



HOUSTON HEALTH
DEPARTMENT



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

Influenza Surveillance Weekly Report
CDC MMWR Week 16: Apr 17 to 23, 2016

Influenza Activity by County, State, and National Levels

Houston/ Harris County: Week 16	Texas: Week 16	CDC: Week 16
Decreasing but elevated	Decreased	Decreased

Highlights

- The Houston Health Department (HHD) conducts seasonal influenza surveillance from October (week 40) 2015 to May (week 22) 2016. In Week 16, flu activity **decreased** compared to the previous week but remains elevated. In Houston, this flu season peaked in late Feb and early Mar.

Influenza Like Illness

- The percentage of reported influenza-like illness (ILI) detected from emergency departments in Houston/Harris County **increased** from 2.2% in week 15 to 2.4% in week 16. The proportion of ILI was above the baseline of 1.5%.
- The percentage of Flu Near You users reporting ILI **decreased** from 3.8% to 3.2%.
- 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 **decreased** from 100% in week 15 to 33% in week 16.
- In week 16, 3 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 (0), Influenza B (0)**.
- Cumulatively this season, the City of Houston Bureau of Laboratory Services has tested 466 surveillance specimens. Of the 110 positive lab results, the A/H3 accounts for 50.9% of the positives.

Pediatric Mortality

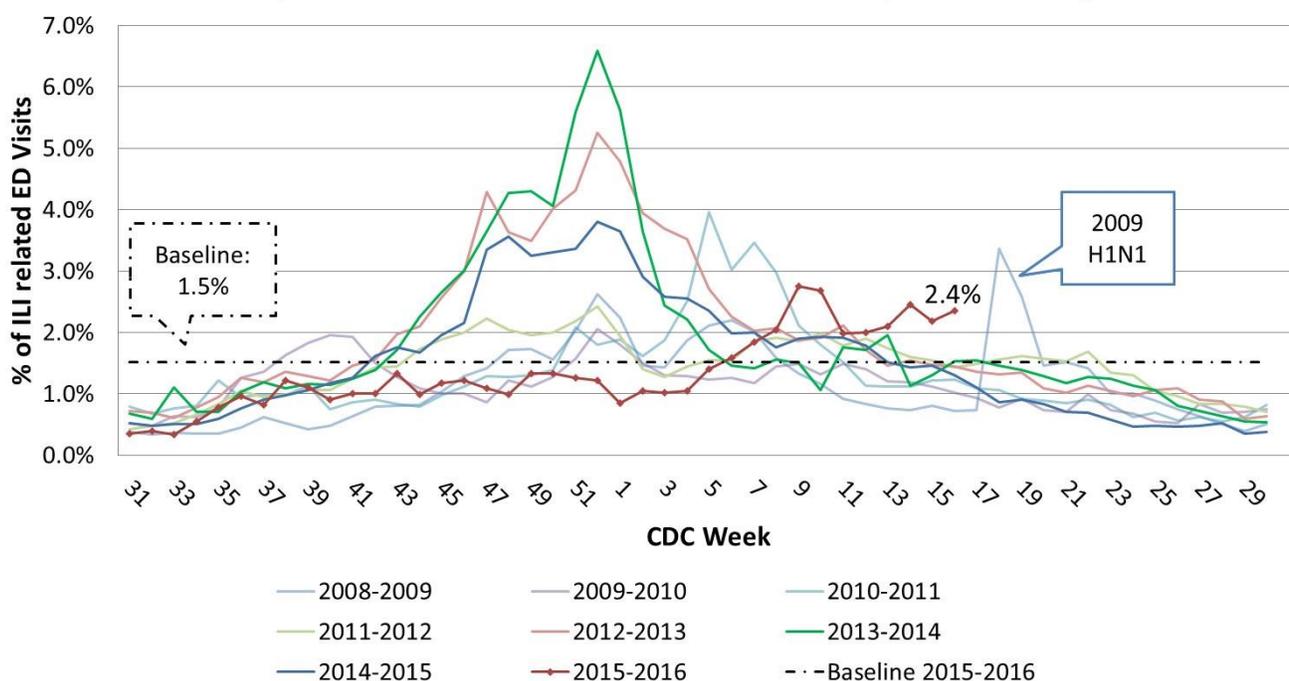
- During the 2015-2016 influenza season, zero (0) influenza-associated pediatric deaths have occurred in Houston. One reported death is under investigation.

National

- At the national level during week 16, 12.5% of specimens tested and reported to the CDC by clinical labs were positive for influenza. The proportion of outpatient visits for ILI 2.0% was **below** the national baseline (2.1%) and the proportion of deaths attributed to pneumonia and influenza (6.7%) was **below** the epidemic threshold of 7.0%.

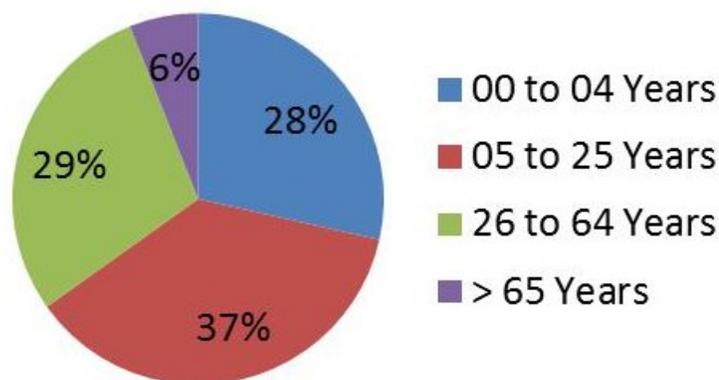
Syndromic Surveillance: 2015-2016 Influenza Season

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

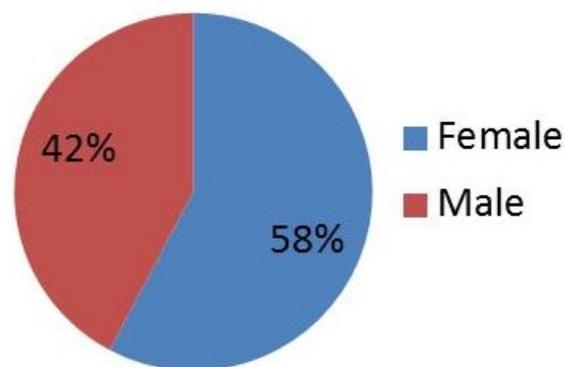


Syndromic Surveillance: 2015-2016 Influenza Season Age and Gender Distribution

Age Group



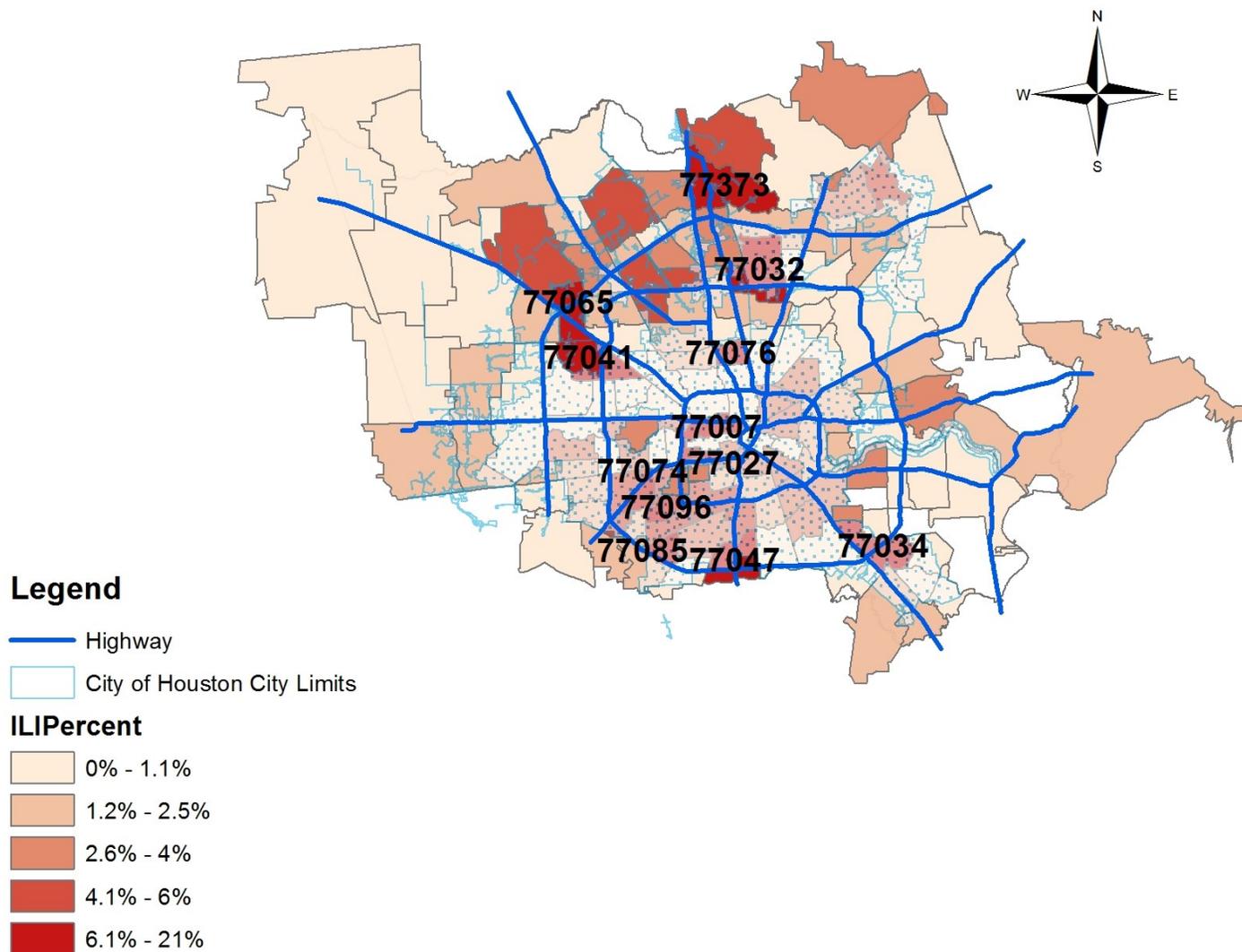
Gender



In Week 16, 2.4% of emergency department (ED) visits were due to influenza-like illness (ILI) complaints. Of the 284 patients presenting with ILI, the age group that recorded the most ED visits was the 05 to 25 year olds (37%). Females accounted for 58% 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 14, 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.

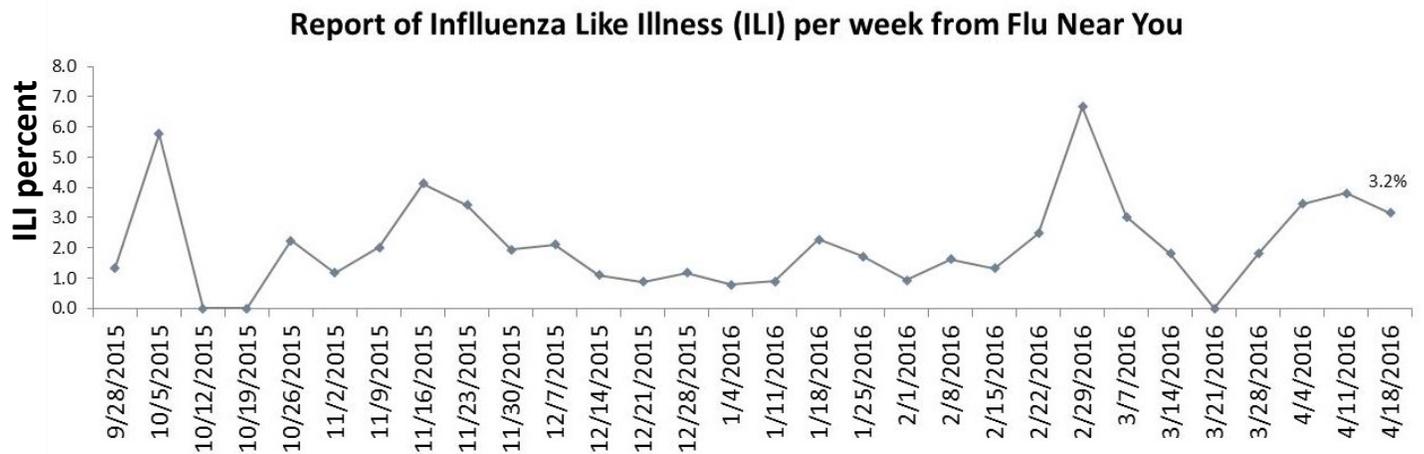
Syndromic Surveillance: Geographic Distribution Map of ILI



During week 16, the ZIP codes that have the greatest percentage of ED visits related to ILI (6.0% or greater) are: 77007, 77027, 77032, 77034, 77041, 77047, 77065, 77074, 77076, 77085, 77096, and 77373

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 3.8% on 04/11/2016 to 3.2% on 04/18/2016. This season the average ILI per week is 2.1% and the week with maximum ILI was 02/29/2016. See the last page for information on how to participate in FNY.

School Surveillance

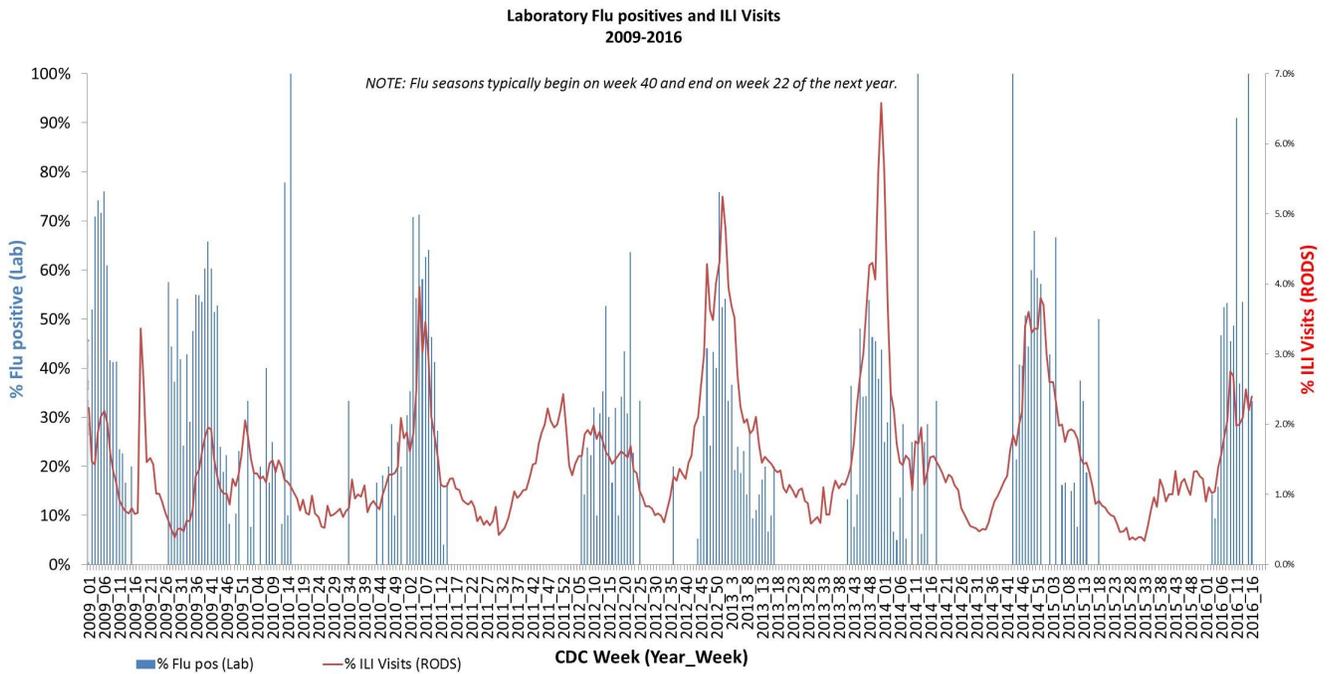
Table 1: ILI and Influenza Cases by Type and School Type¹ per Month

	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											
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 March and 8 were confirmed as influenza A.

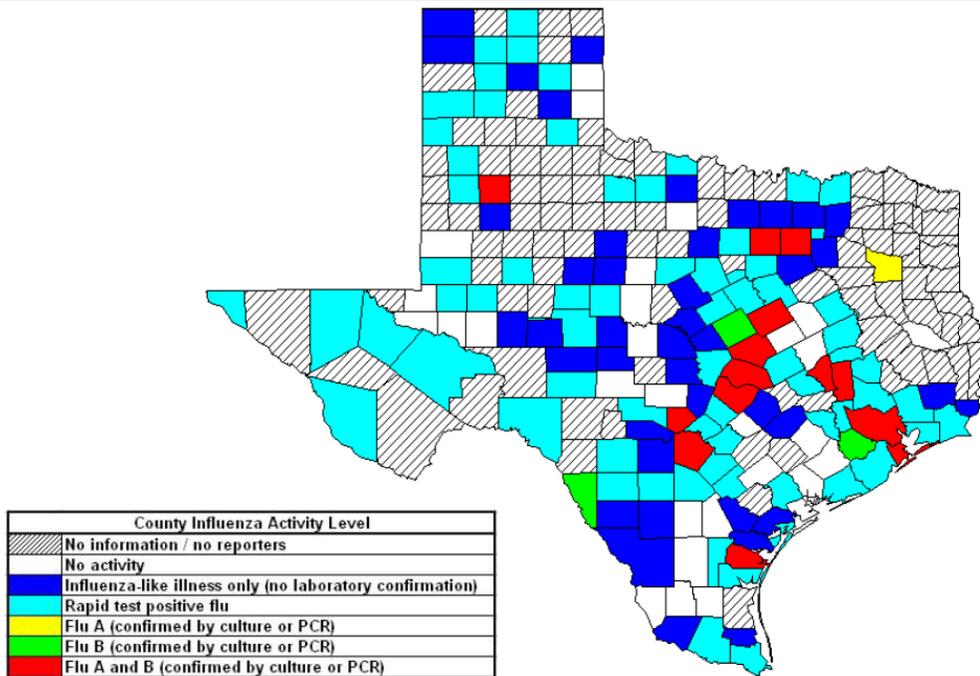
NOTE: Data on student ILI and influenza cases is collected from 306 schools within Houston Independent School District. ¹School will be counted more than once if more than one case from the same school is reported during the

Laboratory Surveillance: Influenza Rapid Test Results, Houston, Tx



CDC Week Number	14 (Apr 3–9)	15 (Apr 10–16)	16 (Apr 17–23)
# of Influenza Tests Performed	2	2	3
% Influenza Positive	0%	100%	33.3%
# Influenza A Positive	0	2	1
% Influenza A Positive	0%	0%	100%
# Influenza B Positive	0	0	0
% Influenza B Positive	0%	0%	0%
# Non-differentiated Positive	0	0	0
% Non-differentiated Positive	0%	0%	0%

Texas and National Influenza and ILI Activity

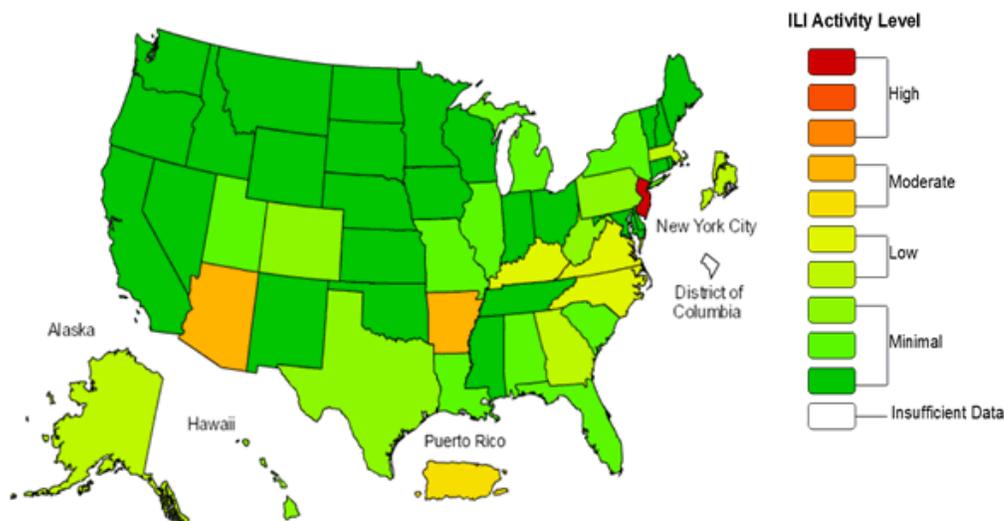


Please note: The majority of influenza cases are not reportable by law in Texas. This map contains data from sentinel sites and only displays influenza and ILI cases that were reported to public health. Positive laboratory results are reported according to specimen collection date, or date received in 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 16 ending Apr 23, 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/>