



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

Week 51 ending December 23, 2017

Epidemiologic Summary

- Influenza activity has sharply increased in Dallas County with 31.1% of tests returning positive during week 51. Nationally, 22.4% of specimens reported to CDC were positive for influenza.
- Daily numbers of emergency department visits for influenza-like illness in Dallas County have increased and 241 influenza-associated hospitalizations were reported during week 51.
- One influenza-associated death of an adult was reported in week 51, and another was reported in week 52. No influenza-associated pediatric deaths have been reported during the 2017-2018 season in Dallas County.
- RSV activity is increasing.

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

Week Ending	11/18	11/25	12/02	12/09	12/16	12/23	9/10/17 – Present
CDC Week	46	47	48	49	50*	51*	
Total Influenza PCR Tests	746	696	787	807	1,042	1,400	9,695
Number of positive PCR tests	60	41	78	83	177	402	955
Percent of positive PCR tests	8.0	5.9	9.9	10.3	17.0	28.7	
Total Rapid Influenza Diagnostic Tests	877	1,130	1,242	1,387	2,069	3,259	13,859
Number of positive RIDTs	109	141	189	303	445	1,074	2,484
Percent of positive RIDTs	12.4	12.5	15.2	21.9	21.5	32.0	
Total Influenza Tests Performed	1,674	1,858	2,085	2,257	3,160	4,747	24,220
Total positive influenza tests ¹	169	182	267	386	622	1,476	3,439
Percent positive influenza tests	10.1	9.8	12.8	17.1	19.7	31.1	
Positive influenza A tests ²	139	145	223	323	546	1,310	2,934
Positive influenza B tests	30	37	44	63	76	166	505
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	11/18	11/25	12/02	12/09	12/16	12/23	12/30	9/10/17 – Present
CDC Week	46	47	48	49	50*	51*	52*	
Influenza hospitalizations ⁴	41	33	58	49	88	241	N/A	570
Confirmed pediatric deaths ⁵	0	0	0	0	0	0	N/A	0
Confirmed adult deaths ⁶	0	0	1	1	1	1	1	5
Possible influenza-associated deaths ⁷	0	0	0	0	0	0	N/A	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

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, 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

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

Table 3. 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	0
Adult	6	55	19	14	16	5

Data source: 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: 2017 - 2018 Seasons

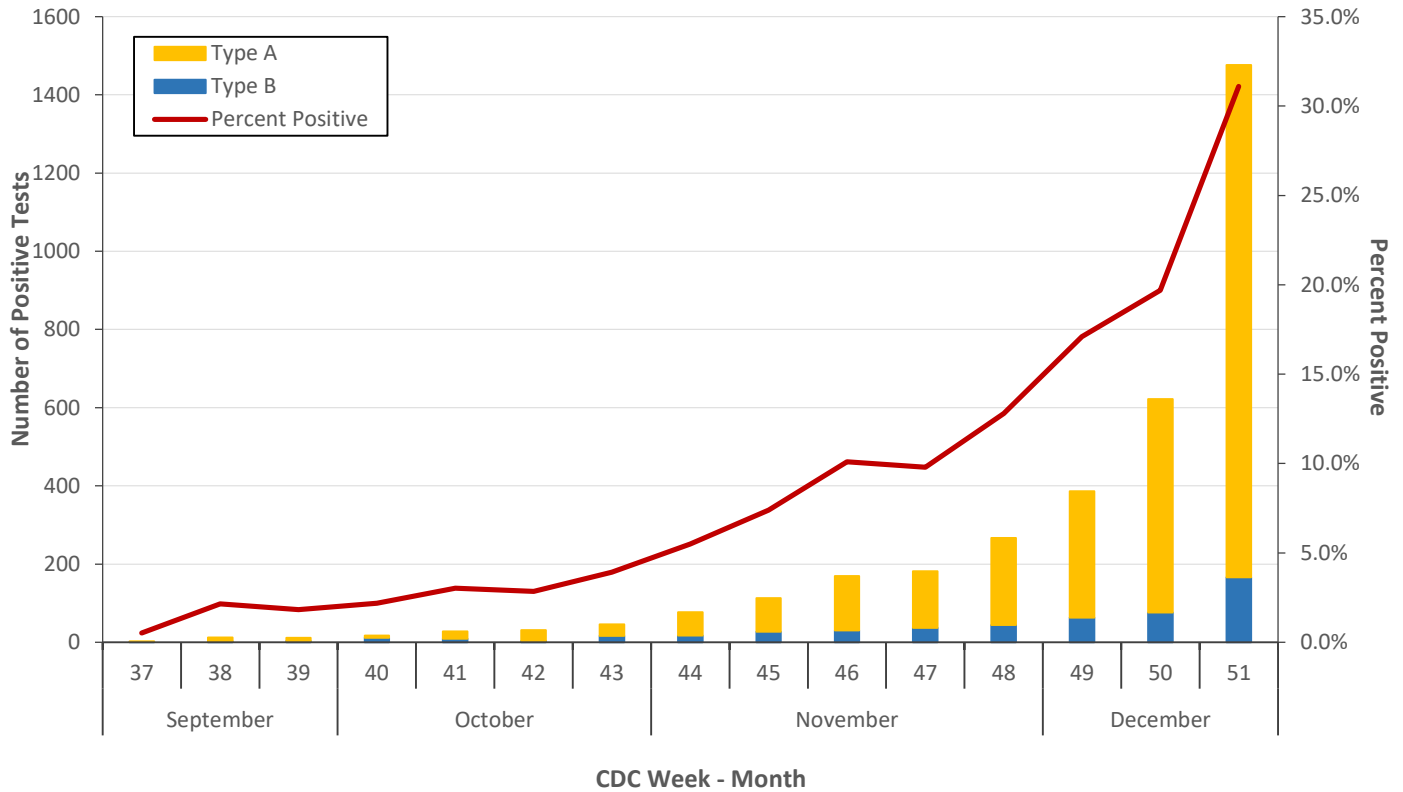
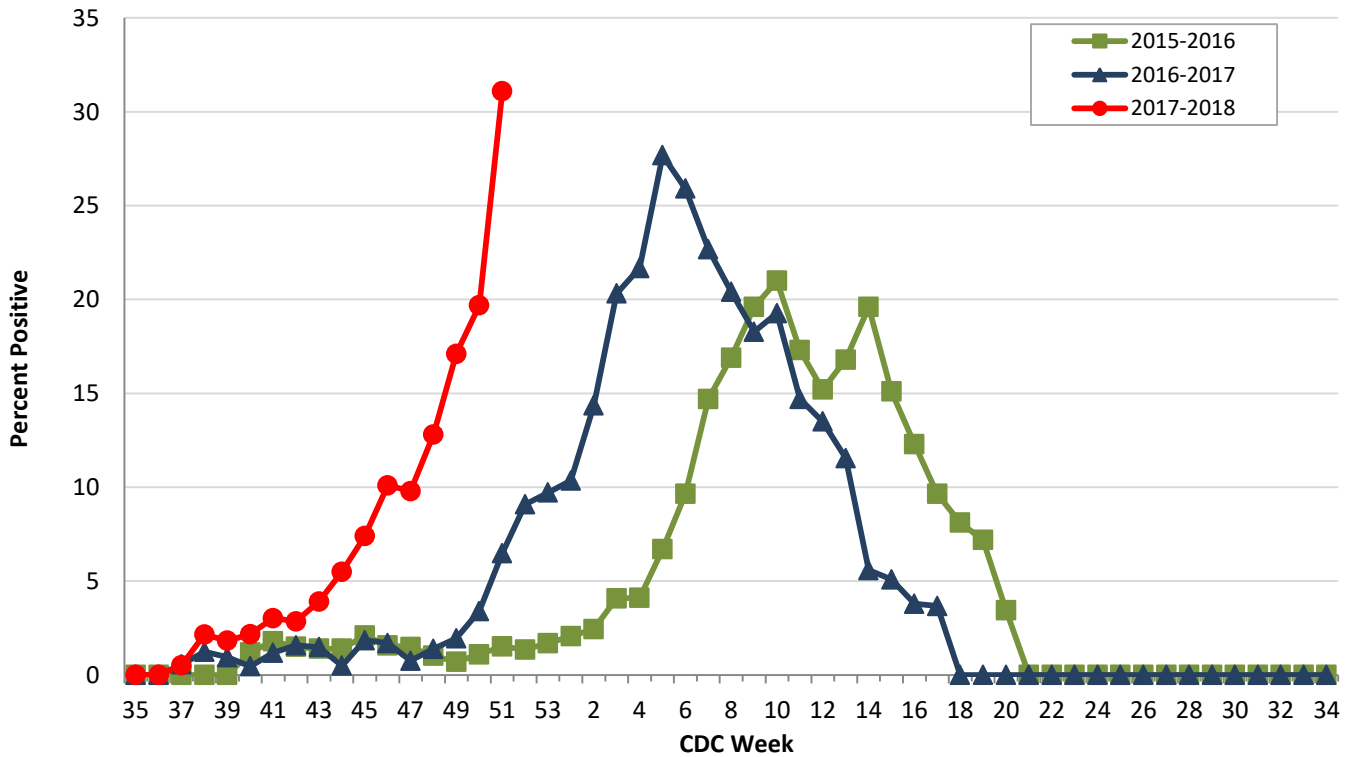


Figure 2. Influenza Positive Tests Reported to DCHHS by Hospital Laboratories: 2015–2018 Seasons



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

Figure 3. Hospitalized Influenza Patients by Week of Admission, Dallas County: 2016-2018 Seasons

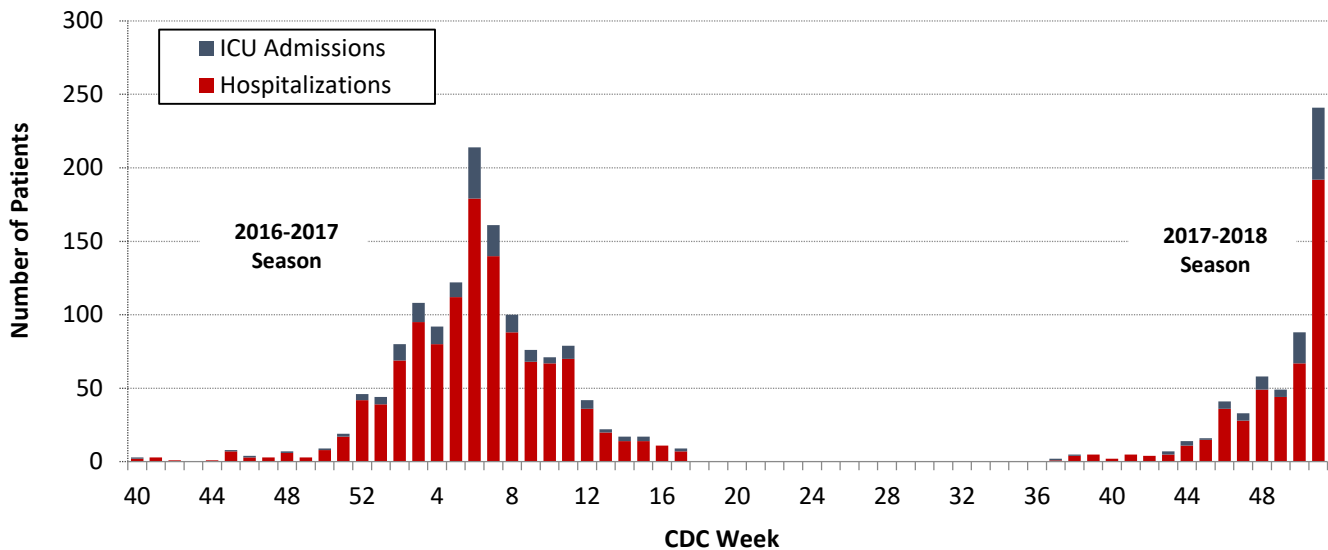
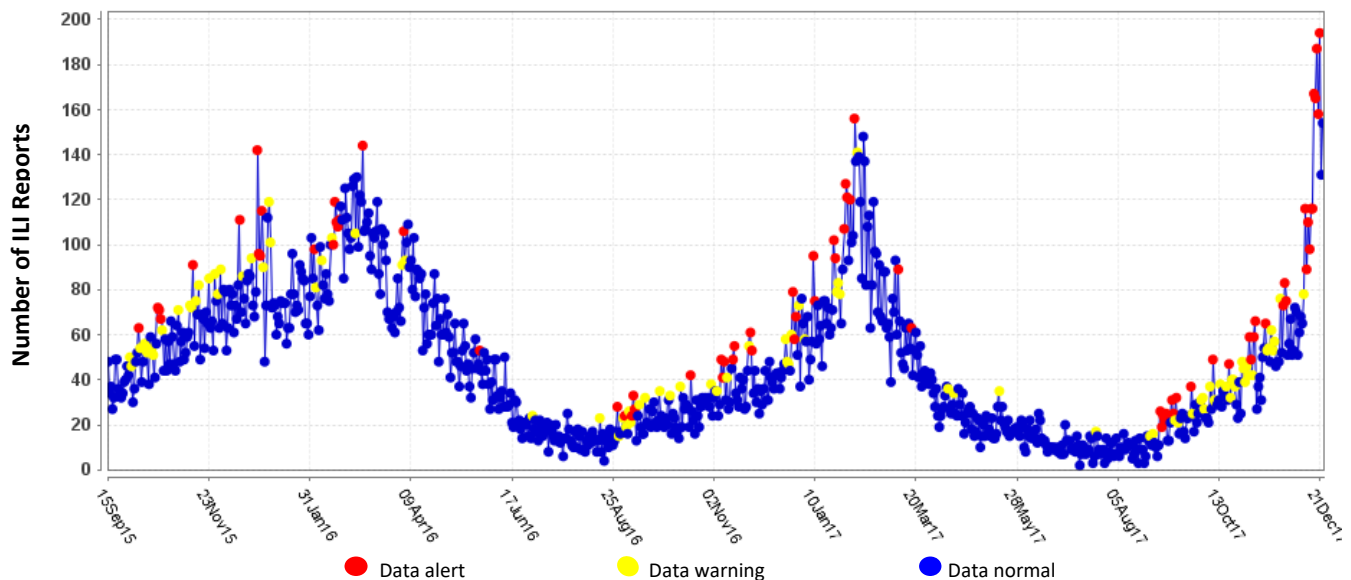


Figure 4. Syndromic Surveillance of Emergency Department Visits for Influenza-like Illness (ILI), Dallas County: September 1, 2015 – December 23, 2017



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.

Table 4. Influenza Typing and Subtyping from Cumulative Dallas County, Texas, and U.S. Laboratory Surveillance Data: 2017-2018 Season

	Dallas ¹ (n=155)	Texas ² (n= 3,814)	U.S. ³ (n=6,562)
Influenza A	139 (89.7%)	3,133 (82.1%)	5,731 (87.3%)
H1N1 2009 subtype	64 (46.0%)	150 (24.2%)	482 (8.5%)
H3N2 subtype	75 (54.0%)	471 (75.8%)	5,169 (91.5%)
Not subtyped	0	2,512	80
Influenza B	16 (10.3%)	681 (17.9%)	831 (12.7%)

¹ DCHHS LRN laboratory PCR testing of designated Dallas County surveillance site isolates

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 5. Percentage of Student Absences by Week, Dallas County: 2016-2017 and 2017-2018

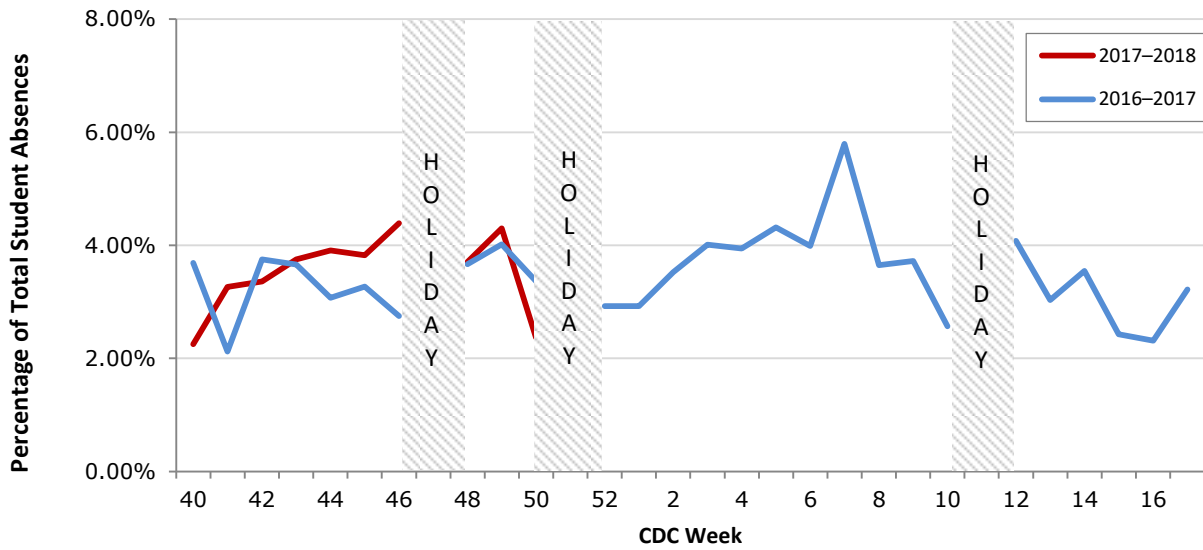
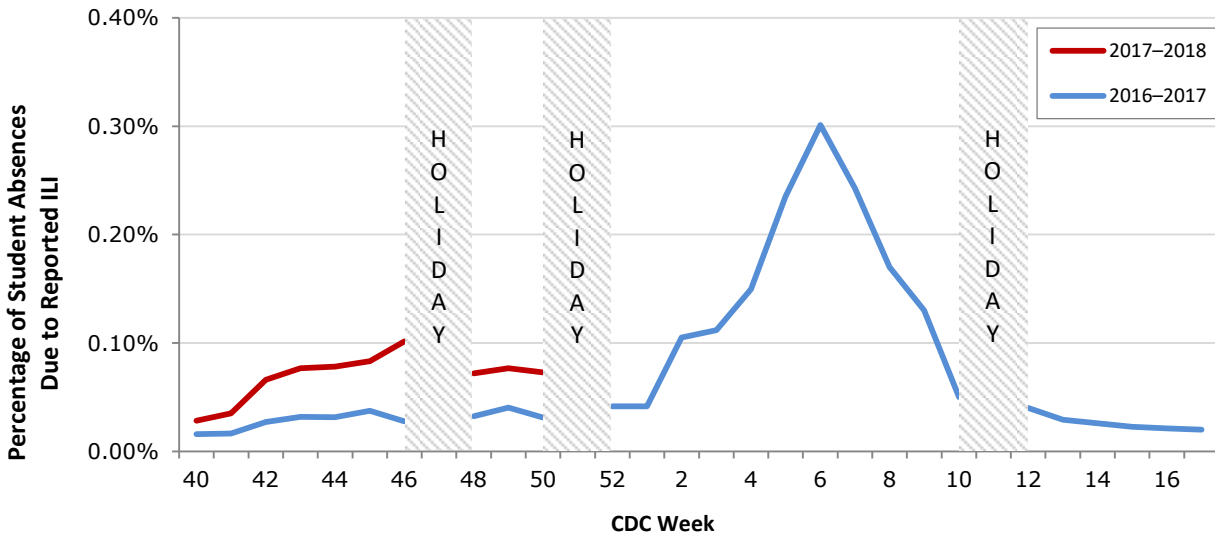


Figure 6. Percentage of Student Absences Due to ILI by Week, Dallas County: 2016-2017 and 2017-2018



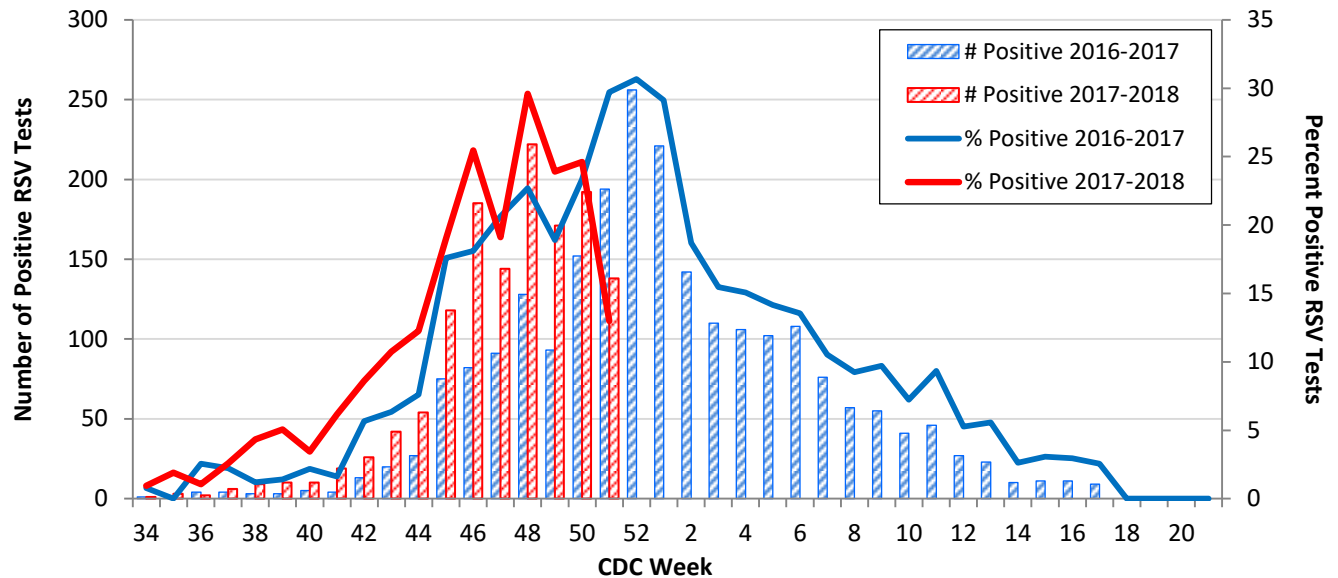
Data source: Voluntary reporting from Independent School Districts representing over 510 elementary, middle, and secondary schools and over 420,000 students in Dallas County

Table 5. Non-Influenza Respiratory Virus Testing by North Texas Laboratories Reported to NREVSS, Week 51

Virus	Number of Laboratories Reporting	Tests Performed	Total Positive Tests	Percentage of Tests Positive
Adenovirus (respiratory)	3	274	6	2.2%
HMPV	3	226	1	0.4%
Parainfluenza virus	3	274	8	2.9%
Rhinovirus/Enterovirus	3	258	34	13.2%
RSV	3	1,062	138	13.0%

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

Figure 7. Number and Percent Positive RSV Rapid Antigen and PCR Tests by Week, NREVSS Surveillance Data, North Texas: August 27, 2016 – December 23, 2017



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 26, 2017 – December 23, 2017

Week Ending	11/11	11/18	11/25	12/02	12/09	12/16	12/23	8/26/17– Present
CDC Week	45	46	47	48	49	50	51*	
RSV tests performed weekly	620	733	753	750	715	780	1,062	8,234
Total positive RSV tests	118	185	144	222	171	192	138	1,352
Percent positive RSV tests	19.0	25.2	19.1	29.6	23.9	24.6	13.0	

*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*).

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