



Dallas County Health and Human Services 2017–2018 Influenza Surveillance Report

Week 8 ending February 24, 2018

Epidemiologic Summary

- Influenza activity remains high in Dallas County with 17.0% of tests returning positive during week 8. Nationally, 21.6% of specimens reported to CDC were positive for influenza.
- During week 8, the most frequently identified influenza virus type in Dallas County was influenza B (68%). All influenza B strains tested locally have been the Yamagata strain.
- Numbers of emergency department visits for influenza-like illness in Dallas County and influenza-associated hospitalizations remained high during week 8.
- One influenza-associated death of an adult was reported in week 8, and another was reported in week 9. One influenza-associated pediatric death has been reported during the 2017-2018 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	01/20	01/27	02/03	02/10	02/17	02/24	9/10/17 – Present
CDC Week	3	4	5	6	7*	8*	
Total Influenza PCR Tests	1,669	1,776	1,741	1,969	1,800	1,479	25,305
Number of positive PCR tests	471	476	369	310	383	215	4,736
Percent of positive PCR tests	28.2	26.8	21.2	15.7	21.3	14.5	
Total Rapid Influenza Diagnostic Tests	3,912	4,710	5,108	4,604	4,055	2,987	50,779
Number of positive RIDTs	950	1,270	1,300	1,074	917	549	11,741
Percent of positive RIDTs	24.3	27.0	25.5	23.3	22.6	18.4	
Total Influenza Tests Performed	5,593	6,492	6,863	6,585	5,870	4,483	77,041
Total positive influenza tests ¹	1,421	1,746	1,669	1,384	1,301	764	16,485
Percent positive influenza tests	25.4	26.9	24.3	21.0	22.2	17.0	
Positive influenza A tests ²	973	988	766	552	457	245	10,791
Positive influenza B tests	448	758	903	832	844	519	5,694
Non-differentiated influenza tests ³	0	0	0	0	0	0	0

¹ Includes positive rapid antigen, PCR, DFA, or culture results

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

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

Week Ending	01/20	01/27	02/03	02/10	02/17	2/24	03/03	9/10/17 – Present
CDC Week	3	4	5	6	7*	8*	9*	
Influenza hospitalizations ⁴	247	274	214	200	194	112	N/A	2,766
Influenza ICU admissions ⁴	60	49	47	36	32	24	N/A	528
Confirmed pediatric deaths ⁵	1	0	0	0	0	0	0	1
Confirmed adult deaths ⁶	11	7	5	2	3	1	1	71
Possible influenza-associated deaths ⁷	0	1	0	1	0	0	1	3

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

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: 2017—2018 Seasons

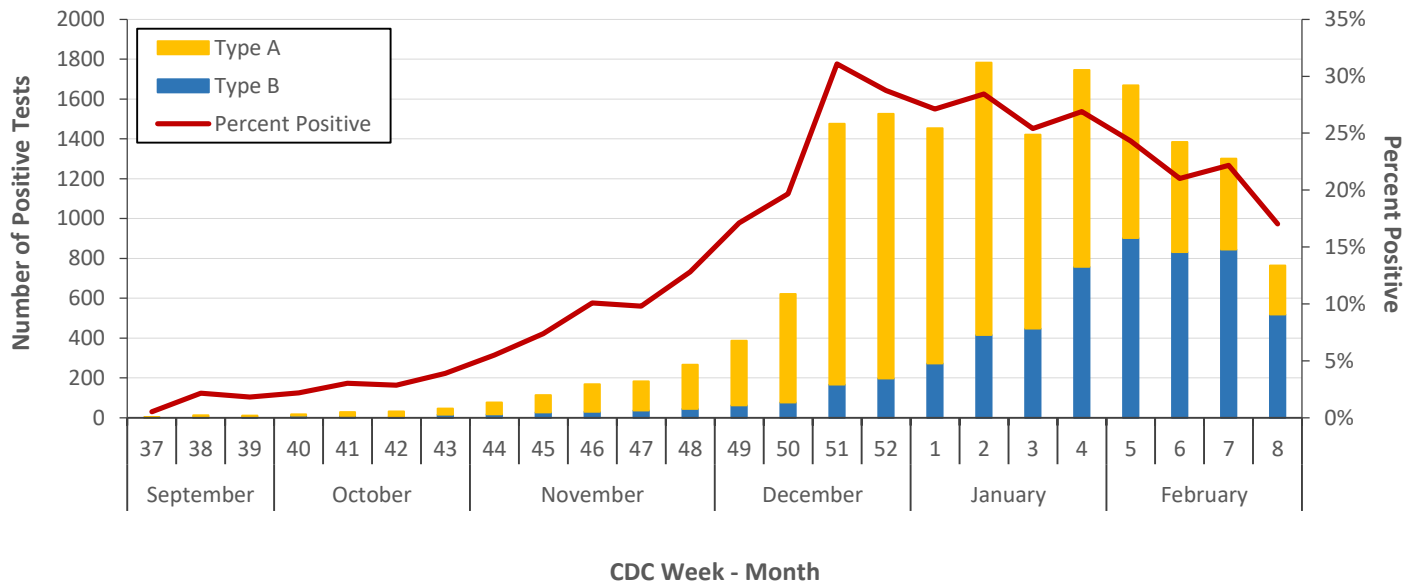
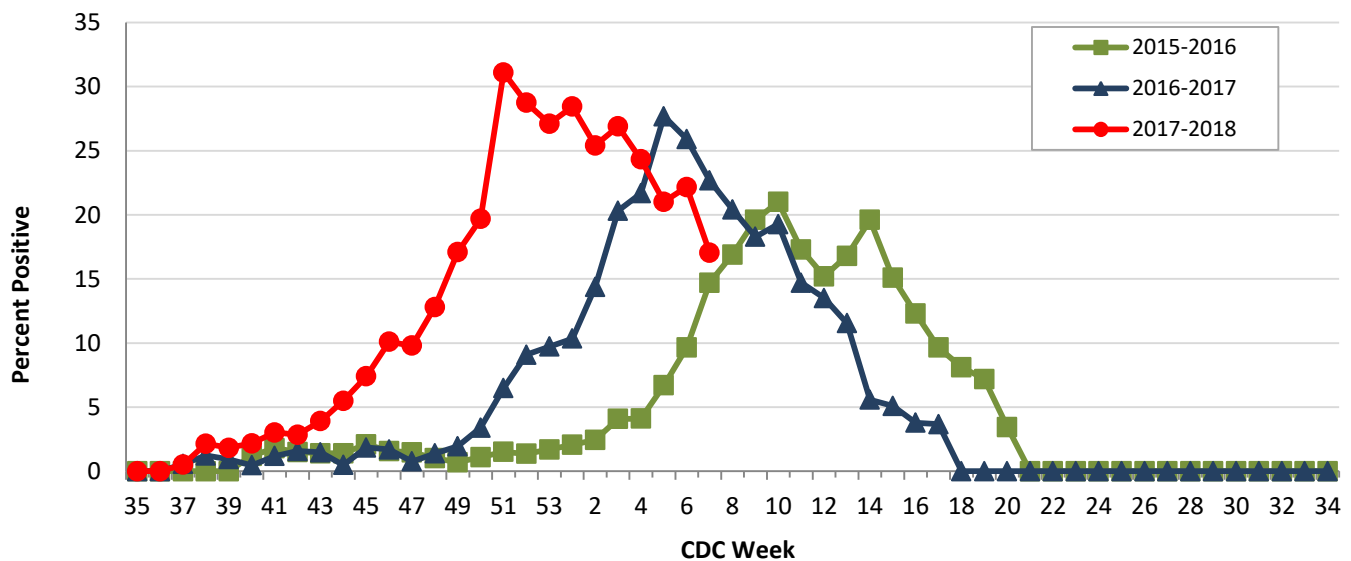


Figure 2. Influenza Positive Tests Reported to DCHHS by Hospital Laboratories: 2015—2018 Seasons



Note: For Figure 2 and all subsequent trend overlays there is no week 53 for the 2015-2016, 2016-17, or 2017-2018 influenza seasons, therefore week 53 data point for those seasons is an average of week 52 and week 1.

Table 3. Influenza Typing and Subtyping from Cumulative Dallas County, Texas, and U.S. Laboratory Surveillance Data: 2017—2018 Season

	Dallas ¹ (n=412)	Texas ² (n= 1,335)	U.S. ³ (n= 39,351)
Influenza A	359 (87.1%)	1,045 (78.3%)	31,290 (79.5%)
H1N1 2009 subtype	137 (38.9%)	259 (25.1%)	3,825 (12.4%)
H3N2 subtype	215 (61.1%)	772 (74.9%)	27,096 (87.6%)
Not subtyped	7	14	369
Influenza B	55 (13.3%)	286 (21.4%)	8,061 (20.5%)
Yamagata strain	55 (100%)	228 (91.6%)	5,189 (64.4%)

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 2017–2018 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/>

Figure 3. Influenza Hospitalizations by Week of Admission, Dallas County: 2013–2018 Seasons

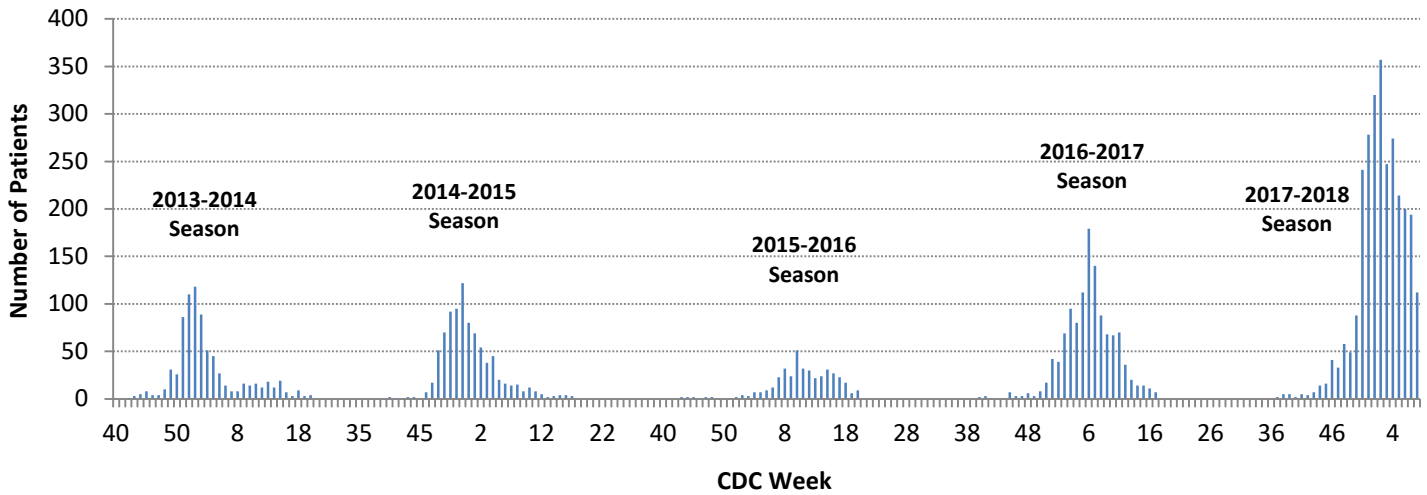


Figure 4. Intensive Care Unit Hospitalizations for influenza by Week of Admission, Dallas County: 2013–2018 Seasons

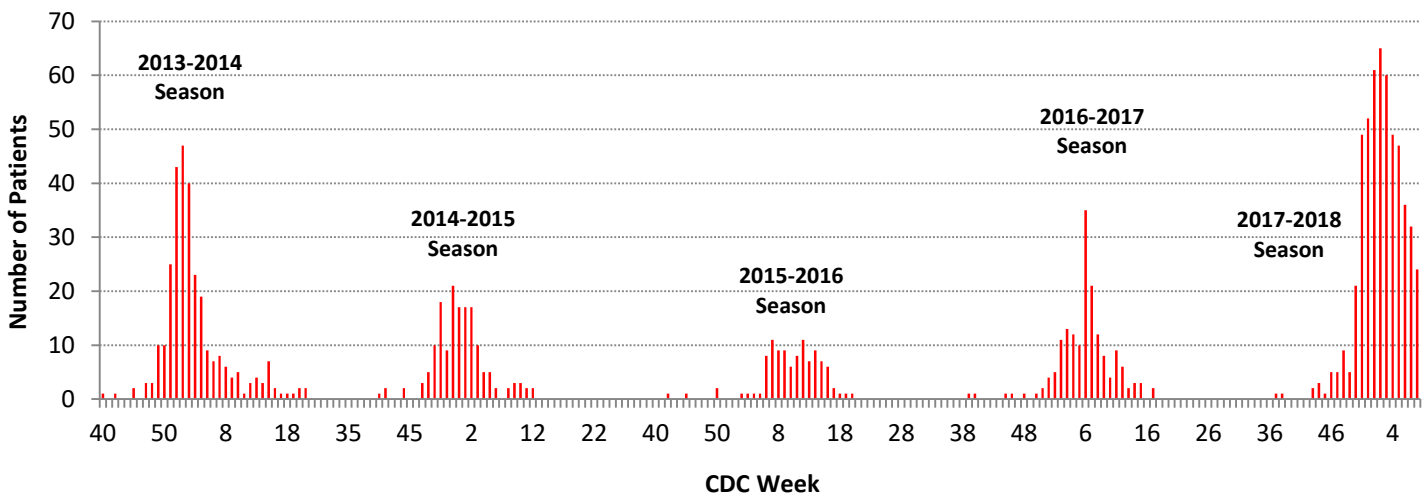
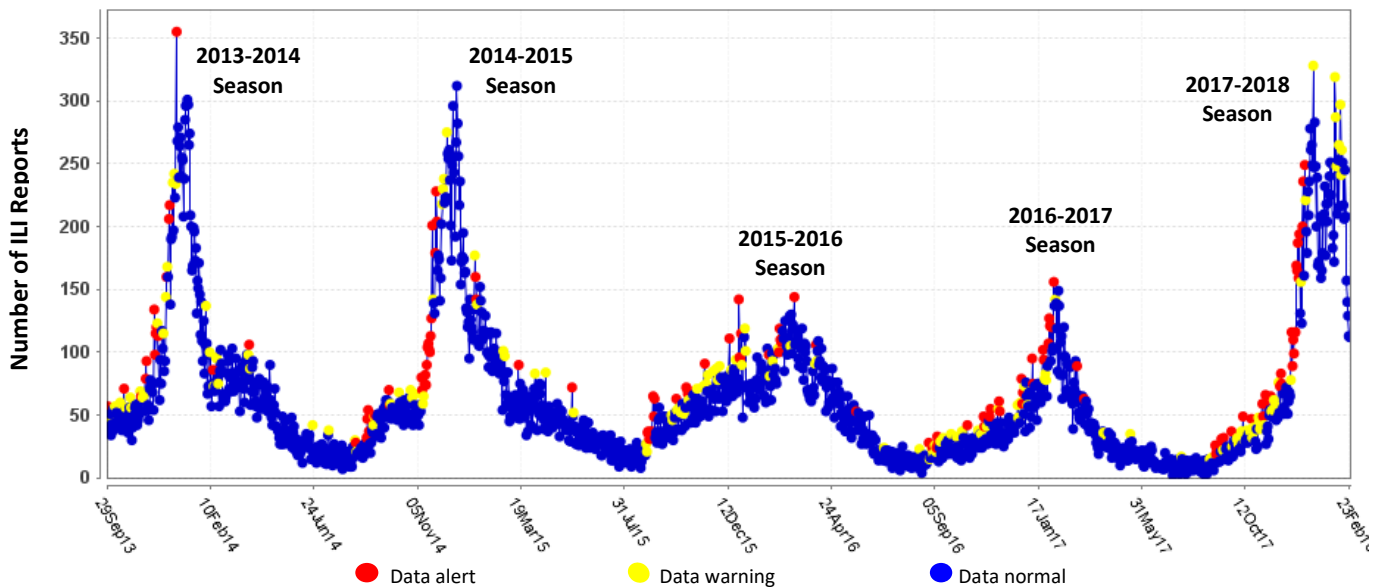


Figure 5. Syndromic Surveillance of Emergency Department Visits for Influenza-like Illness (ILI), Dallas County: September 29, 2013 – February 24, 2018



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 4. Characteristics of Influenza-associated ICU Hospitalizations, Dallas County Hospitals: Week 37 to Present

ICU Admissions		N=455
Influenza Type	Influenza A*	320 (70.3%)
	Influenza B	132 (29.1%)
Gender	Female	228 (50.1%)
	Male	227 (49.9%)
Race	Black	139 (30.6%)
	Hispanic	67 (14.7%)
	White	200 (44.0%)
	Other	49 (10.8%)
Age	0 to 4	22 (4.8%)
	5 to 18	17 (3.7%)
	>18 to 50	83 (18.2%)
	>50 to 65	114 (25.1%)
	>65	219 (48.1%)
Presence of ≥ 1 underlying high risk medical conditions		384 (84.4%)
Mechanical Ventilation		146 (32.1%)
BiPAP		128 (28.1%)
ECMO		13 (2.9%)

Data Source(s): All Hospitalizations in Dallas County reported to DCHHS with any positive rapid antigen, PCR, DFA or culture result for influenza; * includes seven patients co-infected with influenza A and type B; ¹ Available from the CDC website at https://www.cdc.gov/flu/about/disease/high_risk.htm

Table 5. Characteristics of Influenza-Related Deaths, Dallas County Residents: Week 37 to Present

Total Deaths		N=72
Influenza Type	Influenza A*	49 (68.1%)
	Influenza B [†]	25 (34.7%)
Gender	Female	39 (54.2%)
	Male	33 (45.8%)
Race	Black	16 (22.2%)
	Hispanic	14 (19.4%)
	White	33 (45.8%)
	Other	9 (12.5%)
Age	0 to 18	1 (1.4%)
	>18 to 65	22 (30.6%)
	>65	49 (68.1%)
Presence of ≥ 1 underlying high risk medical conditions		69 (95.8%)

*Of the six influenza A viruses that were subtyped, four were H1N1 and two were H3N2. [†] Two individuals were dual positive for influenza A and B.

Table 6. Confirmed Influenza-associated Pediatric and Adult Deaths, Dallas County: 2011–2018 Seasons

	2012–2013	2013–2014	2014–2015	2015–2016	2016–2017	2017–2018
Pediatric	3	3	0	1	1	1
Adult	6	55	19	14	16	71

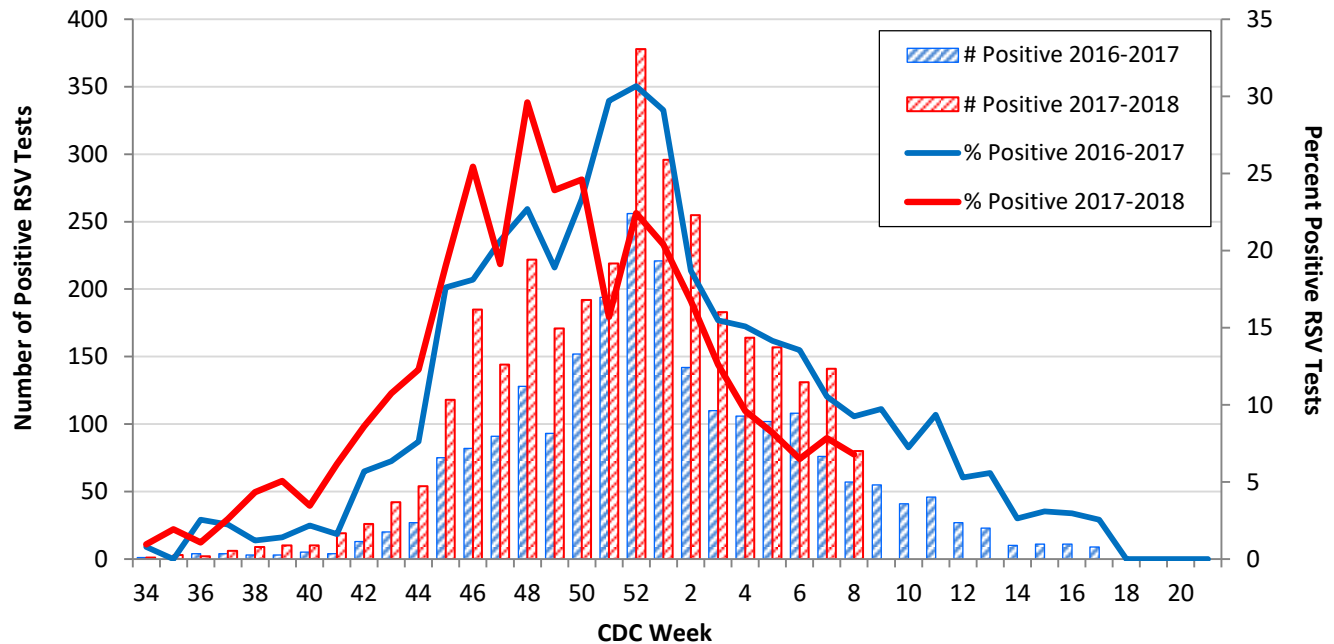
Data source: Reports of confirmed influenza-associated deaths, as defined in Table 2.

Table 7. Non-Influenza Respiratory Virus Testing by North Texas Laboratories Reported to NREVSS, Week 8

Virus	Number of Laboratories Reporting	Tests Performed	Total Positive Tests	Percentage of Tests Positive
Adenovirus (respiratory)	4	420	13	3.1%
HMPV	4	403	21	5.2%
Parainfluenza virus	4	420	7	1.7%
Rhinovirus/Enterovirus	4	492	102	20.7%
RSV	4	1,181	80	6.8%

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 27, 2016 – February 24, 2017



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

Table 8. Number and Percent Positive RSV Rapid Antigen and PCR Tests by Week, NREVSS Surveillance Data, North Texas: August 26, 2017 – February 24, 2017

Week Ending	01/13	01/20	01/27	02/03	02/10	02/17	02/24	8/26/17–Present
CDC Week	2	3	4	5	6	7	8*	
RSV tests performed weekly	1,523	1,451	1,709	1,916	2,019	1,799	1,181	23,302
Total positive RSV tests	255	183	164	157	131	141	80	3,218
Percent positive RSV tests	16.7	12.6	9.6	8.2	6.4	7.8	6.8	

*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: 2016-2017 and 2017-2018

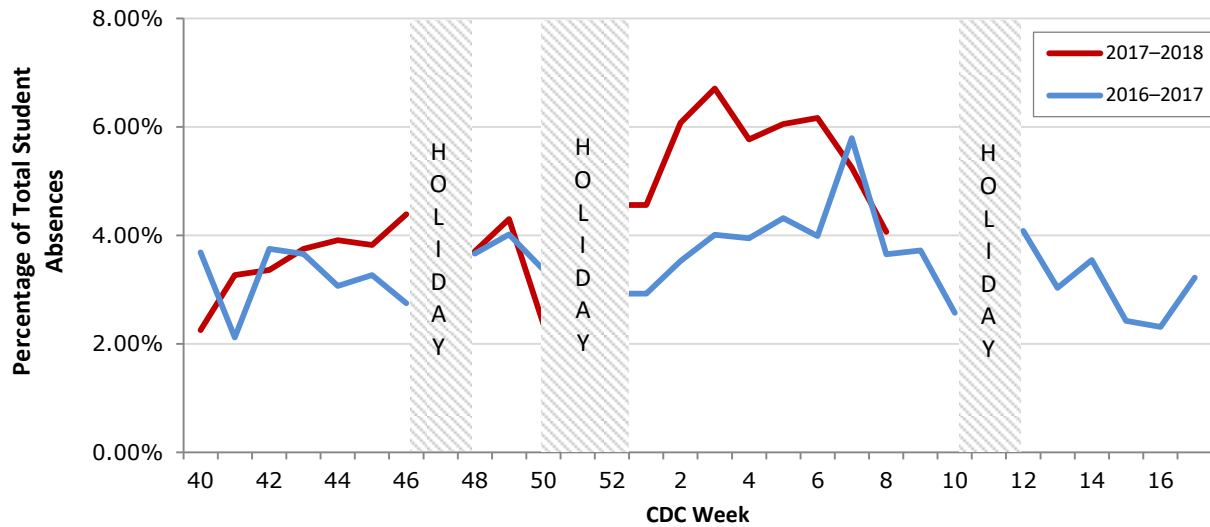
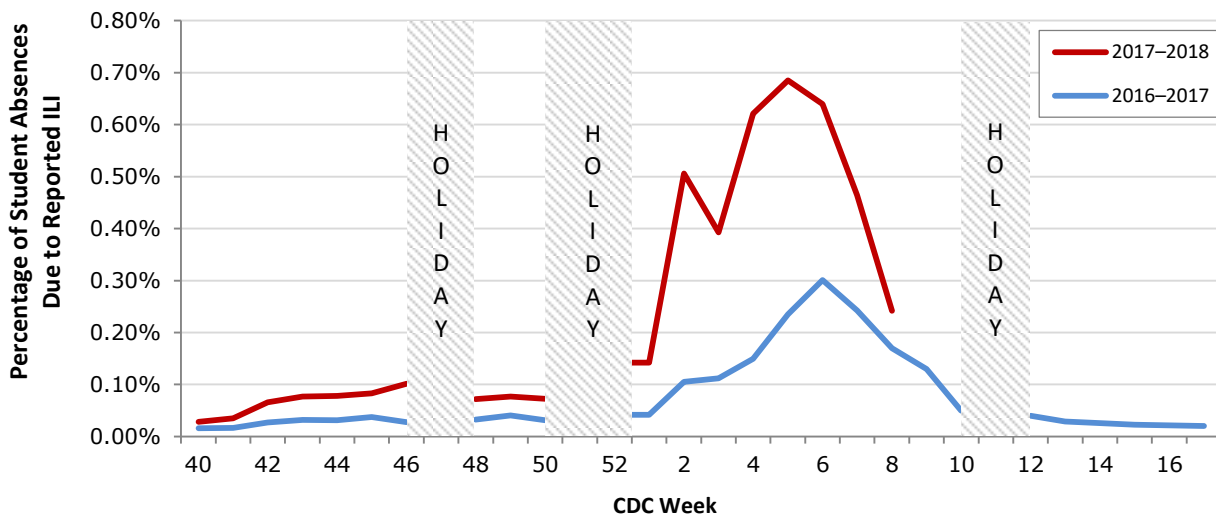


Figure 8. Percentage of Student Absences Due to ILI by Week, Dallas County: 2016-2017 and 2017-2018



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