



Houston Department of
Health and Human Services

Office of Surveillance & Public Health Preparedness
Bureau of Epidemiology

Influenza Surveillance Weekly Report
CDC Week 2: January 5 - 11, 2014

Influenza Activity by County, State, and National Levels

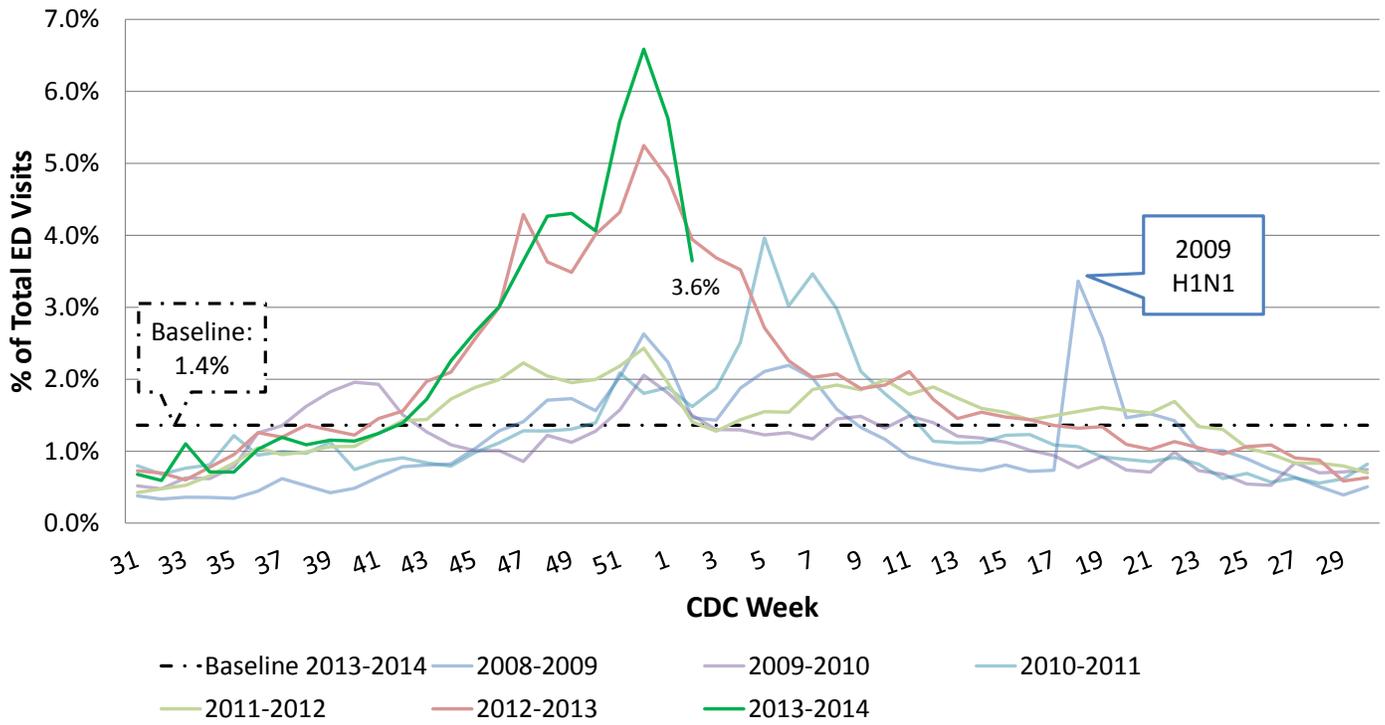
Houston/ Harris County: Week 2	Texas: Week 2	CDC: Week 2
High	High	Elevated

Highlights

- The percentage of reported influenza-like illness (ILI) in Houston/Harris county **decreased** from 5.6% in week 1 to 3.6% in week 2.
- The percentage of flu test positives in Houston **increased** from 25.0% in week 1 to 28.9% in week 2.
- During the 2013-2014 influenza season, two (2) Houston influenza-associated pediatric deaths have been reported.
- In week 2, 38 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 (5), Influenza A H1N1 (6), Influenza B (0).
- Cumulatively this season, the City of Houston Bureau of Laboratory Services has tested 370 surveillance specimens. Of the 124 positive lab results, the 2009 H1N1 strain accounts for 108 (87.1%) of the positives.
- The percentage of all cause absenteeism was unavailable for week 2.
- At the national level during week 2, 25.1% of specimens tested and reported to the CDC were positive for influenza. The proportion of outpatient visits for ILI (3.6%) was **above** the national baseline (2.0%) and the proportion of deaths attributed to pneumonia and influenza (7.5%) was **above** the epidemic threshold of 7.2% for week 2.

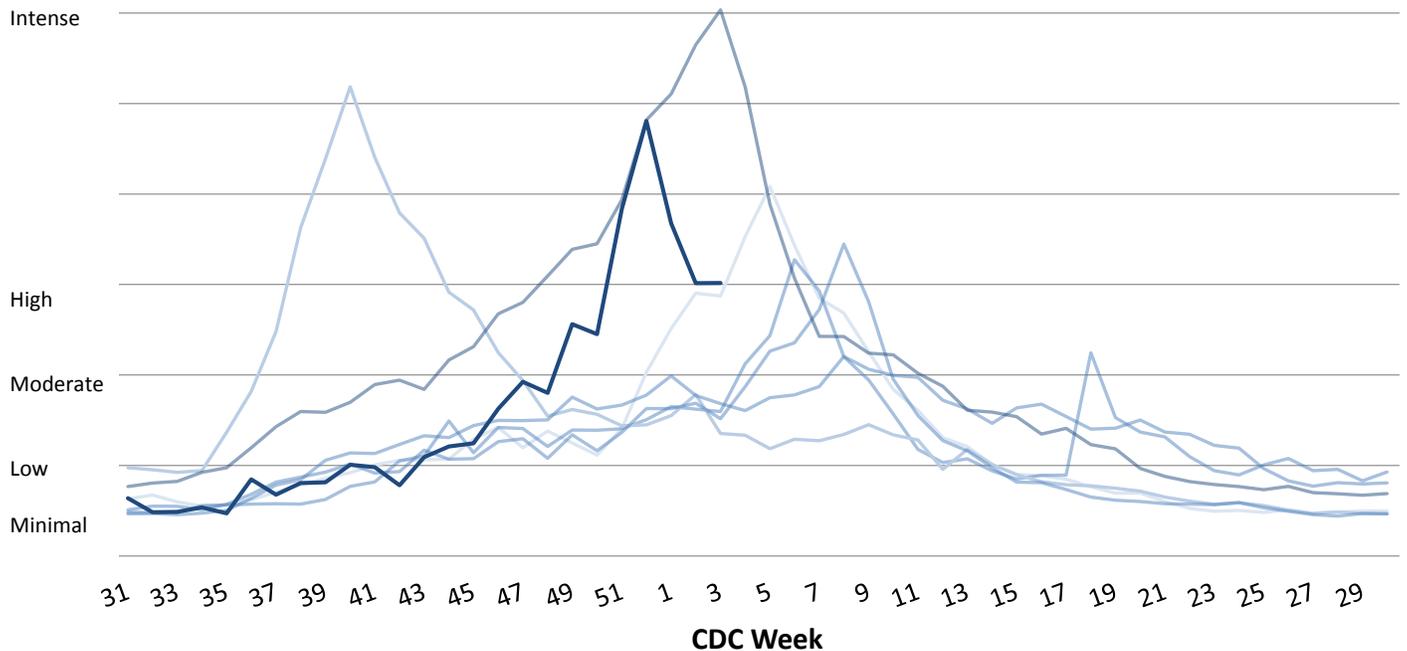
Syndromic Surveillance: 2013-2014 Influenza Season and Age Distribution

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



Google Flu Trends in Houston

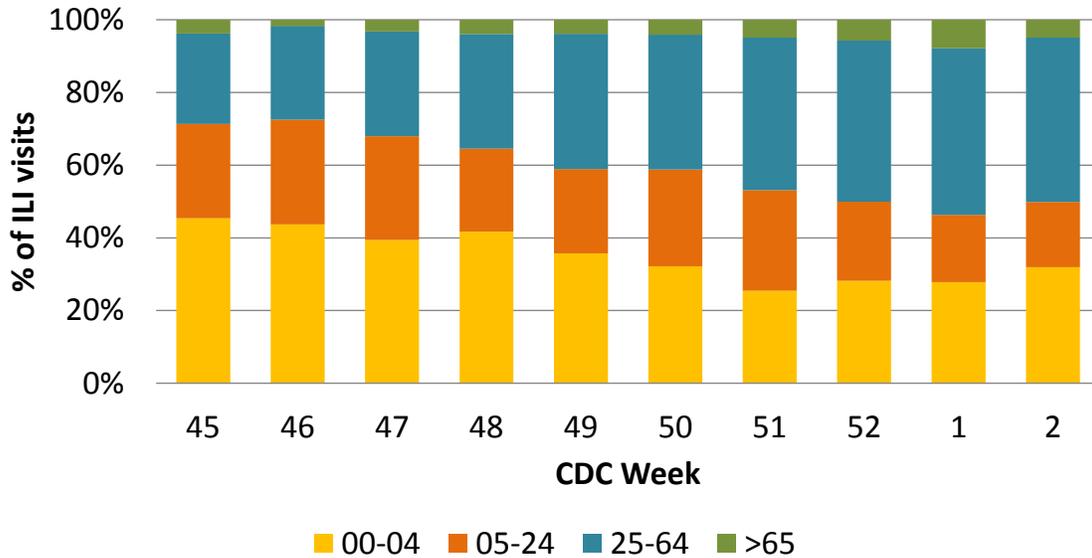
Data Source: Google Flu Trends (<http://www.google.org/flutrends>)



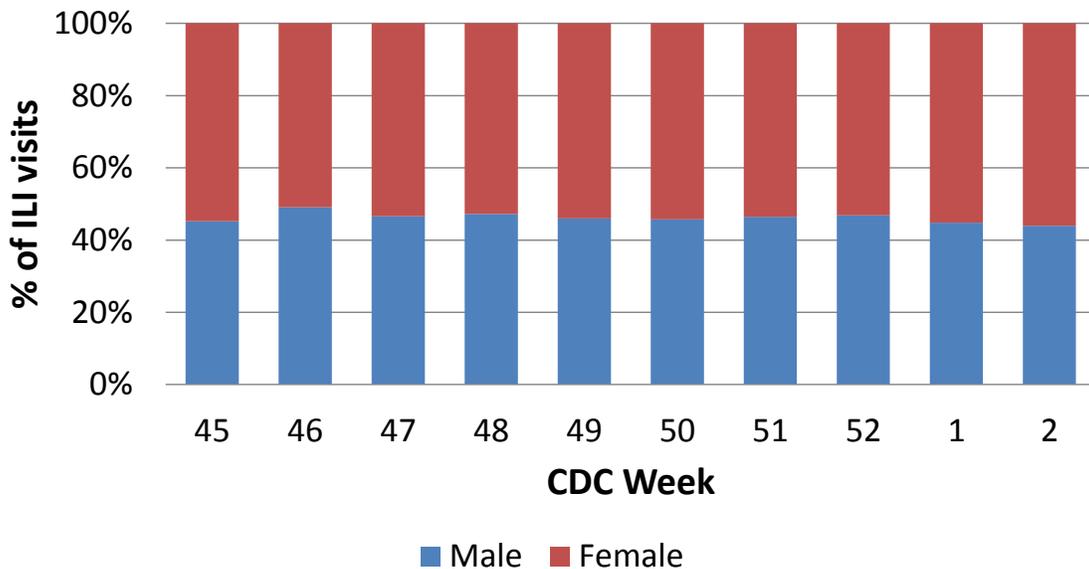
NOTE: Houston/Harris County ILI activity is assessed using information provided by surveillance participants in the Real-time Outbreak Disease Surveillance System (RODS). For week 2, 36 surveillance participants reported ILI information to Houston Department of Health and Human Services. Influenza-like 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: 2013-2014 Influenza Season and Age Distribution

ILI % by Age Groups, Houston/Harris County, 2013-2014



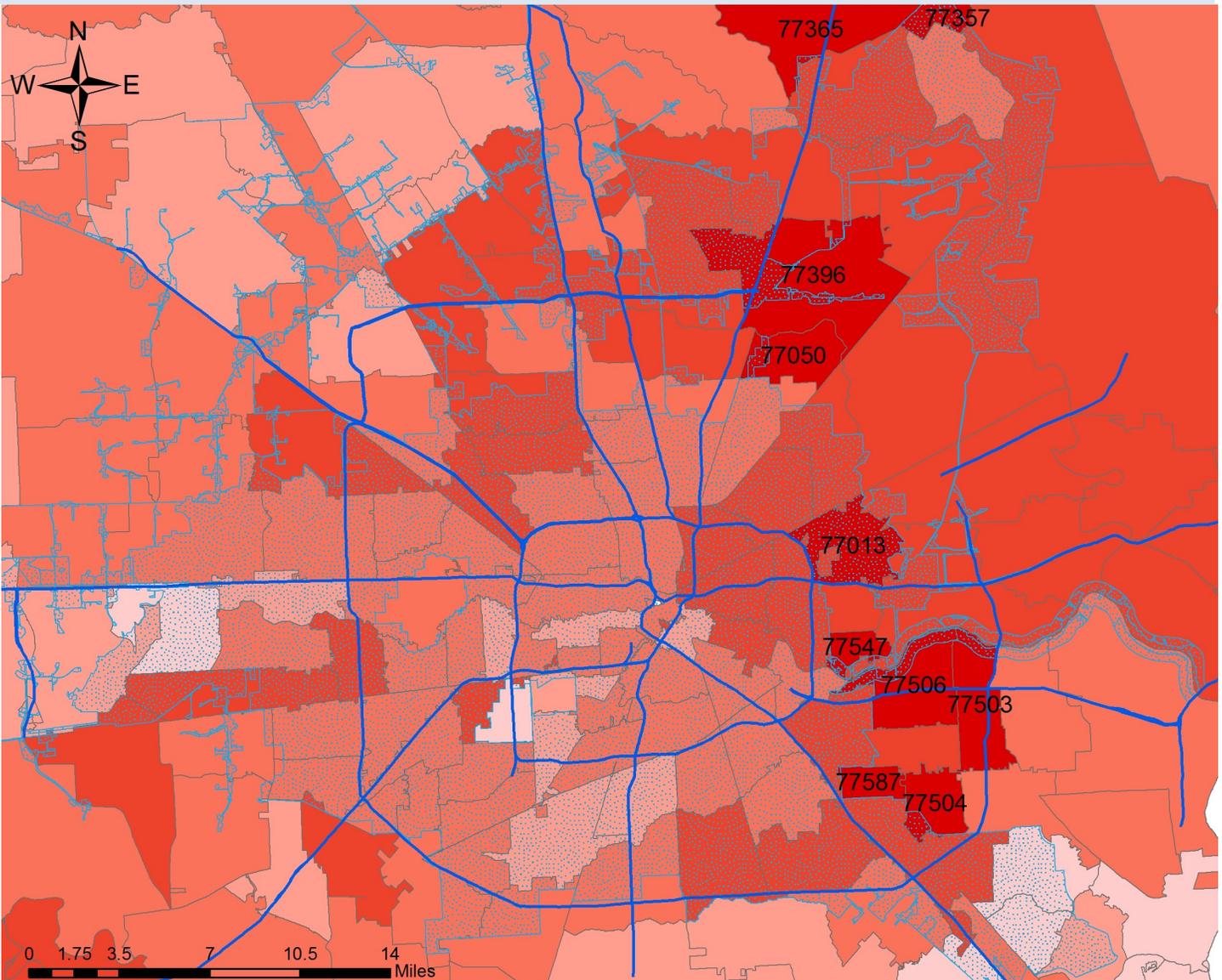
ILI % by Gender, Houston/Harris County, 2013-2014



In week 2, 3.6% of emergency department (ED) visits were due to influenza-like illness (ILI) complaints. Of the 1,399 patients presenting with ILI, the age group that recorded the most ED visits were the 25-64 year olds (45.3%).

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Syndromic Surveillance: Geographic Distribution Map



Legend

 City of Houston City Limit

2013-2014 %ILI of ED Visits by Zip Code

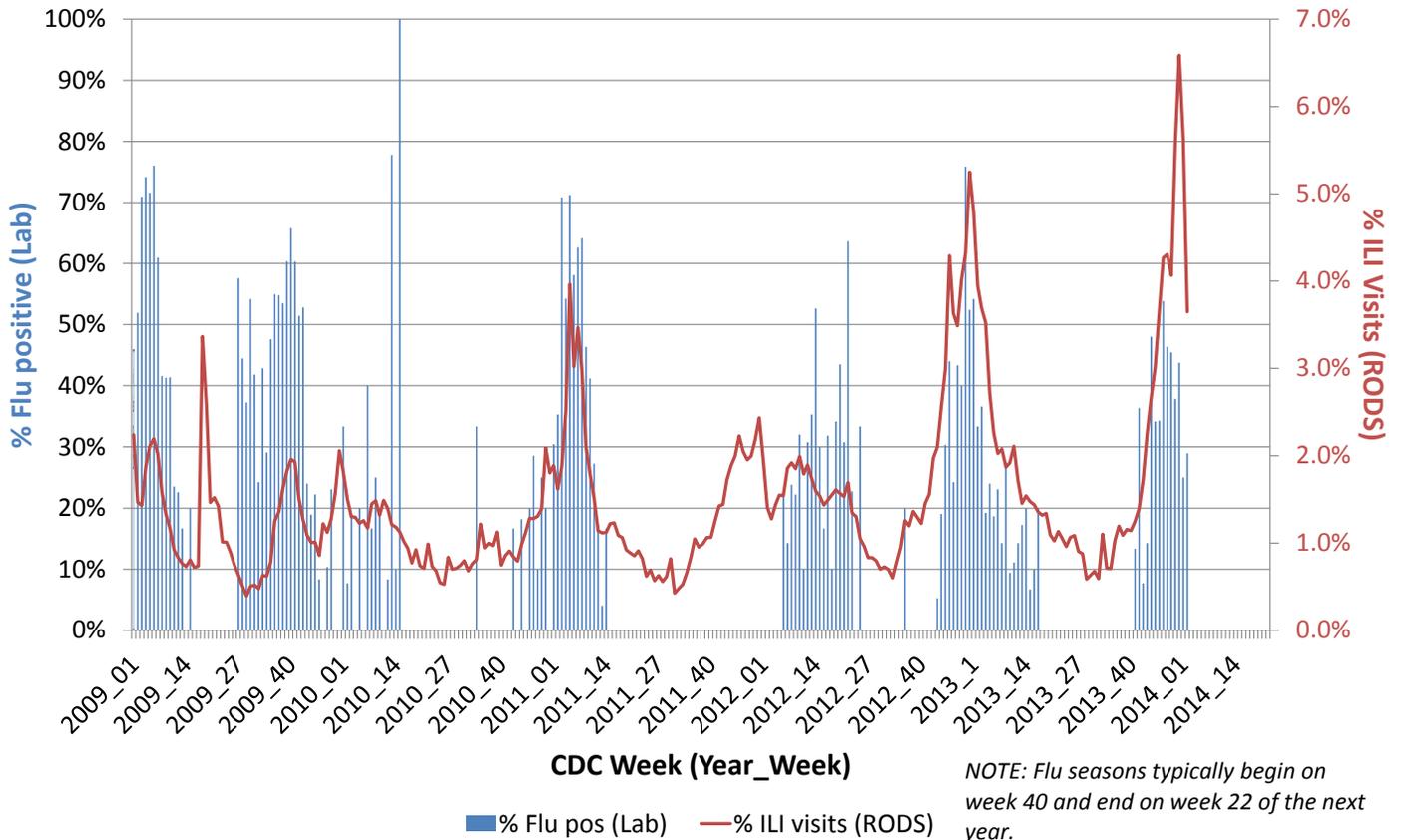
-  0% - 1.1%
-  1.11% - 2.5%
-  2.51% - 4%
-  4.01% - 6%
-  6.01% - 12.5%

As of week 2, the zip codes that have the greatest percentage of ED visits related to ILI (6.0% or greater) are: 77013, 77050, 77357, 77365, 77396, 77503, 77504, 77506, 77547, 77587.

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.

Laboratory Surveillance: Influenza Rapid Test Results, Houston

Laboratory Flu positives and ILI Visits
2009-2014

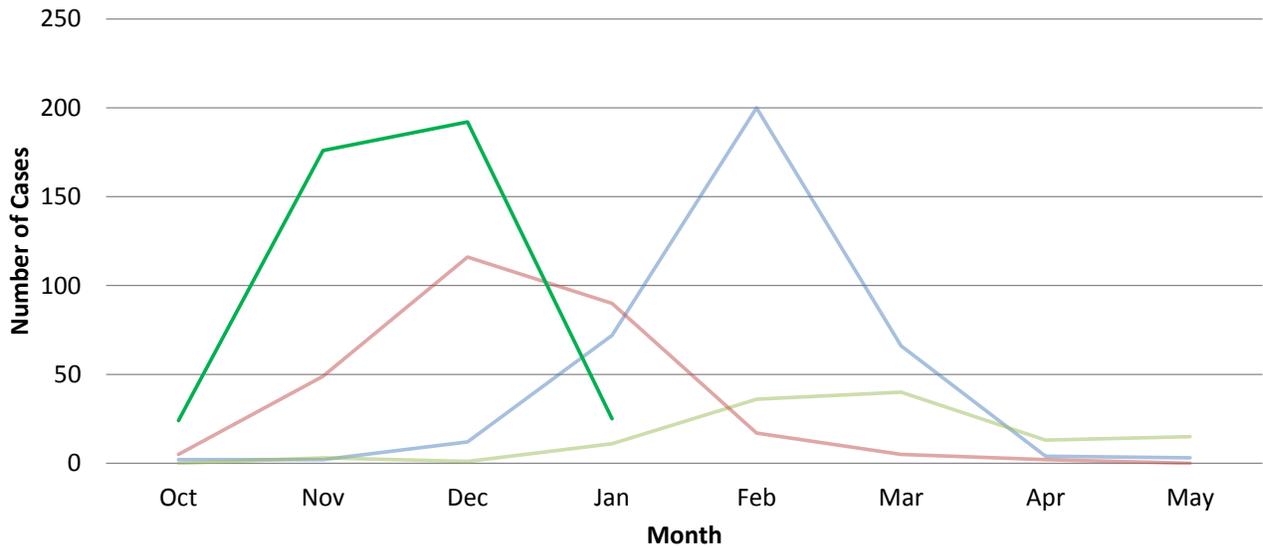


CDC Week Number	52 (Dec 22-28)	1 (Dec 29-Jan 4)	2 (Jan 5-11)
# of Influenza Tests Performed	16	12	38
% Influenza Positive	43.8%	25.0%	28.9%
# Influenza A Positive	6	3	11
% Influenza A Positive	85.7%	100%	100%
# Influenza B Positive	1	0	0
% Influenza B Positive	14.3%	0.0%	0.0%
# Non-differentiated Positive	0	0	2
% Non-differentiated Positive	0.0%	0.0%	18.2%

Passive Surveillance

In week 2, there were (23) additional influenza cases from the prior week. The largest proportion of patients reported with influenza in January 2014 was among those in the age group of 25 to 64 years (10 cases).

Houston Passive Influenza Reported Cases 2010-2014*

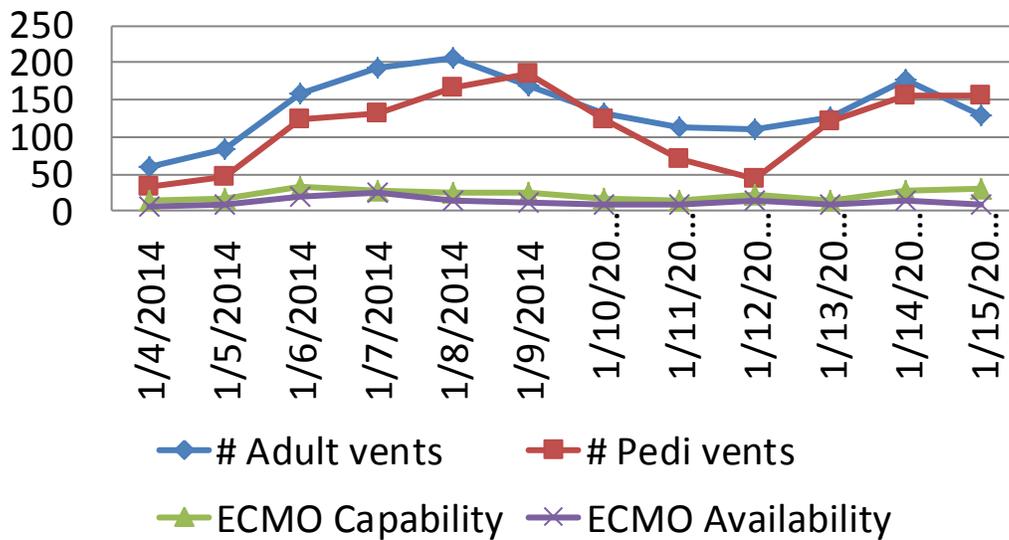


*All data are preliminary and may change as reports are received.

— 2010-2011 — 2011-2012 — 2012-2013 — 2013-2014

SETRAC ILI Surveillance: Daily Reporting from Hospitals

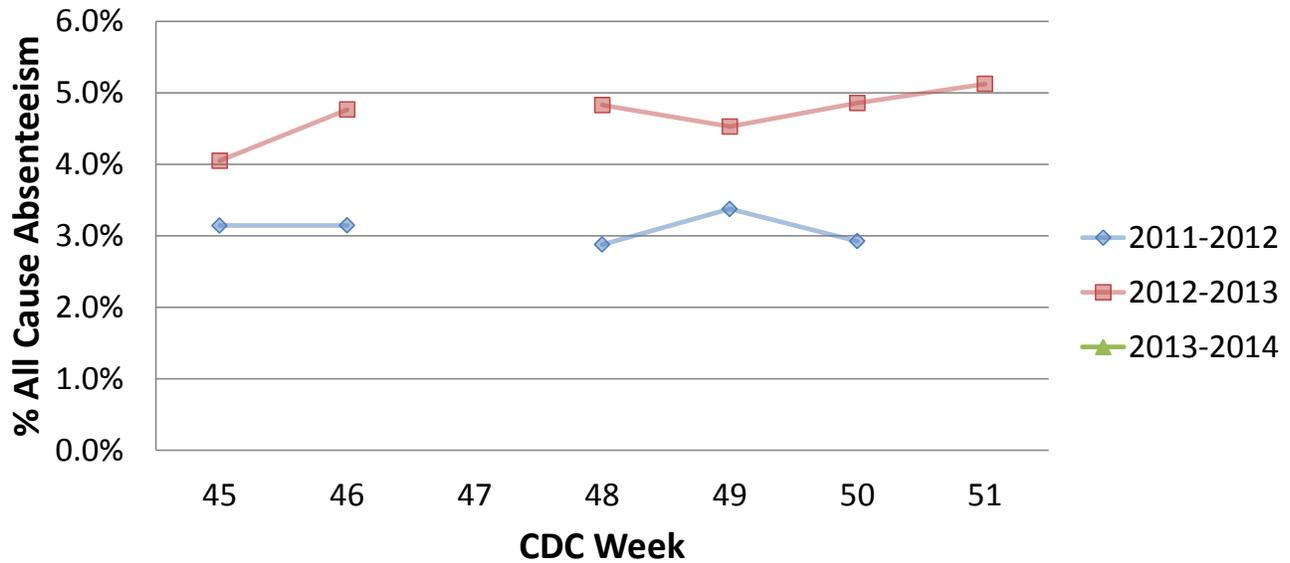
Vent and ECMO Data



Beginning on 1/4/14, local hospitals are reporting their ventilator and extracorporeal membrane oxygenation (ECMO) capabilities on a daily basis. Ventilators and ECMOs are typically utilized in the most severe cases and are one of many indicators of the severity of influenza.

School Surveillance

Average Weekly % Absenteeism in HISD



The average daily % absenteeism for HISD schools was unavailable at the time of update.

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	1	0	0.0%	0	0	0	0	1	0	0	0
Sep	12	0	0.0%	0	0	0	0	10	1	1	0
Oct	45	4	8.9%	0	0	0	4	29	4	10	2
Nov	113	2	1.8%	1	0	0	2	88	16	9	0
Dec	85	8	9.4%	5	0	0	3	52	23	7	3
Jan											
Feb											
Mar											
Apr											
Total	256	14	5.5%	6	0	0	9	180	44	27	5

ILI cases in HISD students decreased in December compared to November. There were 8 laboratory confirmed cases seen in December and 5 were confirmed as influenza A.

NOTE: Absenteeism and student ILI 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 report month.