

Denton County Public Health

2019 – 2020 Influenza Surveillance Program

CDC Week 5, Week Ending February 1, 2020



Epidemiologic Overview

Denton County

- High influenza activity was reported in Denton County for week 5.
- 183 positive influenza tests (147 Flu A and 36 Flu B) and 19 hospitalizations were reported by Denton County sentinel providers for week 5.
- Syndromic surveillance for influenza-like illness (ILI) in Denton County decreased for week 5 when compared to the previous week.
- 0.9% of the total reported school population was absent due to ILI in week 5.
- 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 5.
- The percentage of visits for ILI as reported by ILINet providers increased to 11.5% in week 5 compared to the previous week.
- The percentage of specimens testing positive for influenza in Texas increased to 32.8% in week 5 compared to the previous week.

US

- The proportion of outpatient visits for influenza-like illness (ILI) was 6.7%, which is above the national baseline of 2.4%.
- The geographic spread of influenza in 48 states was reported as widespread; and 2 states was reported as regional.
- The percentage of specimens testing positive for influenza in the US was 29.8%.
- The proportion of deaths attributed to pneumonia and influenza (P&I) from the National Center for Health Statistics Mortality Surveillance System for week 4 was 7.1%. This percentage is below the epidemic threshold of 7.2% for week 4.

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

Week Ending	12/28/19	1/4/20	1/11/20	1/18/20	1/25/20	2/1/20	9/28/19 - Present
CDC Week	52	1	2	3	4	5	
Influenza Tests Performed Weekly	786	688	560	601	577	602	10282
Total Positive Influenza Tests	264	159	156	194	181	183	2194
Percent Positive Influenza Tests*	33.59%	23.11%	27.86%	32.28%	31.37%	30.40%	
Positive A Influenza	83	61	77	129	147	147	755
Positive B Influenza	181	98	79	65	34	36	1439
Non-differentiated Influenza	0	0	0	0	0	0	0
Influenza Hospitalizations	18	23	20	10	22	19	165
Influenza-associated Pediatric Deaths	0	0	0	0	0	0	0
Influenza-associated Adult Deaths	1	0	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

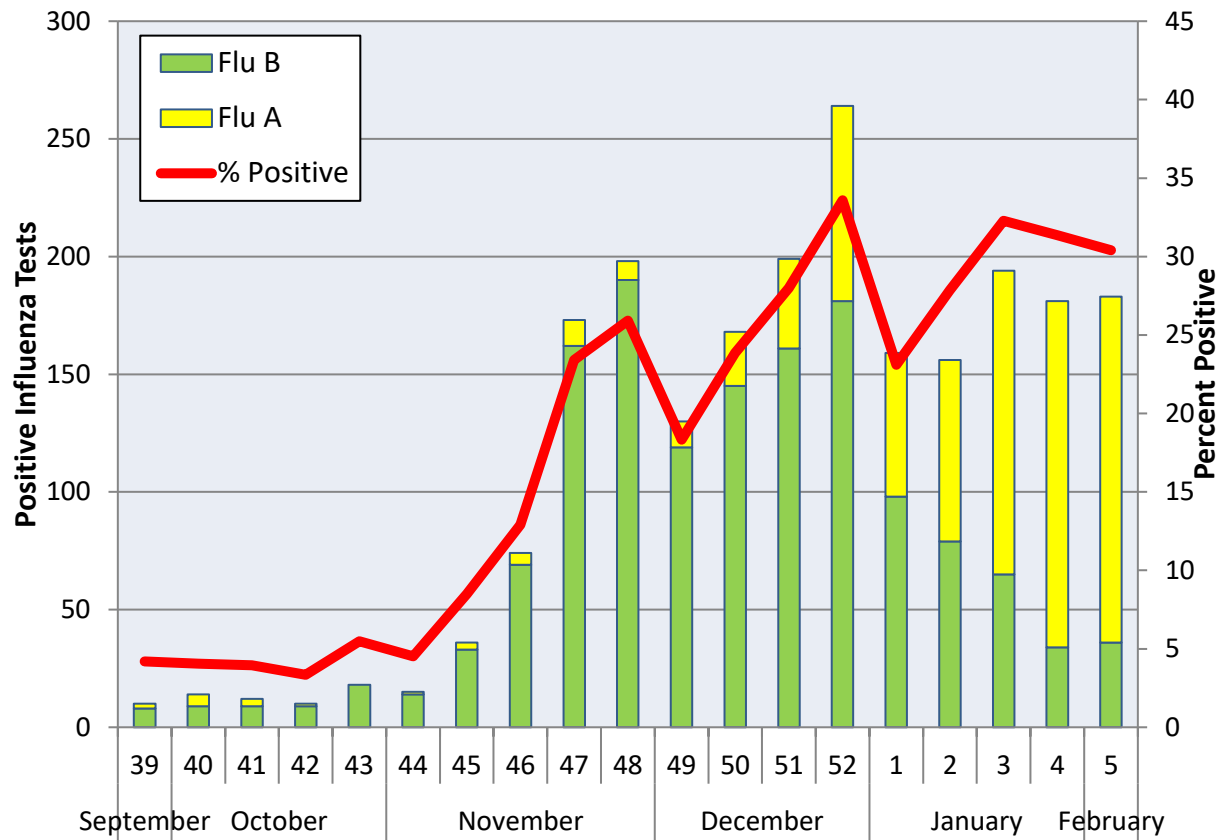
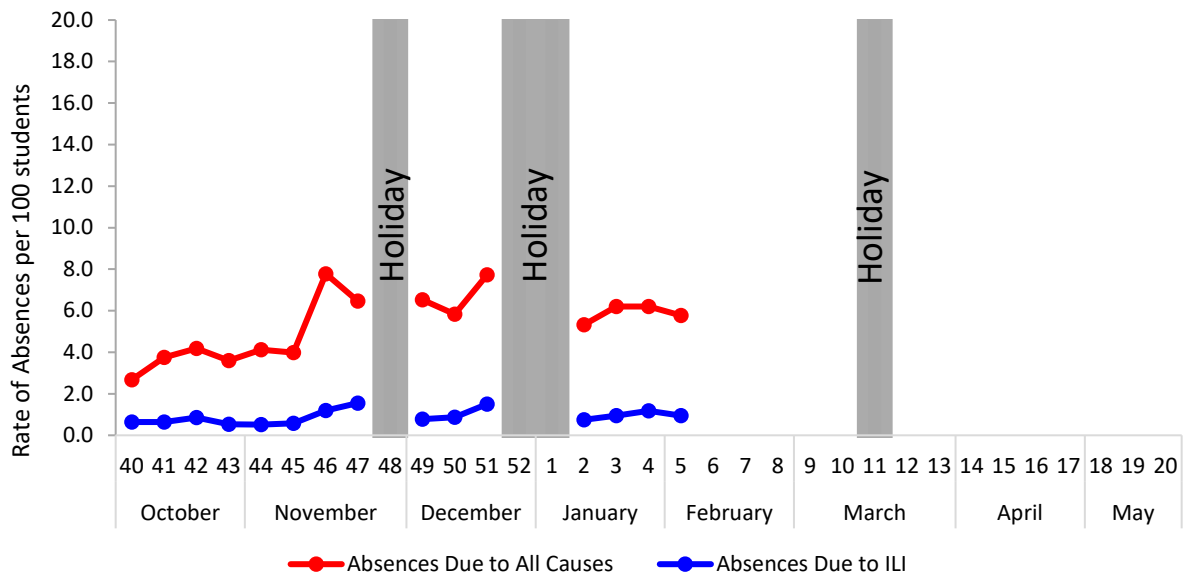


Figure 3. Percent of Absenteeism Due to All Causes and ILI, Denton County Schools*, 2019- 2020 Season



*During week 5, 4 Denton County Independent School Districts reported data to Denton County Public Health, which included 26,988 students.

Figure 4. Influenza Positive Tests Reported to CDC by U.S. Public Health Laboratories, National Summary, September 29, 2019 – February 1, 2020

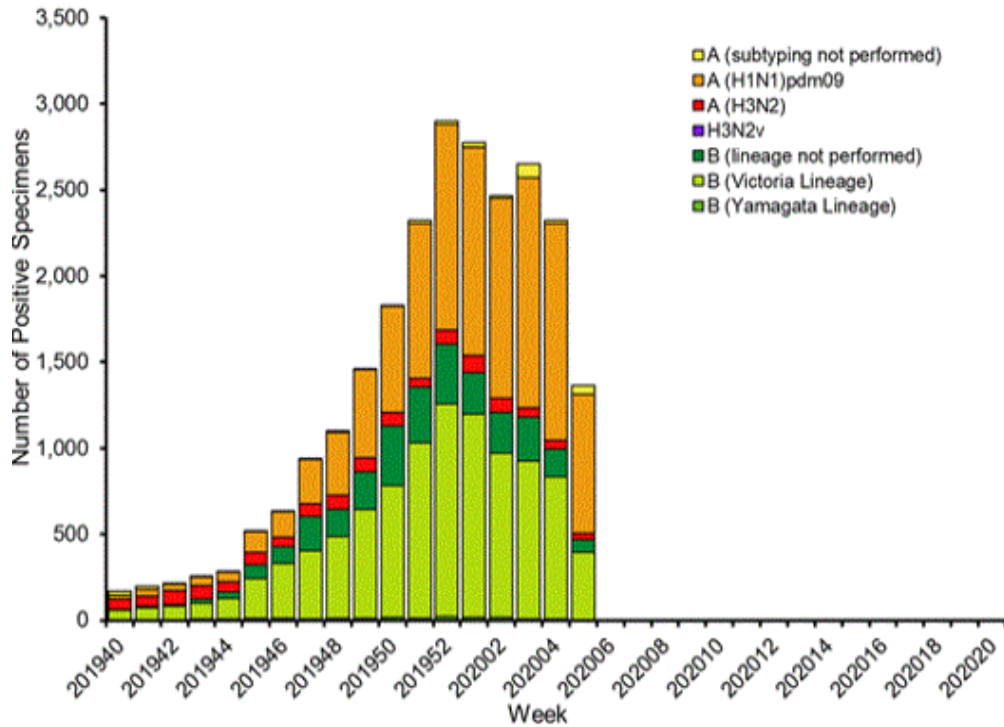


Figure 5. Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, September 29, 2019 – February 1, 2020

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

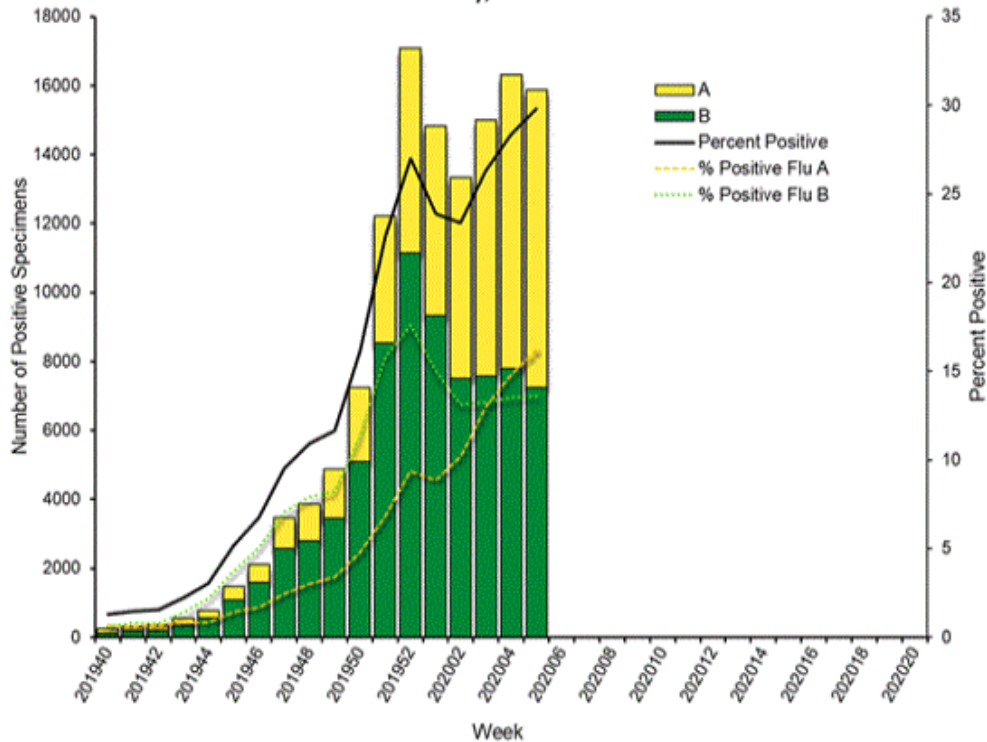


Figure 6. Antigenic Characterization of Influenza Isolates, Since September 29, 2019

Influenza A (H1N1)	74 of 74 (100%) – A/Brisbane/02/2018 (H1N1)pdm09 -like
Influenza A (H3N2)	30 of 69 (43.5%) – 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 5

	Week 5	Data Cumulative since September 29, 2019 (week 40)
No. of specimens tested	53,247	738,331
No. of positive specimens (%)	15,875 (29.8%)	129,997 (17.6%)
<i>Positive specimens by type</i>		
Influenza A	8,637 (54.4%)	52,928 (40.7%)
Influenza B	7,238 (45.6%)	77,069 (59.3%)

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

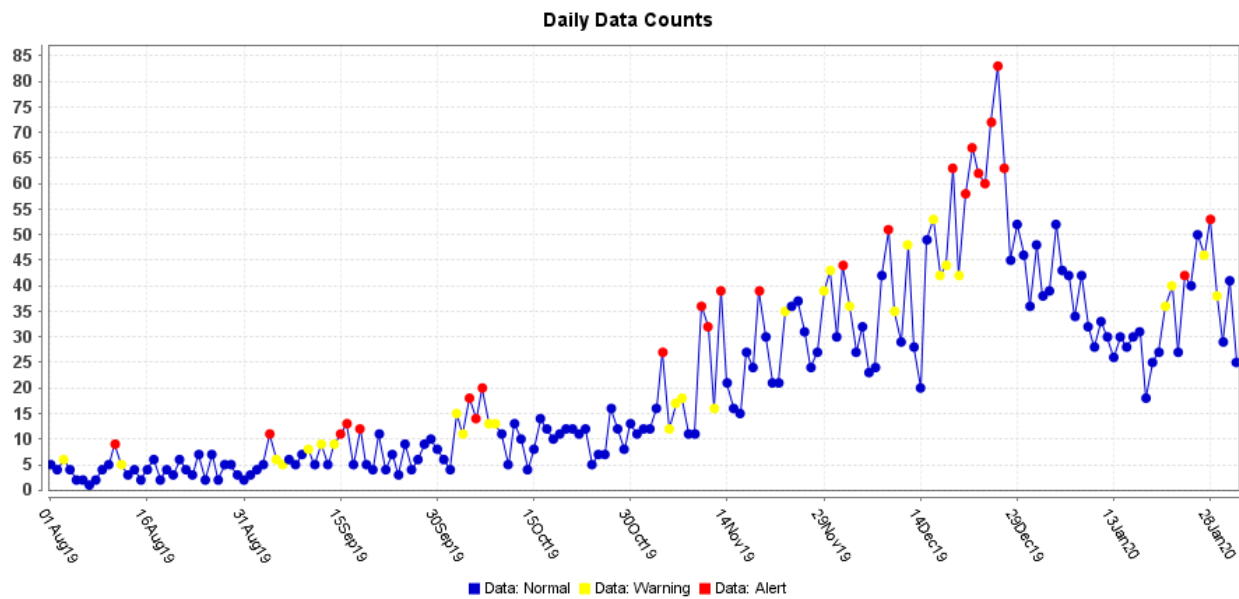
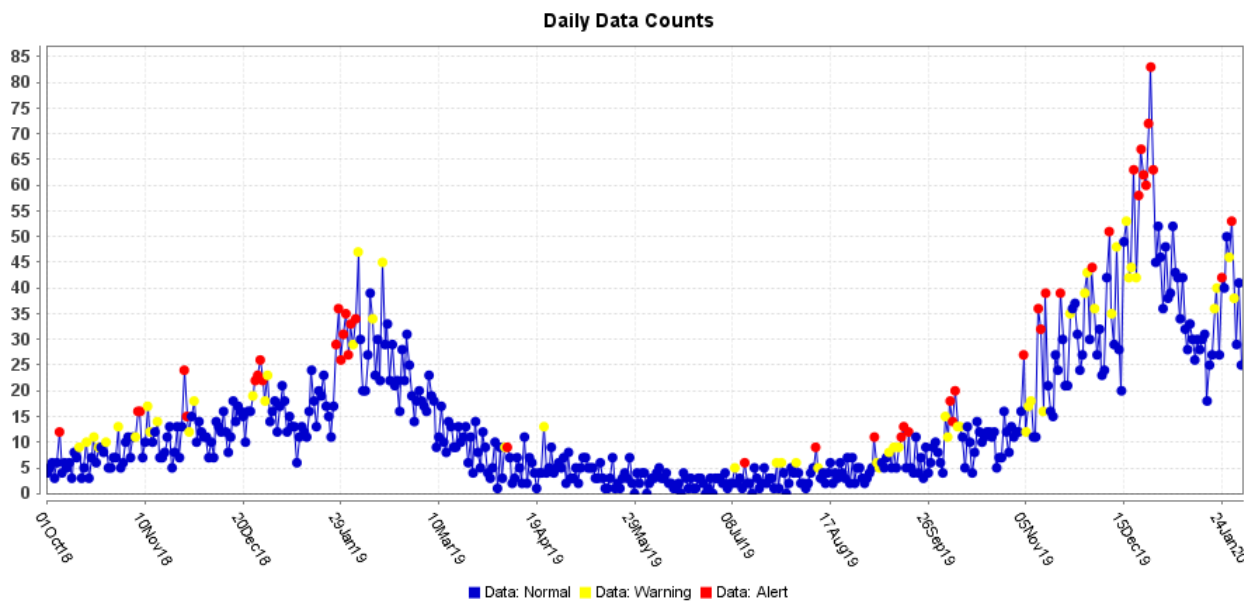


Figure 9. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, October 1, 2018 – February 1, 2020



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 25, 2020

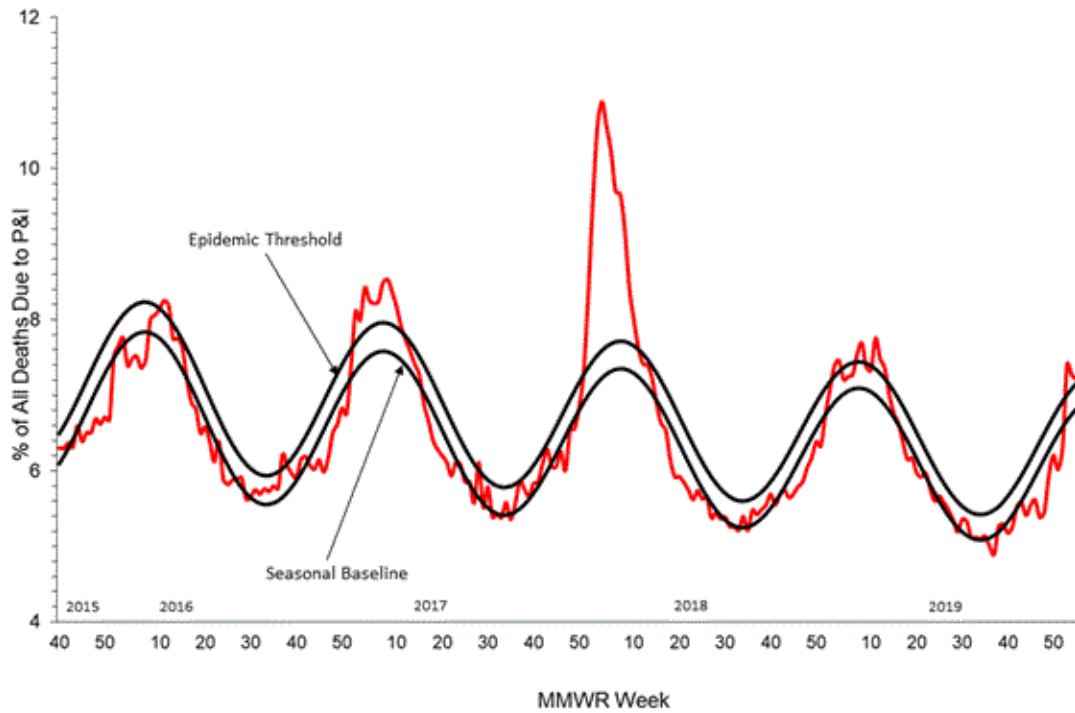
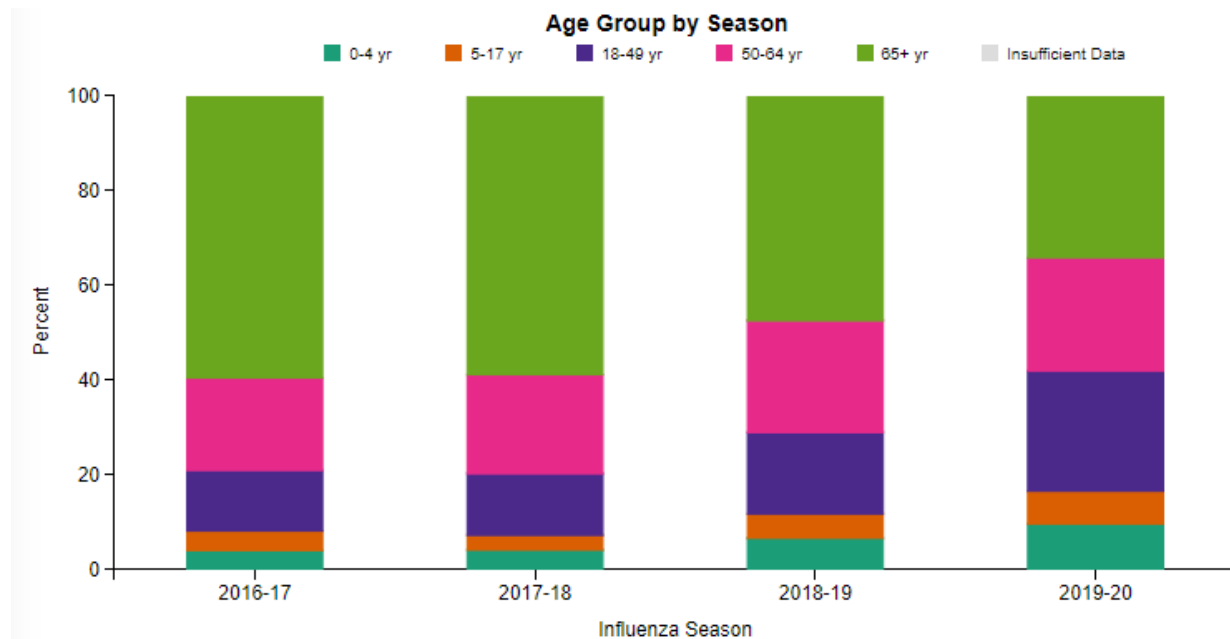
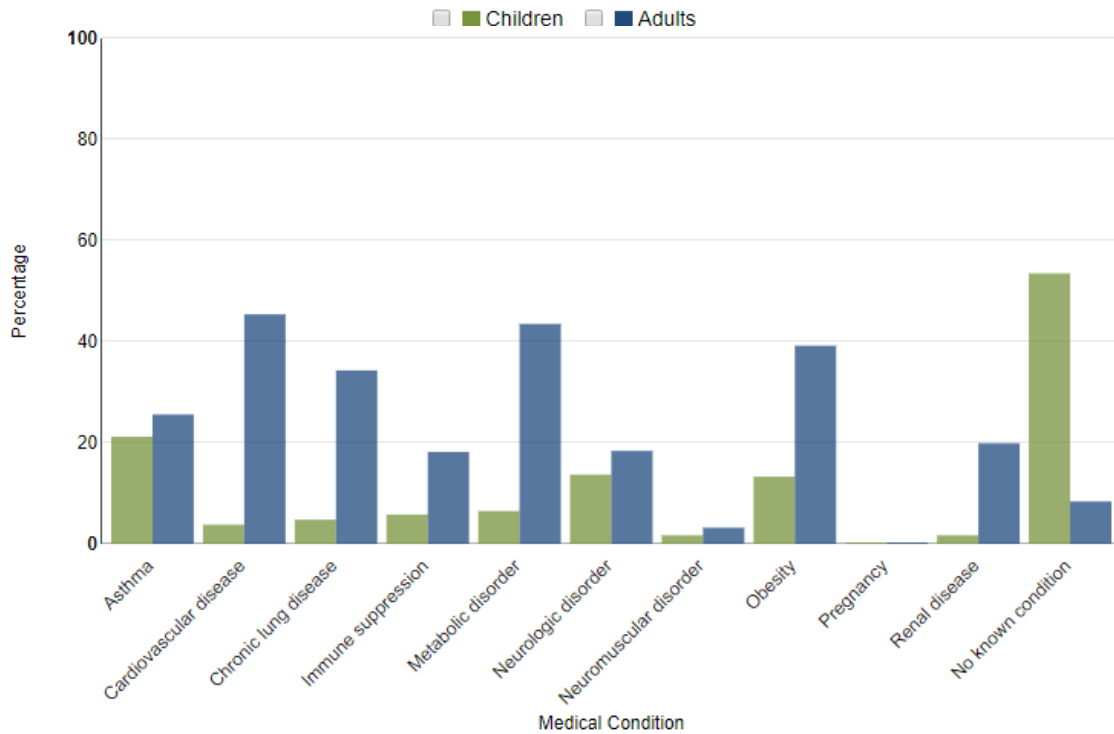


Figure 11. FluSurv-NET Laboratory Confirmed Influenza-Associated Hospitalizations by Age Group, National Summary, data as of February 1, 2020



FluView: Influenza Hospitalization Surveillance Network, Centers for Disease Control and Prevention. <http://www.cdc.gov/flu/weekly/>. Accessed on 2/7/2020.

Figure 12. FluSurv-NET Laboratory Confirmed Influenza-Associated Hospitalizations: Selected Underlying Conditions, 2019-2020 Season, data as of February 1, 2020



FluView: Influenza Hospitalization Surveillance Network, Centers for Disease Control and Prevention. <http://www.cdc.gov/flu/weekly/>. Accessed on 2/7/2020.

Figure 13. Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists: Week 5 – Week Ending February 1, 2020

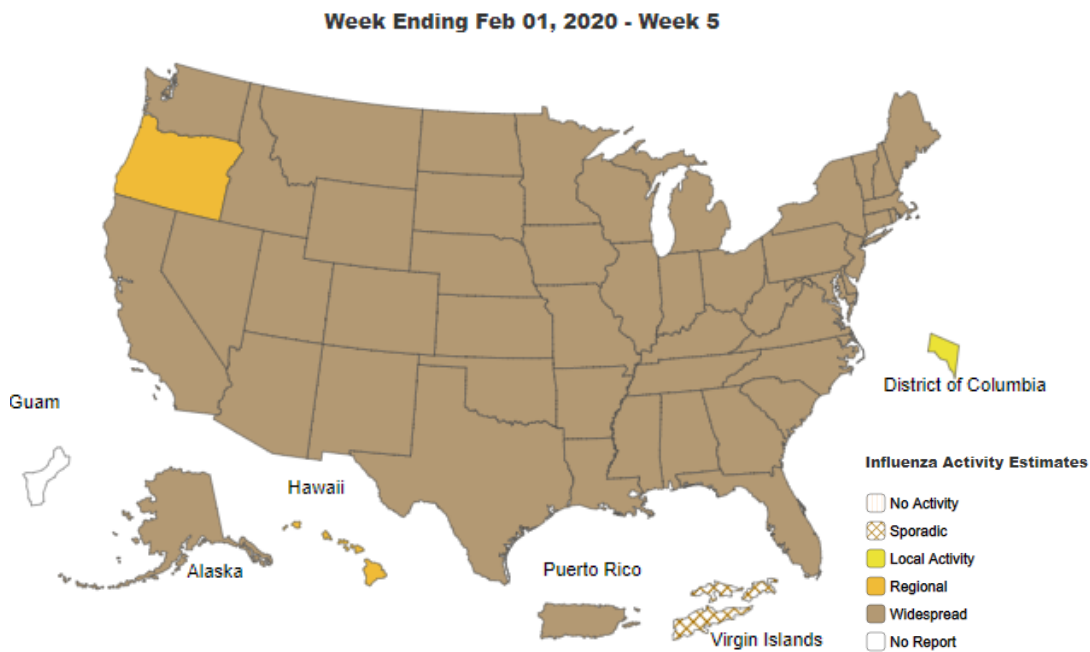
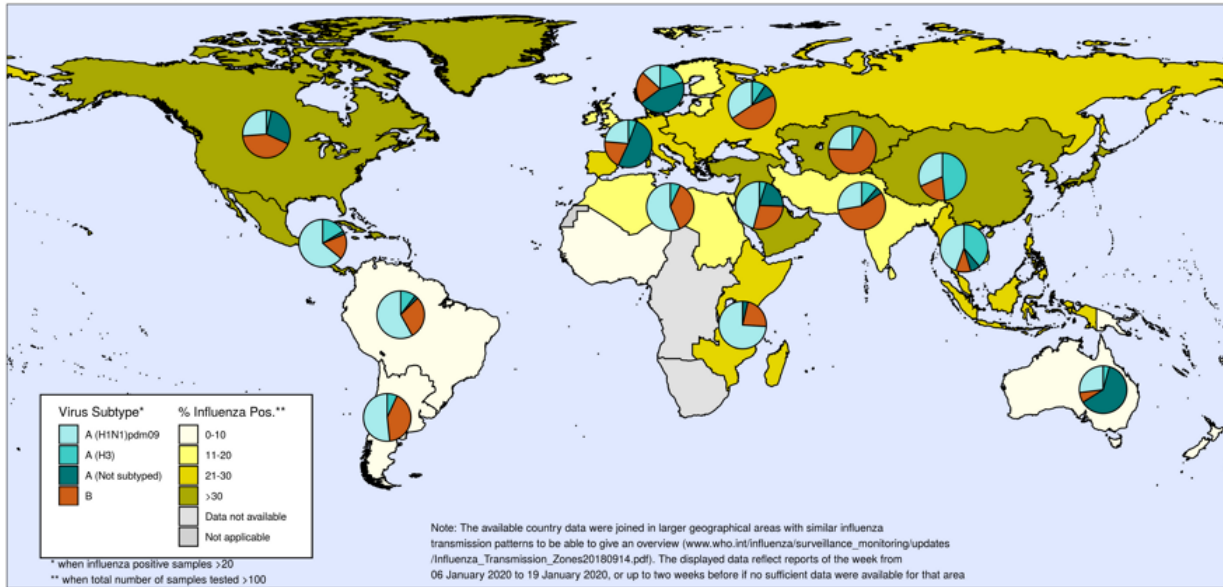


Figure 14. Percentage of Respiratory Specimens that tested Positive for Influenza: WHO, based on data through February 4, 2020

Percentage of respiratory specimens that tested positive for influenza
By influenza transmission zone
Map generated on 04 February 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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