

Denton County Public Health
2019 – 2020 Influenza Surveillance Program
CDC Week 50, Week Ending December 14, 2019



Epidemiologic Overview

Denton County

- High influenza activity was reported in Denton County for week 50.
- 168 positive influenza tests (23 Flu A and 145 Flu B) and 5 hospitalizations were reported by Denton County sentinel providers for week 50.
- Syndromic surveillance for influenza-like illness (ILI) in Denton County increased for week 50 when compared to the previous week.
- Due to technical difficulties, school absentee rate was not available for week 50.

Texas

- Influenza activity in the state of Texas was reported as high for week 50.
- The percentage of visits for ILI as reported by ILINet providers increased to 8.83% in week 50 compared to the previous week.
- The percentage of specimens testing positive for influenza in Texas increased to 29.25% in week 50 compared to the previous week.

US

- The proportion of outpatient visits for influenza-like illness (ILI) was 3.9%, which is above the national baseline of 2.4%.
- 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 was reported as sporadic.
- The percentage of specimens testing positive for influenza in the US was 16.3%.
- The proportion of deaths attributed to pneumonia and influenza (P&I) from the National Center for Health Statistics Mortality Surveillance System for week 49 was 5.5%. This percentage is below the epidemic threshold of 6.6% for week 49.

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

Week Ending	11/9/19	11/16/19	11/23/19	11/30/19	12/7/19	12/14/19	9/28/19 - Present
CDC Week	45	46	47	48	49	50	
Influenza Tests Performed Weekly	424	573	739	764	709	704	5757
Total Positive Influenza Tests	36	74	173	198	130	168	858
Percent Positive Influenza Tests*	8.49%	12.91%	23.41%	25.92%	18.34%	23.86%	
Positive A Influenza	3	5	11	8	11	23	73
Positive B Influenza	33	69	162	190	119	145	785
Non-differentiated Influenza	0	0	0	0	0	0	0
Influenza Hospitalizations	3	1	1	7	5	5	36
Influenza-associated Pediatric Deaths	0	0	0	0	0	0	0
Influenza-associated Adult Deaths	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, 2019-2020 Season

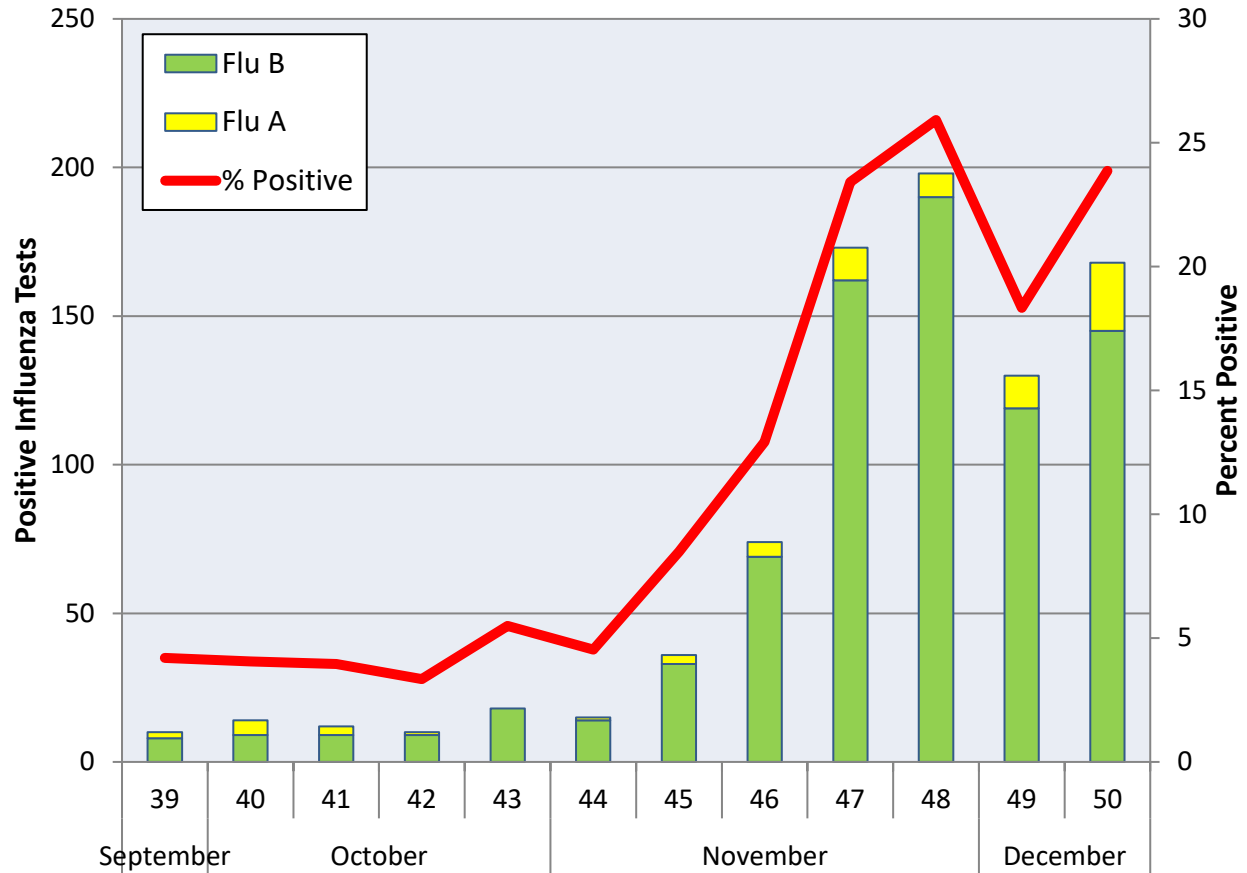
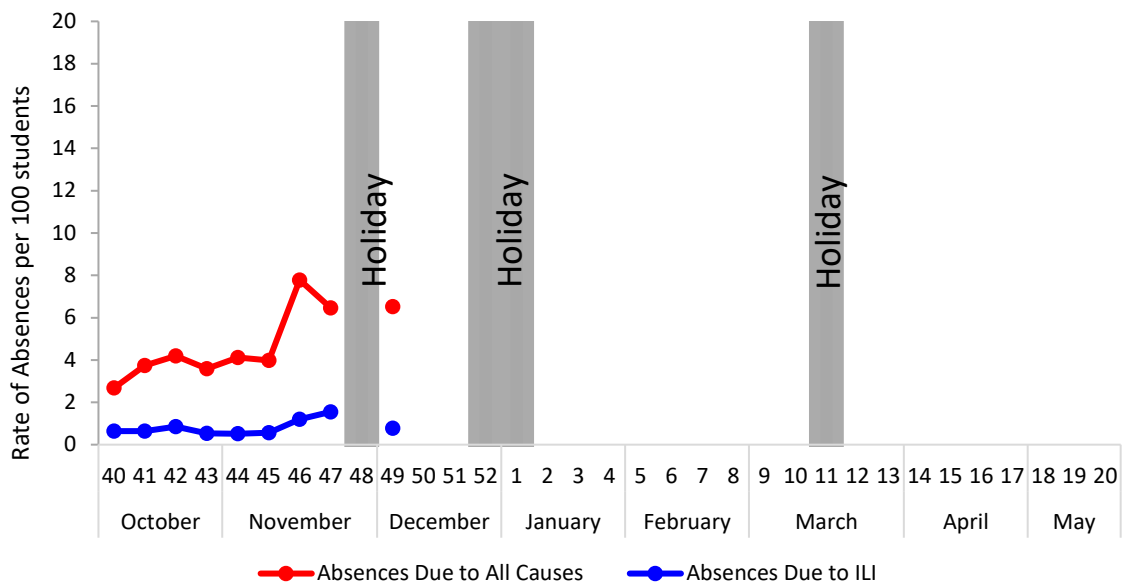


Figure 3. Percent of Absenteeism Due to All Causes and ILI, Denton County Schools*, 2019- 2020 Season



*During week 49, 4 Denton County Independent School Districts reported data to Denton County Public Health, which included 20,080 students.

Figure 4. Influenza Positive Tests Reported to CDC by U.S. Public Health Laboratories, National Summary, September 29, 2019 – December 14, 2019

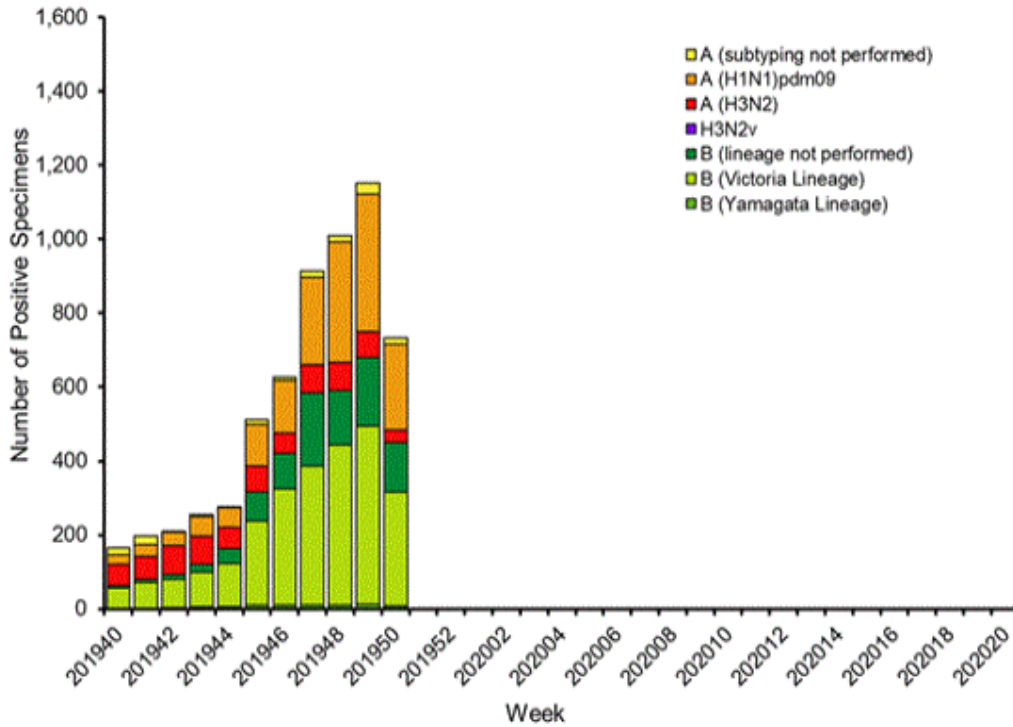


Figure 5. Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, September 29, 2019 – December 14, 2019

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

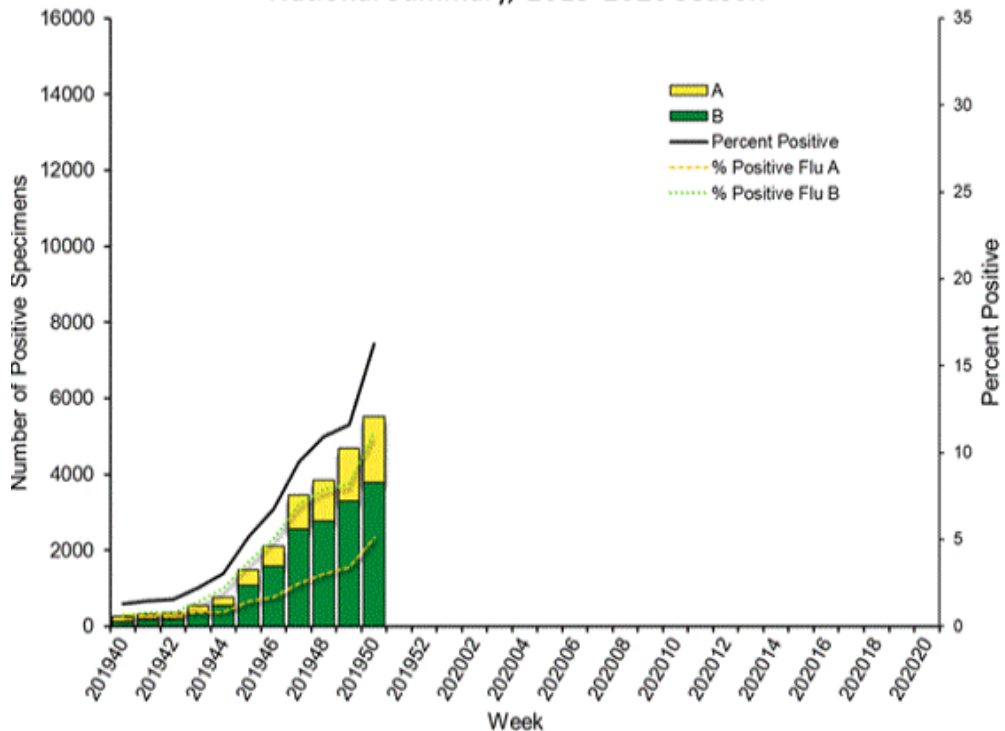


Figure 6. Antigenic Characterization of Influenza Isolates, Since September 29, 2019

Influenza A (H1N1)	42 of 42 (100%) – A/Brisbane/02/2018 (H1N1)pdm09 -like
Influenza A (H3N2)	12 of 17 (70.6%) – A/Kansas/14/2017 (H3N2)-like
Influenza B (Victoria Lineage)	19 of 25 (76%) – 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 50

	Week 50	Data Cumulative since September 29, 2019 (week 40)
No. of specimens tested	33,918	320,906
No. of positive specimens (%)	5,515 (16.3%)	23,386 (7.3%)
<i>Positive specimens by type</i>		
Influenza A	1,735 (31.5%)	6,891 (29.5%)
Influenza B	3,780 (68.5%)	16,495 (70.5%)

Figure 8. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, August 1, 2019- December 14, 2019

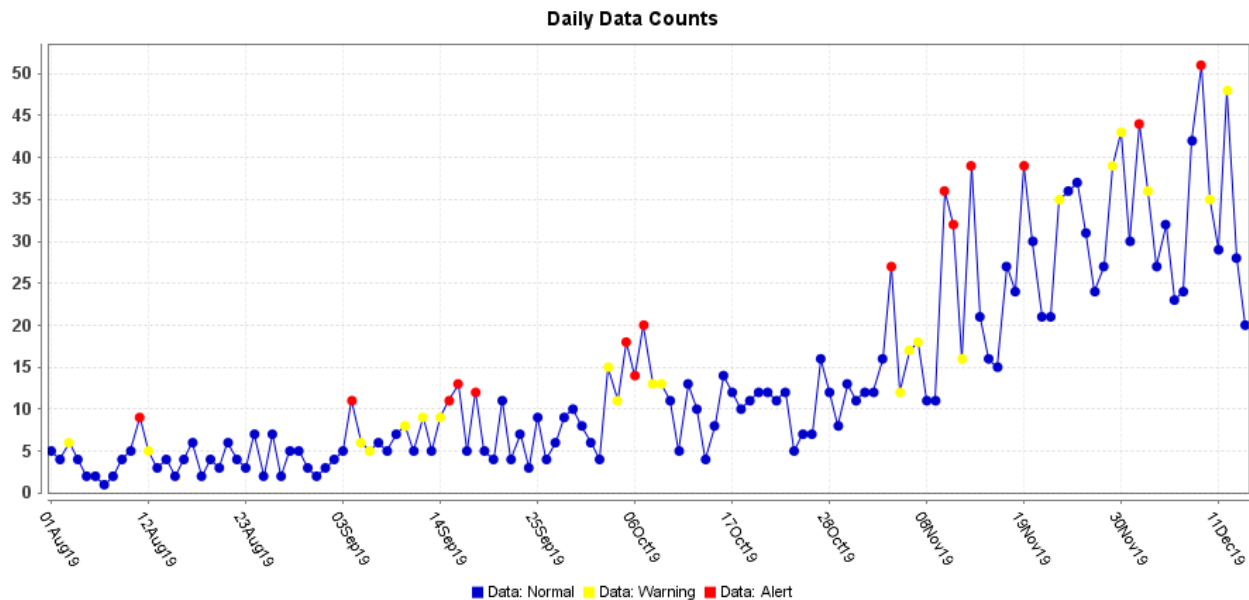
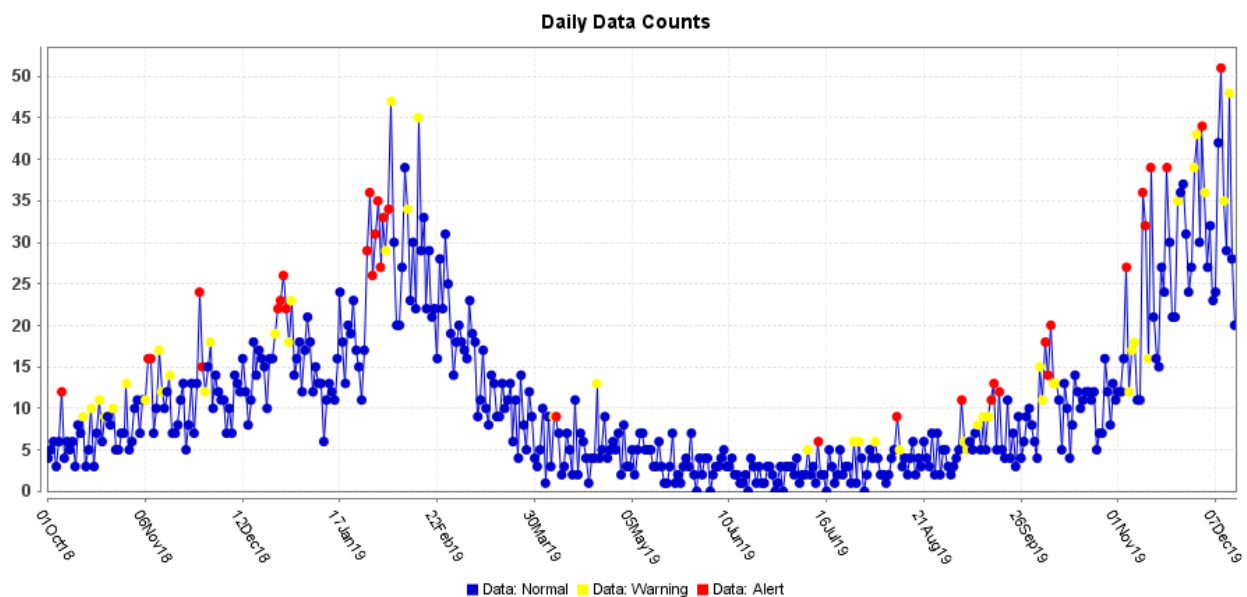


Figure 9. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, October 1, 2018 – December 14, 2019



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 December 7, 2019

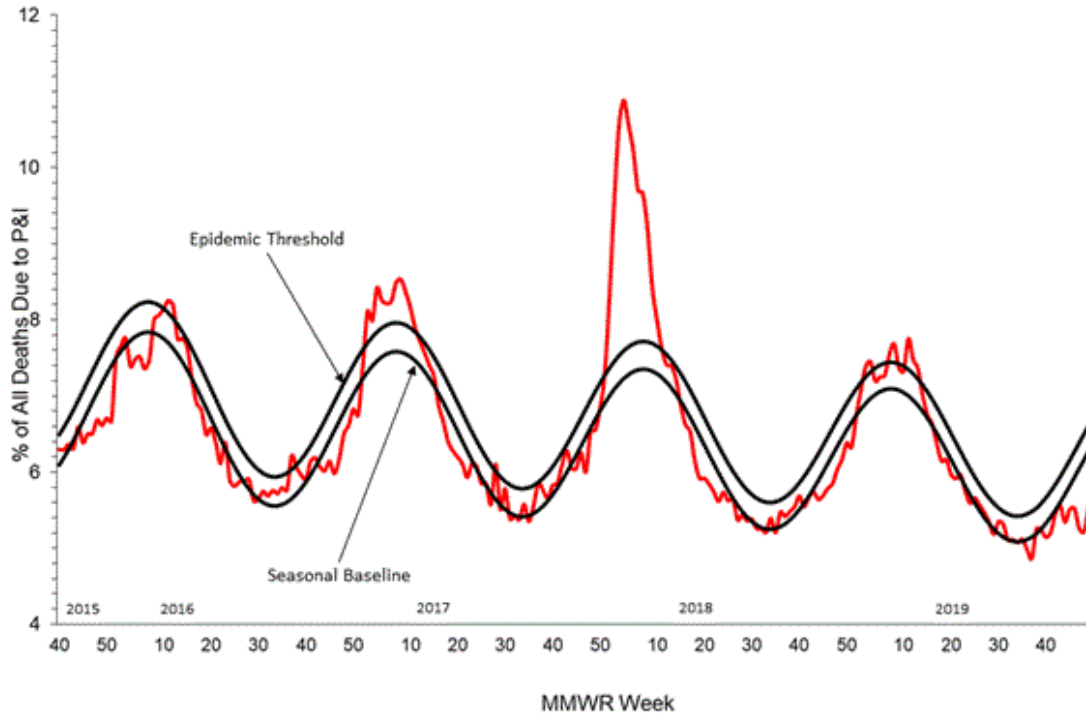


Figure 11. FluSurv-NET Laboratory Confirmed Influenza-Associated Hospitalizations by Age Group, National Summary, data as of December 14, 2019

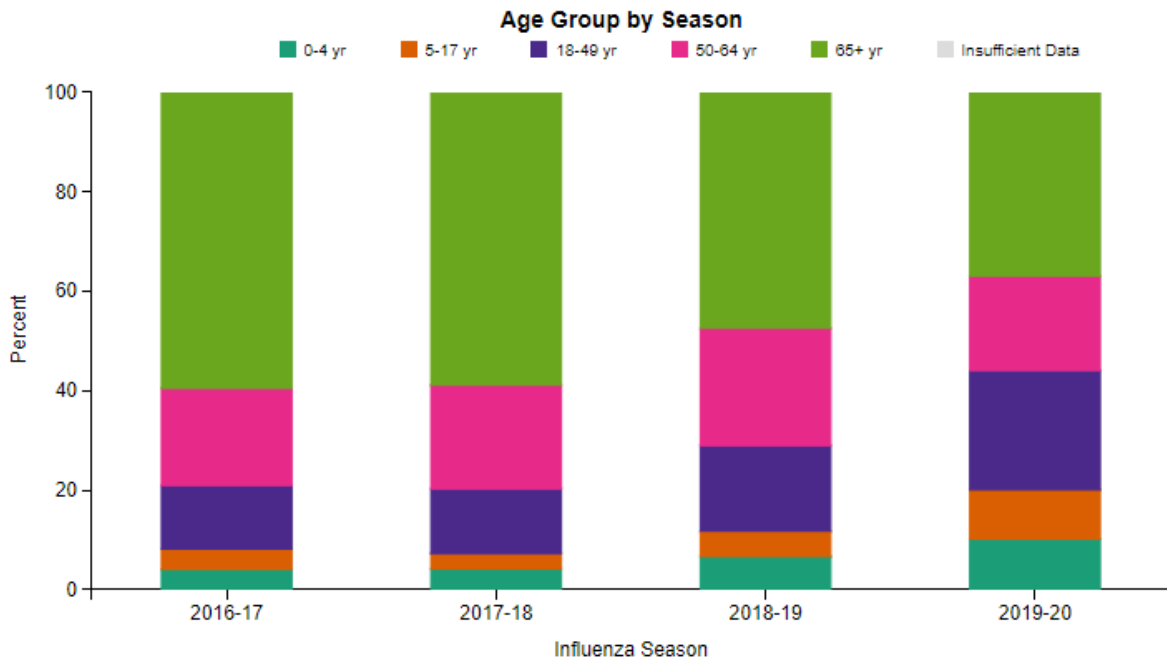
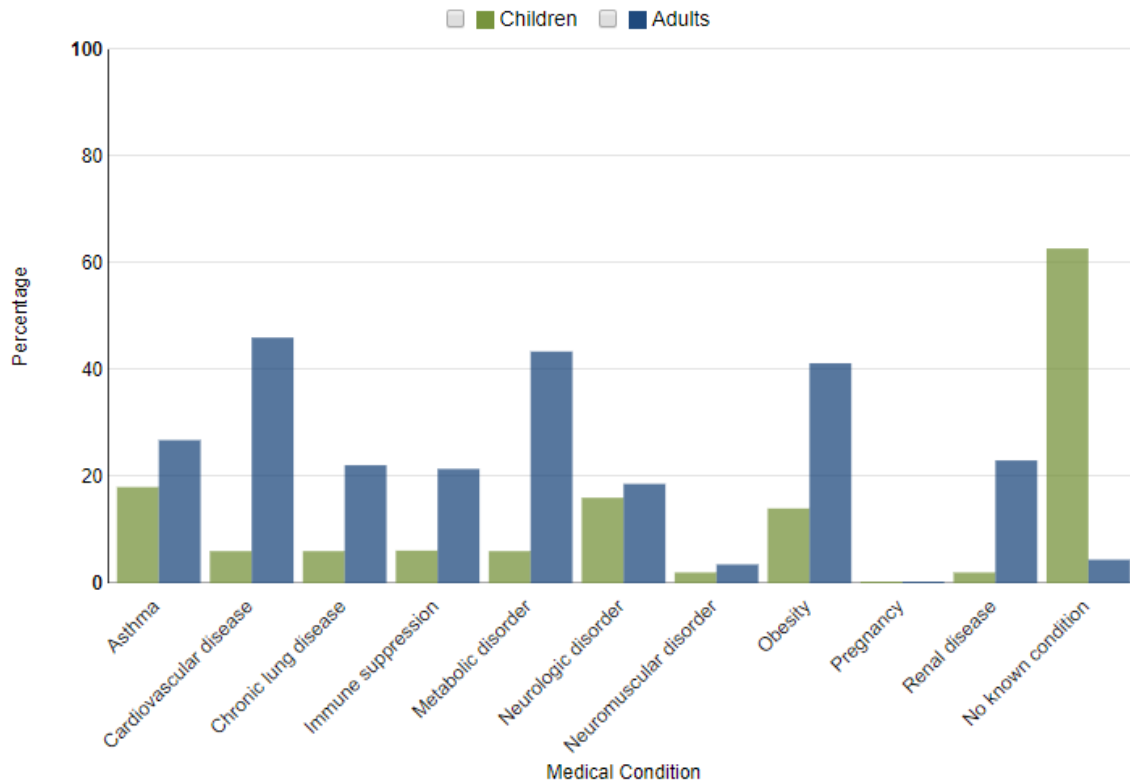


Figure 12. FluSurv-NET Laboratory Confirmed Influenza-Associated Hospitalizations: Selected Underlying Conditions, 2019-2020 Season, data as of December 14, 2019



FluView: Influenza Hospitalization Surveillance Network, Centers for Disease Control and Prevention. <http://www.cdc.gov/flu/weekly/>. Accessed on 12/26/2019.

Figure 13. Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists: Week 50 – Week Ending December 14, 2019

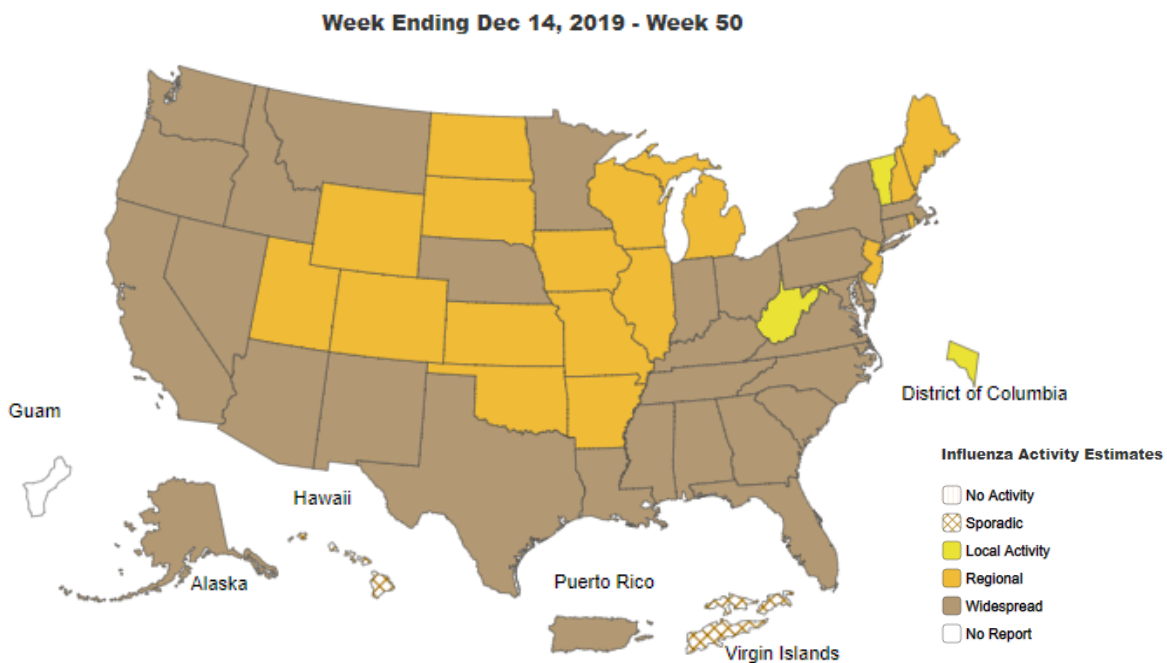
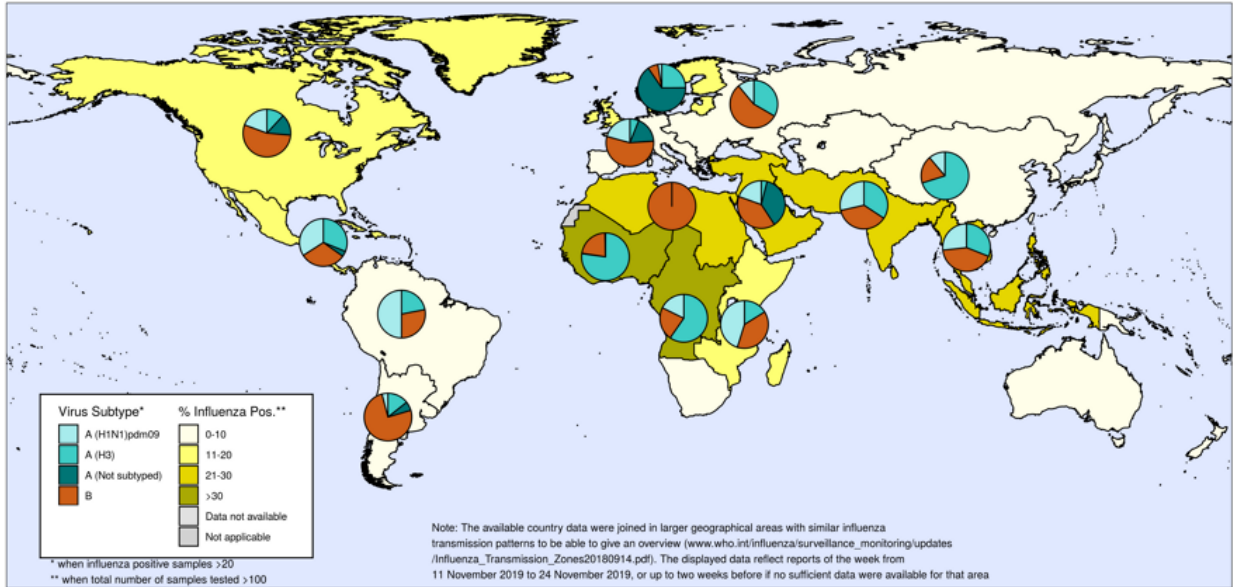


Figure 14. Percentage of Respiratory Specimens that tested Positive for Influenza: WHO, based on data through December 6, 2019

Percentage of respiratory specimens that tested positive for influenza
By influenza transmission zone

Map generated on 06 December 2019



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