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

Week 15 ending April 13, 2019

Epidemiologic Summary

- Influenza activity remains low in Dallas County, with 4.6% of tests returning positive during week 15.
- Daily number of emergency department visits for influenza-like illness in Dallas County is decreasing, and 21 Influenza-associated hospitalizations were reported during week 15.
- One influenza-associated death of an adult was reported in week 15. One influenza-associated pediatric death has been reported during the 2018-2019 season in Dallas County.
- RSV continues to circulate locally, although activity has declined.

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

Week Ending	03/09	03/16	03/23	03/30	04/06	04/13	9/09/18 –
CDC Week	10	11	12	13	14*	15*	Present
Total Influenza PCR Tests	1,243	1,043	844	805	719	723	31,690
Number of positive PCR tests	124	112	57	30	19	14	2,346
Percent of positive PCR tests	10.0	10.7	6.8	3.7	2.6	1.9	
Total Rapid Influenza Diagnostic Tests	2,226	1,719	1,480	1,232	1,013	846	47,436
Number of positive RIDTs	367	240	178	109	55	59	8,773
Percent of positive RIDTs	16.5	14.0	12.0	8.8	5.4	7.0	
Total Influenza Tests Performed	3,482	2,774	2,331	2,050	1,747	1,581	79,311
Total positive influenza tests ¹	491	352	235	139	74	73	11,120
Percent positive influenza tests	14.1	12.7	10.1	6.8	4.2	4.6	
Positive influenza A tests ²	454	315	190	95	48	41	10,204
Positive influenza B tests	37	37	45	44	26	32	915
Non-differentiated influenza tests ³	0	0	0	0	0	0	1

¹ 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	03/09	03/16	03/23	03/30	04/06	04/13	04/20	9/09/18 –
CDC Week	10	11	12	13	14*	15*	16*	Present
Influenza hospitalizations ⁴	83	86	44	27	13	21	N/A	1,522
Influenza ICU admissions ⁴	18	17	9	2	2	3	N/A	263
Confirmed pediatric deaths ⁵	0	0	0	0	0	0	0	1
Confirmed adult deaths ⁶	2	0	0	1	1	1	0	17
Possible influenza-associated deaths ⁷	0	0	0	0	0	0	0	0

⁴ 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

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	17

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

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

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

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

⁶ 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

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

^{*}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

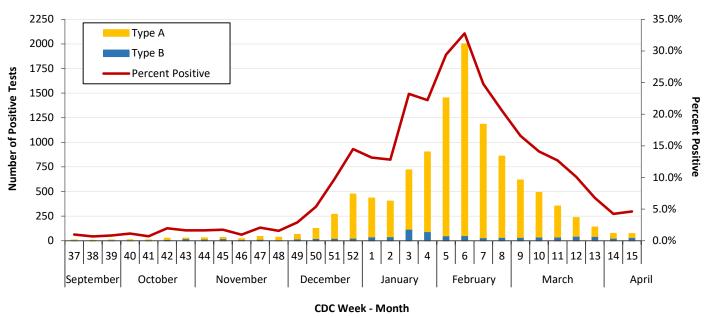


Figure 2. Influenza Positive Tests Reported to DCHHS by Hospital Laboratories: 2016—2019 Seasons

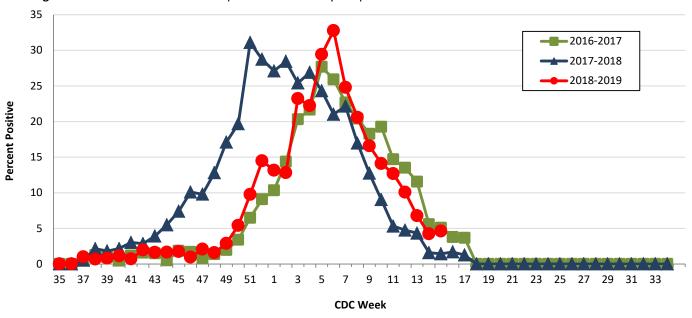


Table 4. Influenza Typing and Subtyping from Cumulative Dallas County, Texas, and U.S. Laboratory Surveillance Data: 2018—2019 Season

	Dallas ¹ (n=386)	Texas² (n=2,277)	U.S. ³ (n= 71,382)
Influenza A	263 (99.6%)	1,243 (93.3%)	37,005 (96.6%)
H1N1 2009 subtype	69 (26.3%)	386 (31.3%)	20,854 (58.6%)
H3N2 subtype	193 (73.7%)	848 (68.7%)	14,749 (41.4%)
Not subtyped	1	9	1,402
Influenza B	1 (0.4%)	89 (6.7%)	1,286 (3.4%)
Yamagata strain	1 (100.0%)	22 (*31.0%)	319 (*40.2%)

¹ 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

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

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

400 350 2017-2018 **Number of Patients** 300 Season 2016-2017 250 Season 2014-2015 2018-2019 200 Season Season 150 2015-2016 100 Season 50 0 40 50 35 45 3 13 23 33 43 1 11 21 31 41 51 9 19 29 39 **CDC Week**

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

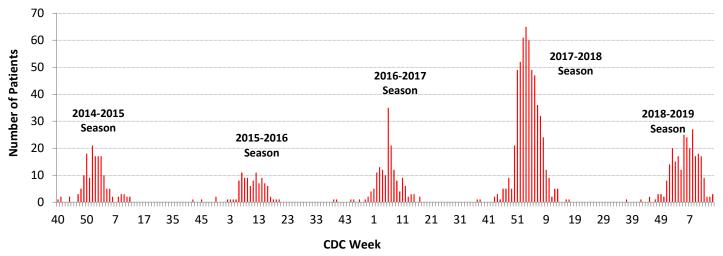
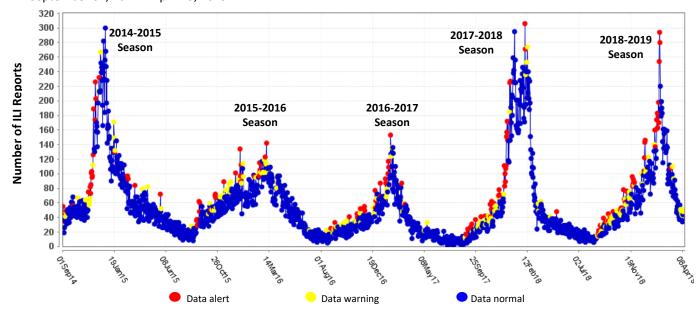


Figure 5. Syndromic Surveillance of Emergency Department Visits for Influenza-like Illness (ILI), Dallas County: September 01, 2014 – April 13, 2019



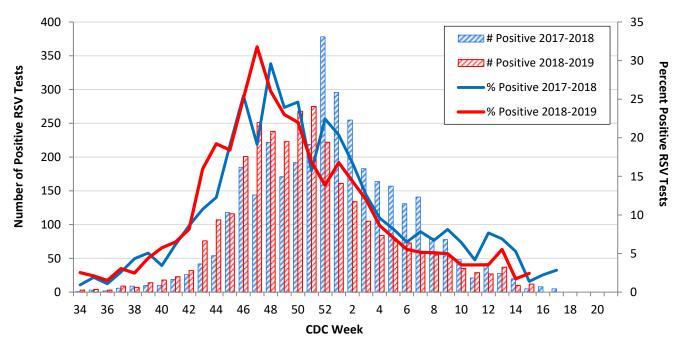
Data source: 18 emergency departments in Dallas County hospitals participating in the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) voluntarily reporting the numbers of persons presenting with self-reported chief complaints of ILI.

Table 5. Non-Influenza Respiratory Virus Testing by North Texas Laboratories Reported to NREVSS, Week 15

Virus	Number of Laboratories Reporting	Tests Performed	Total Positive Tests	Percentage of Tests Positive	
Adenovirus (respiratory)	4	333	16	4.8	
HMPV	4	321	29	9.0	
Parainfluenza virus	4	343	29	8.5	
Rhinovirus/Enterovirus	4	321	104	32.4	
RSV	4	495	12	2.4	

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 – April 13, 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 – April 13, 2019

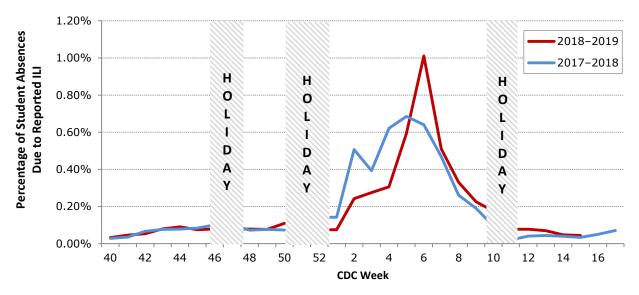
Week Ending	03/02	03/09	03/16	03/23	03/30	04/06	04/13	8/25/18-
CDC Week	9	10	11	12	13	14*	15*	Present
RSV tests performed weekly	1,064	995	821	764	668	584	495	25,770
Total positive RSV tests	53	35	29	27	37	10	12	3,038
Percent positive RSV tests	5.0	3.5	3.5	3.5	5.5	1.7	2.4	

^{*}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)

8.00% 2018-2019 Percentage of Total Student Absences 2017-2018 6.00% H H O 0 0 L 4.00% D D D A A A Y 2.00% 0.00% 10 52 2 4 6 8 40 42 44 46 48 50 12 14 16 **CDC** Week

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*).

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