



HOUSTON HEALTH
DEPARTMENT

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

Influenza Surveillance Weekly Report
CDC MMWR Week 13: Mar 27 to Apr 02, 2016

Influenza Activity by County, State, and National Levels

Houston/ Harris County: Week 13	Texas: Week 13	CDC: Week 13
Elevated	Elevated	Elevated

Highlights

- The Houston Health Department (HHD) Conducts seasonal influenza surveillance from October (week 40) 2015 to May (week 22) 2016. In Week 13, flu activity **increased** compared to the previous week. Flu activity typically peaks in February. The flu vaccine is recommended for everyone 6 months and older.

Influenza Like Illness

- The percentage of reported influenza-like illness (ILI) detected from emergency departments in Houston/Harris County **increased** from 2.0% in week 12 to 2.1% in week 13. The proportion of ILI was at the baseline of 2.1%.
- The percentage of Flu Near You users reporting ILI **increased** from 1.2% to 1.8%.
- The percentage of ILI cases among HISD students **increased** from Feb (67) to Mar (123).

Virology

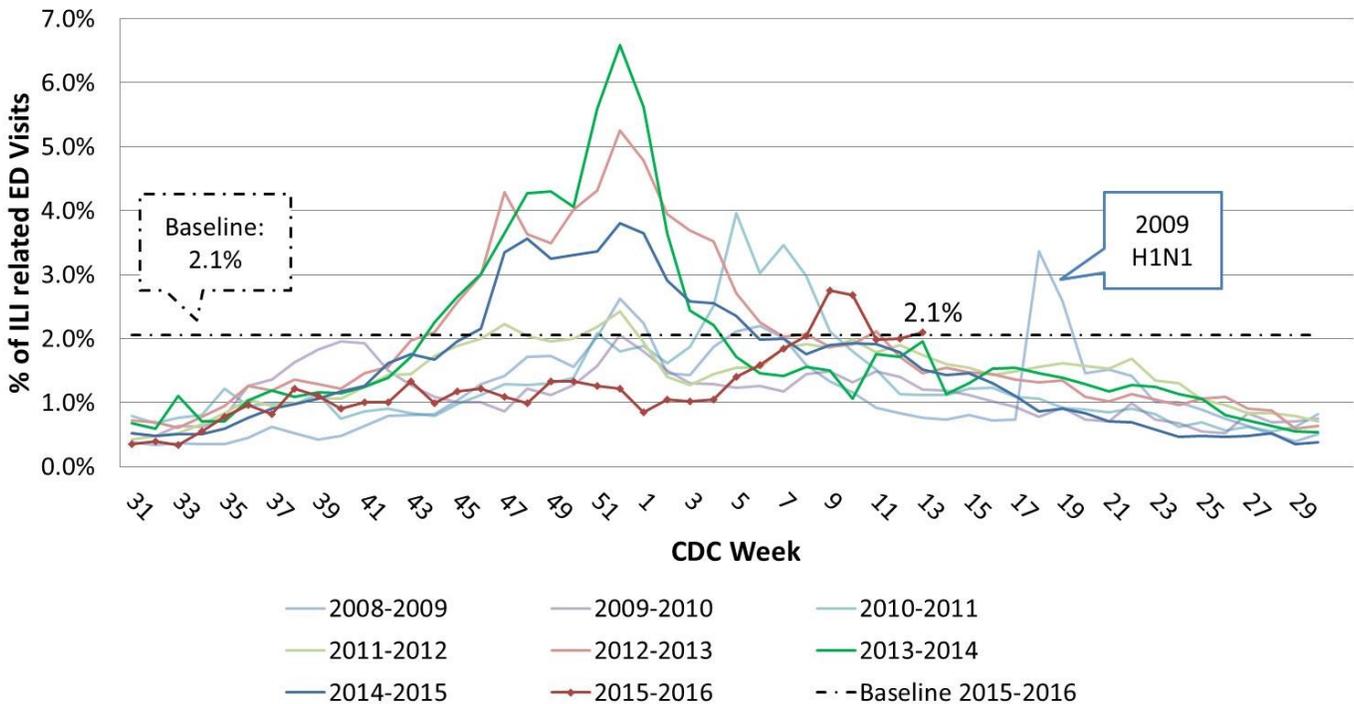
- The percentage of flu test positives from sentinel providers in Houston **increased** from 36.8% in week 12 to 53.6% in week 13.
- In week 13, 28 surveillance specimens were tested by the City of Houston Bureau of Laboratory Services. The following types and number of viruses were detected in these specimens: **Influenza A H3 (10), Influenza A H1N1 (3), Influenza B (2)**.
- Cumulatively this season, the City of Houston Bureau of Laboratory Services has tested 459 surveillance specimens. Of the 107 positive lab results, the Influenza A H3 accounts for 53 (49.5%) of the positives.

Pediatric Mortality

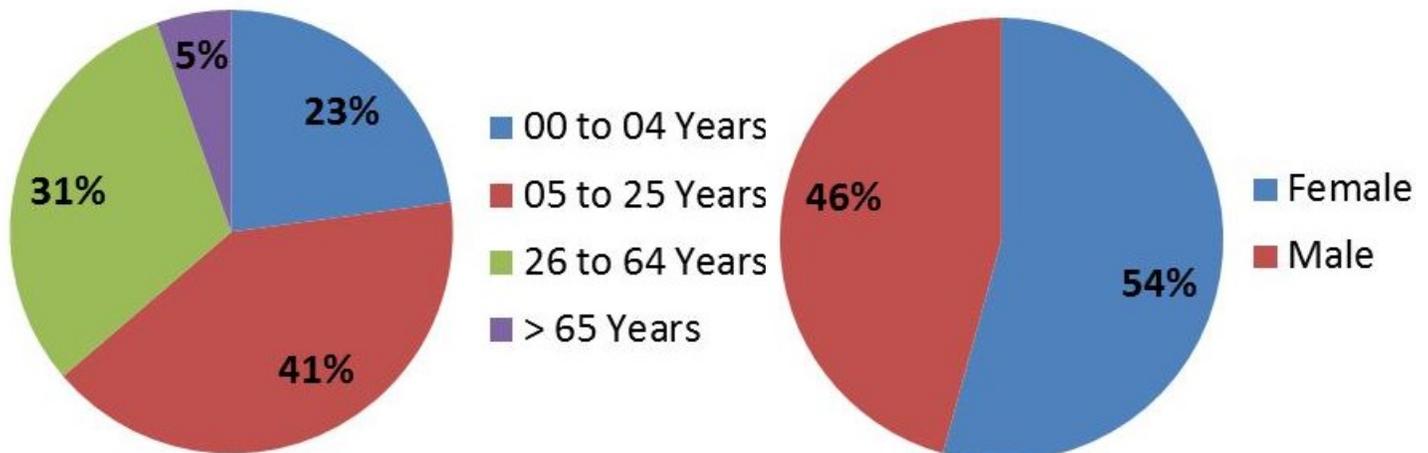
- During the 2015-2016 influenza season, zero (0) Houston influenza-associated pediatric deaths have been reported.

Syndromic Surveillance: 2015-2016 Influenza Season

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



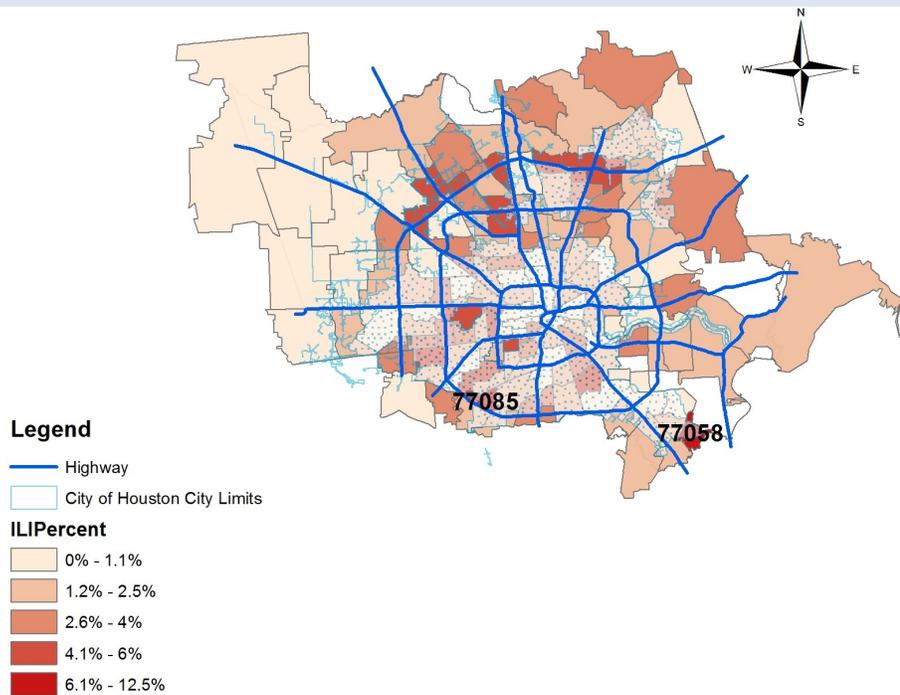
Syndromic Surveillance: 2015-2016 Influenza Season Age and Gender Distribution



In Week 13, 2.1% of emergency department (ED) visits were due to influenza-like illness (ILI) complaints. Of the 328 patients presenting with ILI, the age group that recorded the most ED visits was the 05 to 25 year olds (41%). 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 13, 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.

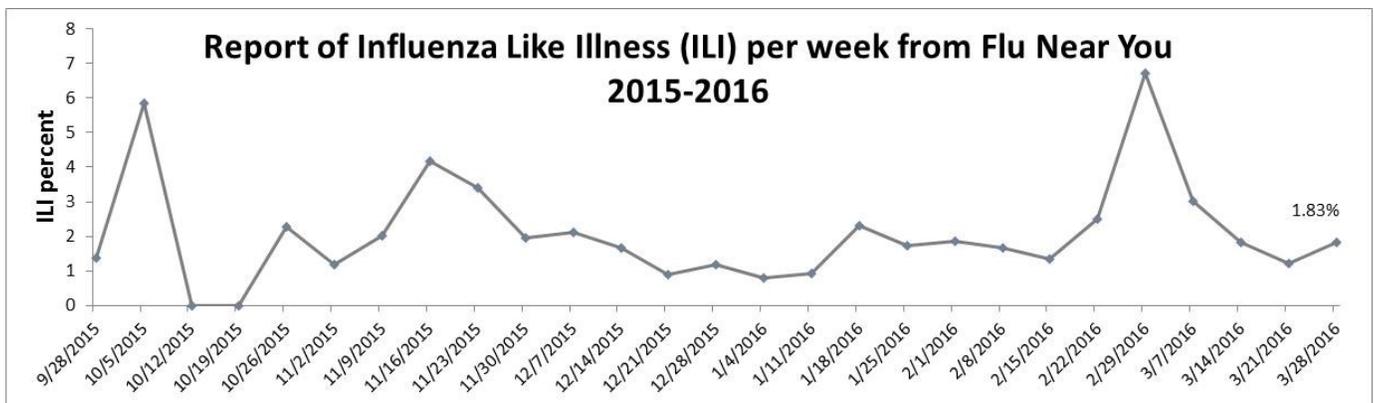
Syndromic Surveillance: Geographic Distribution Map



During week 13, the ZIP codes that have the greatest percentage of ED visits related to ILI (6.0% or greater) are: 77058, 77085

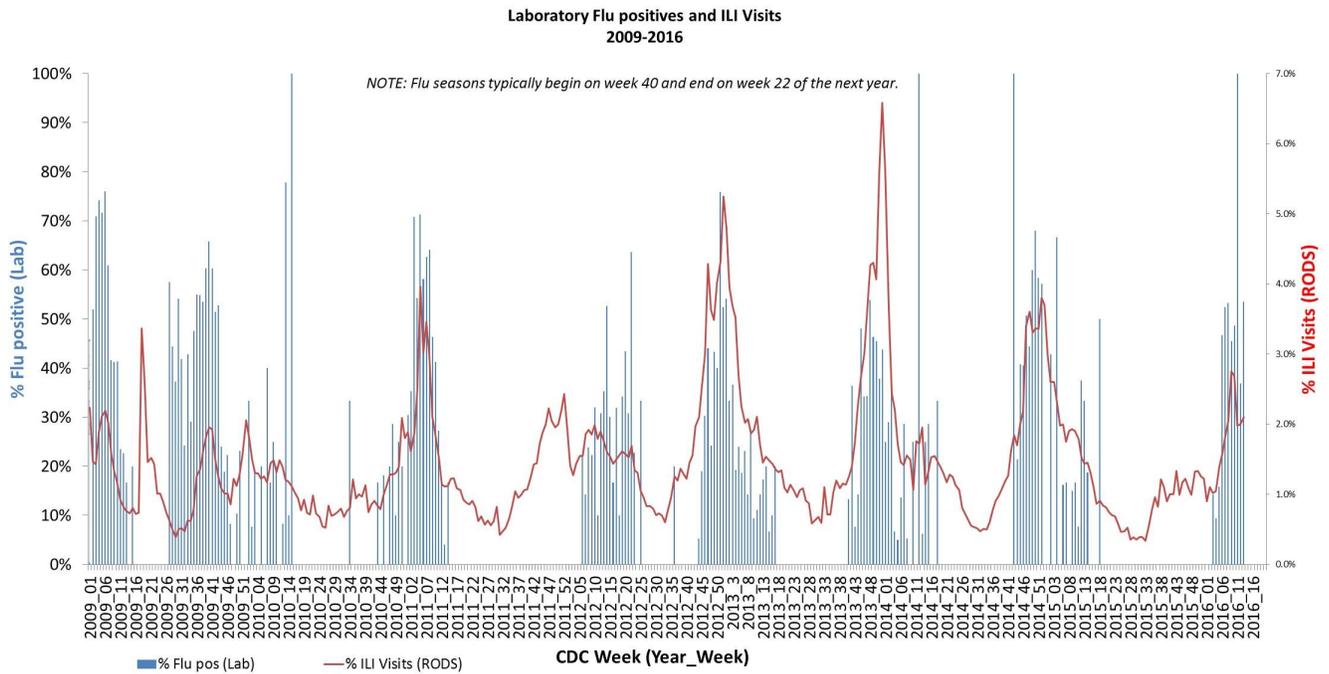
NOTE: Houston/Harris County ILI distribution map was created using data provided by 36 hospitals that voluntarily provide data based on chief complaints in the Real-time Outbreak Disease Surveillance System (RODS). This map reflects the percentage of ILI cases from each zip code from the total amount 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 2.0% on 03/21/2016 to 1.83% on 03/28/2016. See the last page for information on how to participate.

Laboratory Surveillance: Influenza Rapid Test Results, Houston



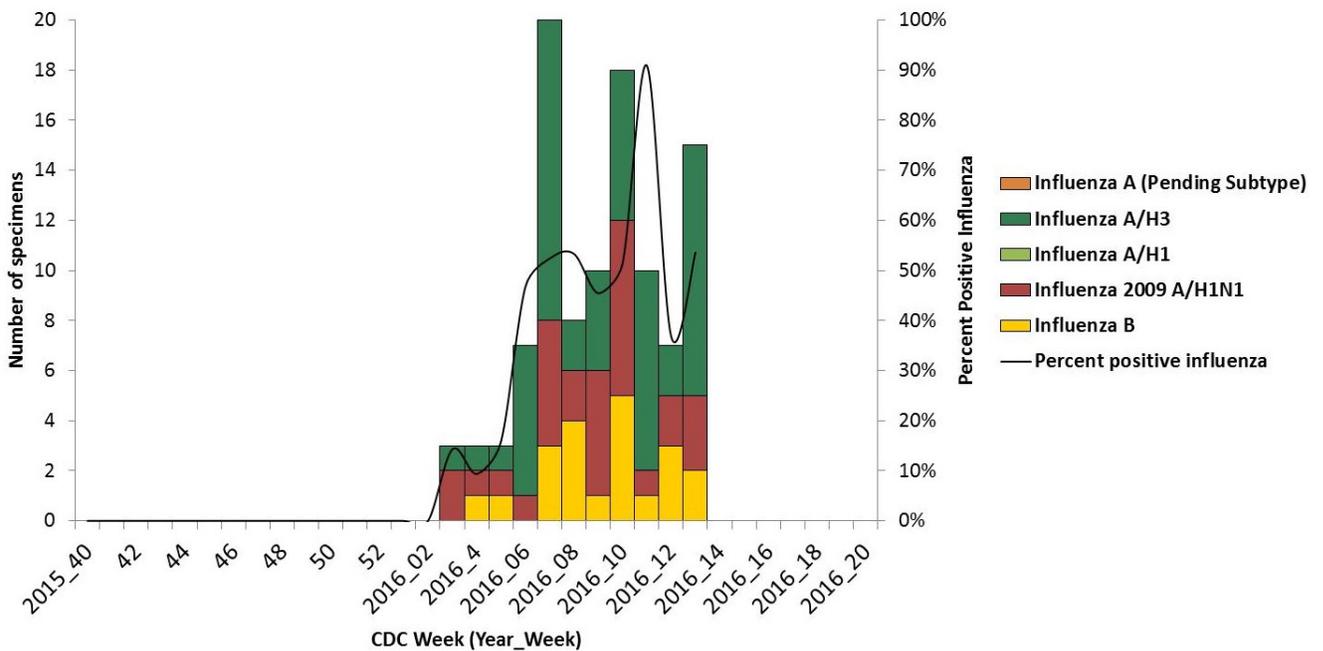
CDC Week Number	11 (Mar 13–19)	12 (Mar 20–26)	13 (Mar 27–Apr 02)
# of Influenza Tests Performed	11	19	15
% Influenza Positive	90.09%	36.80%	53.6%
# Influenza A Positive	8	4	13
% Influenza A Positive	80.00%	75.00%	86.67%
# Influenza B Positive	2	3	2
% Influenza B Positive	10.00%	25.00%	13.3%
# Non-differentiated Positive	0	0	0
% Non-differentiated Positive	0.00%	0.00%	0.00%

Laboratory Based Respiratory Viruses Surveillance: 2014-2015, 2015-2016

Influenza Viral Surveillance Summary

- During the 2015-2016 flu season the HHD Office of Surveillance and Public Health Preparedness tested 459 specimens from sentinel providers and detected Influenza A/H3 (49.3%). Among weeks with 5% or greater positive influenza lab results, the average percent of positive influenza lab results was 42.7%.
- For MMWR Week 13, fifteen (15) specimens tested positive for influenza virus. This season MMWR Week 11 had the highest percentage of positive influenza lab results.

Influenza positive specimens detected through sentinel providers



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	67	09	13%	05	00		04	52	08	04	03
Mar	123	31	25%	08	01		22	104	04	08	07
Apr											
Total											

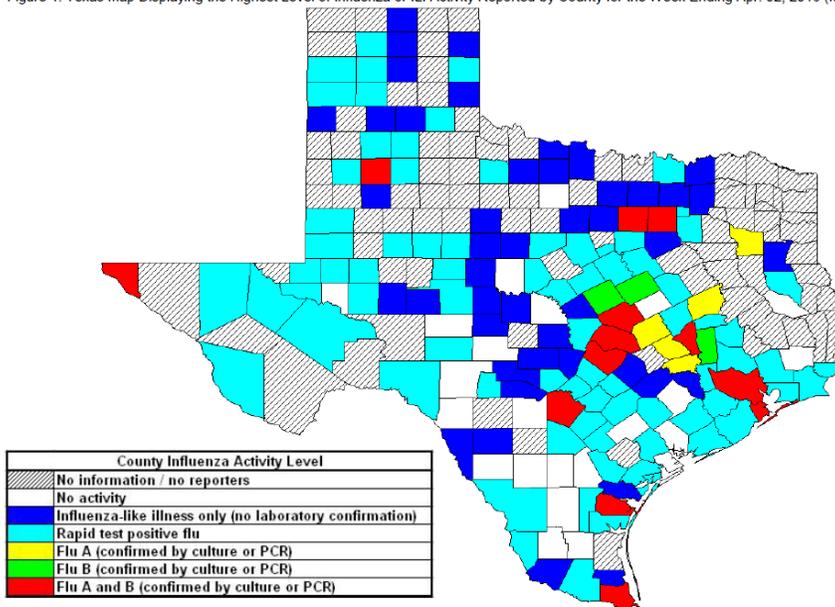
September was the first full month of 2015-2016 school year. ILI cases in HISD students increased in March (123) compared to February (67). There were 31 laboratory confirmed flu cases seen in 31 and 08 were confirmed as influenza A.

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

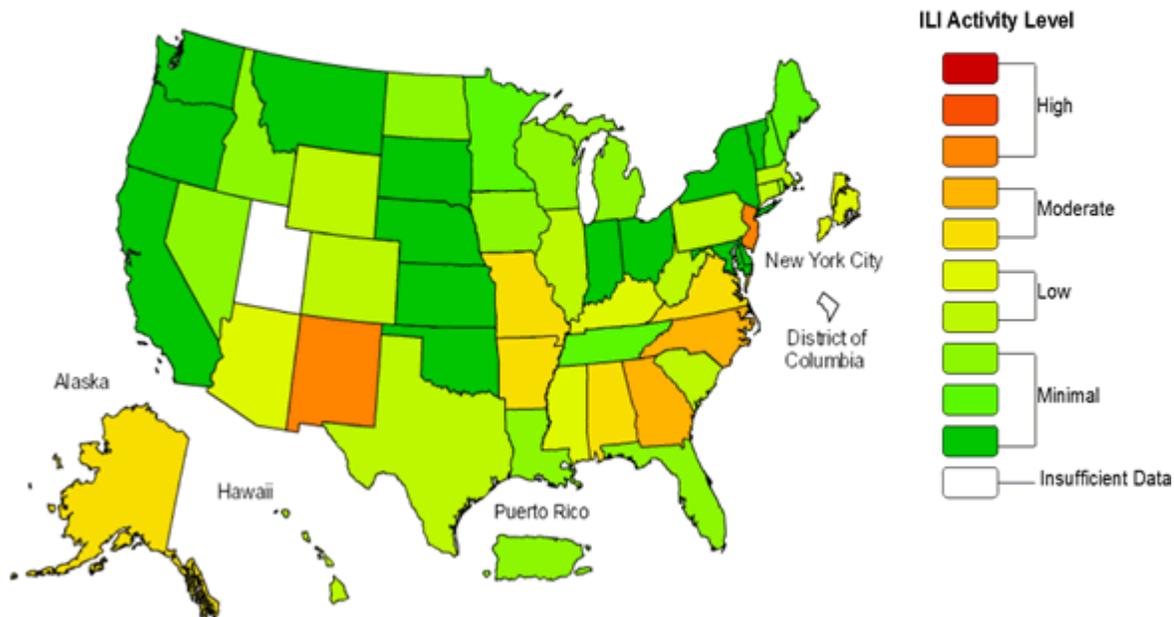
Statewide Influenza Activity Map

Figure 4: Texas Map Displaying the Highest Level of Influenza or ILI Activity Reported by County for the Week Ending Apr. 02, 2016 (MMWR Week 13)



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 13 ending Apr 02, 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/>