

# Denton County Public Health

## 2019 – 2020 Influenza Surveillance Program

### CDC Week 4, Week Ending January 25, 2020



## Epidemiologic Overview

### Denton County

- High influenza activity was reported in Denton County for week 4.
- 181 positive influenza tests (147 Flu A and 34 Flu B) and 22 hospitalizations were reported by Denton County sentinel providers for week 4.
- Syndromic surveillance for influenza-like illness (ILI) in Denton County increased for week 4 when compared to the previous week.
- 1.2% of the total reported school population was absent due to ILI in week 4.
- 1 influenza-associated adult death has been reported in Denton County for the 2019-2020 season.

### Texas

- Influenza activity in the state of Texas was reported as high for week 4.
- The percentage of visits for ILI as reported by ILINet providers increased to 7.6% in week 4 compared to the previous week.
- The percentage of specimens testing positive for influenza in Texas decreased to 31.6% in week 4 compared to the previous week.

### US

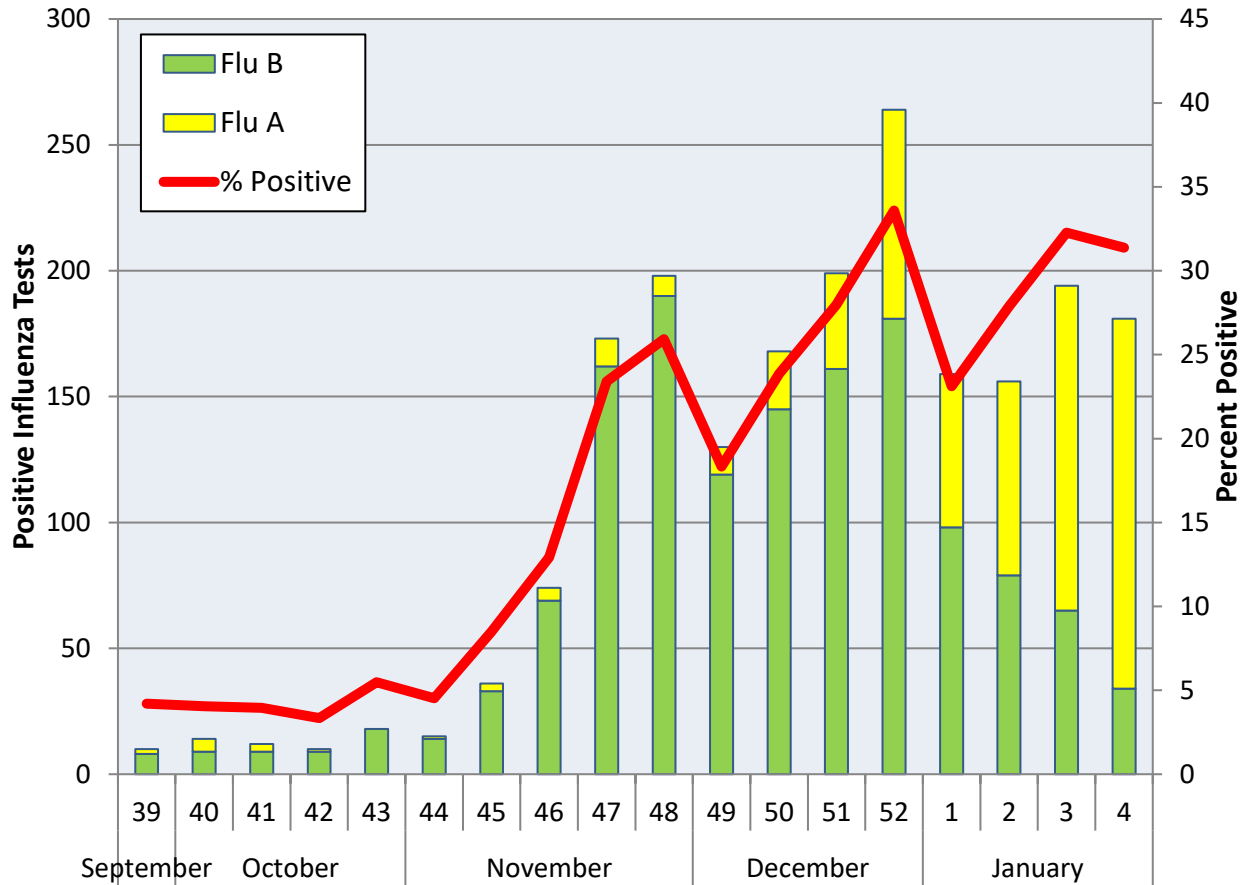
- The proportion of outpatient visits for influenza-like illness (ILI) was 5.7%, which is above the national baseline of 2.4%.
- The geographic spread of influenza in 49 states was reported as widespread; and 1 state was reported as regional.
- The percentage of specimens testing positive for influenza in the US was 27.7%.
- The proportion of deaths attributed to pneumonia and influenza (P&I) from the National Center for Health Statistics Mortality Surveillance System for week 3 was 6.7%. This percentage is below the epidemic threshold of 7.2% for week 3.

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

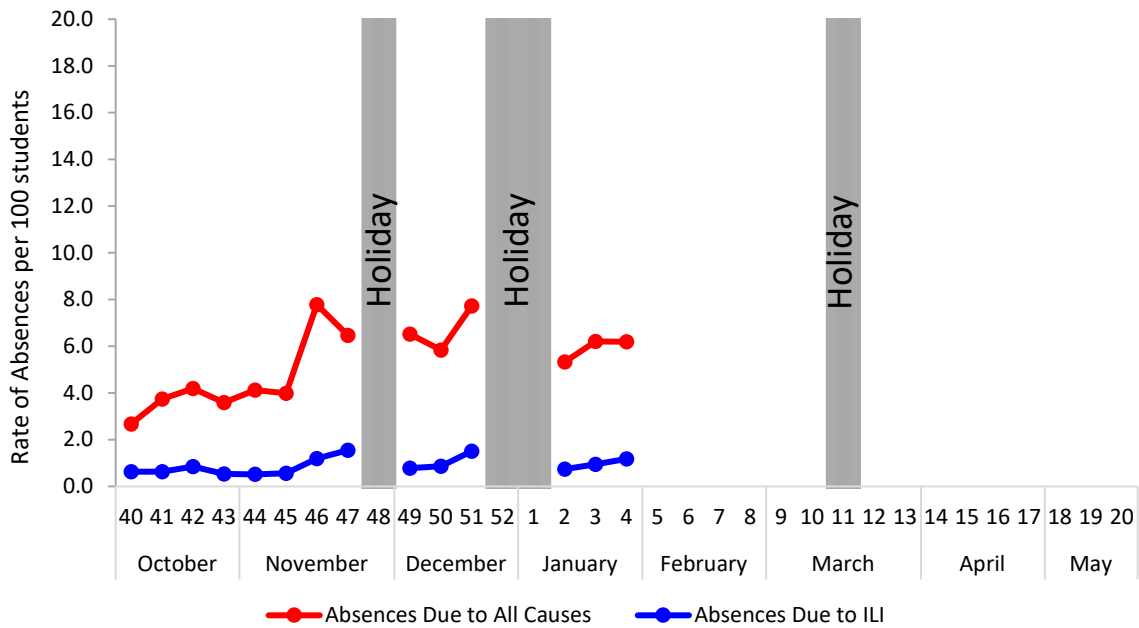
| Week Ending                                  | 12/21/19 | 12/28/19 | 1/4/20 | 1/11/20 | 1/18/20 | 1/25/20 | 9/28/19 - Present |
|--|----------|----------|--------|---------|---------|---------|-------------------|
| <b>CDC Week</b>                              | 51       | 52       | 1      | 2       | 3       | 4       |                   |
| <b>Influenza Tests Performed Weekly</b>      | 711      | 786      | 688    | 560     | 601     | 577     | 9680              |
| <b>Total Positive Influenza Tests</b>        | 199      | 264      | 159    | 156     | 194     | 181     | 2011              |
| <b>Percent Positive Influenza Tests*</b>     | 27.99%   | 33.59%   | 23.11% | 27.86%  | 32.28%  | 31.37%  |                   |
| <b>Positive A Influenza</b>                  | 38       | 83       | 61     | 77      | 129     | 147     | 608               |
| <b>Positive B Influenza</b>                  | 161      | 181      | 98     | 79      | 65      | 34      | 1403              |
| <b>Non-differentiated Influenza</b>          | 0        | 0        | 0      | 0       | 0       | 0       | 0                 |
| <b>Influenza Hospitalizations</b>            | 17       | 18       | 23     | 20      | 10      | 22      | 146               |
| <b>Influenza-associated Pediatric Deaths</b> | 0        | 0        | 0      | 0       | 0       | 0       | 0                 |
| <b>Influenza-associated Adult Deaths</b>     | 0        | 1        | 0      | 0       | 0       | 0       | 1                 |

\* 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, 2019-2020 Season**

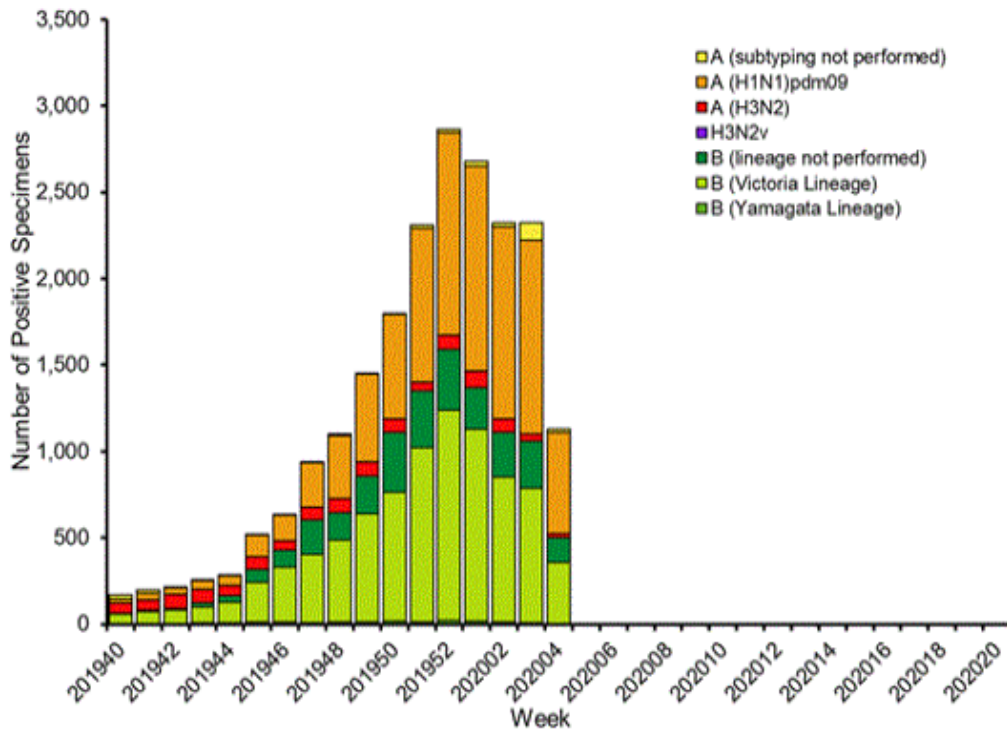


**Figure 3. Percent of Absenteeism Due to All Causes and ILI, Denton County Schools\*, 2019- 2020 Season**



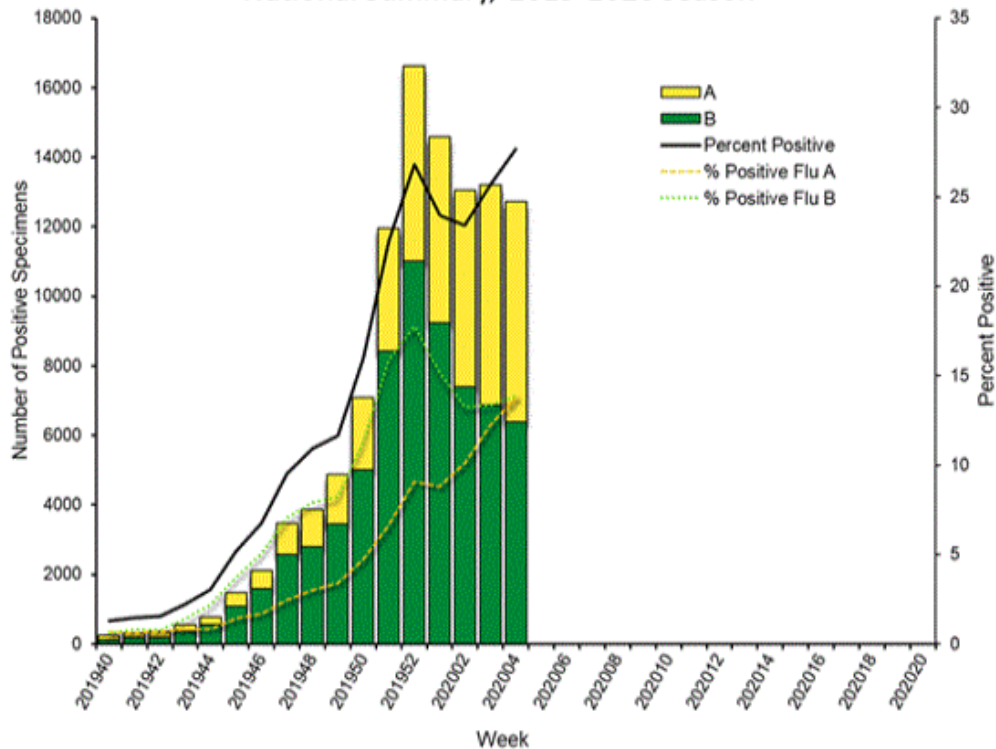
\*During week 4, 4 Denton County Independent School Districts reported data to Denton County Public Health, which included 19,983 students.

**Figure 4. Influenza Positive Tests Reported to CDC by U.S. Public Health Laboratories, National Summary, September 29, 2019 – January 25, 2020**



**Figure 5. Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, September 29, 2019 – January 25, 2020**

Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, 2019-2020 Season



**Figure 6. Antigenic Characterization of Influenza Isolates, Since September 29, 2019**

|                                |  |
|--------------------------------|--|
| Influenza A (H1N1)             | 74 of 74 (100%) – A/Brisbane/02/2018 (H1N1)pdm09 -like |
| Influenza A (H3N2)             | 22 of 53 (41.5%) – A/Kansas/14/2017 (H3N2)-like        |
| Influenza B (Victoria Lineage) | 53 of 88 (60.2%) – B/Colorado/06/2017-like             |
| Influenza B (Yamagata Lineage) | 10 of 10 (100%) – B/Phuket/3073/2013-like              |

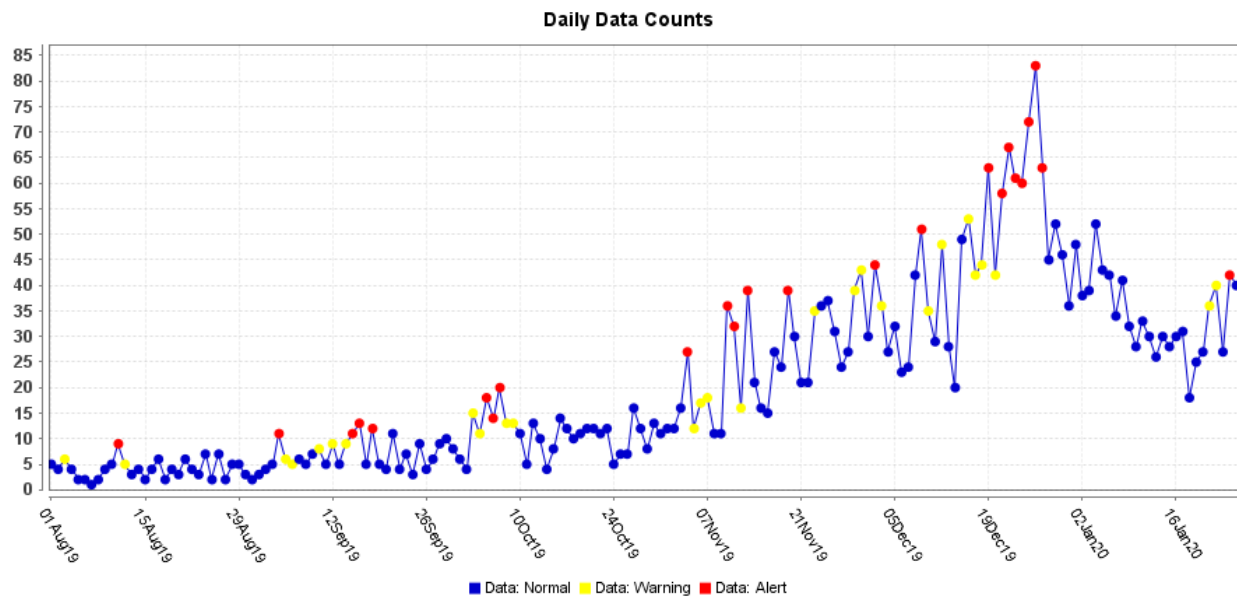
**2019-2020 Influenza Vaccine Composition, Northern Hemisphere:**

- A/Brisbane/02/2018 (H1N1)pdm09-like
- A/Kansas/14/2017(H3N2)-like
- B/Colorado/06/2017-like
- B/Phuket/3073/2013-like

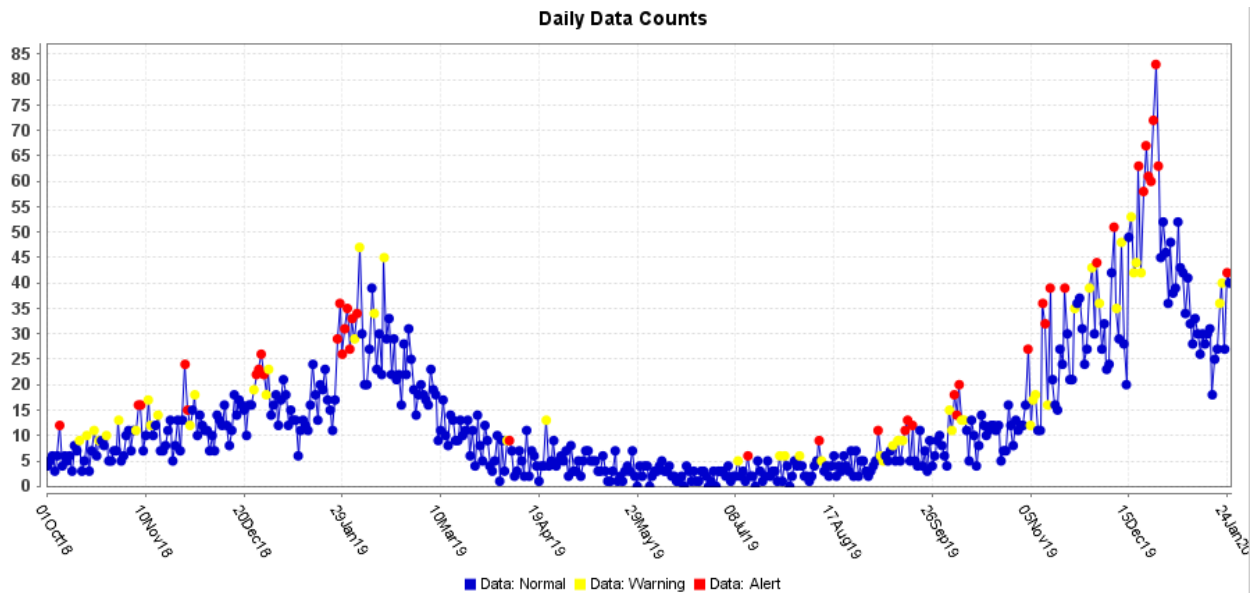
**Figure 7. U.S. Virologic Surveillance, Week 4**

|                                   | Week 4         | Data Cumulative since<br>September 29, 2019<br>(week 40) |
|-----------------------------------|----------------|--|
| No. of specimens tested           | 45,949         | 662,536  |
| No. of positive specimens (%)     | 12,715 (27.7%) | 107,343 (16.2%)  |
| <i>Positive specimens by type</i> |                |  |
| Influenza A                       | 6,335 (49.8%)  | 40,123 (37.4%)   |
| Influenza B                       | 6,380 (50.2%)  | 67,220 (62.6%)   |

**Figure 8. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, August 1, 2019- January 25, 2020**

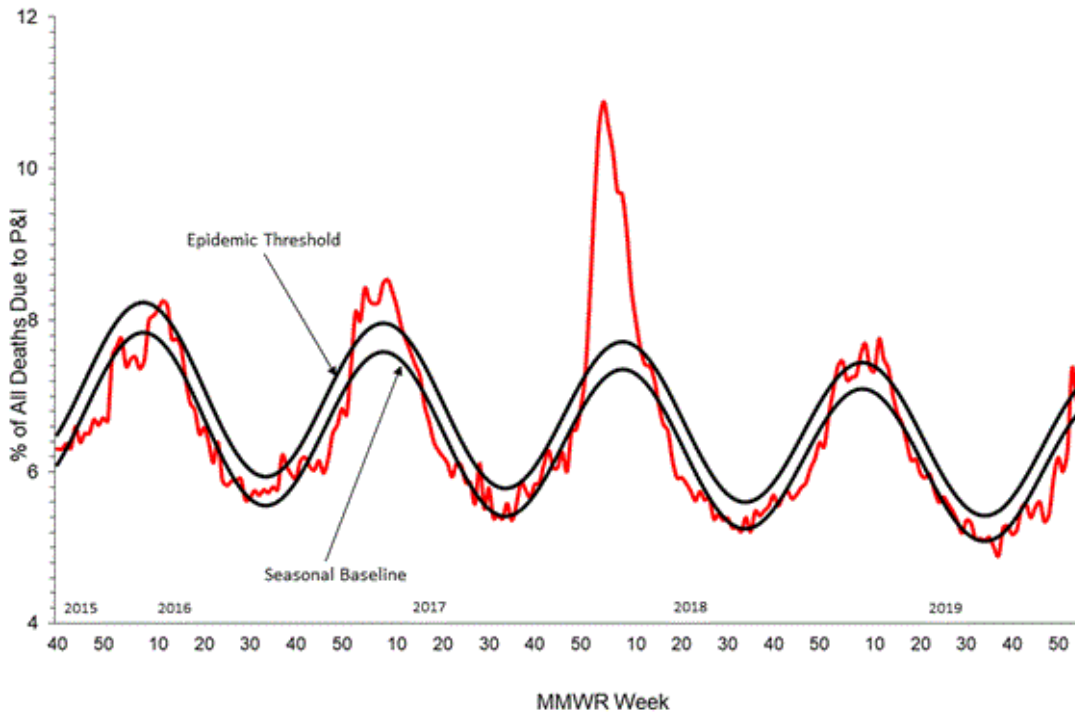


**Figure 9. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, October 1, 2018 – January 25, 2020**

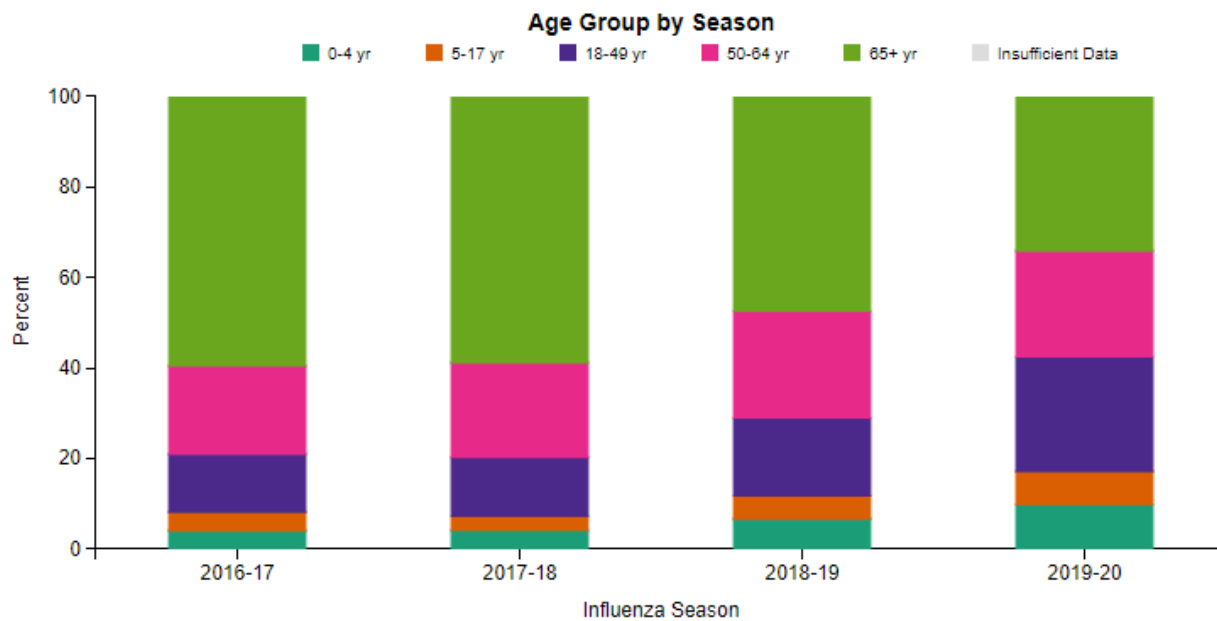


Data obtained from hospitals participating in the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) from October 2018 through the present. Depicted are the numbers of persons presenting to Emergency Departments according to patient location (Denton region) 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 January 18, 2020**

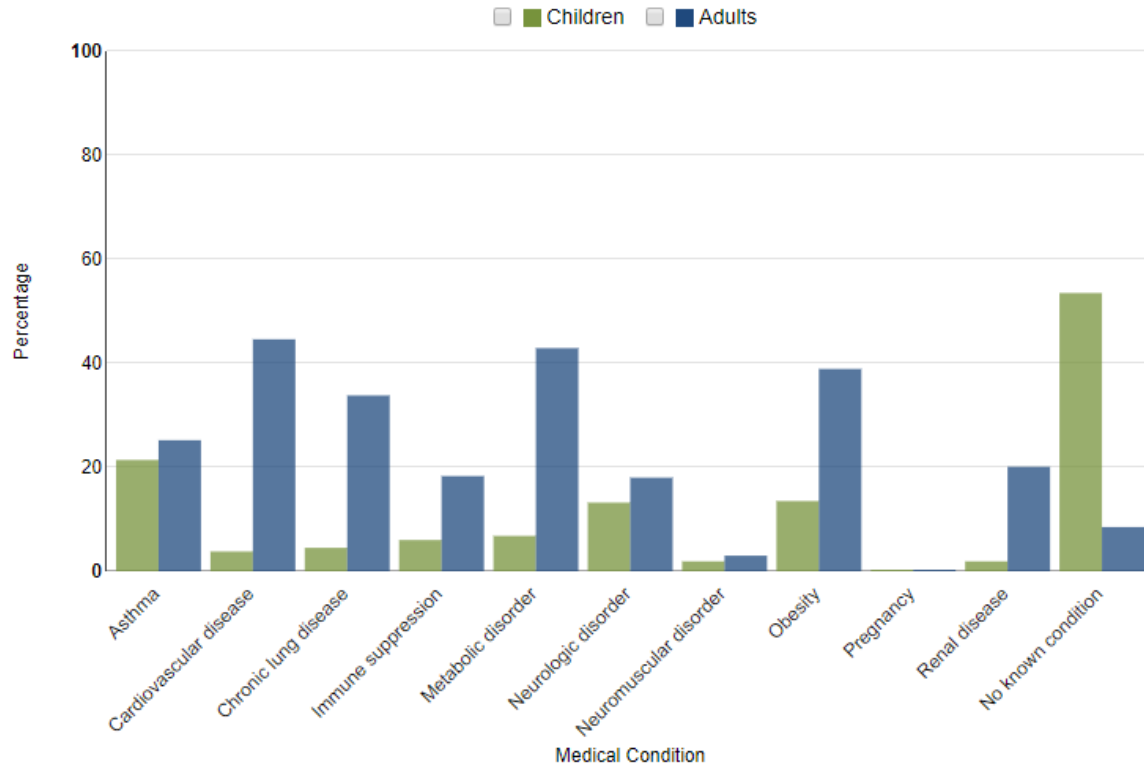


**Figure 11. FluSurv-NET Laboratory Confirmed Influenza-Associated Hospitalizations by Age Group, National Summary, data as of January 25, 2020**



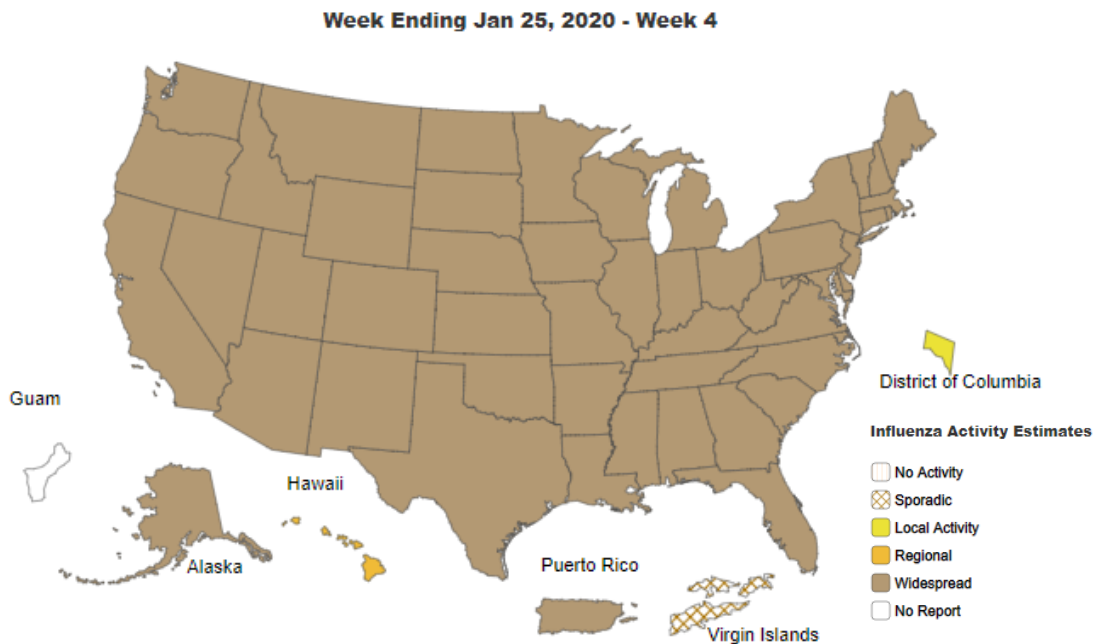
FluView: Influenza Hospitalization Surveillance Network, Centers for Disease Control and Prevention. <http://www.cdc.gov/flu/weekly/>. Accessed on 1/31/2020.

**Figure 12. FlUSurv-NET Laboratory Confirmed Influenza-Associated Hospitalizations: Selected Underlying Conditions, 2019-2020 Season, data as of January 25, 2020**



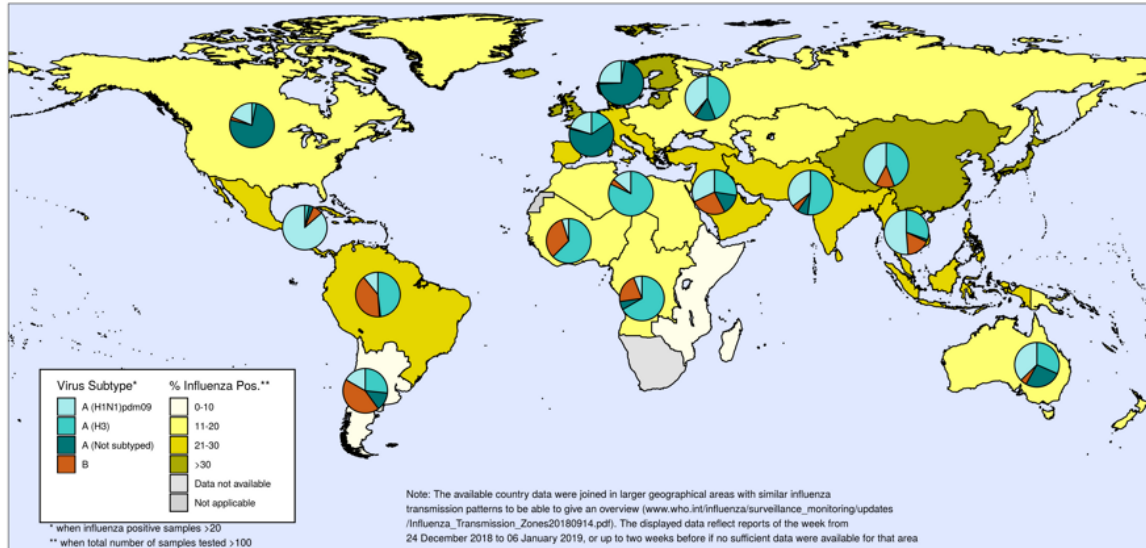
FluView: Influenza Hospitalization Surveillance Network, Centers for Disease Control and Prevention. <http://www.cdc.gov/flu/weekly/>. Accessed on 1/31/2020.

**Figure 13. Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists: Week 4 – Week Ending January 25, 2020**



**Figure 14. Percentage of Respiratory Specimens that tested Positive for Influenza: WHO, based on data through January 17, 2020**

Percentage of respiratory specimens that tested positive for influenza  
By influenza transmission zone  
Map generated on 17 January 2020



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.



Data source: Global Influenza Surveillance and Response System (GISRS), FluNet (www.who.int/flu-net)  
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Please send inquiries to Lily Metzler, MPH – Epidemiologist  
Denton County Public Health at [Lily.Metzler@dentoncounty.com](mailto:Lily.Metzler@dentoncounty.com)