

# Denton County Public Health

## 2018 – 2019 Influenza Surveillance Program

### CDC Week 1, Week Ending January 5, 2019



## Epidemiologic Overview

### Denton County

- Moderate influenza activity was reported in Denton County for week 1.
- 52 positive influenza tests (40 Flu A and 12 Flu B) and 15 hospitalizations were reported by Denton County sentinel providers for week 1.
- Syndromic surveillance for influenza-like illness (ILI) in Denton County decreased for week 1 when compared to the previous week.

### Texas

- Influenza activity in the state of Texas was reported as regional in week 1.
- The percentage of visits for ILI as reported by ILINet providers decreased to 5.1% in week 1 compared to the previous week.
- The percentage of specimens testing positive for influenza in Texas decreased to 15.6% in week 1 compared to the previous week.

### US

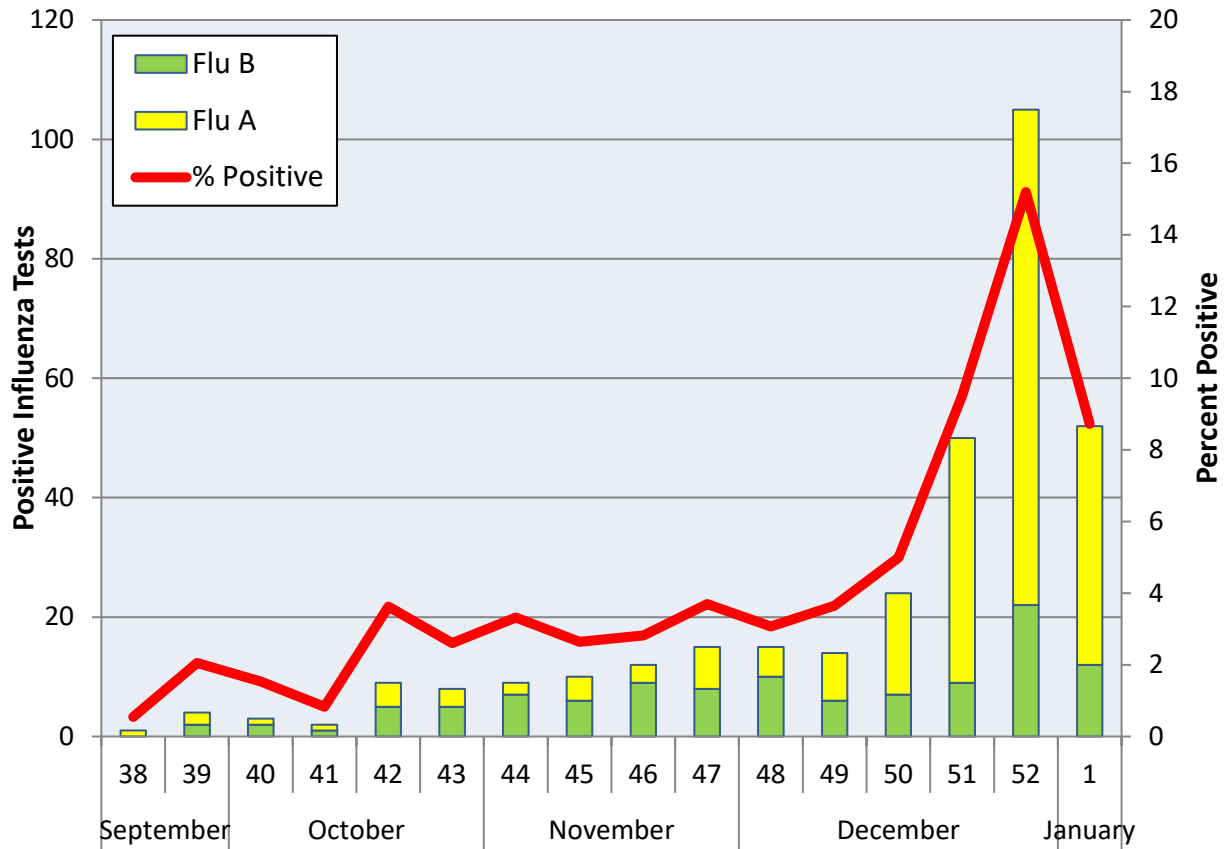
- The proportion of outpatient visits for influenza-like illness (ILI) was 3.5%, which is above the national baseline of 2.2%. 10 of 10 regions reported ILI at or above their region-specific baseline level.
- The geographic spread of influenza in 30 states was reported as widespread; 17 states was reported as regional; 2 states was reported as local; and 1 state reported sporadic activity.
- The percentage of specimens testing positive for influenza in the US was 12.7%.
- The proportion of deaths attributed to pneumonia and influenza (P&I) from the National Center for Health Statistics Mortality Surveillance System for week 52 was 6.4%. This percentage is below the epidemic threshold of 7.0% for week 52.

**Figure 1. Influenza Surveillance Summary: Denton County Hospitals and Providers**

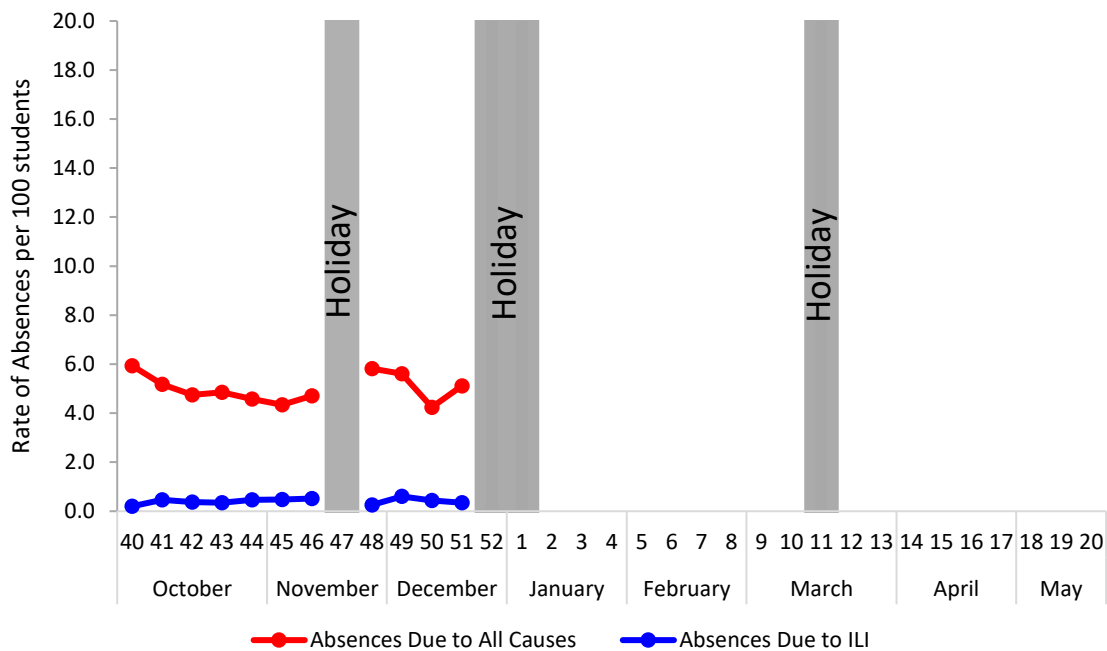
Week Ending	12/1/18	12/8/18	12/15/18	12/22/18	12/29/18	1/05/19	9/22/18 - Present
<b>CDC Week</b>	48	49	50	51	52	1	
<b>Influenza Tests Performed Weekly</b>	488	383	481	525	691	596	6016
<b>Total Positive Influenza Tests</b>	15	14	24	50	105	52	333
<b>Percent Positive Influenza Tests*</b>	3.1%	3.7%	5.0%	9.5%	15.2%	8.7%	
<b>Positive A Influenza</b>	5	8	17	41	83	40	222
<b>Positive B Influenza</b>	10	6	7	9	22	12	111
<b>Non-differentiated Influenza</b>	0	0	0	0	0	0	0
<b>Influenza Hospitalizations</b>	5	1	5	3	16	15	64
<b>Influenza-associated Pediatric Deaths</b>	0	0	0	0	0	0	0
<b>Influenza-associated Adult Deaths</b>	0	0	0	0	0	0	0

\* Percent positive tests only includes positive tests from providers reporting number of tests performed weekly

**Figure 2. Influenza Positive Tests and Percent Positive, Denton County Hospitals and Providers, 2018-2019 Season**

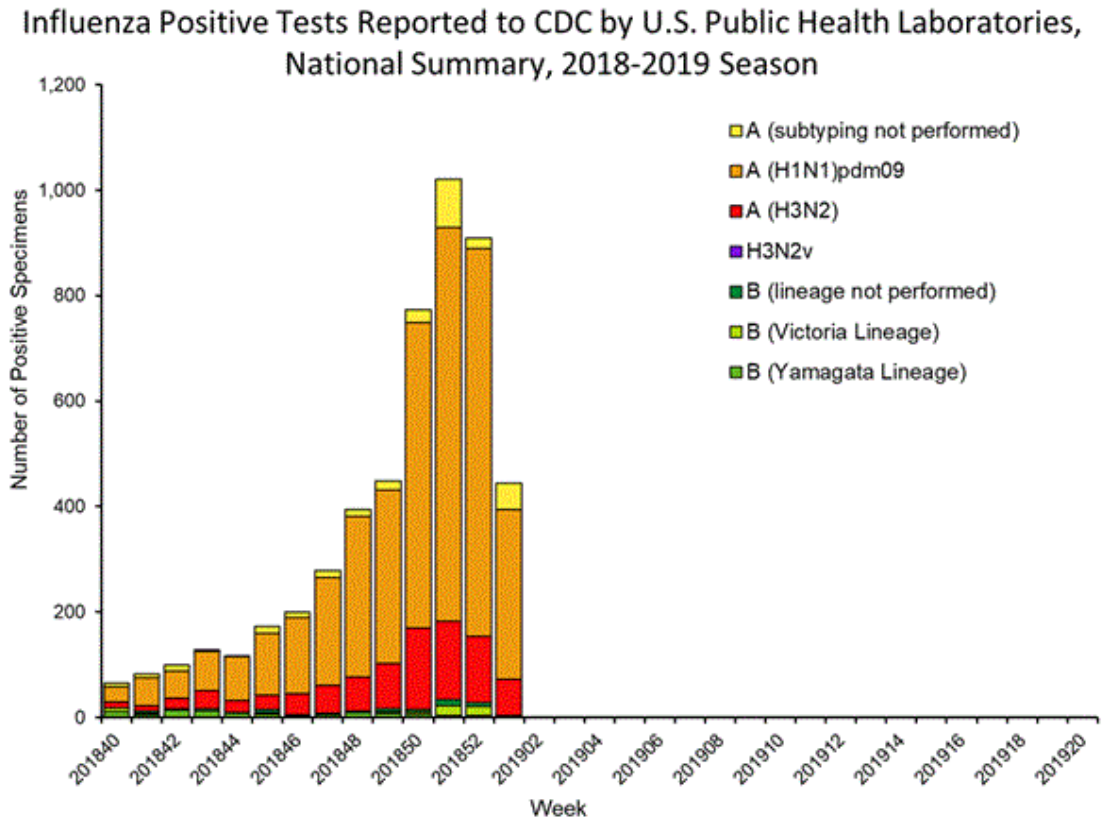


**Figure 3. Percent of Absenteeism Due to All Causes and ILI, Denton County Schools\*, 2018-2019 Season**

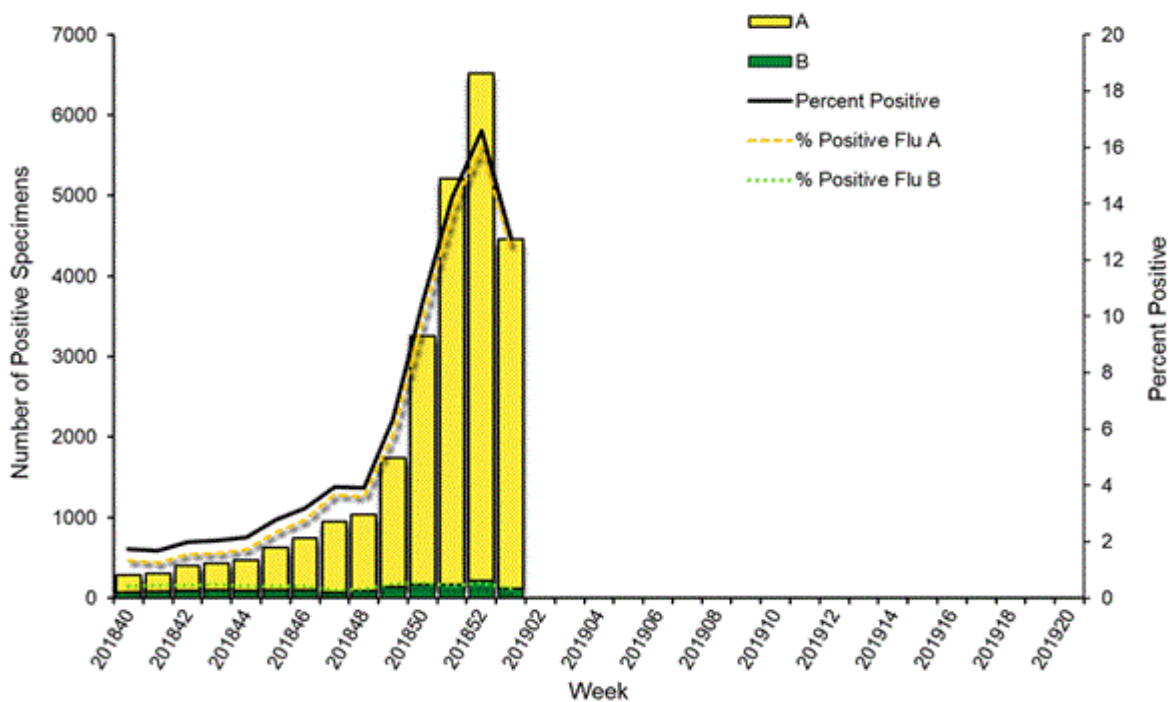


\*During week 51, a total of 3 Denton County Independent School Districts reported data to Denton County Public Health which included a total of 10,907 students.

**Figure 4. Influenza Positive Tests Reported to CDC by U.S. Public Health Laboratories, National Summary, September 30, 2018 – January 5, 2019**



**Figure 5. Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, September 30, 2018 – January 5, 2019**



**Figure 6. Antigenic Characterization of Influenza Isolates, Since September 30, 2018**

Influenza A (H1N1)	78 of 79 (98.7%) – A/Michigan/45/2015 pdm09-like
Influenza A (H3N2)	6 of 6 (100%) – A/Singapore/INFIMH-16-0019/2016-like
Influenza B (Victoria Lineage)	4 of 8 (50%) – B/Colorado/06/2017-like
Influenza B (Yamagata Lineage)	33 of 33 (100%) – B/Phuket/3073/2013-like*

**2018-2019 Influenza Vaccine Composition, Northern Hemisphere:**

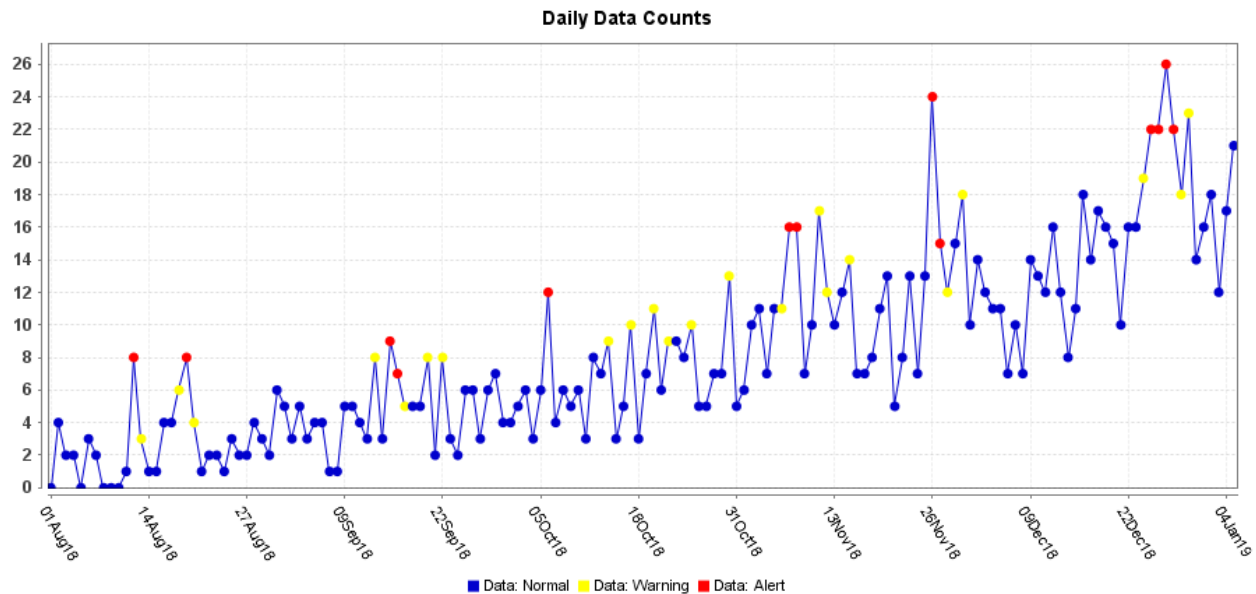
- A/Michigan/45/2015 pdm09-like
- A/Singapore/INFIMH-16-0019/2016-like
- B/Colorado/06/2017-like
- B/Phuket/3073/2013-like\*

\*2018-2019 Northern Hemisphere quadrivalent influenza vaccine influenza B component

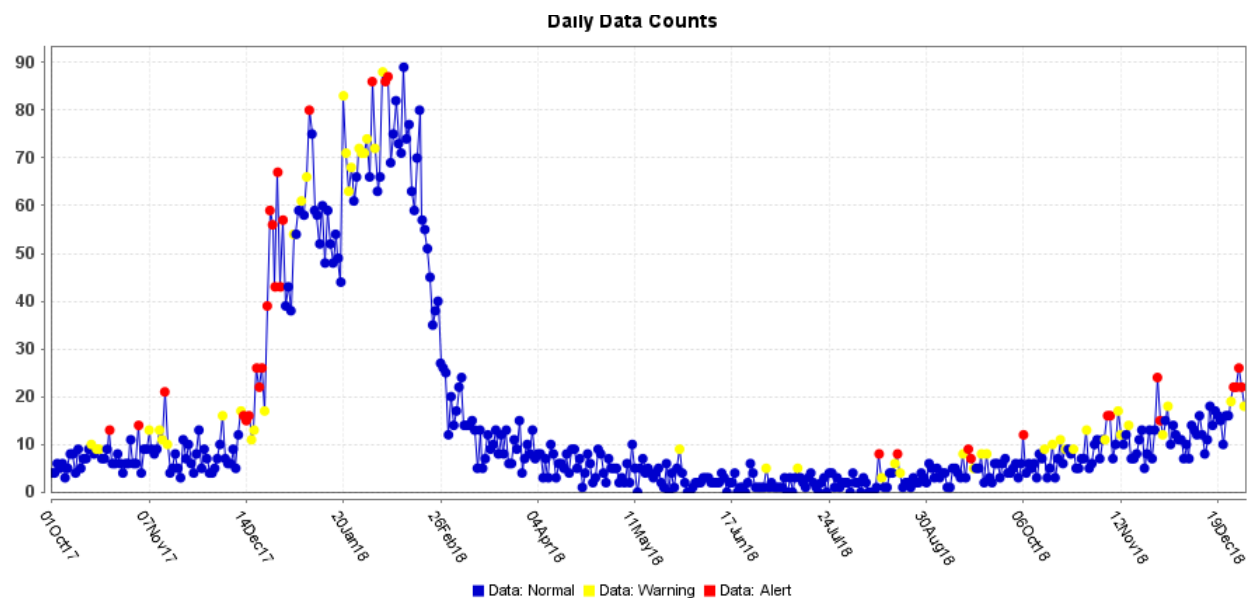
**Figure 7. U.S. Virologic Surveillance, Week 1**

	Week 1	Data Cumulative since September 30, 2018 (Week 40)
No. of specimens tested	35,059	363,555
No. of positive specimens (%)	4,460 (12.7%)	26,430 (7.3%)
<i>Positive specimens by type</i>		
Influenza A	4,347 (97.1%)	24,867 (94.1%)
Influenza B	113 (2.5%)	1,563 (5.9%)

**Figure 8. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, August 1, 2018- January 5, 2019**

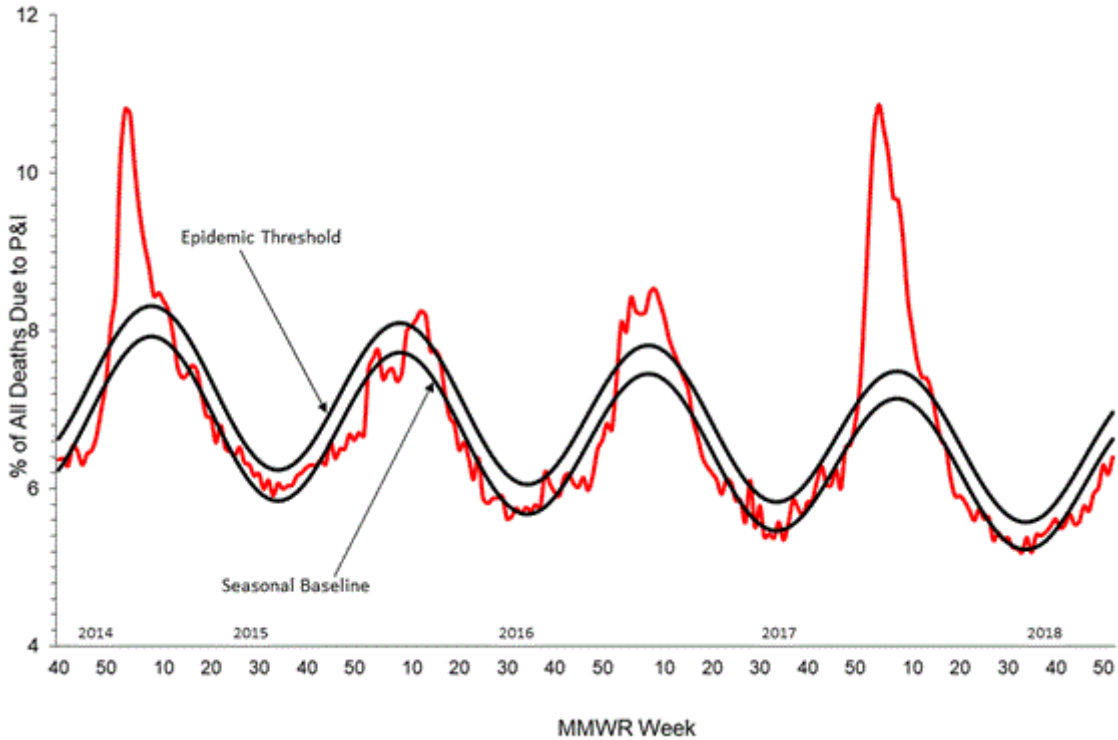


**Figure 9. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, October 1, 2017 – January 5, 2019**

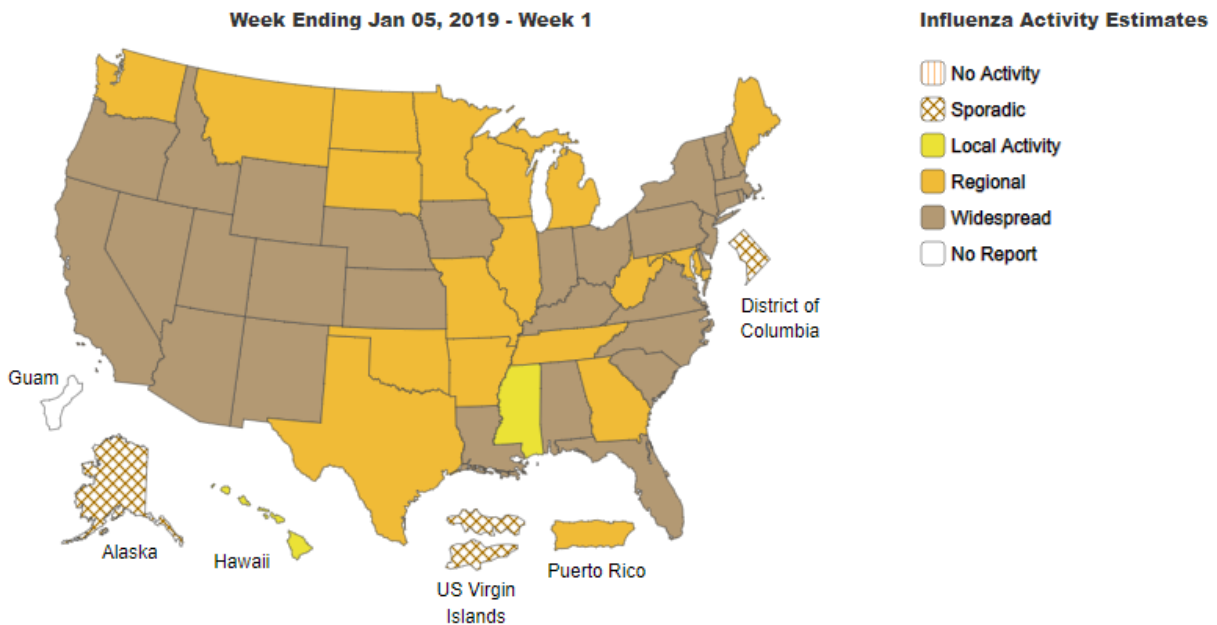


Data obtained from hospitals participating in the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) from October 2017 through the present. Depicted are the numbers of persons presenting to Emergency Departments according to patient location (Denton region) with self-reported chief complaints of influenza-like illness.

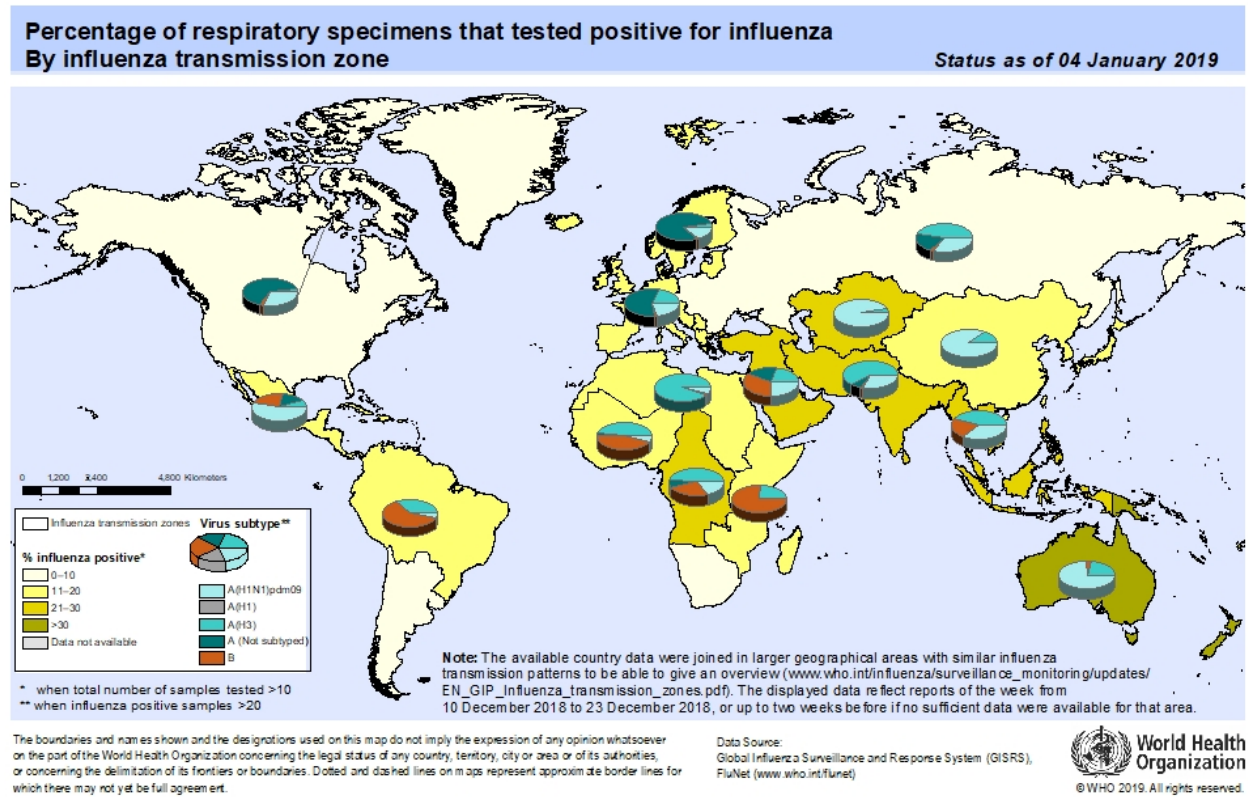
**Figure 10. Pneumonia and Influenza Mortality from the National Center for Health Statistics Mortality Surveillance System: Week ending December 29, 2018**



**Figure 11. Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists: Week 1 - Week Ending January 5, 2019**



**Figure 12. Percentage of Respiratory Specimens that Tested Positive for Influenza: WHO, based on data up to January 4, 2019**



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