

Denton County Public Health

2019 – 2020 Influenza Surveillance Program

CDC Week 51, Week Ending December 21, 2019



Epidemiologic Overview

Denton County

- High influenza activity was reported in Denton County for week 51.
- 199 positive influenza tests (38 Flu A and 161 Flu B) and 17 hospitalizations were reported by Denton County sentinel providers for week 51.
- Syndromic surveillance for influenza-like illness (ILI) in Denton County increased for week 51 when compared to the previous week.
- 1.5% of the total reported school population was absent due to ILI in week 51.

Texas

- Influenza activity in the state of Texas was reported as high for week 51.
- The percentage of visits for ILI as reported by ILINet providers increased to 11.8% in week 51 compared to the previous week.
- The percentage of specimens testing positive for influenza in Texas increased to 36.1% in week 51 compared to the previous week.

US

- The proportion of outpatient visits for influenza-like illness (ILI) was 5.1%, which is above the national baseline of 2.4%.
- The geographic spread of influenza in 39 states was reported as widespread; 9 states was reported as regional; and 2 states was reported as local.
- The percentage of specimens testing positive for influenza in the US was 22.1%.
- The proportion of deaths attributed to pneumonia and influenza (P&I) from the National Center for Health Statistics Mortality Surveillance System for week 50 was 5.7%. This percentage is below the epidemic threshold of 6.7% for week 50.

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

Week Ending	11/16/19	11/23/19	11/30/19	12/7/19	12/14/19	12/21/19	9/28/19 - Present
CDC Week	46	47	48	49	50	51	
Influenza Tests Performed Weekly	573	739	764	709	704	711	6468
Total Positive Influenza Tests	74	173	198	130	168	199	1057
Percent Positive Influenza Tests*	12.91%	23.41%	25.92%	18.34%	23.86%	27.99%	
Positive A Influenza	5	11	8	11	23	38	111
Positive B Influenza	69	162	190	119	145	161	946
Non-differentiated Influenza	0	0	0	0	0	0	0
Influenza Hospitalizations	1	1	7	5	5	17	53
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

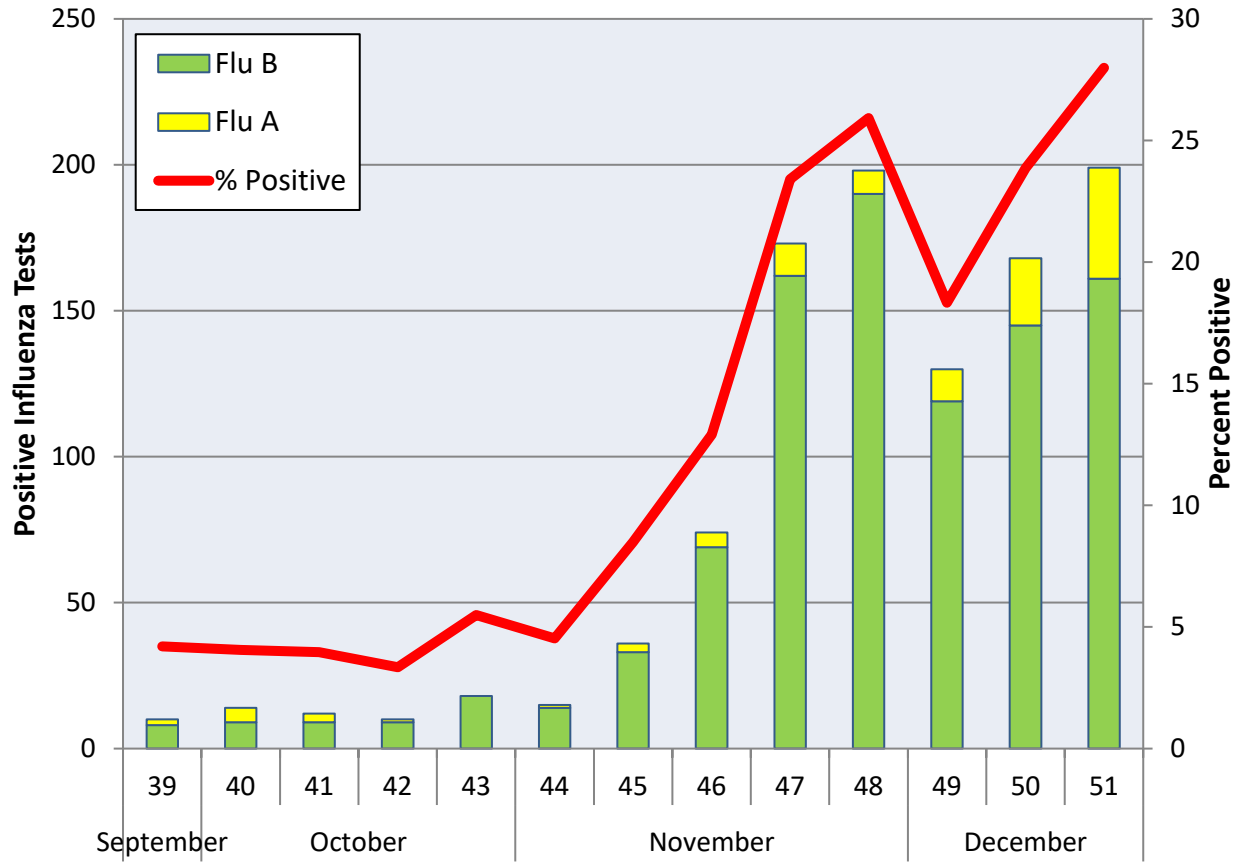
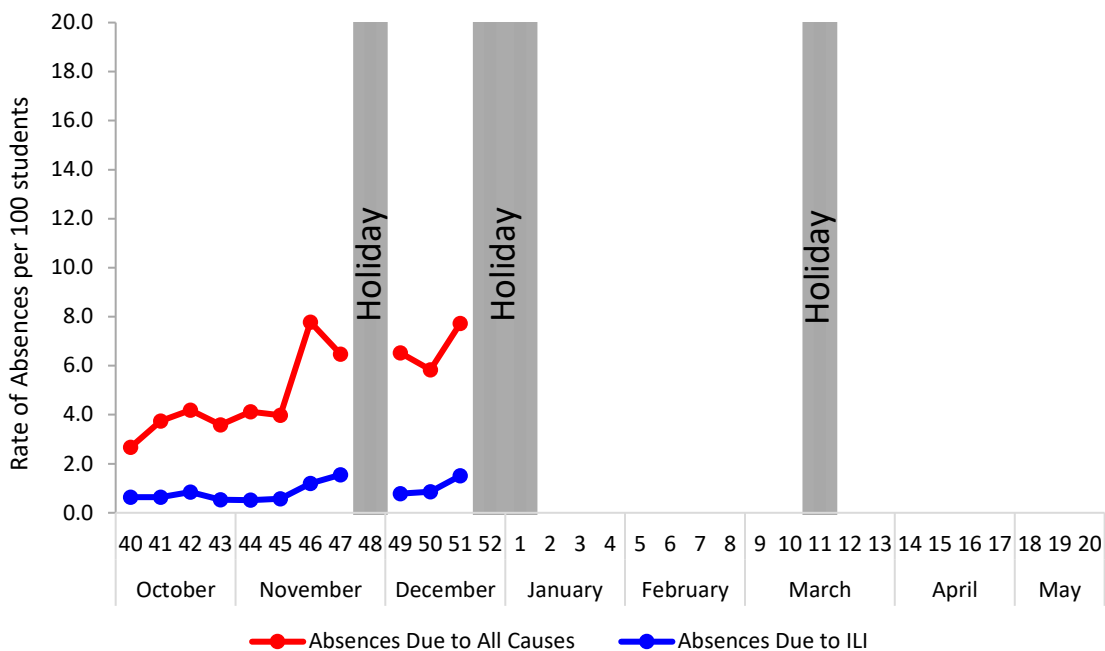


Figure 3. Percent of Absenteeism Due to All Causes and ILI, Denton County Schools*, 2019- 2020 Season



*During week 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 – December 21, 2019

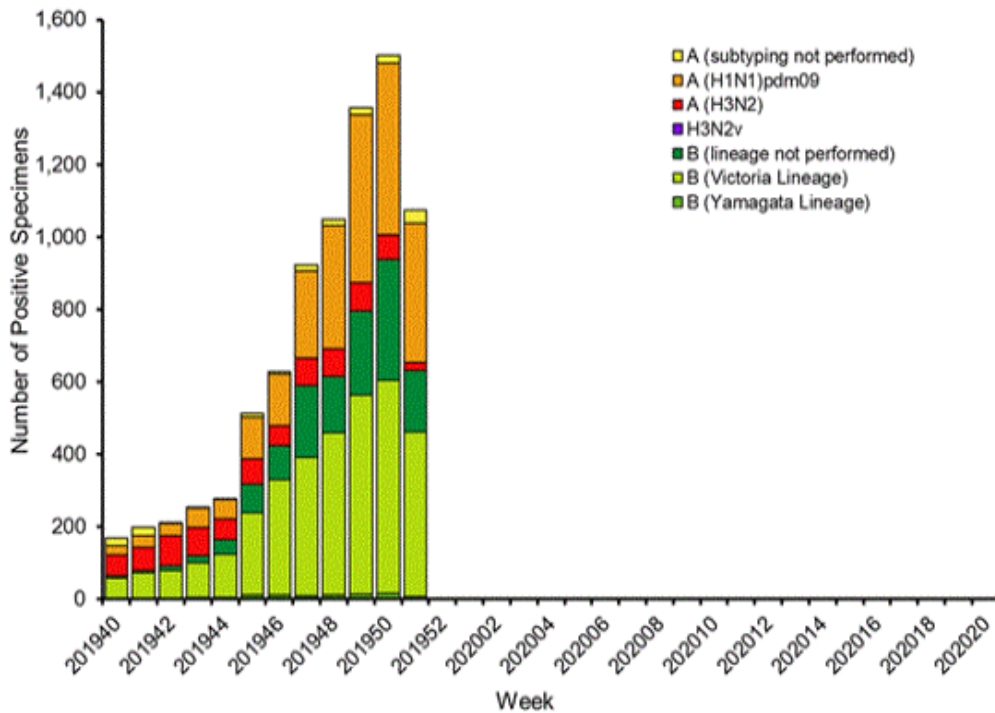


Figure 5. Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, September 29, 2019 – December 21, 2019

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

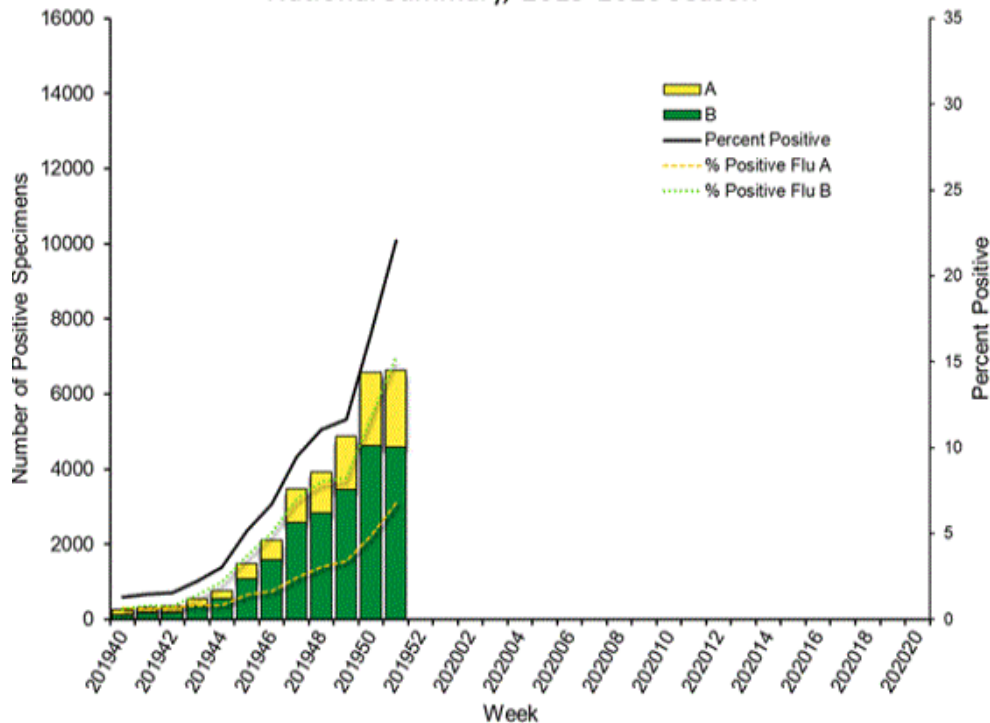


Figure 6. Antigenic Characterization of Influenza Isolates, Since September 29, 2019

Influenza A (H1N1)	47 of 47 (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 51

	Week 51	Data Cumulative since September 29, 2019 (week 40)
No. of specimens tested	30,054	358,869
No. of positive specimens (%)	6,629 (22.1%)	31,350 (8.7%)
<i>Positive specimens by type</i>		
Influenza A	2,035 (30.7%)	9,182 (29.3%)
Influenza B	4,594 (69.3%)	22,168 (70.7%)

Figure 8. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, August 1, 2019- December 21, 2019

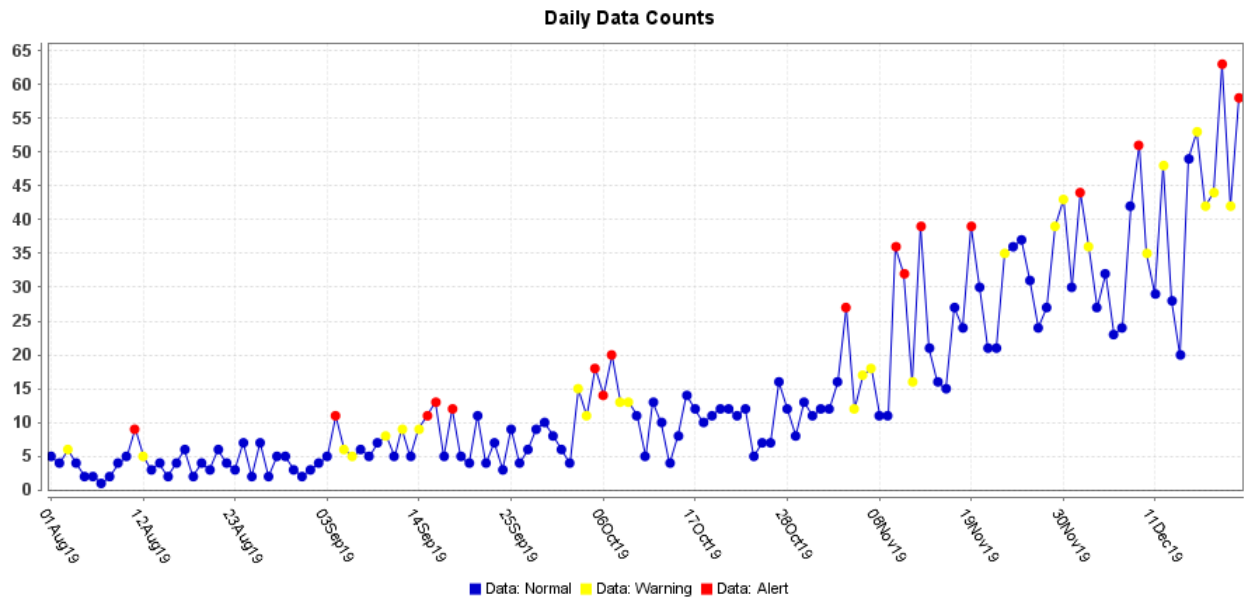
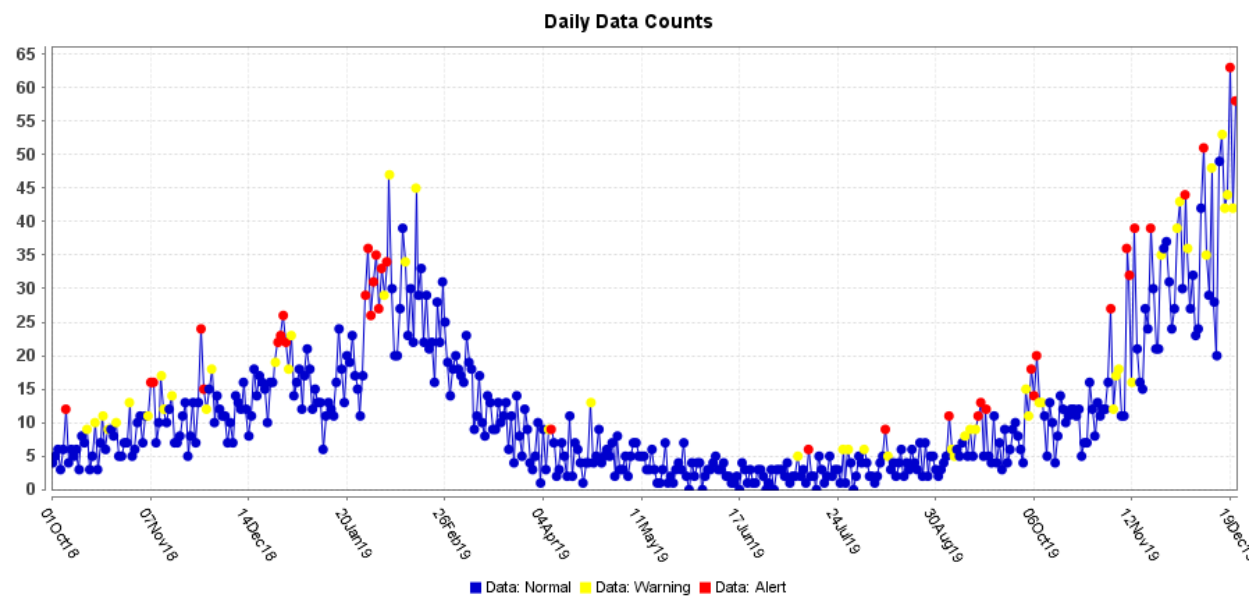


Figure 9. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, October 1, 2018 – December 21, 2019



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 14, 2019

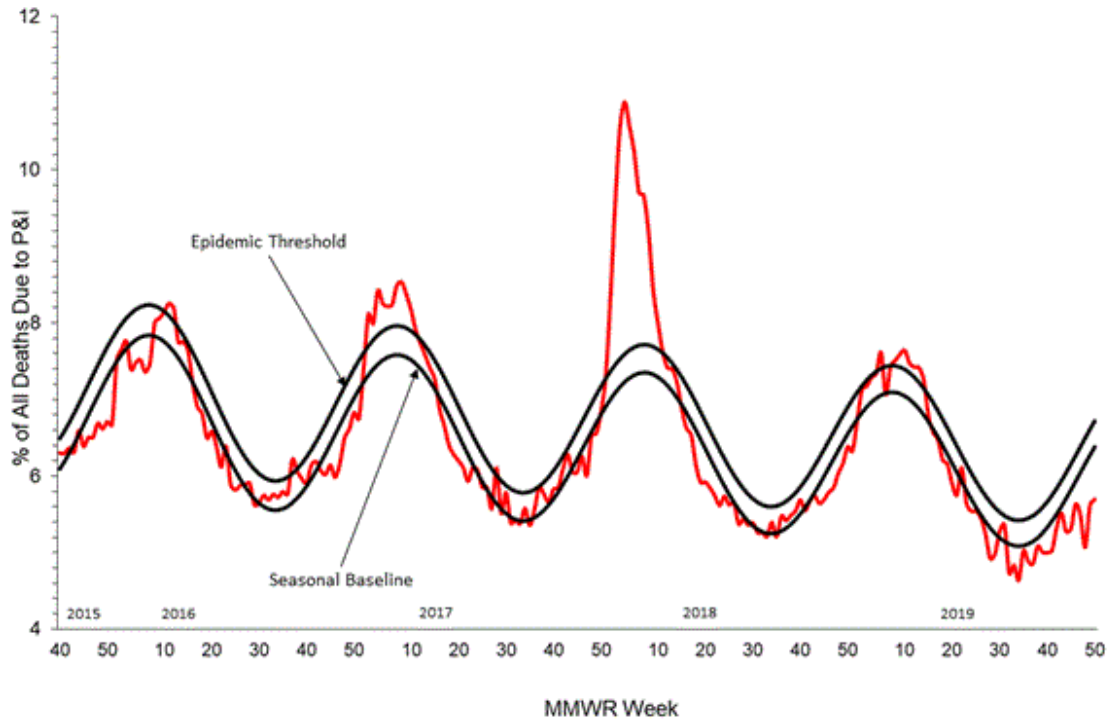
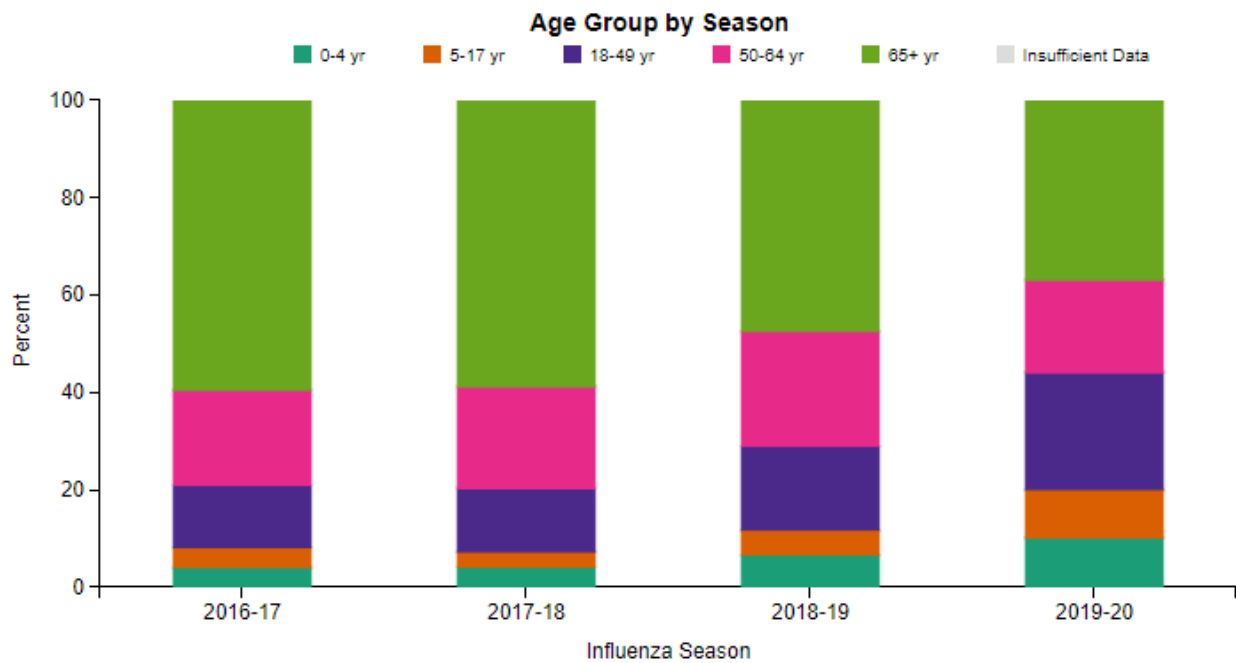
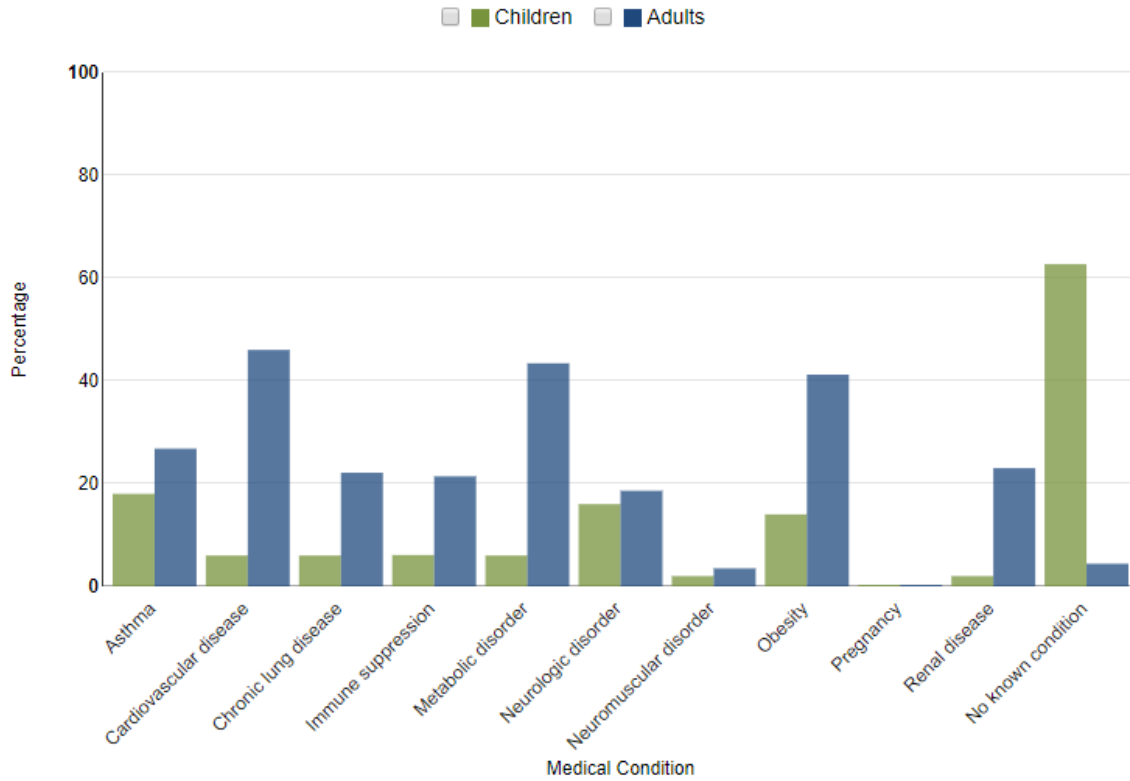


Figure 11. FluSurv-NET Laboratory Confirmed Influenza-Associated Hospitalizations by Age Group, National Summary, data as of December 21, 2019



FluView: Influenza Hospitalization Surveillance Network, Centers for Disease Control and Prevention. <http://www.cdc.gov/flu/weekly/>. Accessed on 1/2/2020.

Figure 12. FluSurv-NET Laboratory Confirmed Influenza-Associated Hospitalizations: Selected Underlying Conditions, 2019-2020 Season, data as of December 21, 2019



FluView: Influenza Hospitalization Surveillance Network, Centers for Disease Control and Prevention. <http://www.cdc.gov/flu/weekly/>. Accessed on 1/2/2020.

Figure 13. Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists: Week 51 – Week Ending December 21, 2019

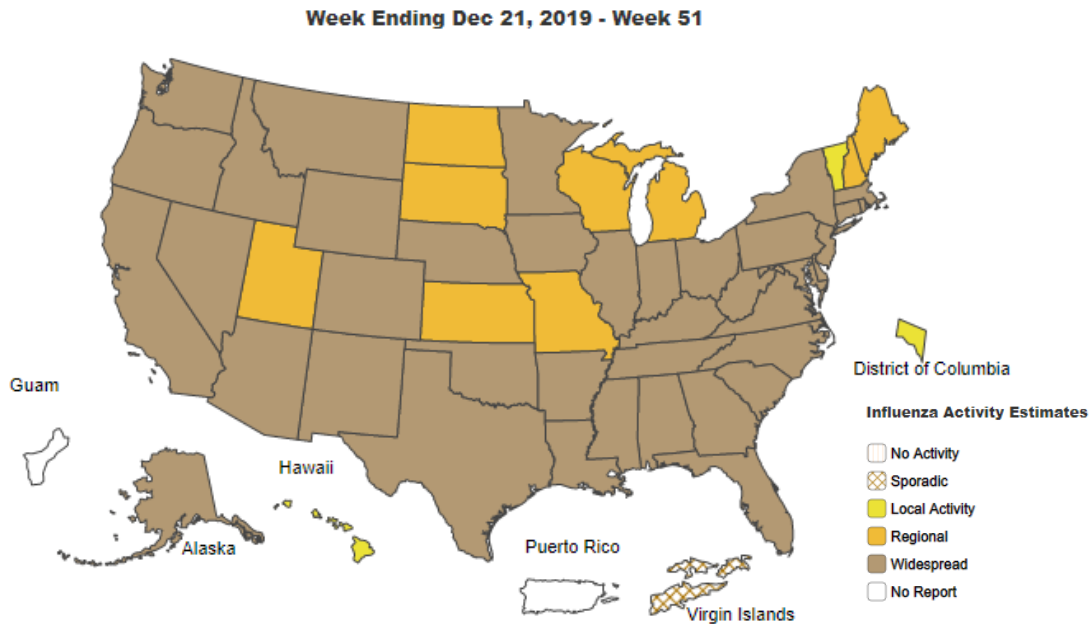
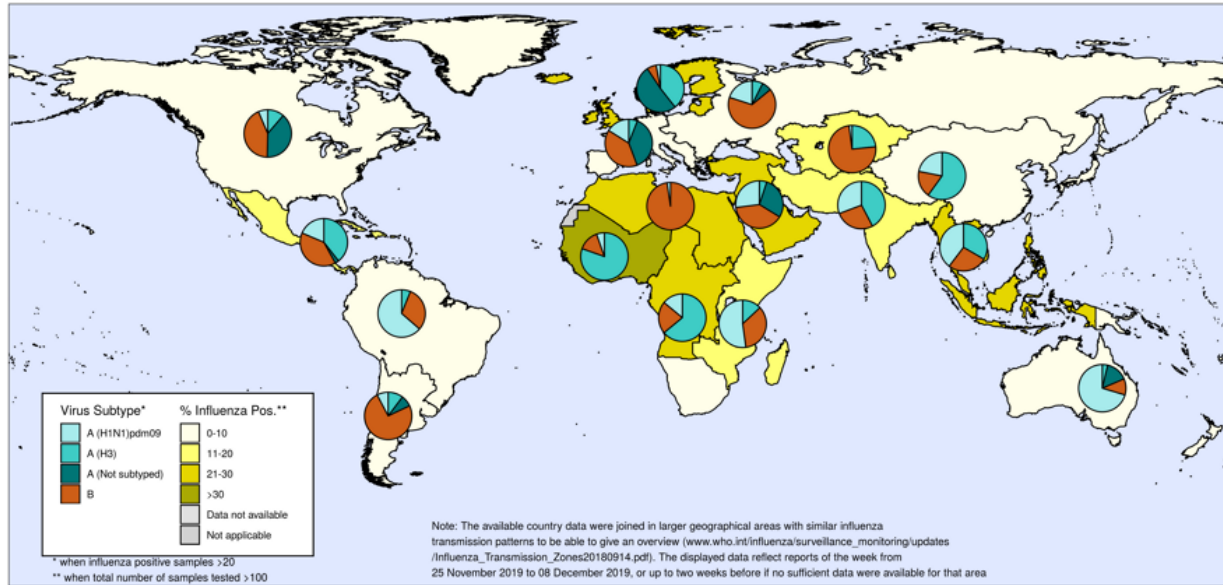


Figure 14. Percentage of Respiratory Specimens that tested Positive for Influenza: WHO, based on data through December 19, 2019

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

Map generated on 19 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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