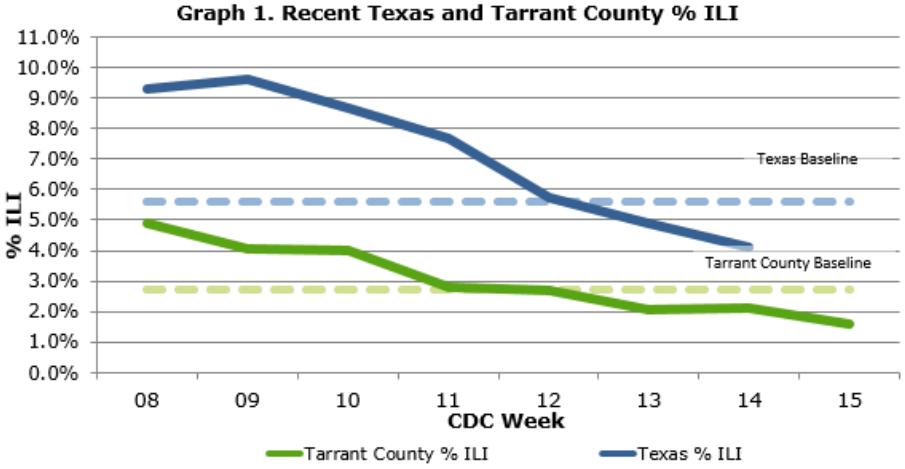
Tarrant County Public Health
Division of Epidemiology and Health Information

Tarrant County Influenza Surveillance Weekly Report
CDC Week 15: April 7-13, 2019

Influenza Activity Code: County and State Levels

Tarrant County: Week 15
Sporadic
Tarrant County: Week 14
Sporadic
Texas: Week 14
Local

Graph 1. Recent Texas and Tarrant County % ILI

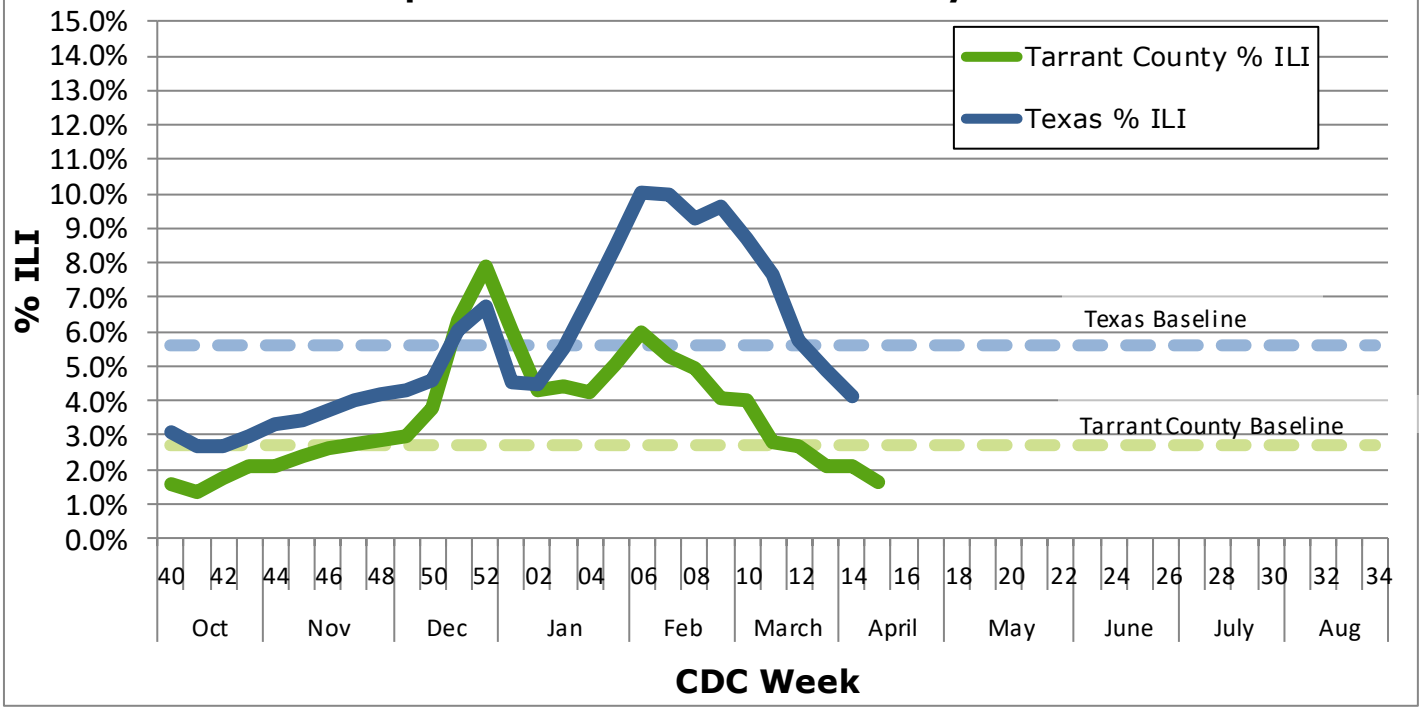


Respiratory Virus Activity Summary

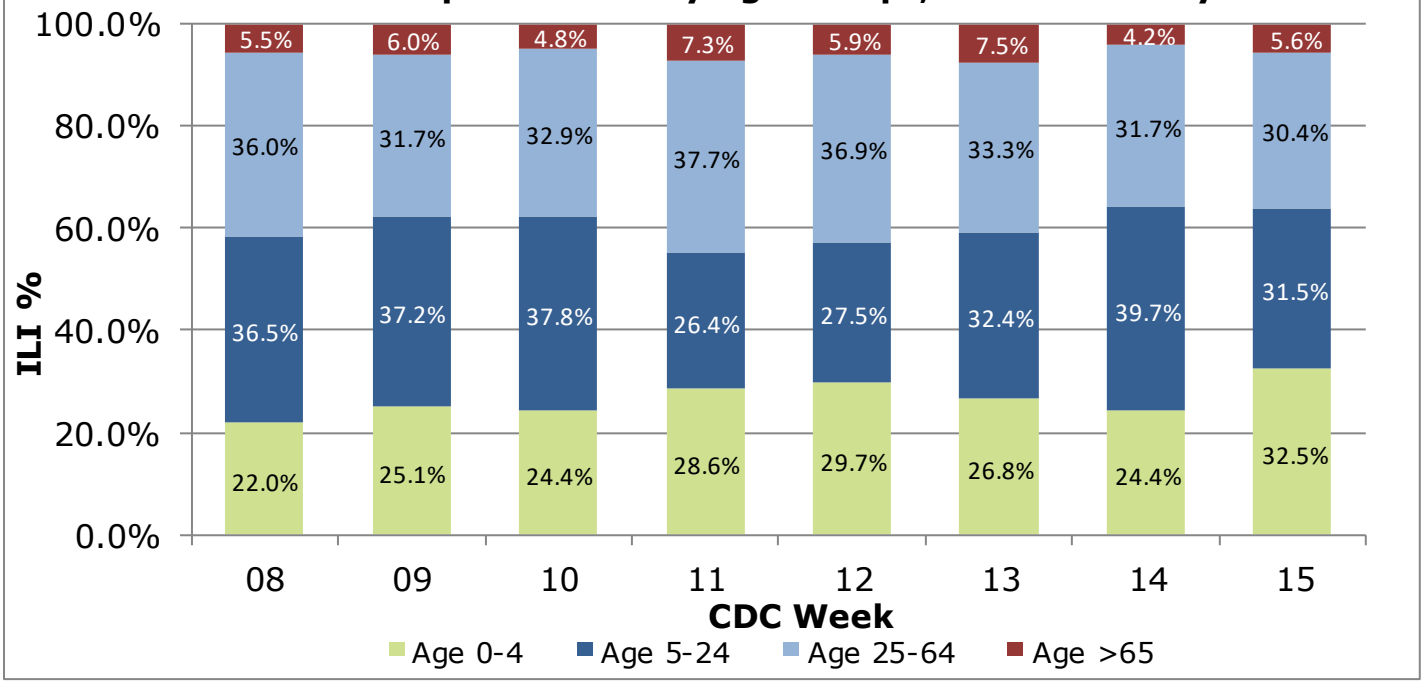
- The percentage of reported influenza-like illness (ILI) in Tarrant County decreased from 2.1% in week 14 to 1.6% in week 15 and is currently below the 2018-2019 Tarrant County baseline (2.7%).
- The percentage of all cause school absenteeism was 4.3% during week 15 in Tarrant County. Absenteeism due to ILI and school nurse office visits due to ILI were 2.1% and 1.1% respectively during week 15 in Tarrant County.
- The percentage of rapid flu test positives in Tarrant County decreased from 6.3% in week 14 to 4.7% in week 15.
- During the 2018-2019 influenza season, 0 Tarrant County influenza-associated pediatric deaths have been reported. As of week 14, 7 influenza-associated pediatric deaths have been reported in Texas, with a total of 86 reported nationwide for the 2018-2019 season.
- During the 2018-2019 influenza season, 0 influenza outbreaks have been reported in Tarrant County schools and 8 localized influenza outbreaks have been reported within institutions in Tarrant County.
- Since last report, 10 surveillance specimens were tested by The North Texas Regional Laboratory. The following types and number of viruses were detected in these specimens: Influenza A/H3 (1), Influenza A/H1 (2), Influenza B (2), and Influenza A/H1 and Rhinovirus coinfection (1). Cumulatively this season, the North Texas Regional Laboratory at Tarrant County Public Health has tested 242 surveillance specimens and of these, 119 have been positive for influenza.
- In Texas during week 14, the proportion of outpatient visits for ILI, 4.1%, was below the state baseline of 5.6%.
- Nationally during week 14, 15.1% of specimens tested and reported to the CDC were positive for influenza. The proportion of outpatient visits for ILI (2.8%) was above the national baseline (2.2%). The proportion of deaths in week 13 attributed to pneumonia and influenza from the National Center for Health Statistics (7.0%) was below the epidemic threshold (7.1%).

Influenza Like Illness (ILI): Local and State Levels

Graph 2. Texas and Tarrant County % ILI



Graph 3. ILI % by Age Groups, Tarrant County

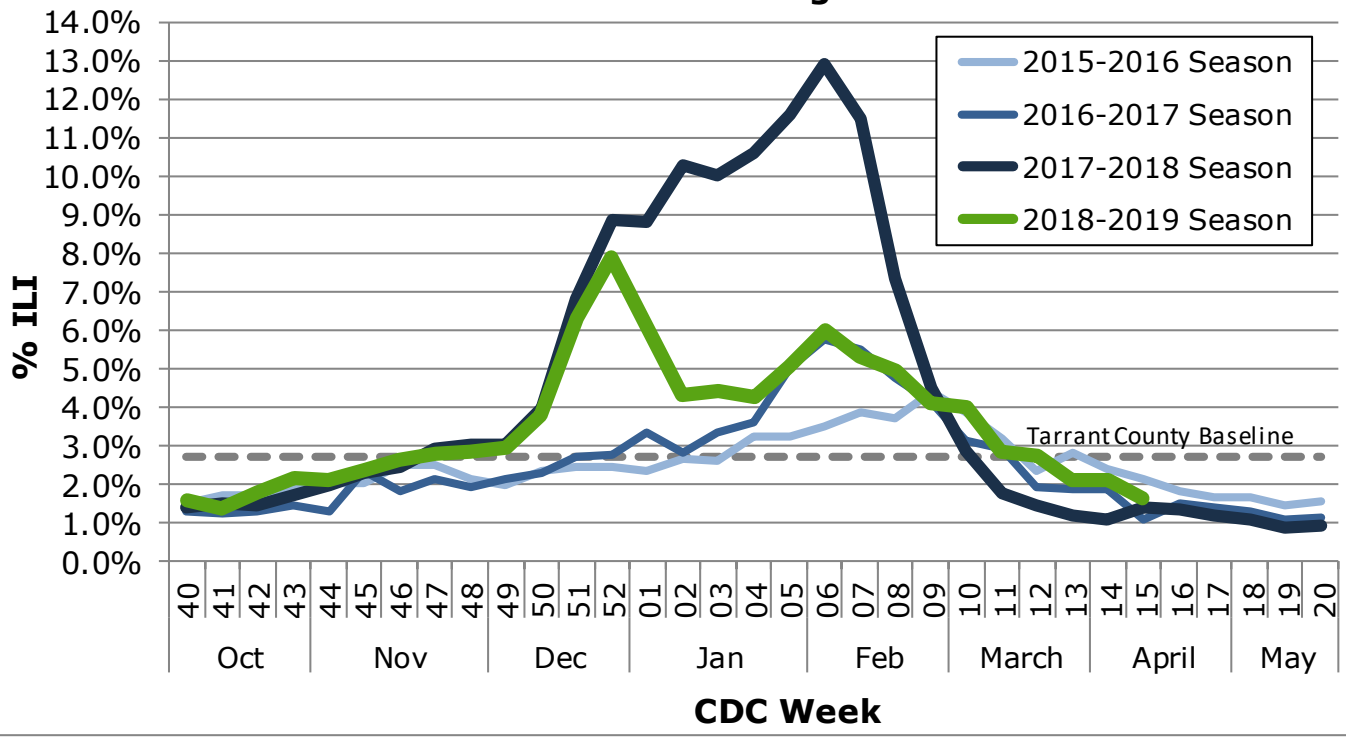


In week 15, 1.6% of visits to health care providers were due to ILI. ILI levels are currently below the county established baseline of 2.7% and are lower than the state of Texas levels from the week prior. In Tarrant County, of the 372 reported patients presenting with ILI during week 15, the age group with the largest percentage of the reported ILI patients, 32.5%, was the 0-4 age group.

NOTE: Tarrant County ILI activity is assessed using information provided by surveillance participants and the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE). For week 15, 22 surveillance participants - 19 Hospitals, 2 Colleges/Universities, and 1 Business - reported ILI information to Tarrant County Public Health. Texas ILI activity is assessed using information provided by a network of providers . For week 14, 107 providers reported information to the Texas Department of State Health Services.

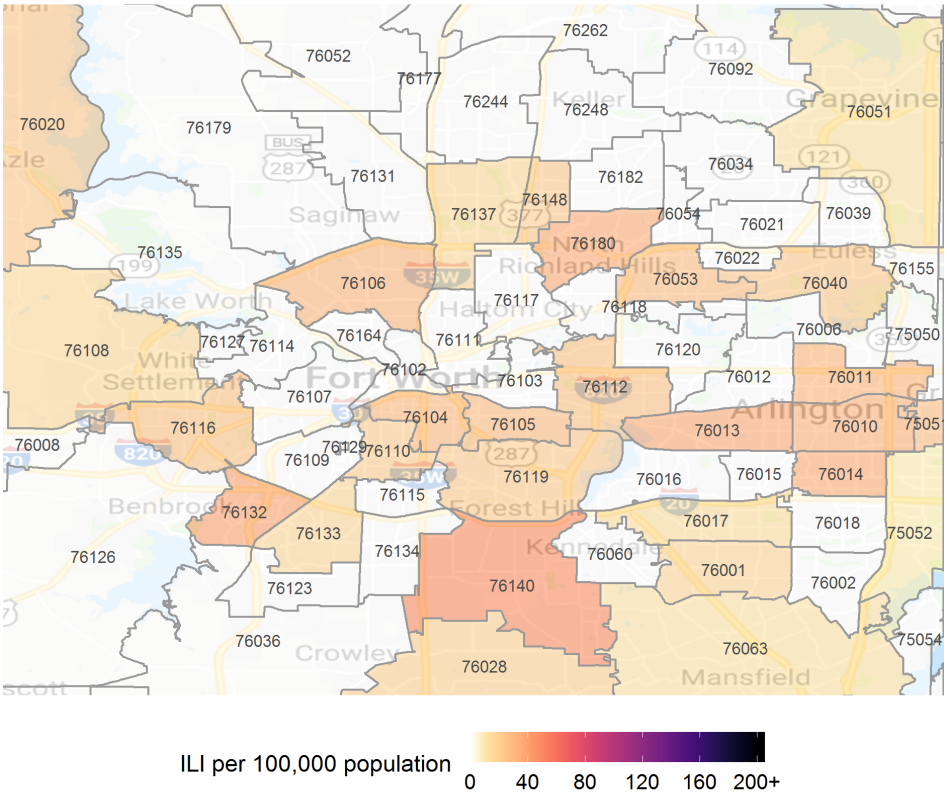
Tarrant County Historical ILI and ESSENCE Geographical Distribution Map

Graph 4. Tarrant County % of patient visits due to ILI during flu season 2015-2016 through 2018-2019



Map 1. Tarrant County ER ILI Cases by Zip Code, Week 15

Overall rate: 15.1, Maximum rate was 47.2 in zip code 76140

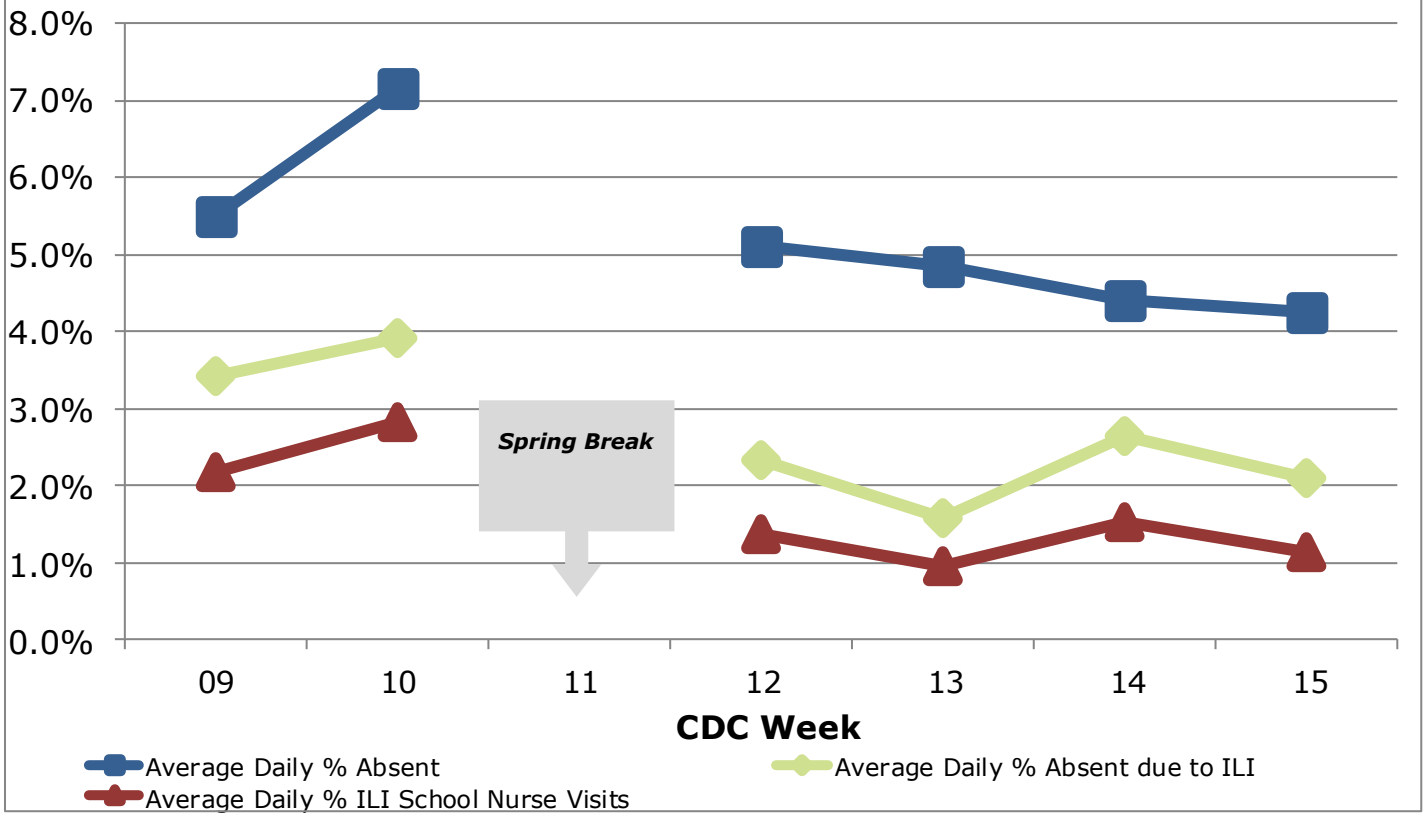


ILI per 100,000 population 0 40 80 120 160 200+

Zip codes with ≤5 cases are assigned 0. Tarrant County ILI data by zip code is obtained from ESSENCE and includes ILI numbers from 46 hospitals that voluntarily provide data based on chief complaints of Tarrant County residents admitted to Emergency Departments in North Central Texas. Zip code population data is obtained from American Community Survey 2016 5 year estimate.

Rapid Influenza Test Results and School Absenteeism

Graph 5. Absenteeism and ILI, Tarrant County



For week 15, 9 school districts provided general absenteeism data, 7 school districts provided data regarding absenteeism due to ILI, and 7 school districts provided data regarding nurses' office visits due to ILI.

Table 1. Influenza Rapid Test Results, Tarrant County

CDC Week Number	13 (Mar 24-30)	14 (Mar 31-April 6)	15 (April 7-13)
# Influenza Tests Performed	1170	1286	934
% Influenza Positive	8.3%	6.3%	4.7%
# Influenza A Positive	67	45	28
% Influenza A Positive	69.1%	55.6%	63.6%
# Influenza B Positive	30	36	16
% Influenza B Positive	30.9%	44.4%	36.4%
# Non-differentiated Positive	0	0	0
% Non-differentiated Positive	0.0%	0.0%	0.0%

NOTE: Tarrant County rapid influenza test results are reported weekly by influenza surveillance participants.
For CDC week 15, rapid influenza test results were reported by 13 hospitals and 2 colleges/universities.

Influenza Confirmatory Test Results: Tarrant County

Table 2. North Texas Regional Laboratory: Respiratory Virus Results[1]

	Current Week	2018-2019 Season
Number of Specimens Tested	**10**	**242**
Positive Specimens	6 (60.0%)	161 (66.5%)
Influenza A	4 (66.7%)	95 (59.0%)
Influenza B	2 (33.3%)	24 (14.9%)
Respiratory Syncytial Virus	0 (0.0%)	16 (9.9%)
Adenovirus	0 (0.0%)	5 (3.1%)
Human Metapneumovirus	0 (0.0%)	6 (3.7%)
Parainfluenza-1	0 (0.0%)	0 (0.0%)
Parainfluenza-2	0 (0.0%)	1 (0.6%)
Parainfluenza-3	0 (0.0%)	0 (0.0%)
Rhinovirus	1 (16.7%)	20 (12.4%)
Inconclusive[2]	0 (0.0%)	0 (0.0%)

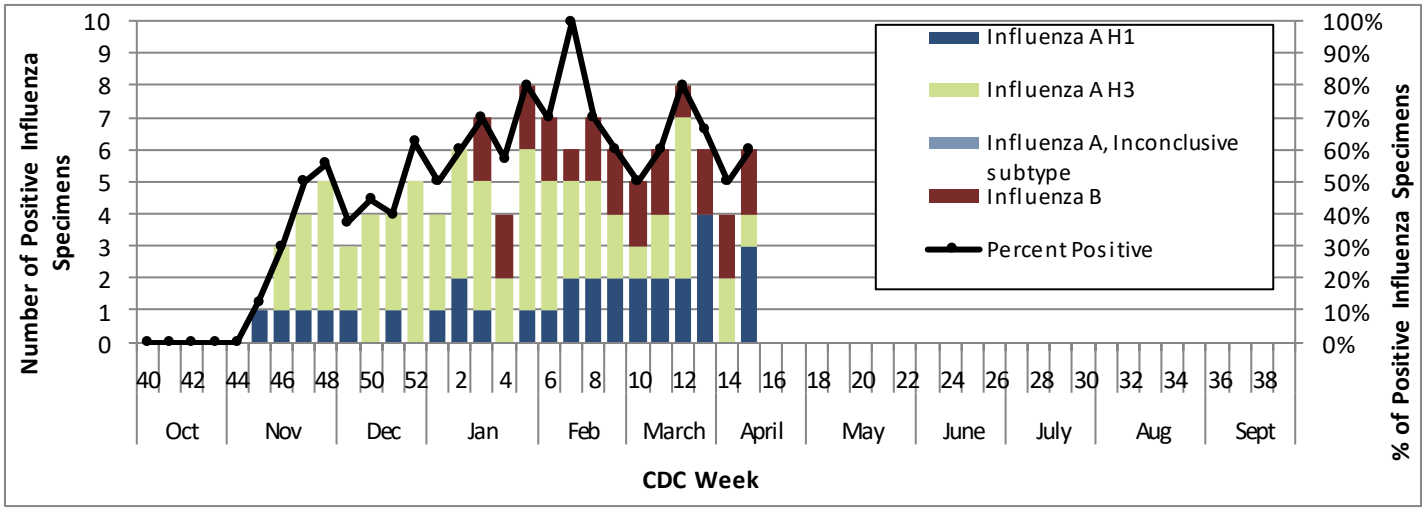
[1] *Laboratory results based on real-time PCR analysis; information is for the 2018-2019 season.*
2 *Inconclusive for influenza A and influenza B; not included in positive specimens count.*
NOTE: *Percentages do not add up to 100% due to co-infections. 1 specimen has tested positive with a coinfection: Adenovirus and Rhinovirus (1), Respiratory Syncytial Virus and Rhinovirus (1), Respiratory Syncytial Virus and Adenovirus (1), Rhinovirus and Human Metapneumovirus (1), Influenza A/H1 and Respiratory Syncytial Virus (1), Influenza A/H1 and Rhinovirus (1)*

Table 3. North Texas Regional Laboratory: Influenza Results[1]

	Current Week	2018-2019 Season
Influenza A	**4**	**95**
Influenza A H1	3 (75.0%)	31 (32.6%)
Influenza A H3	1 (25.0%)	64 (67.4%)
Influenza A, Inconclusive subtype	0 (0.0%)	0 (0.0%)
Influenza A, Unsubtypeable[2]	0 (0.0%)	0 (0.0%)
Influenza B	**2**	**24**
Influenza B Yamagata[3]	-	7 (29.2%)
Influenza B Victoria[3]	-	17 (70.8%)
Influenza B, Inconclusive	-	0 (0.0%)

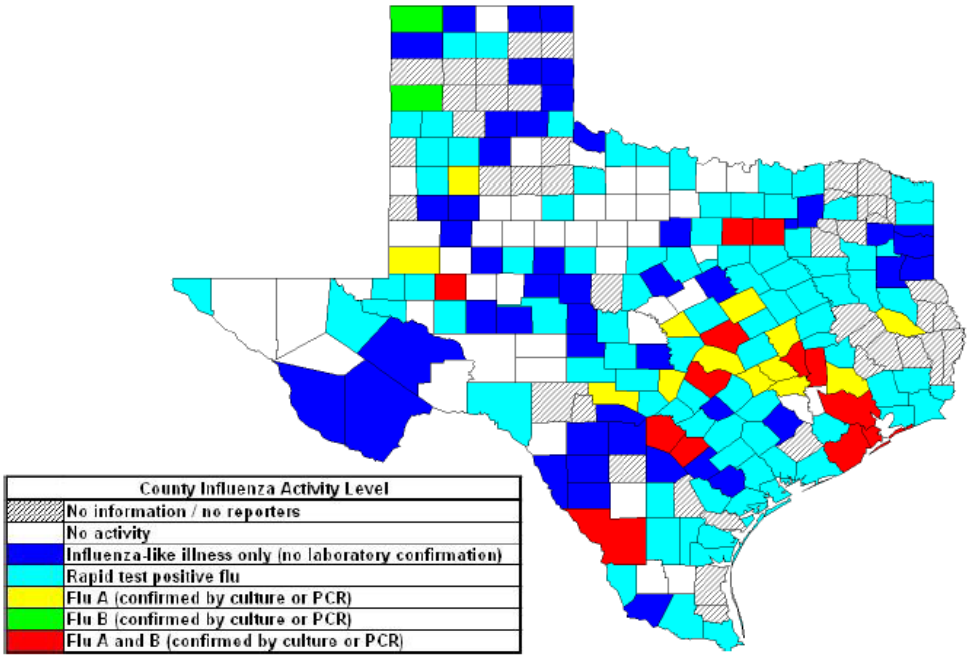
[1] *Laboratory results based on real-time PCR analysis; information is for the 2018-2019 season.*
[2] *Influenza A subtype not determined; further analysis pending*
[3] *Influenza B genotyping is only included in current week column if genotyping occurred in the same week as original PCR testing.*

Graph 6. North Texas Regional Laboratory: Influenza Virus Results[1]



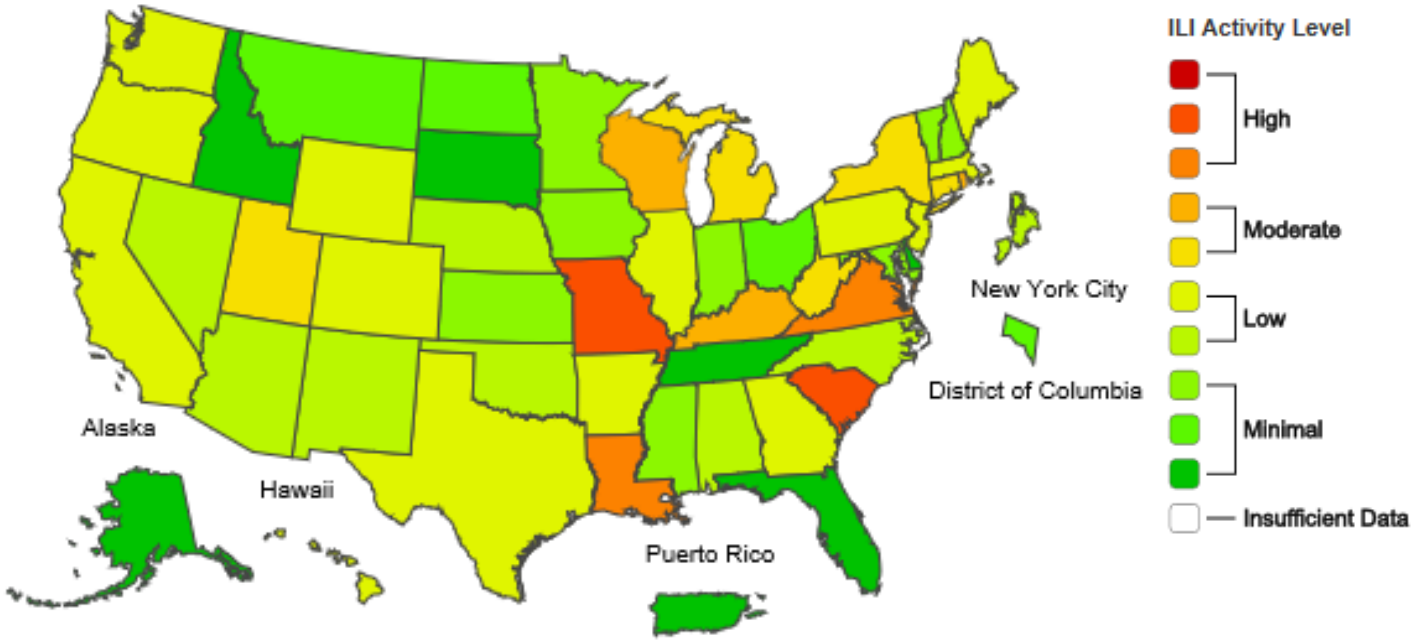
Texas and National Influenza and ILI Activity

Map 2: Texas County Specific Influenza Activity, CDC Week 14



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.texas.gov/IDCU/disease/influenza/surveillance/2019.aspx

Map 3: ILINet Activity Indicator Map, CDC Week 14



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 Tarrant County Influenza Surveillance Weekly Report is available on the Tarrant County Public Health web site at:

flu.tarrantcounty.com

If you have questions or comments regarding influenza surveillance, please contact:

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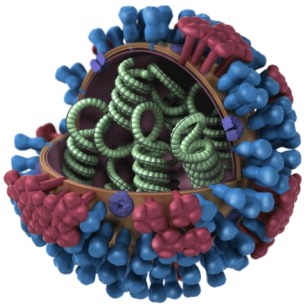

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NOTE:

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.

Tarrant County reporting quadrants consist of Northwest, Northeast, Southwest and Southeast regions within the boundaries of Interstate 35 and Interstate 30.

Tarrant County ILI baselines were determined using a similar method as the Centers for Disease Control Prevention Regional ILI baselines and Texas Department of State Health Services Texas baseline. Regional ILI baselines are determined by the Centers for Disease Control and Prevention and can be accessed at http://www.cdc.gov/flu/weekly/overview.htm

Additional information regarding Tarrant County, Texas and national ILI activity can be accessed at

flu.tarrantounty.com

http://www.dshs.texas.gov/IDCU/disease/influenza/surveillance/2019.aspx

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

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