Houston Department of Health and Human Services

Office of Surveillance & Public Health Preparedness
Bureau of Epidemiology

Influenza Surveillance Weekly Report
CDC Week 3: January 13-19, 2013

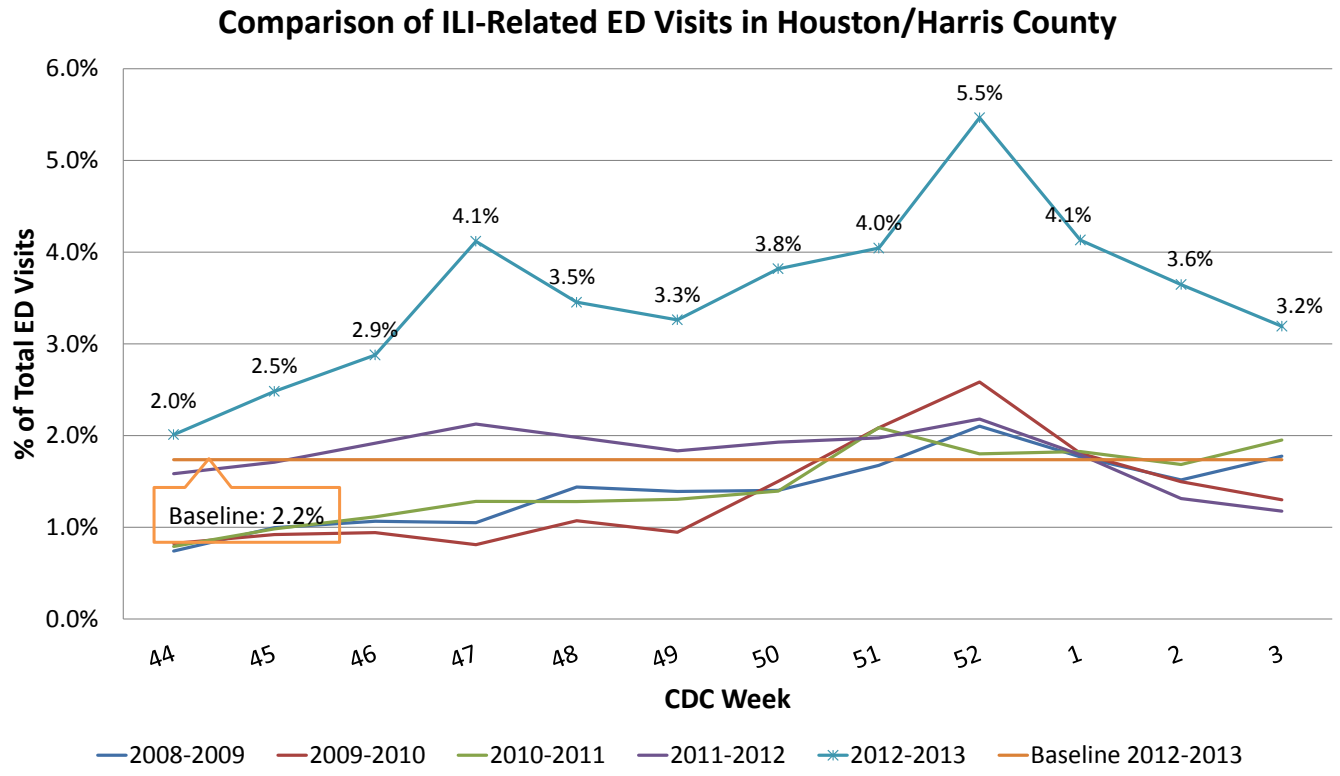
Influenza Activity by County, State, and National Levels

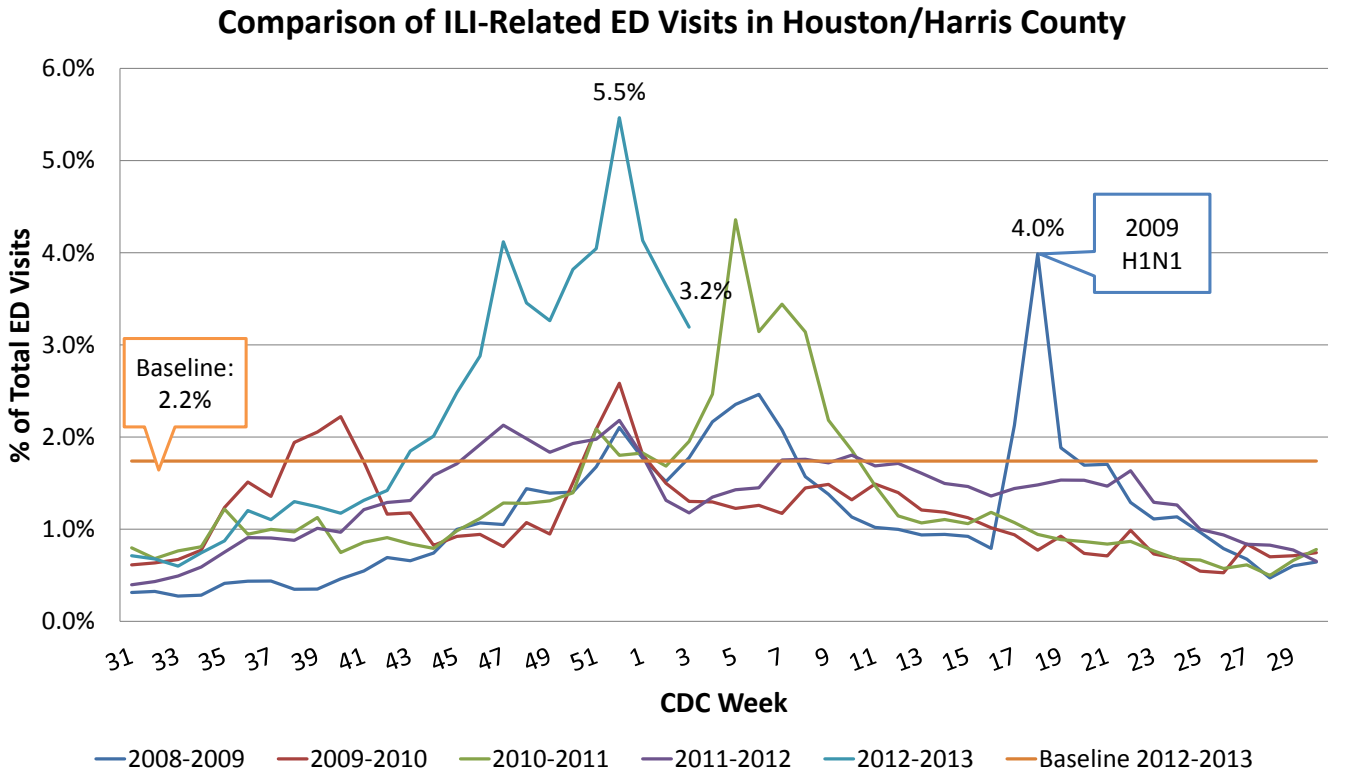
Houston/ Harris County: Week 3	Texas: Week 3	CDC: Week 3
Widespread	Widespread	Widespread

Highlights

- The percentage of reported influenza-like illness (ILI) in Houston/Harris county ***decreased*** from 3.6% in week 2 to 3.2% in week 3.
- The percentage of rapid flu test positives in Houston ***increased*** from 33.3% in week 2 to 36.6% in week 3.
- During the 2012-2013 influenza season, one (1) Houston influenza-associated pediatric death has been reported.
- Since last report, 82 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 (8), Influenza A H1N1 (1), Influenza B (21).
- Cumulatively this season, the City of Houston Bureau of Laboratory Services has tested 502 surveillance specimens.
- The percentage of all cause abseentism was at 4.6% in week 3. Absenteeism due to ILI and school nurse office visits due to ILI was not available for week 3 at the time of update in Houston.
- At the national level during week 3, 26.1% of specimens tested and reported to the CDC were positive for influenza. The proportion of outpatient visits for ILI (4.3%) was ***above*** the national baseline (2.2%) and the proportion of deaths attributed to pneumonia and influenza (9.8%) was ***above*** the epidemic threshold of 7.3% for week 3.

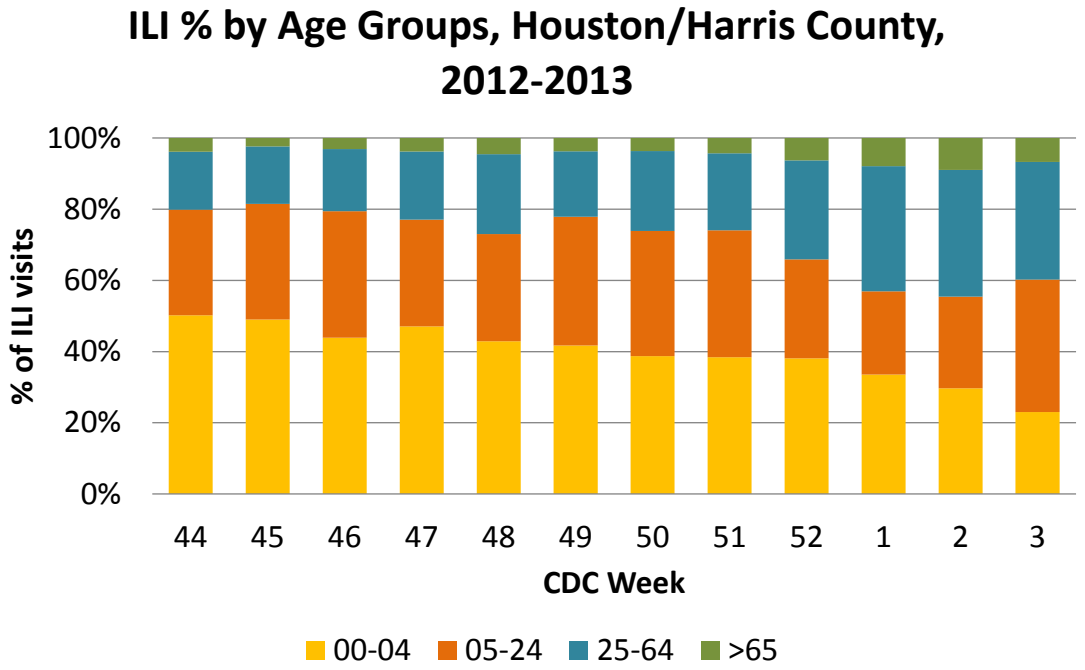
Syndromic Surveillance: 2012-2013 Influenza Season and Age Distribution

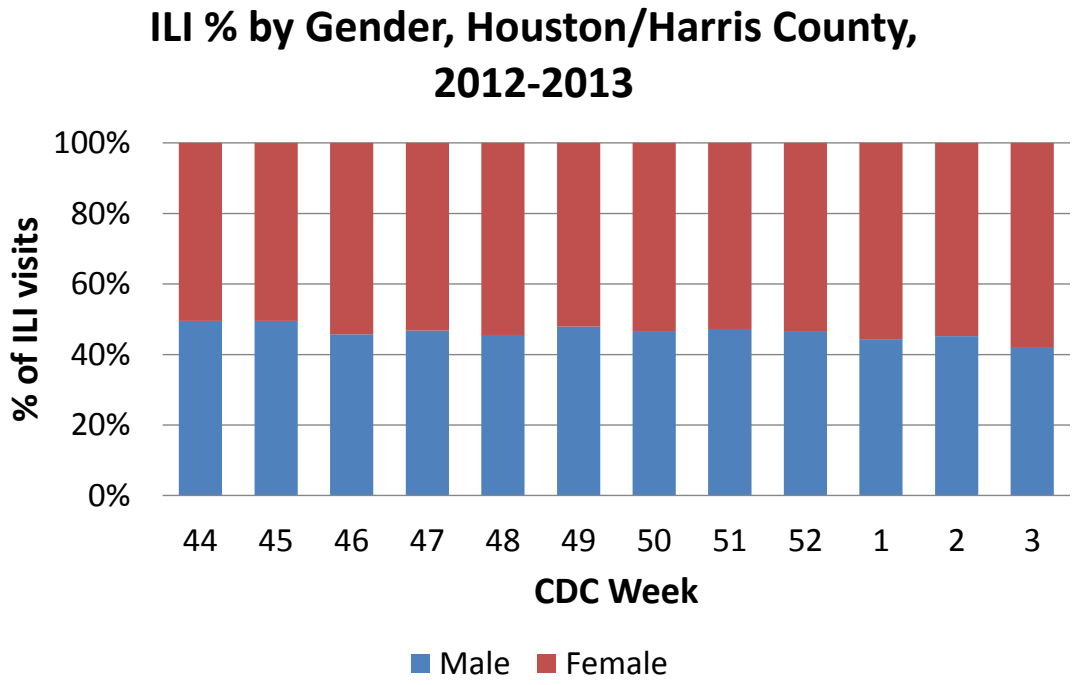




NOTE: Houston/Harris County ILI activity is assessed using information provided by surveillance participants in the Real-time Outbreak Disease Surveillance System (RODS). For week 3, 36 surveillance participants reported ILI information to Houston Department of Health and Human Services. Influenza-like 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: 2012-2013 Influenza Season and Age Distribution





In week 3 (January 13-19), 3.2% of emergency department (ED) visits were due to influenza-like illness (ILI) complaints. Of the 1,042 patients presenting with ILI in Houston, the age group that recorded the most ED visits were the 5-24 year olds (37.2%).

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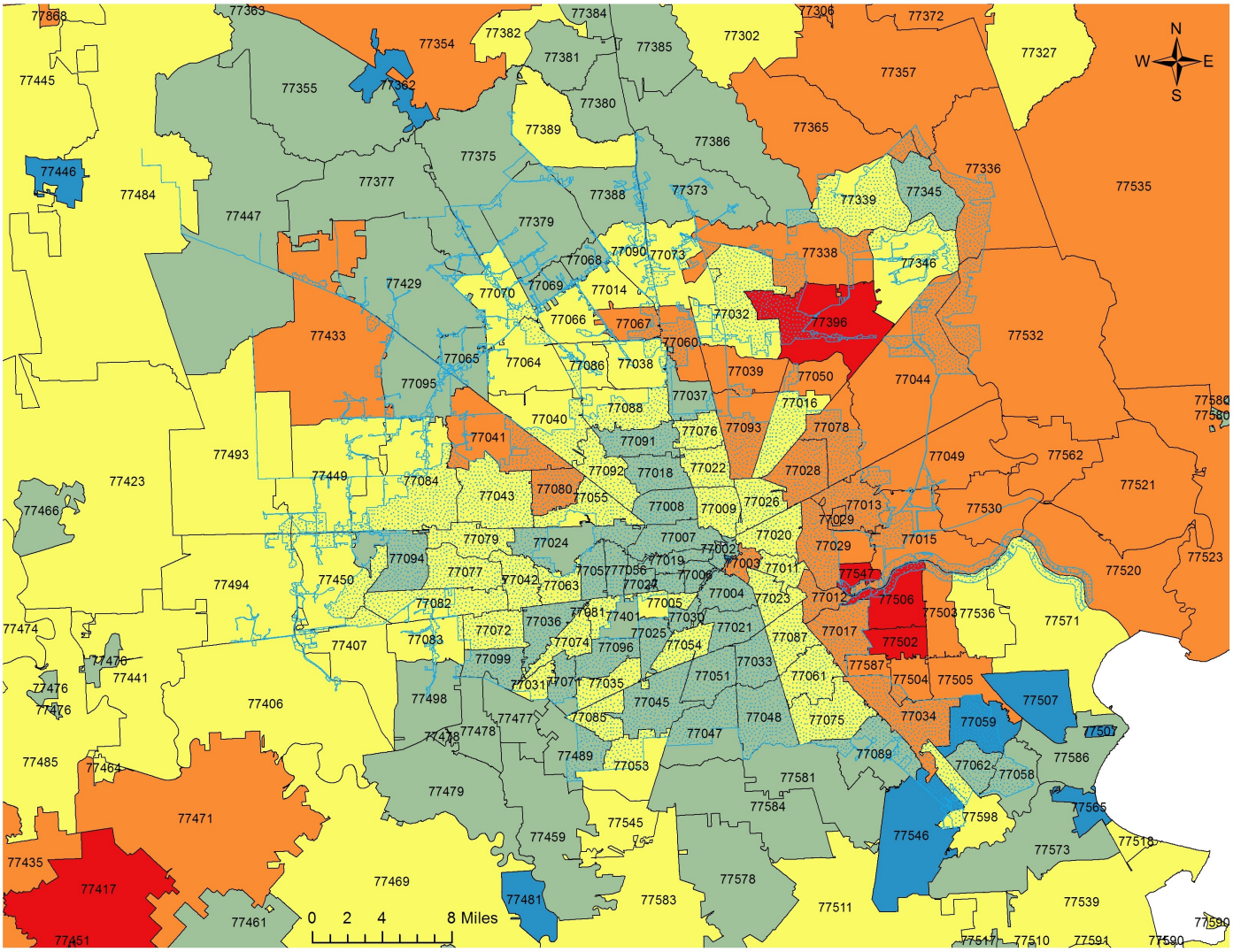
Syndromic Surveillance: Geographic Distribution Map



Legend

City of Houston City Limit

2012-2013 % ILI of ED Visits by Zip Code

- 0.0% - 1.1%
- 1.2% - 2.5%
- 2.6% - 4.0%
- 4.1% - 6.0%
- 6.1% - 12.5%

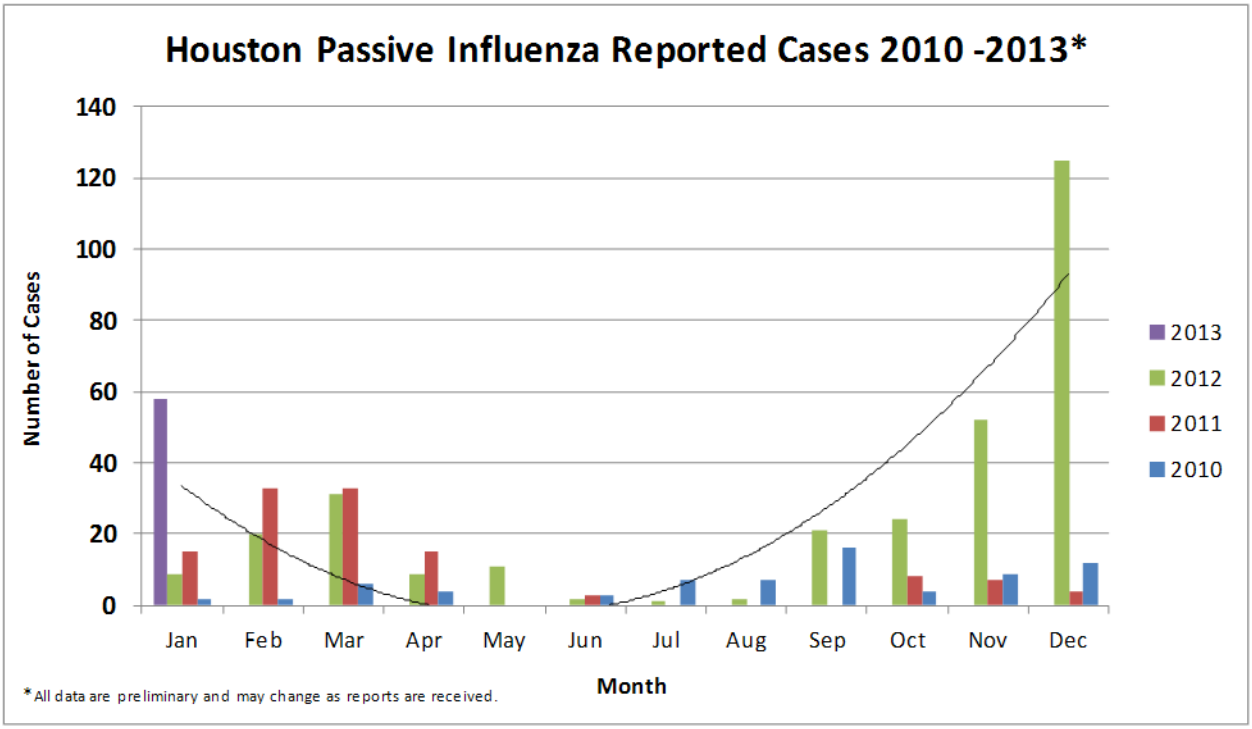
As of week 3 (January 13-19), the zip codes that have the greatest percentage of ED visits related to ILI (6.0% or greater) are: 77301*, 77340*, 77363*, 77378*, 77396, 77417, 77451*, 77453*, 77454*, 77502, 77506, 77531*, 77547.

**Zip codes not displayed on map.*

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 up to 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.

Passive Surveillance

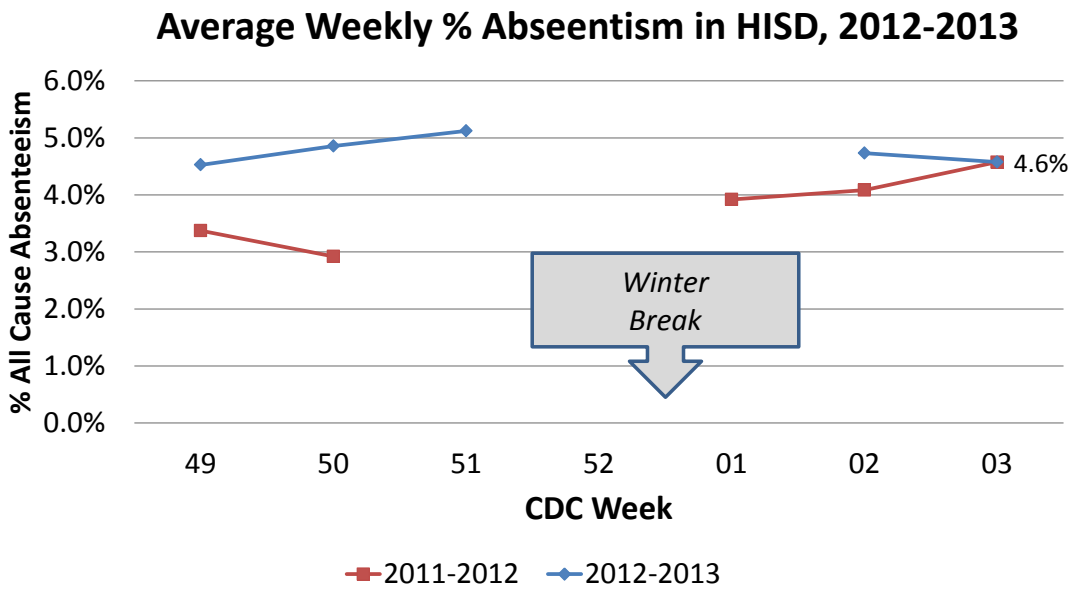
Twenty-three new cases were reported in the third week of January 2013, an increase of 66% from the prior week. The largest proportion of patients reported with influenza in January 2013 was among those in the age group of 5 to 24 (40.0%).



Laboratory Surveillance: Influenza Rapid Test Results, Houston

CDC Week Number	1 (Dec 29-Jan 5)	2 (Jan 6-12)	3 (Jan 13-19)
# of Influenza Tests Performed	24	42	82
% Influenza Positive	54.2%	33.3%	36.6%
# Influenza A Positive	8	8	9
% Influenza A Positive	61.5%	57.1%	30.0%
# Influenza B Positive	5	6	21
% Influenza B Positive	38.5%	42.9%	70.0%
# Non-differentiated Positive	0	0	0
% Non-differentiated Positive	0.0%	0.0%	0.0%

School Surveillance



The average daily % absenteeism for HISD schools was at 4.6% in week 3 which is the same as the average daily % absenteeism for HISD schools for week 3 in 2012.

NOTE: Absenteeism and student ILI is collected from 306 schools within Houston Independent School District.

Table 1: ILI and Influenza Cases by Type and by Month

	Total Cases	Lab Confirmed	Flu A	Flu B	A+B	Unclassified
Aug	1	0	0	0	0	0
Sep	32	0	0	0	0	0
Oct	49	5 (10.2%)	0	0	1	4
Nov	81	12 (14.8%)	3	0	0	9
Dec	168	14 (8.3%)	4	1	0	9
Total	331	31 (9.4%)	7	1	1	22

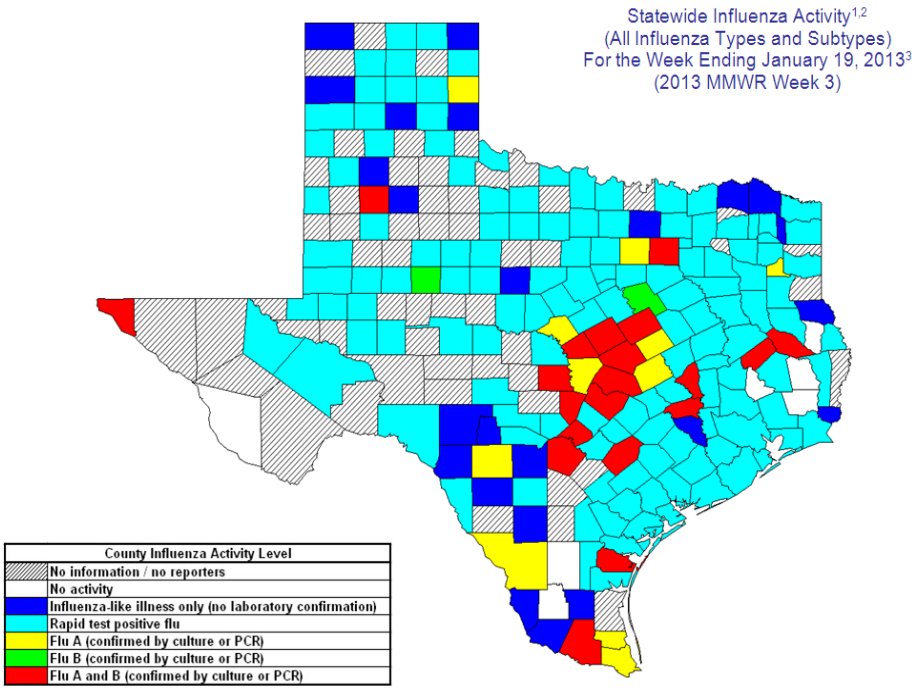
Table 2: ILI Visits to School Nurse by School Type and by Month[1]

	Elementary Schools	Middle Schools	High Schools	Multi-Level Schools
Aug	0	0	0	1
Sep	18	0	0	14
Oct	32	1	1	15
Nov	40	8	3	30
Dec	118	24	13	13
Total	208	33	17	73

- An increase in both probable and confirmed influenza cases have been observed each month. The majority of flu cases (21/31=67.7%) is unclassified, followed by type A (7/31=22.6%). There is one case of flu B and one case of both flu A+B .
- So far, 163 schools in HISD are reporting ILI. Elementary schools have reported the majority of cases (208/331=62.8%) followed by multi-level schools (73/331=22.1%).

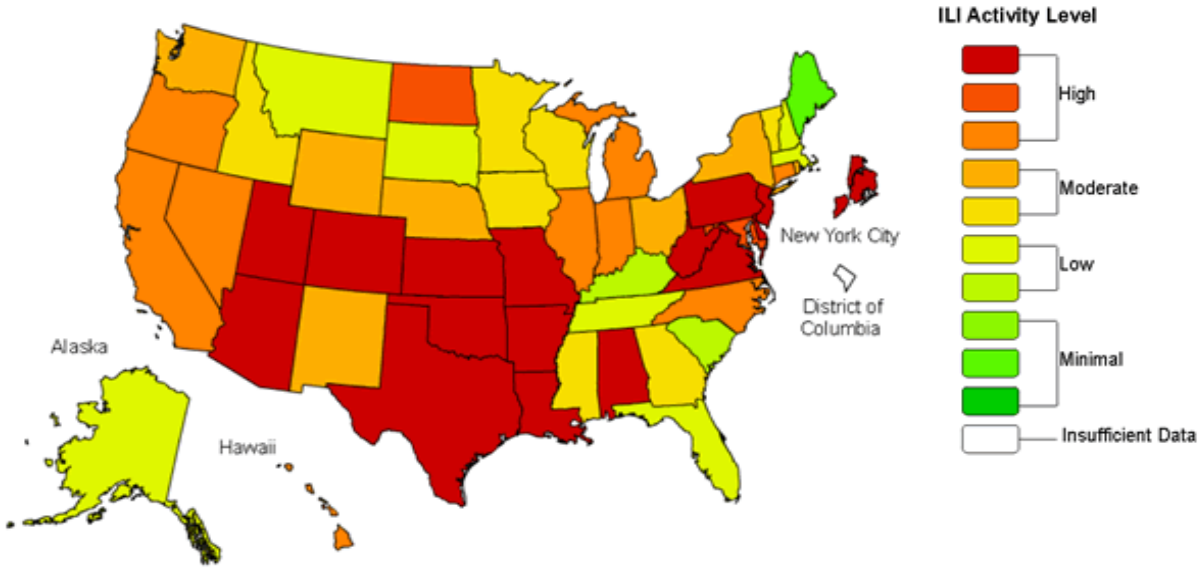
[1]School will be counted more than once if more than one case from the same school is reported during the report month.

Texas and National Influenza and ILI Activity



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/2013/

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet
2012-13 Influenza Season Week 3 ending Jan 19, 2013



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 Department of Health and Human Services web site at:

www.houstontx.gov/health/

NOTE:

Influenza-like Illness (ILI) is defined as fever (temperature ≥ 100°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 www.houstontx.gov/health/

http://www.dshs.state.tx.us/idcu/disease/influenza/surveillance/2013/

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

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