



Texas DSHS, Health Service Region 2/3

Influenza Summary Report, 2013-2014 Season

(September 29th, 2013 - May 17th, 2014)

2013-2014 Influenza Season Overview

Influenza-Like Illness Surveillance (ILI)

- Emergency room and clinic visits due to ILI reached a peak of 9.3% in week 1 (Dec. 29, 2013-Jan. 4, 2014).
- The HSR 2/3 ILI percent stayed above the U.S. Health and Human Services Region 6 ILI baseline of 2.9% for 18 weeks, and above the Texas state ILI baseline of 4.4% for 8 weeks.
- Early in the 2013-2014 influenza season, the age group 25-64 made up roughly 20% of all ILI visits. Beginning in week 49, this percentage began to increase, eventually reaching 39% in week 2 (Jan. 5-11, 2014).
- HSR 2/3 has not yet established an ILI baseline, the U.S. Department of Health and Human Services Region 6 baseline is used as an approximation.

Influenza Testing Surveillance

- The predominant strain through most of the 2013-2014 season was 2009 H1N1, comprising 97.2% of subtyped positive specimens confirmed by PCR. Most confirmatory testing was performed by LRN labs or by large hospitals in Dallas and Tarrant Counties.
- The proportion of specimens positive for influenza B began to increase after the peak of influenza activity during week 1 (Dec. 29, 2013 - Jan. 4, 2014), eventually reaching a peak in week 14 (Mar. 30 - Apr. 5, 2014) at 88.9% of all reported positive tests. This trend was mirrored by influenza test results reported statewide.
- Out of 374 influenza surveillance specimens tested from Texas, 3 (0.85%) tested positive for the mutation that confers resistance to oseltamivir (Tamiflu). None of the 95 specimens tested for the mutation that confers resistance to zanamivir (Relenza) tested positive.

School Absenteeism Surveillance

- Absenteeism due to ILI peaked in week 3 (Jan. 19 - 25, 2014), accounting for 6.2% of all absences.
- ILI related absences began to rise sharply the week beginning December 15, 2013 (week 51) and remained at or above 5% through February 1st, 2014 (week 5).
- An unusual number of inclement weather days during the winter possibly contributed to the raised level of overall school absenteeism during those weeks.

Influenza Mortality Surveillance

- During the 2013-2014 season, there were 6 reported cases of influenza-associated pediatric deaths. Three were reported from Dallas County, two from Denton County, and one from Tarrant County. All had at least one underlying health condition.
- Adult influenza-associated deaths are not reportable in Texas and are not tracked at the regional or state level.

Surveillance Methods and Goals:

Influenza surveillance is conducted at the national, state, regional, and in some cases, at the county level. The goal of influenza surveillance at every level is to produce as accurate and timely a picture of influenza activity as possible. The main components of influenza surveillance are:

- Tracking trends and changes in the circulating influenza strains, as well as monitoring the emergence of novel influenza strains in the human population.
- Distribution of the burden of disease, including differences in the geographic spread of influenza as well as differences in the ages of those most affected.
- Gauging the overall level of influenza activity through influenza-like illness (ILI) tracking in hospitals, outpatient clinics, and schools.

Although the goals are the same at each level of surveillance, the methods available differ. For this reason, it is important to consider data from multiple sources in order to accurately assess influenza activity. No one source of data, or one measure, can give a comprehensive view of influenza activity or community impact.

The timing of influenza activity can vary from year to year, but influenza season is defined as CDC week 40 through the end of week 20 of the following year. During the 2013-2014 influenza season, this was September 29, 2013 - May 17, 2014.

Influenza-Like Illness (ILI) Surveillance Methods:

For the purpose of outpatient influenza reporting, ILI is used as an indicator of overall influenza cases. Influenza-like illness is defined as having a cough and/or a sore throat with a fever of 100 degrees or higher in the absence of a known cause other than influenza. ILI percent is calculated as the proportion of all reported emergency room or clinic visits due to ILI.

Although other respiratory conditions, such as respiratory syncytial virus (RSV) and the common cold, may mimic influenza symptoms, ILI has proven to be a reliable indicator of overall influenza activity at the national, state, and regional level.

Viral Surveillance Methods:

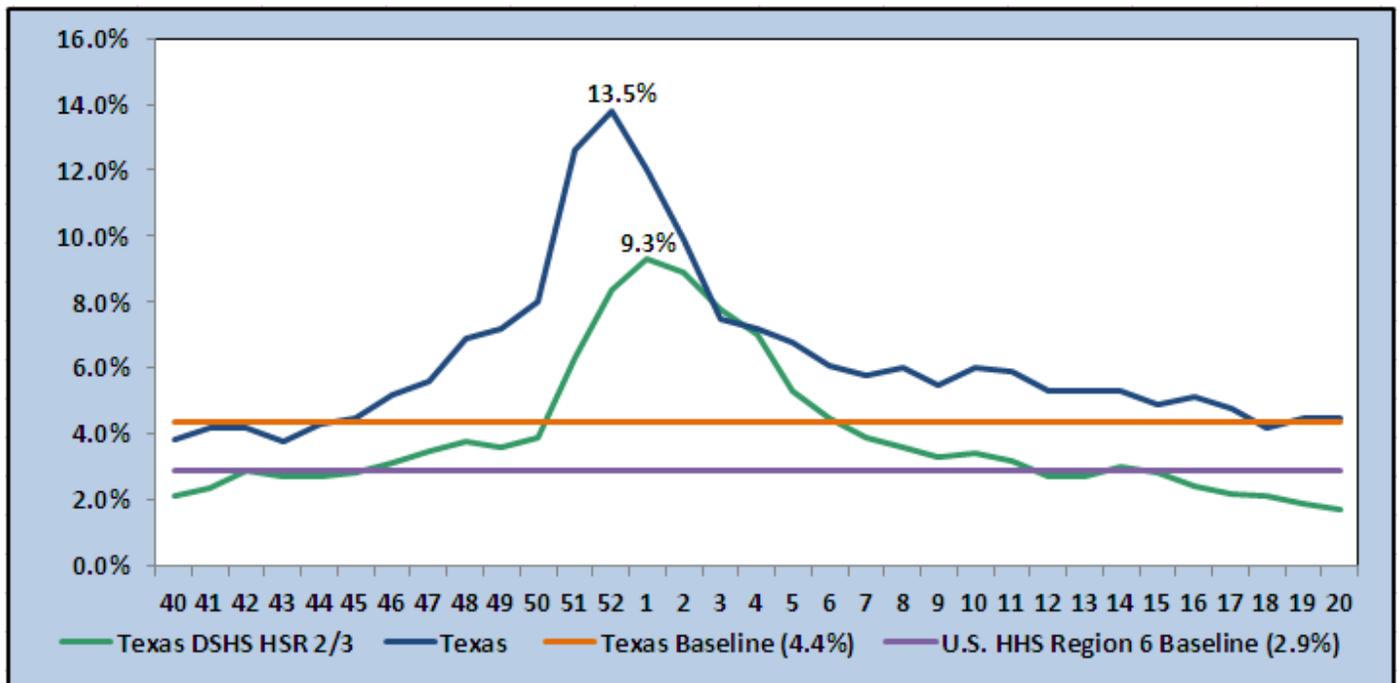
Participating providers report both the total number of tests performed, and the results by influenza type. The majority of reporters of influenza testing information at the regional level are hospitals, clinics, independent labs, or private physician's offices that do not have the ability to perform PCR or culture confirmed influenza tests, and generally only submit rapid testing results. Rapid testing represented over 90% of all positive influenza tests reported to the region during the 2013-2014 influenza season.

School Absenteeism Surveillance Methods:

With the help of voluntary reporters representing schools and ISDs, HRS 2/3 tracks the rate of overall absenteeism on a weekly basis, as well as the number of absences that are due to ILI. ILI absences are calculated as a percentage of total absences.

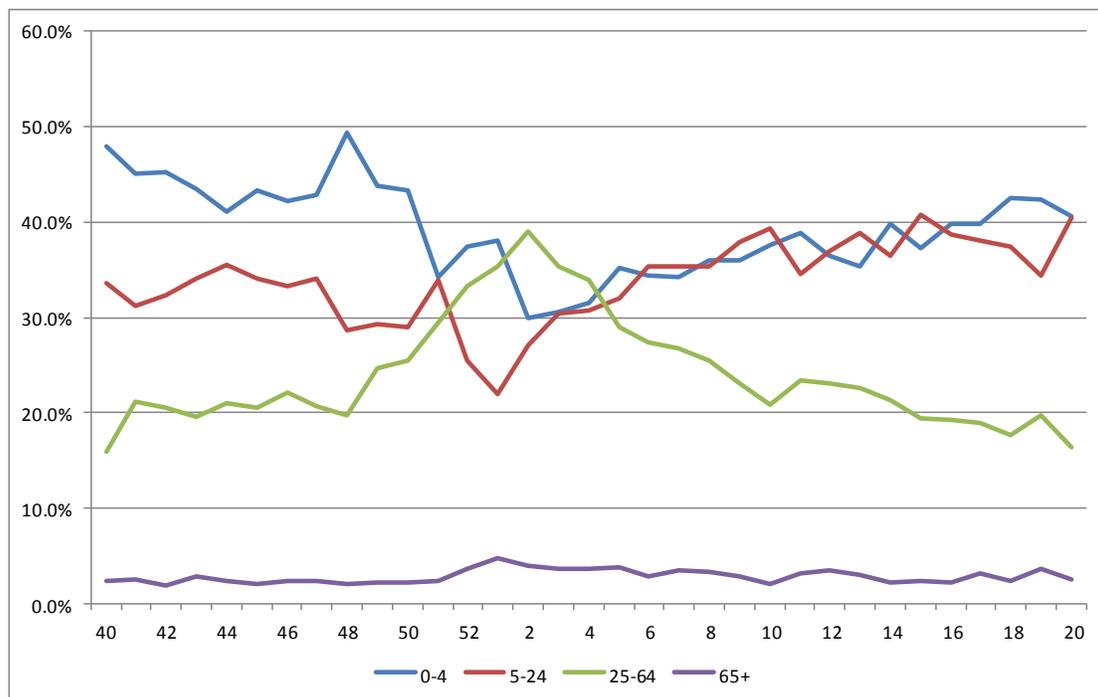
Some local health departments also track and report school absenteeism numbers, which are included in the HSR 2/3 school absenteeism surveillance.

GRAPH I. INFLUENZA-LIKE ILLNESS, PERCENTAGE OF TOTAL PROVIDER VISITS



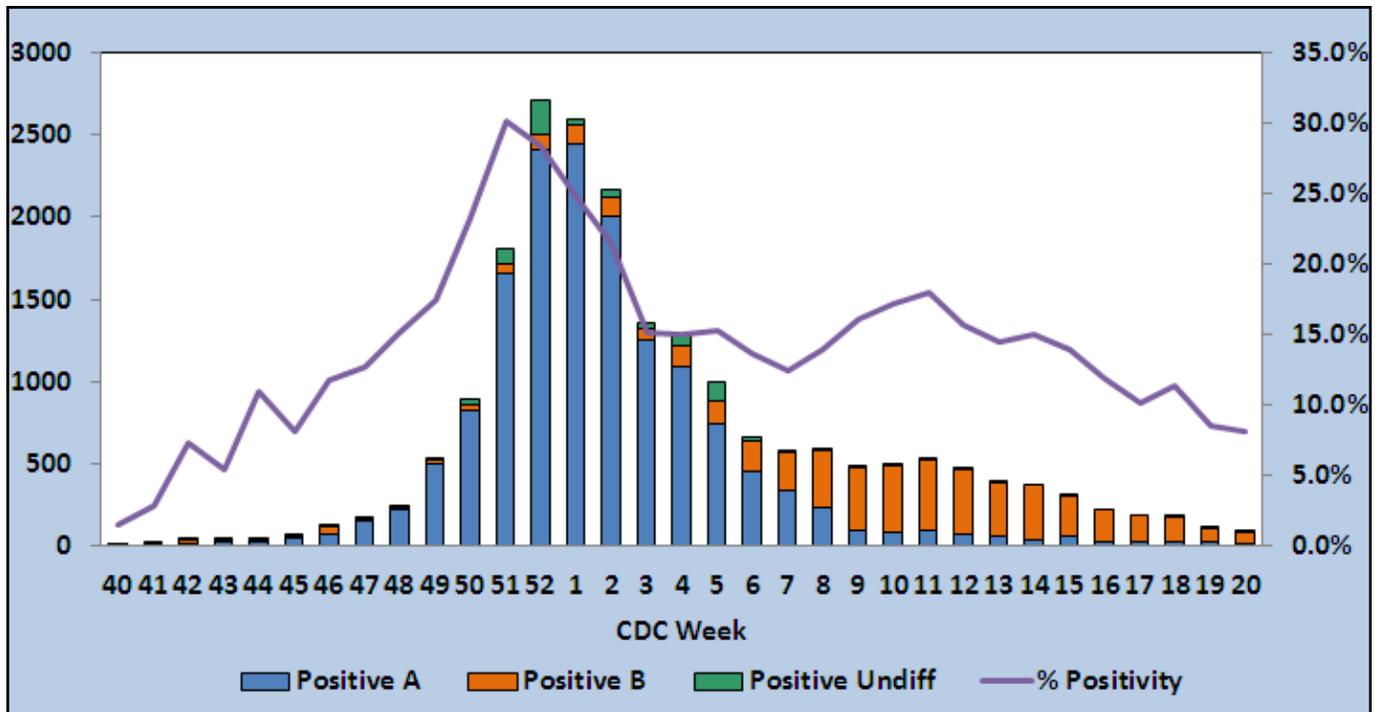
- ILI percent and influenza test results were submitted from 49 healthcare facilities, including 8 ESSENCE participating within the jurisdiction of HSR 2/3.

GRAPH II. INFLUENZA-LIKE ILLNESS, PERCENTAGE OF WEEKLY VISITS BY AGE GROUP



- The data in Graph II represents approximately 59,000 ER visits to ESSENCE participating hospitals due to ILI between September 29, 2013 and May 17, 2014

GRAPH III. INFLUENZA TEST RESULTS, TYPE AND OVERALL POSITIVITY



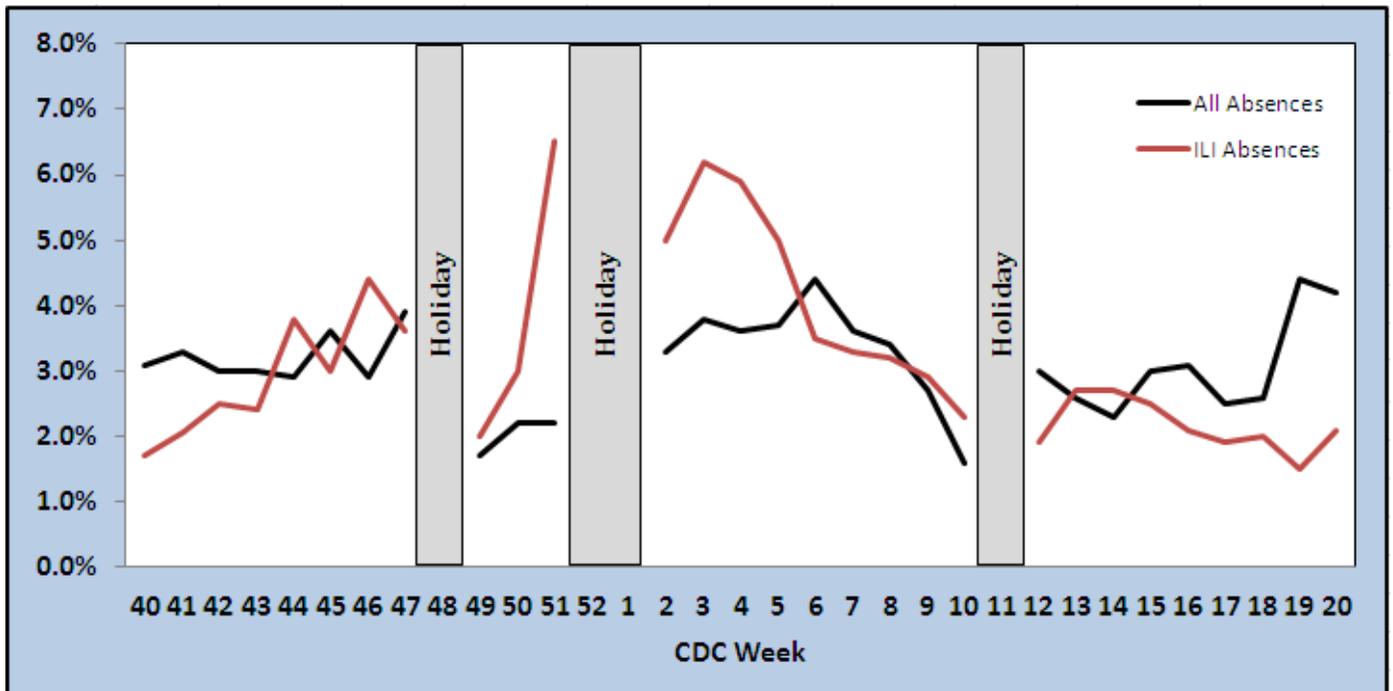
- Influenza specimen surveillance data is submitted directly by hospitals, clinics, and local health departments within HSR 2/3.

TABLE I. INFLUENZA TEST RESULTS, NUMBER AND PERCENT BY TESTING METHOD

	Season to Date
Total Tests Performed	115,015
Total Positive	20,807 (18.1%)
Rapid Type A	13,372 (64.3%)
Rapid Type B	4,613 (22.2%)
Rapid Undifferentiated	763 (3.7%)
Confirmed Type A	1,849 (8.9%)
A H1N1 (2009)	1,022 (55.3%)
A H3N2	29 (1.6%)
Not Subtyped	798 (43.2%)
Confirmed Type B	209 (1%)

- The greatest number of tests reported during a single week was 10,471 during week 1 (Dec. 29, 2013-Jan. 1, 2014).

GRAPH IV. PERCENTAGE WEEKLY ABSENTEEISM AND ABSENTEEISM DUE TO ILI



- School influenza absentee data was submitted both by individual schools and by ISDs within the jurisdiction of HSR 2/3. During the 2013-2014 influenza season, reports were received from 78 schools or ISDs.

The Texas Department of State Health Services, Health Service Region 2/3 Influenza Surveillance report is distributed Friday of each week throughout the year. State and national influenza reports are also distributed on Fridays and can be found at the links below.

HSR 2/3 influenza page: <https://www.dshs.state.tx.us/region2-3/influenza/>

Texas influenza activity: <http://www.texasflu.org/>

National influenza activity: <http://www.cdc.gov/flu/weekly/>

If you have any questions or comments regarding the HSR 2/3 influenza surveillance program, or would like to become an influenza surveillance participant, please contact:

Scott Mize, MPH
Influenza Surveillance Coordinator
817-264-4706
Scott.Mize@dshs.state.tx.us