## Dallas County Health and Human Services 2016–2017 Influenza Surveillance Report

Week 2 ending January 14, 2017

## **Epidemiologic Summary**

- Influenza activity is increasing in Dallas County with 14.7% of tests returning positive during week 2. Nationally, 15.3% of specimens reported to CDC were positive for influenza.
- Daily numbers of emergency department visits for influenza-like illness in Dallas County were slightly above baseline levels and 66 influenza-associated hospitalizations were reported during week 2.
- RSV activity is decreasing with 18.8% of tests from area surveillance sites testing positive.

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

| Week Ending                                     | 12/10 | 12/17 | 12/24 | 12/31 | 1/7   | 1/14  | 9/11/16 – |
|---|-------|-------|-------|-------|-------|-------|-----------|
| CDC Week  | 49    | 50    | 51    | 52    | 1*    | 2*    | Present   |
| Total Influenza PCR Tests                       | 537   | 667   | 686   | 841   | 853   | 952   | 8,345     |
| Number of positive PCR tests                    | 6     | 11    | 31    | 80    | 77    | 152   | 373       |
| Percent of positive PCR tests                   | 1.1   | 1.7   | 4.5   | 9.5   | 9.0   | 16.0  |           |
| Total Rapid Influenza Diagnostic Tests          | 483   | 558   | 613   | 747   | 706   | 732   | 7,611     |
| Number of positive RIDTs                        | 14    | 31    | 56    | 68    | 90    | 99    | 447       |
| Percent of positive RIDTs                       | 2.9   | 5.6   | 9.1   | 9.1   | 12.8  | 13.5  |           |
| Total Influenza Tests Performed                 | 1,075 | 1,265 | 1,357 | 1,629 | 1,623 | 1,709 | 17,697    |
| Total positive influenza tests <sup>1</sup>     | 21    | 43    | 88    | 148   | 168   | 251   | 827       |
| Percent positive influenza tests                | 2.0   | 3.4   | 6.5   | 9.1   | 10.4  | 14.7  |           |
| Positive influenza A tests <sup>2</sup>         | 18    | 41    | 73    | 134   | 151   | 237   | 710       |
| Positive influenza B tests                      | 3     | 2     | 15    | 14    | 17    | 14    | 117       |
| Non-differentiated influenza tests <sup>3</sup> | 0     | 0     | 0     | 0     | 0     | 0     | 0         |

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

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

| Week Ending<br>CDC Week                           | 12/10<br>49 | 12/17<br>50 | 12/24<br>51* | 12/31<br>52 | 1/7<br>1* | 1/14<br>2* | 9/11/16-<br>Present |
|---|-------------|-------------|--------------|-------------|-----------|------------|---------------------|
| Influenza hospitalizations <sup>4</sup>           | 3           | 8           | 17           | 42          | 39        | 66         | 201                 |
| Confirmed pediatric deaths <sup>5</sup>           | 0           | 0           | 0            | 0           | 0         | 0          | 0                   |
| Confirmed adult deaths <sup>6</sup>               | 0           | 0           | 0            | 0           | 0         | 0          | 0                   |
| Possible influenza-associated deaths <sup>7</sup> | 0           | 0           | 0            | 0           | 0         | 1          | 1                   |

<sup>&</sup>lt;sup>4</sup> Reflects all influenza-associated hospitalizations reported from hospitals located within Dallas County by week of any positive influenza tests

Data source(s): 15 Hospitals in Dallas County

Table 3. Confirmed Influenza-associated Pediatric and Adult Deaths, Dallas County: 2011–2017 Seasons

|           | 2011–2012 | 2012–2013 | 2013–2014 | 2014–2015 | 2015–2016 | 2016–2017 |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Pediatric | 1         | 3         | 3         | 0         | 1         | 0         |
| Adult     | 0         | 6         | 55        | 19        | 14        | 0         |

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

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

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

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

<sup>&</sup>lt;sup>6</sup> Confirmed influenza-associated deaths as defined by a positive laboratory test, compatible symptoms, and clear progression from illness to death, or determination by the County Medical Examiner's office (ME) of no alternate cause of death

<sup>&</sup>lt;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

<sup>\*</sup>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: 2016 - 2017 Seasons

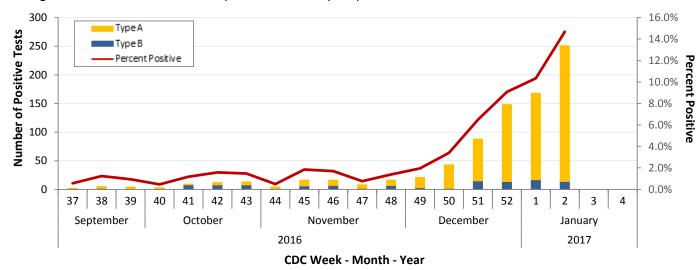
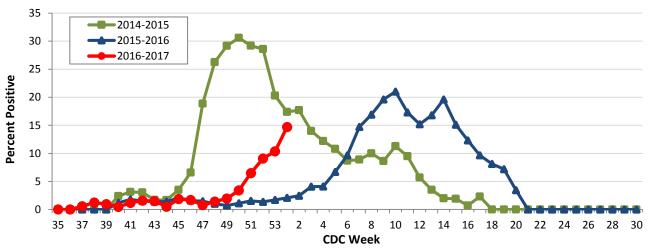
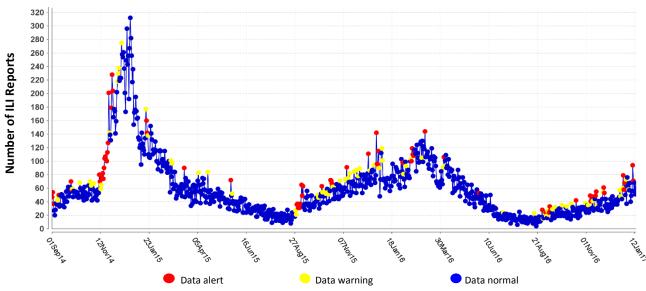


Figure 2. Influenza Positive Tests Reported to DCHHS by Hospital Laboratories: 2014–2016 Seasons



**Figure 3.** Syndromic Surveillance of Emergency Department Visits for Influenza-like Illness (ILI), Dallas County: September 1, 2014 – January 14, 2017



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.

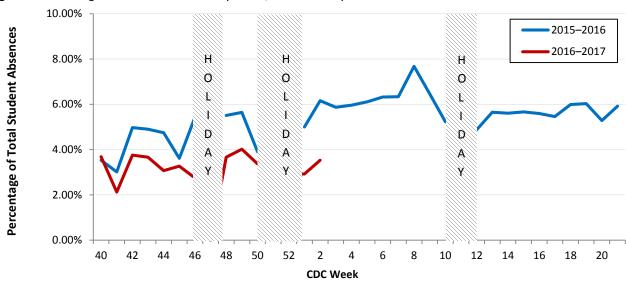
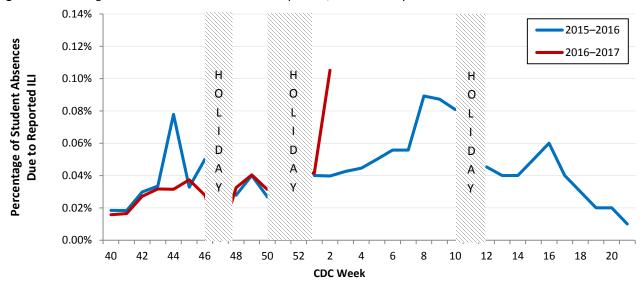


Figure 4. Percentage of Student Absences by Week, Dallas County: 2015-2016 and 2016-2017

Figure 5. Percentage of Student Absences Due to ILI by Week, Dallas County: 2015–2016 and 2016-2017



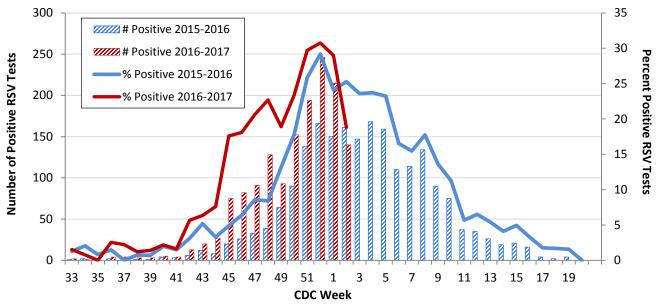
Data source: Voluntary reporting from Independent School Districts representing over 510 elementary, middle, and secondary schools and over 420,000 students in Dallas County

Table 4. Non-Influenza Respiratory Virus Testing by North Texas Laboratories Reported to NREVSS, Week 2

| Virus                    | Number of<br>Laboratories<br>Reporting | Tests Performed | Total Positive Tests | Percentage of Tests<br>Positive |  |
|--------------------------|--|-----------------|----------------------|---------------------------------|--|
| Adenovirus (respiratory) | 4                                      | 468             | 11                   | 2.4%                            |  |
| HMPV                     | 4                                      | 449             | 10                   | 2.2%                            |  |
| Parainfluenza virus      | 4                                      | 468             | 15                   | 3.2%                            |  |
| Rhinovirus/enterovirus   | 4                                      | 449             | 50                   | 11.1%                           |  |
| RSV                      | 4                                      | 745             | 140                  | 18.8%                           |  |

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 22, 2015 – January 14, 2017



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

**Table 5.** Number and Percent Positive RSV Rapid Antigen and PCR Tests by Week, NREVSS Surveillance Data, North Texas: August 20, 2016 – January 14, 2017

| Week Ending                | 12/3 | 12/10 | 12/17 | 12/24 | 12/31 | 1/7  | 1/14 | 8/20/16- |
|----------------------------|------|-------|-------|-------|-------|------|------|----------|
| CDC Week                   | 48*  | 49    | 50    | 51    | 52    | 1*   | 2*   | Present  |
| RSV tests performed weekly | 564  | 492   | 651   | 653   | 800   | 741  | 745  | 8,547    |
| Total positive RSV tests   | 128  | 93    | 152   | 194   | 246   | 215  | 140  | 1,502    |
| Percent positive RSV tests | 22.7 | 18.9  | 23.4  | 29.7  | 30.8  | 29.0 | 18.8 |          |

<sup>\*</sup>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)

## 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).

Phone: (214) 819-2004 Email: influenza@dallascounty.org