



# Dallas County Health and Human Services 2018–2019 Influenza Surveillance Report

Week 6 ending February 9, 2019

## Epidemiologic Summary

- Influenza activity is increasing in Dallas County, with 32.8% of tests returning positive during week 6.
- Daily number of emergency department visits for influenza-like illness in Dallas County is increasing, and 195 Influenza-associated hospitalizations were reported during week 6.
- One influenza-associated death of an adult was reported in week 6, and two were reported in week 7. One influenza-associated pediatric death has been reported during the 2018-2019 season in Dallas County.
- RSV activity decreased with 5.5% of tests from area surveillance sites testing positive.

**Table 1.** Summary of Influenza Surveillance from Dallas County Hospitals and Hospital Laboratories

| Week Ending                                     | 01/05 | 01/12 | 01/19 | 01/26 | 02/02 | 02/09 | 9/09/18 – Present |
|---|-------|-------|-------|-------|-------|-------|-------------------|
| CDC Week  | 1     | 2     | 3     | 4     | 5*    | 6*    |                   |
| <b>Total Influenza PCR Tests</b>                | 1,635 | 1,293 | 1,143 | 1,287 | 1,338 | 1,617 | <b>22,200</b>     |
| Number of positive PCR tests                    | 133   | 114   | 123   | 188   | 248   | 330   | <b>1,402</b>      |
| Percent of positive PCR tests                   | 8.1   | 8.8   | 10.8  | 14.6  | 17.9  | 20.4  |                   |
| <b>Total Rapid Influenza Diagnostic Tests</b>   | 1,661 | 1,840 | 1,946 | 2,763 | 3,532 | 4,477 | <b>30,415</b>     |
| Number of positive RIDTs                        | 301   | 289   | 597   | 714   | 1,203 | 1,671 | <b>5,694</b>      |
| Percent of positive RIDTs                       | 18.1  | 15.7  | 30.7  | 25.8  | 34.1  | 37.3  |                   |
| <b>Total Influenza Tests Performed</b>          | 3,303 | 3,143 | 3,107 | 4,057 | 4,934 | 6,106 | <b>52,683</b>     |
| Total positive influenza tests <sup>1</sup>     | 434   | 403   | 721   | 902   | 1,451 | 2,001 | <b>7,097</b>      |
| Percent positive influenza tests                | 13.1  | 12.8  | 23.2  | 22.2  | 29.4  | 32.8  |                   |
| Positive influenza A tests <sup>2</sup>         | 396   | 363   | 603   | 810   | 1,401 | 1,949 | <b>6,499</b>      |
| Positive influenza B tests                      | 38    | 40    | 117   | 92    | 50    | 52    | <b>597</b>        |
| Non-differentiated influenza tests <sup>3</sup> | 0     | 0     | 1     | 0     | 0     | 0     | <b>1</b>          |

<sup>1</sup> Includes positive rapid antigen, PCR, DFA, or culture results

<sup>2</sup> Further subtyping is performed only by select hospital laboratories for specimens referred to DCHHS by institutions for PCR-testing

<sup>3</sup> Non-differentiated refers to rapid test results which did not differentiate between influenza A and B

**Table 2.** Summary of Influenza Hospitalizations and Deaths from Dallas County Hospitals, Vital Statistics and Medical Examiner's Office

| Week Ending                                       | 01/05 | 01/12 | 01/19 | 01/26 | 02/02 | 02/09 | 02/16 | 9/09/18 – Present |
|---|-------|-------|-------|-------|-------|-------|-------|-------------------|
| CDC Week  | 1     | 2     | 3     | 4     | 5*    | 6*    | 7*    |                   |
| Influenza hospitalizations <sup>4</sup>           | 88    | 72    | 89    | 101   | 144   | 195   | N/A   | <b>862</b>        |
| Influenza ICU admissions <sup>4</sup>             | 20    | 15    | 17    | 12    | 25    | 24    | N/A   | <b>148</b>        |
| Confirmed pediatric deaths <sup>5</sup>           | 0     | 0     | 0     | 0     | 1     | 0     | 0     | <b>1</b>          |
| Confirmed adult deaths <sup>6</sup>               | 1     | 1     | 1     | 1     | 0     | 1     | 2     | <b>9</b>          |
| Possible influenza-associated deaths <sup>7</sup> | 0     | 0     | 0     | 0     | 0     | 0     | 0     | <b>0</b>          |

<sup>4</sup> Reflects all influenza-associated hospitalizations reported from hospitals located within Dallas County by week of any positive influenza tests; Data source: 14 Hospitals in Dallas County

<sup>5</sup> Confirmed influenza-associated deaths of Dallas County residents <18 years of age

<sup>6</sup> Confirmed influenza-associated deaths as defined by a positive laboratory test and any of the following: (1) death certificate denotation, (2) medical record documentation of compatible symptoms and clear progression from illness to death, or (3) determination by the County Medical Examiner's office (ME) of no alternate cause of death

<sup>7</sup> Possible influenza-associated deaths are defined as cases with laboratory-confirmed influenza, but pending final autopsy results for determination of primary cause of death

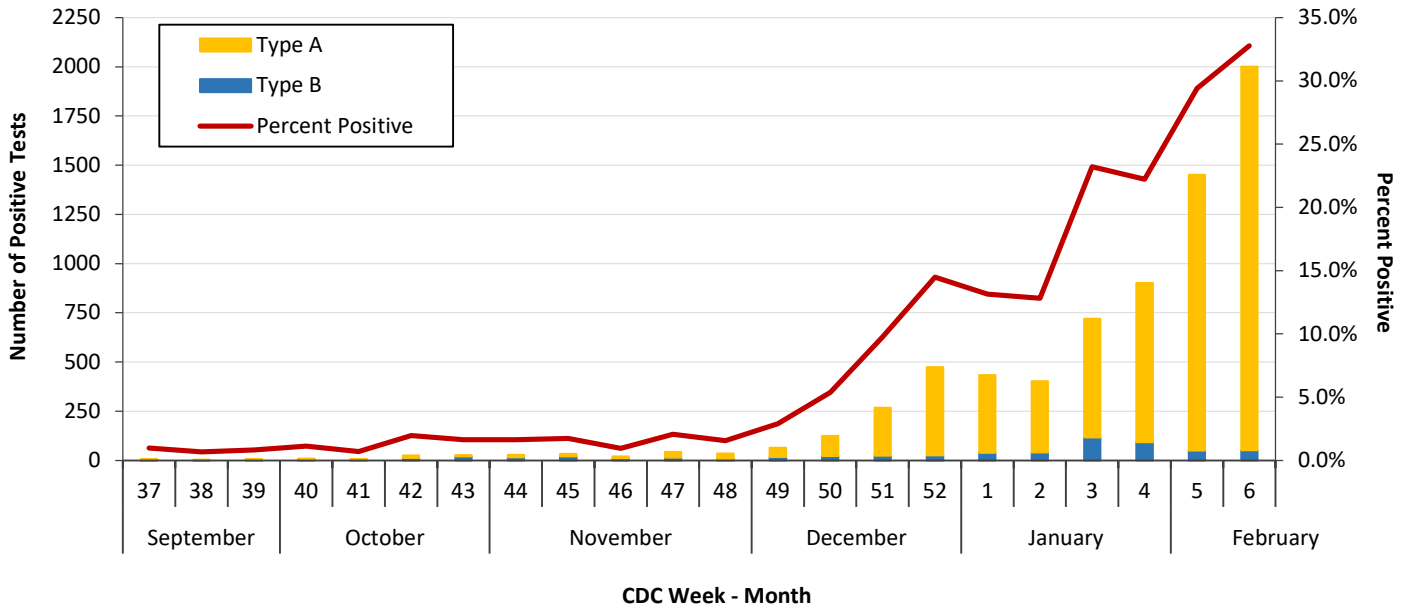
**Table 3.** Confirmed Influenza-associated Pediatric and Adult Deaths, Dallas County: 2013–2019 Seasons

|           | 2013–2014 | 2014–2015 | 2015–2016 | 2016–2017 | 2017–2018 | 2018–2019 |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Pediatric | 3         | 0         | 1         | 1         | 4         | 1         |
| Adult     | 55        | 19        | 14        | 16        | 79        | 9         |

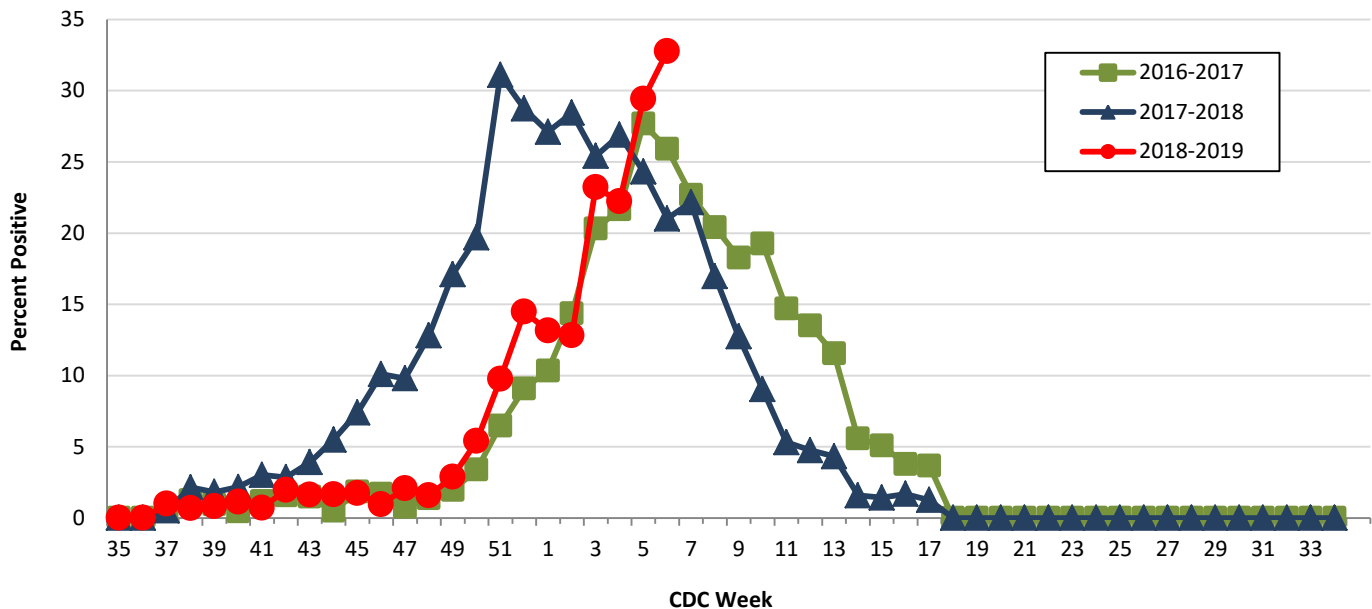
Data source(s): Reports of confirmed influenza-associated deaths, as defined in Table 2.

\*Indicates preliminary results which are subject to change with late-arriving data from surveillance sites designated for DCHHS' seasonal influenza program

**Figure 1.** Influenza Positive Tests Reported to DCHHS by Hospital Laboratories: 2018—2019 Season



**Figure 2.** Influenza Positive Tests Reported to DCHHS by Hospital Laboratories: 2016—2019 Seasons



**Table 4.** Influenza Typing and Subtyping from Cumulative Dallas County, Texas, and U.S. Laboratory Surveillance Data: 2018—2019 Season

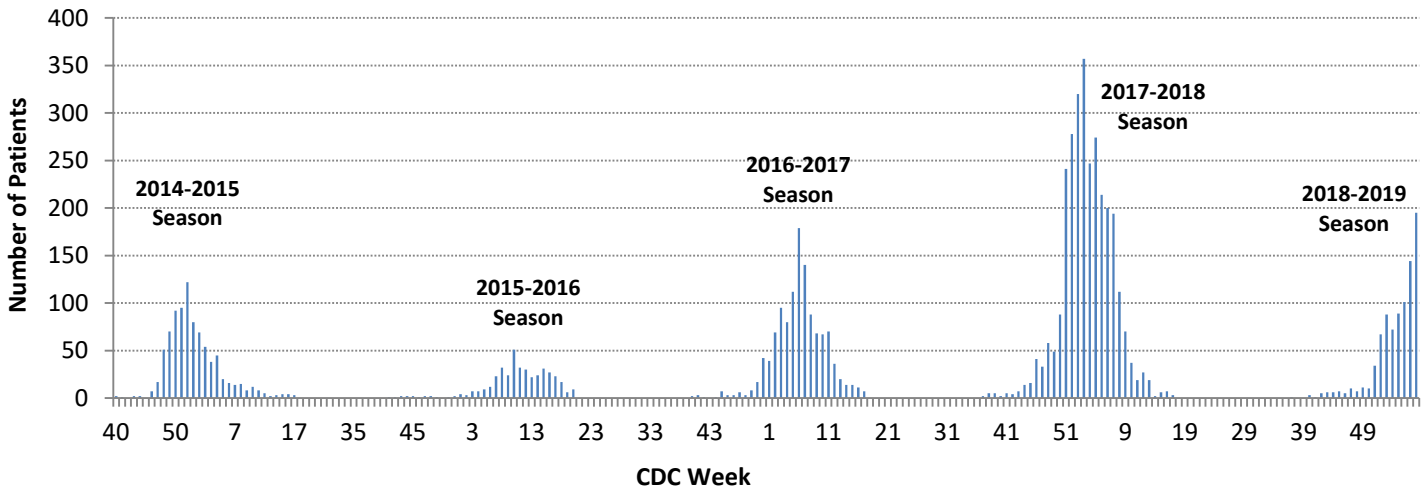
|                   | Dallas <sup>1</sup><br>(n=252) | Texas <sup>2</sup><br>(n=1,261) | U.S. <sup>3</sup><br>(n=33,772) |
|-------------------|--------------------------------|---------------------------------|---------------------------------|
| Influenza A       | 175 (99.4%)                    | 665 (95.8%)                     | 14,056 (97.3%)                  |
| H1N1 2009 subtype | 47 (26.9%)                     | 250 (37.7%)                     | 10,545 (78.5%)                  |
| H3N2 subtype      | 128 (73.1%)                    | 413 (62.3%)                     | 2,887 (21.5%)                   |
| Not subtyped      | 1                              | 2                               | 624                             |
| Influenza B       | 1 (0.6%)                       | 29 (4.2%)                       | 383 (2.7%)                      |
| Yamagata strain   | 1 (100.0%)                     | 10 (*50.0%)                     | 161 (*56.1%)                    |

<sup>1</sup> DCHHS LRN laboratory PCR testing of designated Dallas County surveillance site isolates; counts may not sum to total as samples can test positive for multiple subtypes

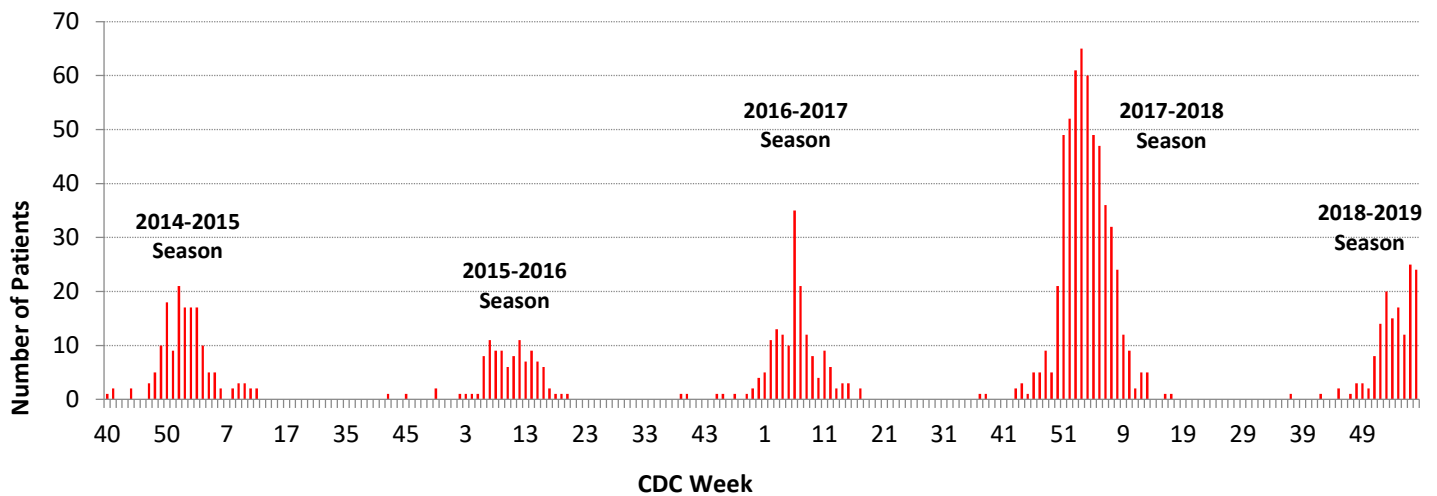
<sup>2</sup> DSHS 2018–2019 Texas Influenza Surveillance Information Activity Report available at <https://www.dshs.state.tx.us/idcu/disease/influenza/surveillance/>

<sup>3</sup> CDC FluView Weekly Influenza Surveillance Report available at <http://www.cdc.gov/flu/weekly/> \*Only a subset of influenza B had lineage testing performed.

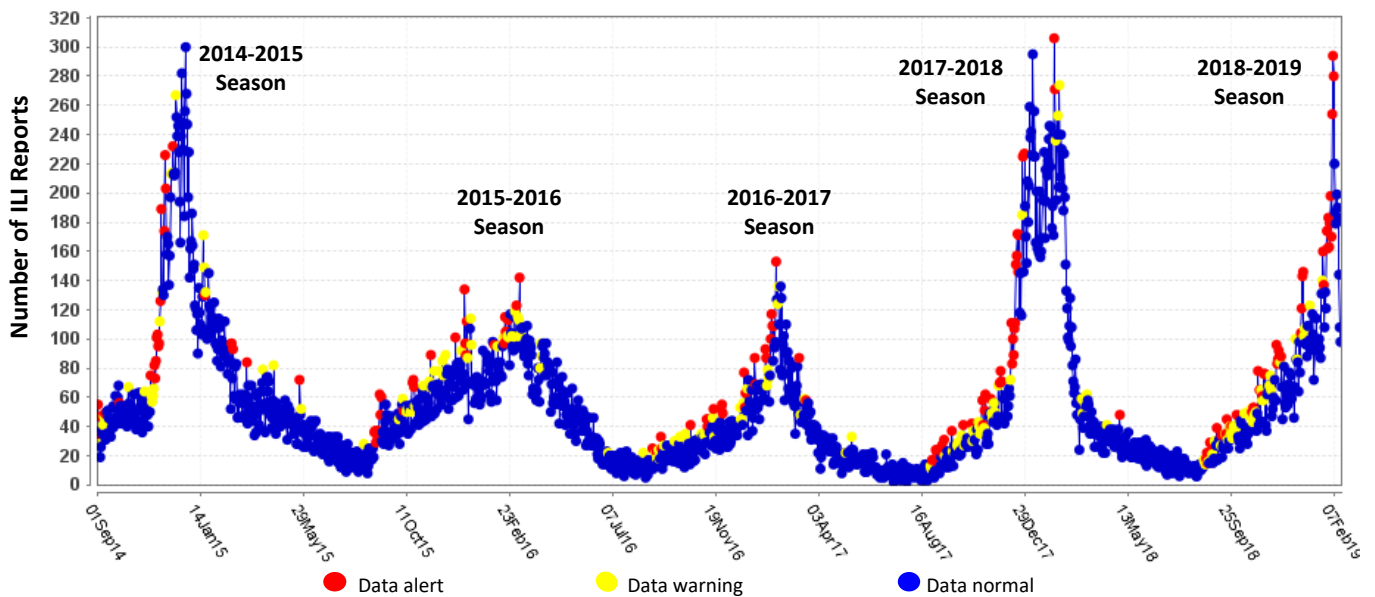
**Figure 3.** Influenza Hospitalizations by Week of Admission, Dallas County: 2014–2019 Seasons



**Figure 4.** Intensive Care Unit Hospitalizations for influenza by Week of Admission, Dallas County: 2014–2019 Seasons



**Figure 5.** Syndromic Surveillance of Emergency Department Visits for Influenza-like Illness (ILI), Dallas County: September 1, 2014 – February 9, 2019



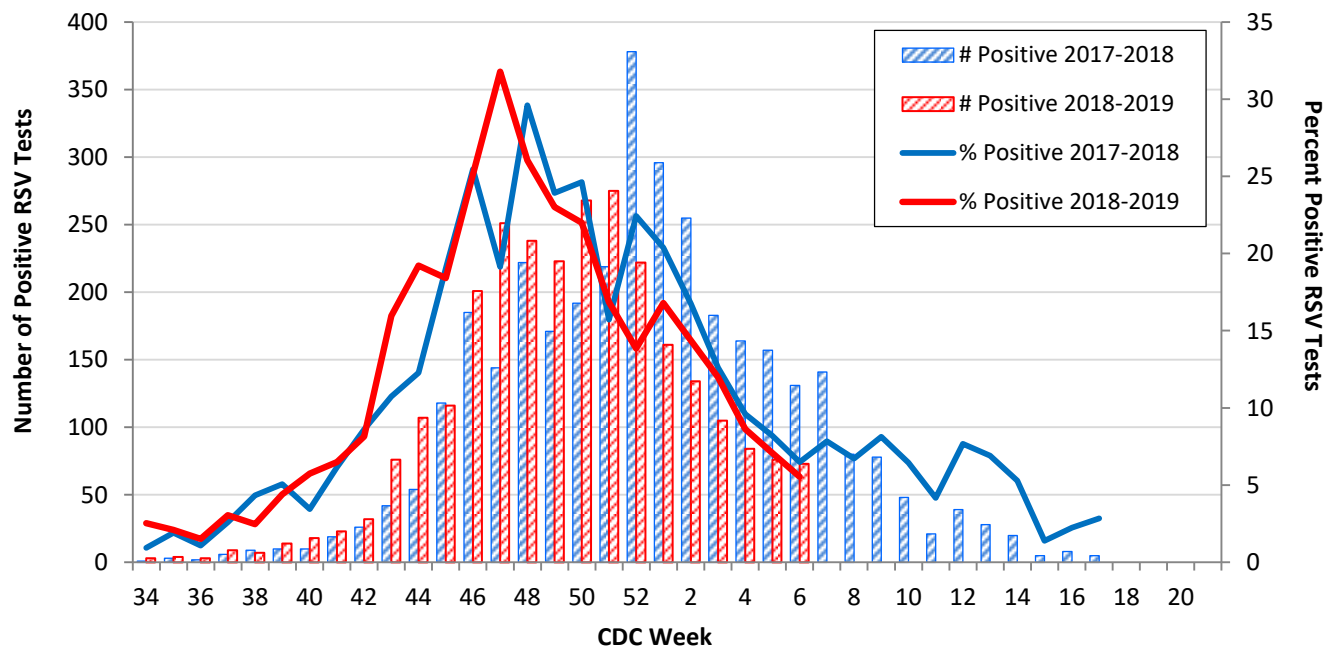
Data source: 18 emergency departments in Dallas County hospitals participating in the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) voluntarily reporting the numbers of persons presenting with self-reported chief complaints of ILI.

**Table 5.** Non-Influenza Respiratory Virus Testing by North Texas Laboratories Reported to NREVSS, Week 6

| Virus                    | Number of Laboratories Reporting | Tests Performed | Total Positive Tests | Percentage of Tests Positive |
|--------------------------|----------------------------------|-----------------|----------------------|------------------------------|
| Adenovirus (respiratory) | 4                                | 432             | 11                   | 2.6                          |
| HMPV                     | 4                                | 420             | 22                   | 5.2                          |
| Parainfluenza virus      | 4                                | 432             | 10                   | 2.3                          |
| Rhinovirus/Enterovirus   | 4                                | 420             | 93                   | 22.1                         |
| RSV                      | 4                                | 1,318           | 73                   | 5.5                          |

Data source: National Respiratory and Enteric Virus Surveillance System (NREVSS) and hospitals reporting directly to DCHHS

**Figure 6.** Number and Percent Positive RSV Rapid Antigen and PCR Tests by Week, NREVSS Surveillance Data, North Texas: August 25, 2017 – February 9, 2019



Data source: National Respiratory and Enteric Virus Surveillance System (NREVSS) and hospitals reporting directly to DCHHS

**Table 6.** Number and Percent Positive RSV Rapid Antigen and PCR Tests by Week, NREVSS Surveillance Data, North Texas: August 25, 2018 – February 9, 2019

| Week Ending                | 12/29 | 01/05 | 01/12 | 01/19 | 01/26 | 02/02 | 02/09 | 8/25/18–Present |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-----------------|
| CDC Week                   | 52    | 1     | 2     | 3     | 4     | 5*    | 6*    |                 |
| RSV tests performed weekly | 1,603 | 959   | 933   | 877   | 973   | 1,076 | 1,318 | 18,195          |
| Total positive RSV tests   | 222   | 161   | 134   | 105   | 84    | 76    | 73    | 2,723           |
| Percent positive RSV tests | 13.9  | 16.8  | 14.4  | 12.0  | 8.6   | 7.1   | 5.5   |                 |

\*Indicates preliminary results which are subject to change as adjustments are made for late-arriving data

Data source: National Respiratory and Enteric Virus Surveillance System (NREVSS)

Figure 7. Percentage of Student Absences by Week, Dallas County: 2017-2018 and 2018-2019

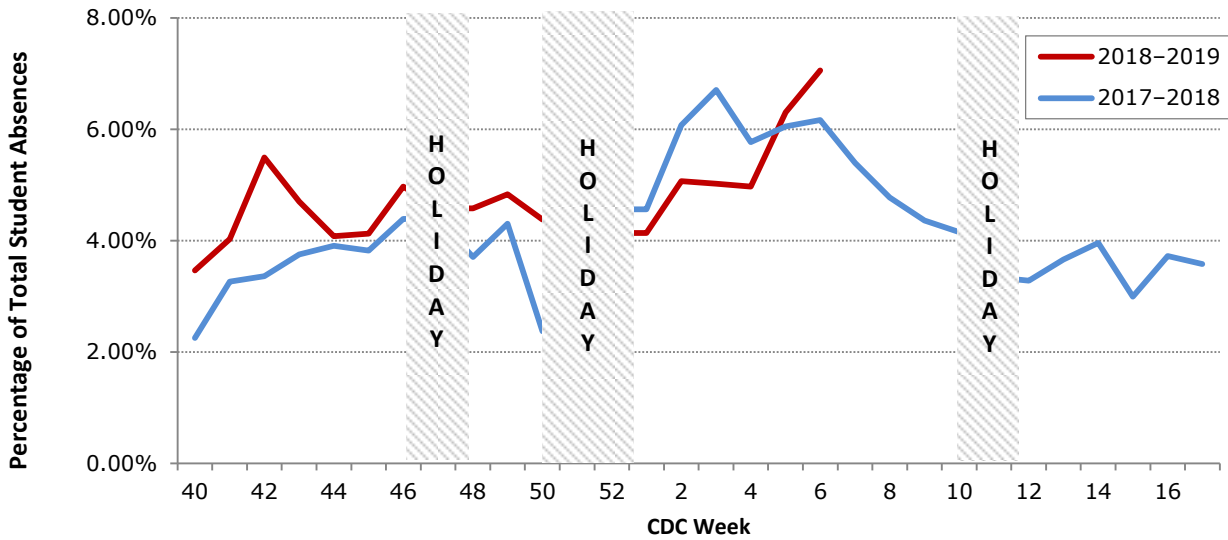
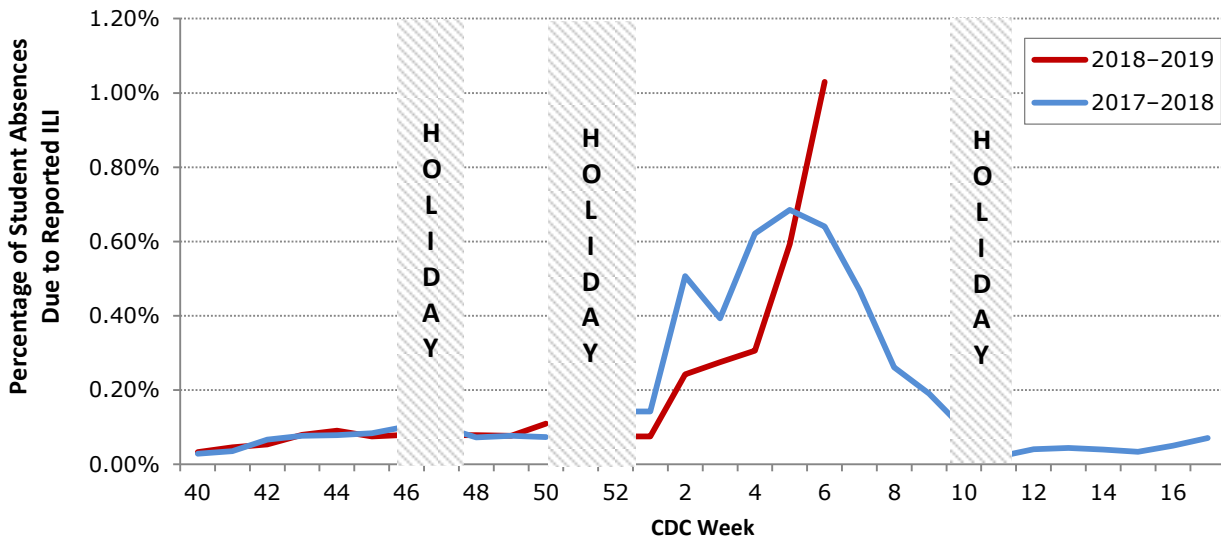


Figure 8. Percentage of Student Absences Due to ILI by Week, Dallas County: 2017-2018 and 2018-2019



Data source: Voluntary reporting from Independent School Districts representing over 510 elementary, middle, and secondary schools and over 420,000 students in Dallas County

**Please report any of the following patients to DCHHS within 1 working day:**

- **Hospitalized patients with influenza** (any subtype). Confirmation can be by any laboratory test, rapid antigen, culture, PCR, DFA/IFA, or performed in an outpatient or inpatient laboratory.
- **Deaths of persons with confirmed influenza** (any subtype). We are requesting all pediatric influenza-associated deaths to be reported *immediately* to facilitate specimen procurement and testing.
- Suspected influenza infections involving institutional outbreaks or a resident of any **Long Term Care facility** (please report *immediately*).

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