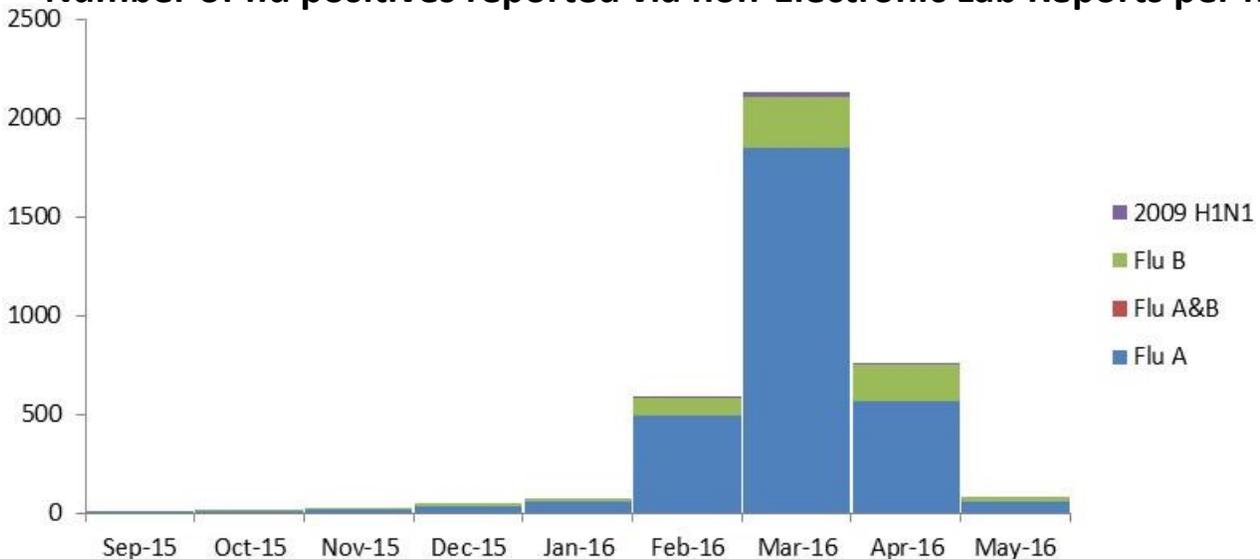
Number of flu positives reported via Electronic Lab Reports per Week



Passive Viral Surveillance, non-electronic lab reports

HHD receives non-electronic lab reports of flu positive results from clinical laboratories. In Apr, flu activity decreased compared to Mar. Flu A accounts for 83.4% of the flu positives this season. The month with the highest flu activity is Mar.

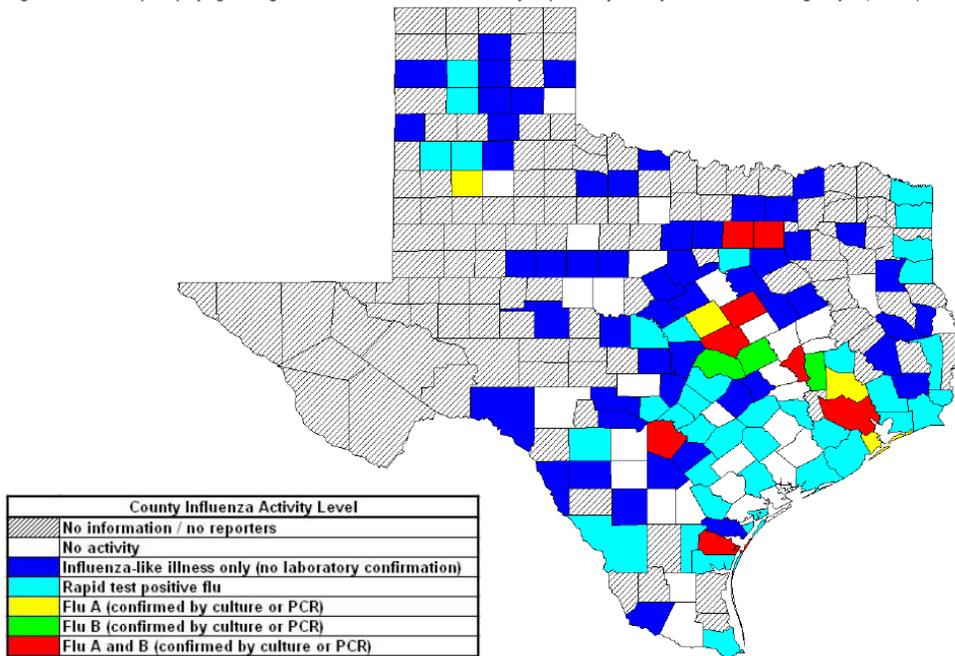
Number of flu positives reported via non-Electronic Lab Reports per Month



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 May 14, 2016 (MMWR Week 19)

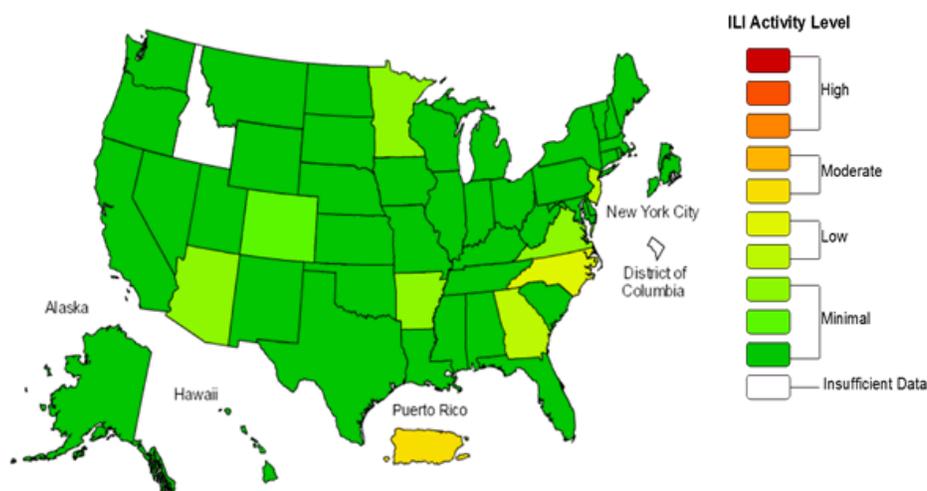


Please note: The majority of influenza cases are not reportable by law in Texas. This map contains data from sentinel sites and only displays influenza and ILI cases that were reported to public health. Positive laboratory results are reported according to specimen collection date, or date received in 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 19 ending May 14, 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 complements traditional disease surveillance activities. Registered users can obtain real-time information on flu activity and influenza vaccines 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://http://www.dshs.state.tx.us/idcu/disease/influenza/surveillance/2015/>

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

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

Houston Health Department

Office of Surveillance and Public Health Preparedness

Program of Public Health Informatics

8000 N. Stadium Dr, 4th Floor

Houston, TX 77054

Main Phone Number: (832) 393-5080

Disease Reporting Fax Number: (832) 393-5232

24-Hour Disease Reporting Number: (832) 393-5080