

Denton County Public Health

2019 – 2020 Influenza Surveillance Program

CDC Week 1, Week Ending January 4, 2020



Epidemiologic Overview

Denton County

- High influenza activity was reported in Denton County for week 1.
- 159 positive influenza tests (61 Flu A and 98 Flu B) and 23 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.
- 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 1.
- The percentage of visits for ILI as reported by ILINet providers decreased to 9.1% in week 1 compared to the previous week.
- The percentage of specimens testing positive for influenza in Texas decreased to 32.5% in week 1 compared to the previous week.

US

- The proportion of outpatient visits for influenza-like illness (ILI) was 5.8%, which is above the national baseline of 2.4%.
- The geographic spread of influenza in 46 states was reported as widespread; 3 states was reported as regional; and 1 state was reported as local.
- The percentage of specimens testing positive for influenza in the US was 23.3%.
- 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 5.8%. This percentage is below the epidemic threshold of 6.9% for week 52.

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

Week Ending	11/30/19	12/7/19	12/14/19	12/21/19	12/28/19	1/4/20	9/28/19 - Present
CDC Week	48	49	50	51	52	1	
Influenza Tests Performed Weekly	764	709	704	711	786	688	7942
Total Positive Influenza Tests	198	130	168	199	264	159	1480
Percent Positive Influenza Tests*	25.92%	18.34%	23.86%	27.99%	33.59%	23.11%	
Positive A Influenza	8	11	23	38	83	61	255
Positive B Influenza	190	119	145	161	181	98	1225
Non-differentiated Influenza	0	0	0	0	0	0	0
Influenza Hospitalizations	7	5	5	17	18	23	94
Influenza-associated Pediatric Deaths	0	0	0	0	0	0	0
Influenza-associated Adult Deaths	0	0	0	0	1	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

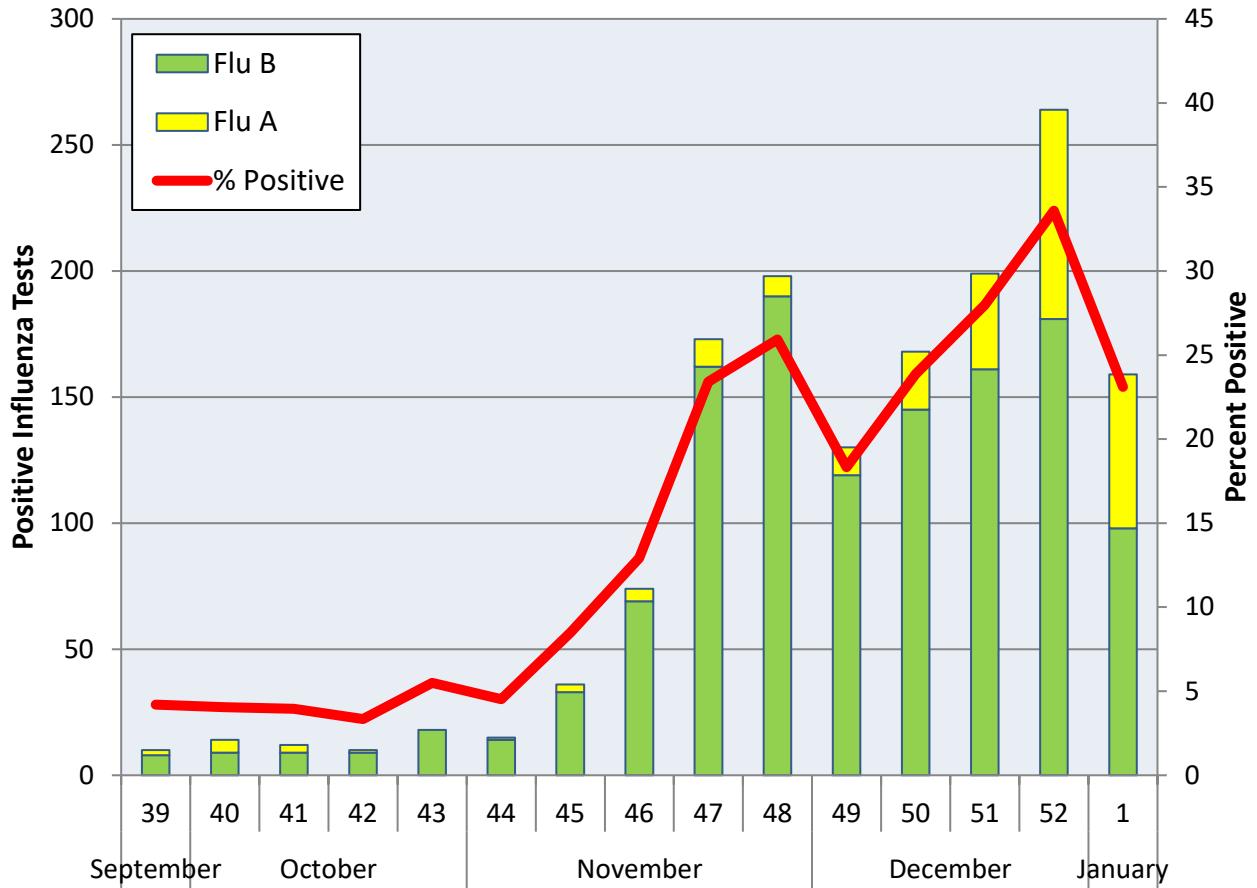
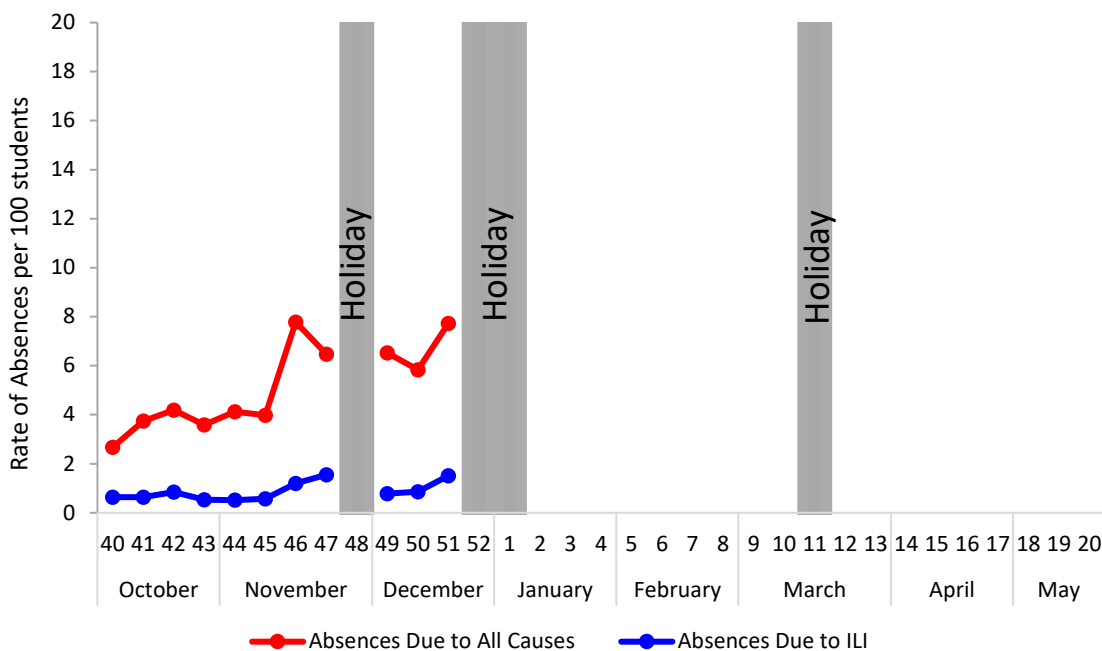


Figure 3. Percent of Absenteeism Due to All Causes and ILI, Denton County Schools*, 2019- 2020 Season



*During week 51, 4 Denton County Independent School Districts reported data to Denton County Public Health, which included 17,019 students.

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

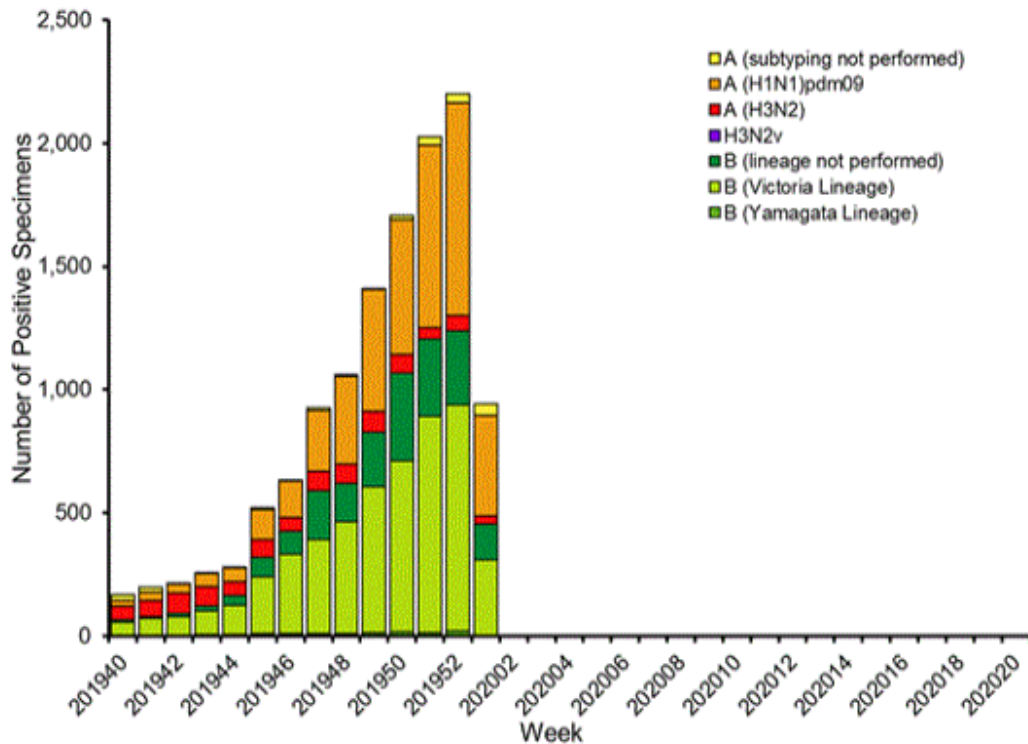


Figure 5. Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, September 29, 2019 – January 4, 2020

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

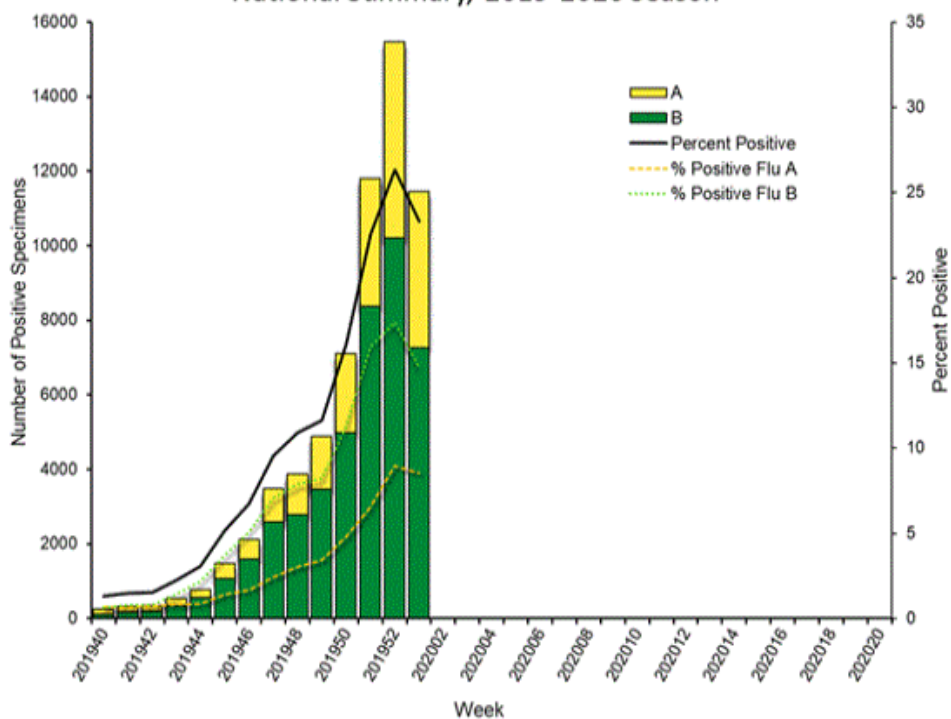


Figure 6. Antigenic Characterization of Influenza Isolates, Since September 29, 2019

Influenza A (H1N1)	66 of 66 (100%) – A/Brisbane/02/2018 (H1N1)pdm09-like
Influenza A (H3N2)	14 of 41 (34.1%) – A/Kansas/14/2017 (H3N2)-like
Influenza B (Victoria Lineage)	29 of 50 (58%) – 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 1

	Week 1	Data Cumulative since September 29, 2019 (week 40)
No. of specimens tested	49,194	493,875
No. of positive specimens (%)	11,459 (23.3%)	63,975 (13.0%)
<i>Positive specimens by type</i>		
Influenza A	4,202 (36.7%)	20,240 (31.6%)
Influenza B	7,257 (63.3%)	43,735 (68.4%)

Figure 8. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, August 1, 2019- January 4, 2020

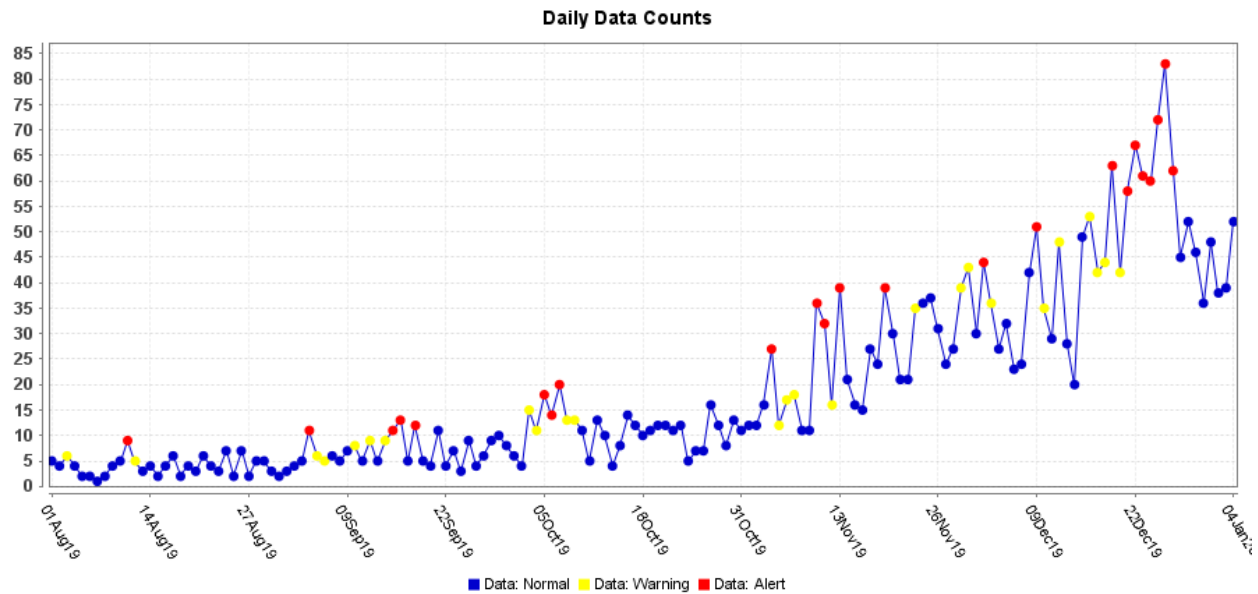
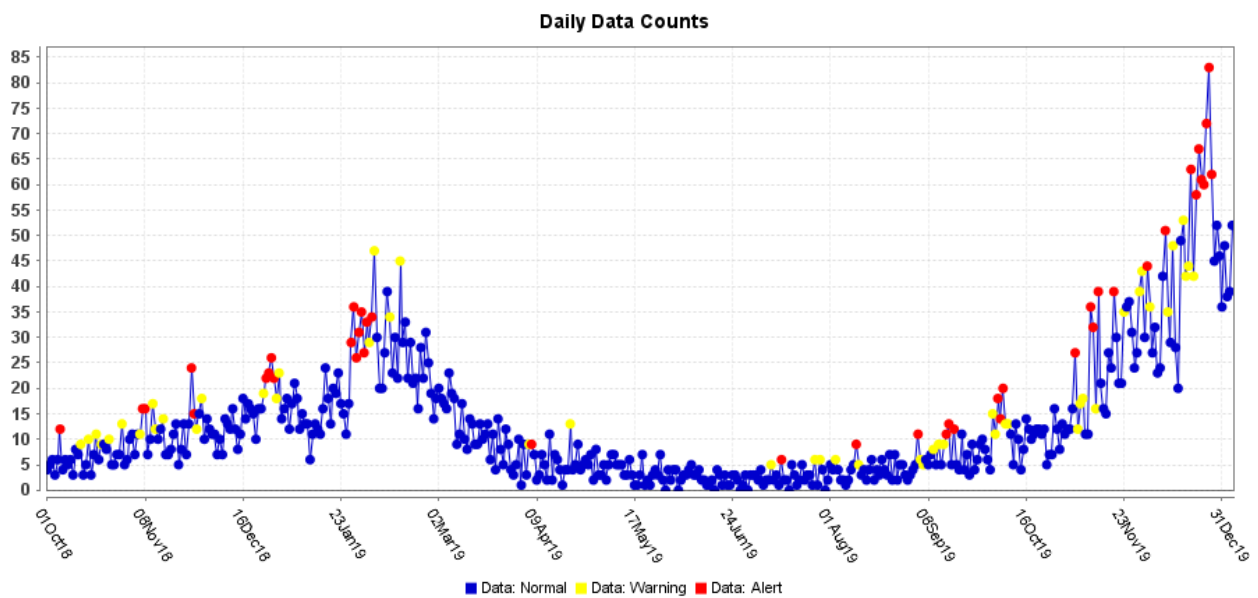


Figure 9. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, October 1, 2018 – January 4, 2020



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 December 28, 2019

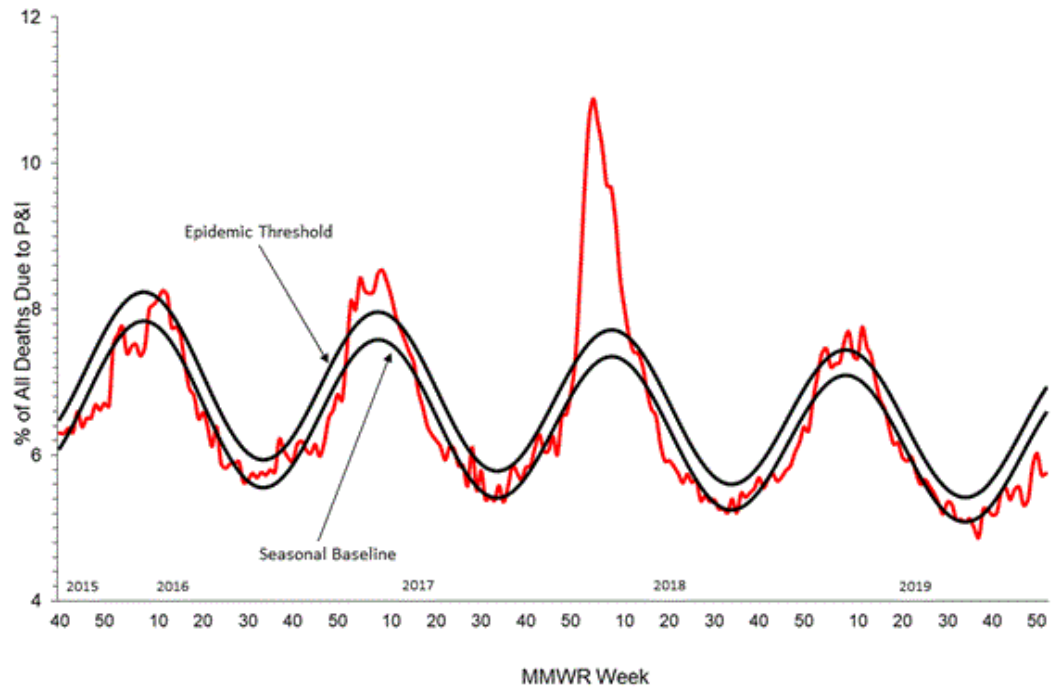
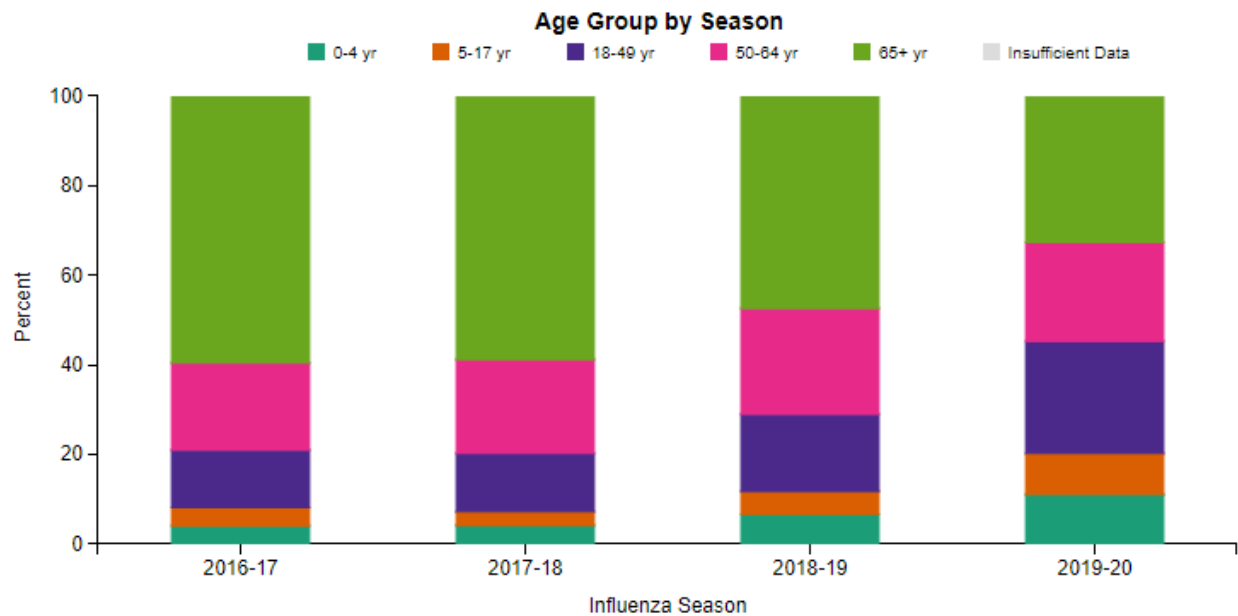
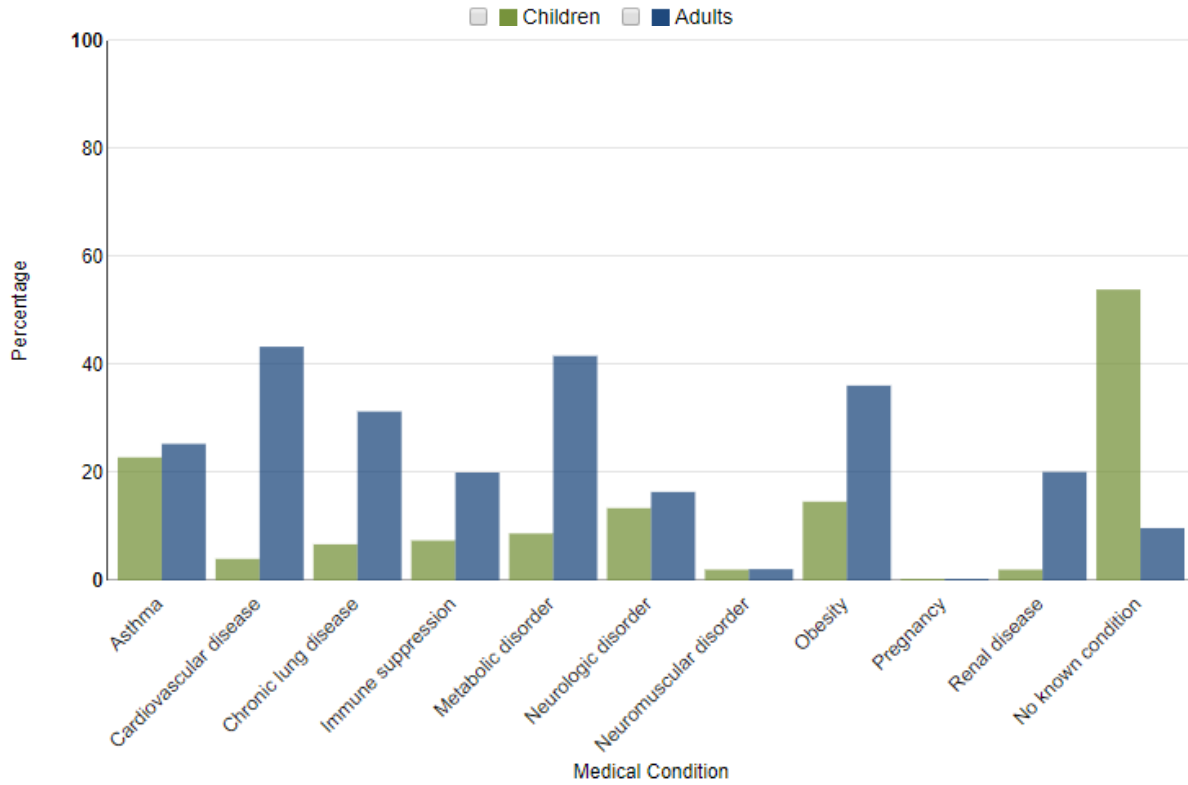


Figure 11. FluSurv-NET Laboratory Confirmed Influenza-Associated Hospitalizations by Age Group, National Summary, data as of January 4, 2020



FluView: Influenza Hospitalization Surveillance Network, Centers for Disease Control and Prevention. <http://www.cdc.gov/flu/weekly/>. Accessed on 1/10/2020.

Figure 12. FluSurv-NET Laboratory Confirmed Influenza-Associated Hospitalizations: Selected Underlying Conditions, 2019-2020 Season, data as of January 4, 2020



FluView: Influenza Hospitalization Surveillance Network, Centers for Disease Control and Prevention. <http://www.cdc.gov/flu/weekly/>. Accessed on 1/10/2020.

Figure 13. Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists: Week 1 – Week Ending January 4, 2020

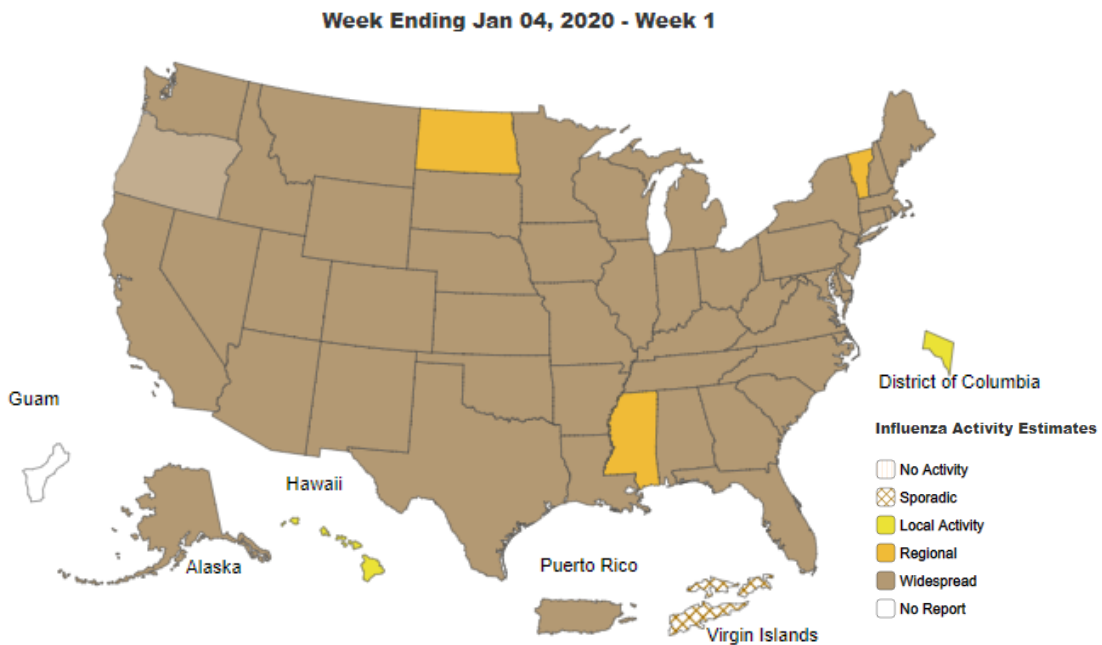
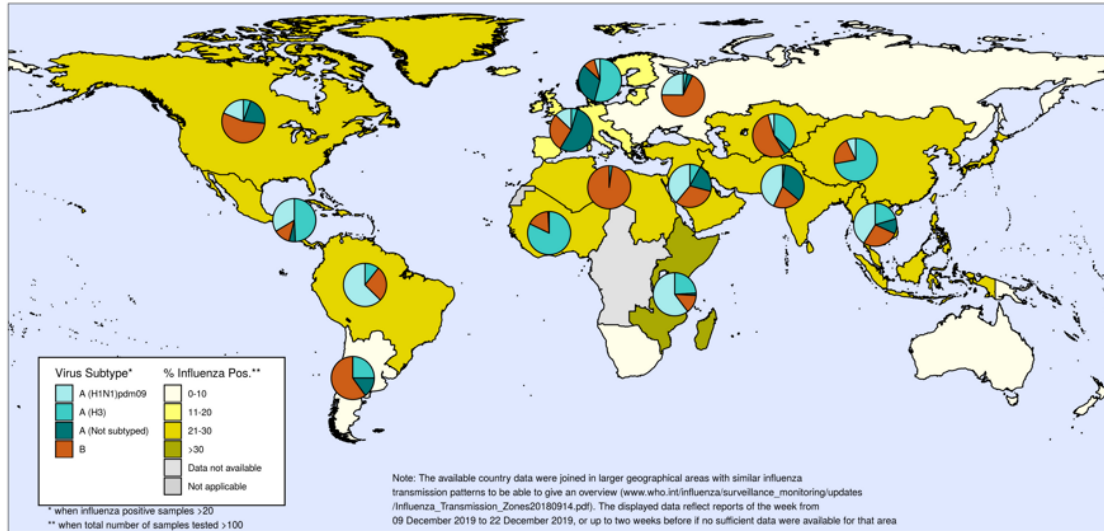


Figure 14. Percentage of Respiratory Specimens that tested Positive for Influenza: WHO, based on data through January 3, 2020

Percentage of respiratory specimens that tested positive for influenza
By influenza transmission zone
Map generated on 03 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/fluinet)
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