

Denton County Public Health
2019 – 2020 Influenza Surveillance Program
CDC Week 10, Week Ending March 7, 2020



Epidemiologic Overview

Denton County

- Moderate influenza activity was reported in Denton County for week 10.
- 93 positive influenza tests (83 Flu A and 10 Flu B) and 20 hospitalizations were reported by Denton County sentinel providers for week 10.
- Syndromic surveillance for influenza-like illness (ILI) in Denton County stayed the same for week 10 when compared to the previous week.
- 0.4% of the total reported school population was absent due to ILI in week 10.
- 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 10.
- The percentage of visits for ILI as reported by ILINet providers increased to 8.9% in week 10 compared to the previous week.
- The percentage of specimens testing positive for influenza in Texas decreased to 18.0% in week 10 compared to the previous week.

US

- The proportion of outpatient visits for influenza-like illness (ILI) was 5.2%, which is above the national baseline of 2.4%.
- The geographic spread of influenza in 48 states was reported as widespread; 1 state was reported as regional; and 1 states was reported as local.
- The percentage of specimens testing positive for influenza in the US was 21.5%.
- The proportion of deaths attributed to pneumonia and influenza (P&I) from the National Center for Health Statistics Mortality Surveillance System for week 9 was 7.1%. This percentage is below the epidemic threshold of 7.3% for week 9.

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

Week Ending	2/1/20	2/8/20	2/15/20	2/22/20	2/29/20	3/7/20	9/28/19 - Present
CDC Week	5	6	7	8	9	10	
Influenza Tests Performed Weekly	602	684	608	590	524	566	13254
Total Positive Influenza Tests	183	166	169	132	94	93	2848
Percent Positive Influenza Tests*	30.40%	24.27%	27.80%	22.37%	17.94%	16.43%	
Positive A Influenza	147	147	145	122	85	83	1337
Positive B Influenza	36	19	24	10	9	10	1511
Non-differentiated Influenza	0	0	0	0	0	0	0
Influenza Hospitalizations	19	17	27	15	19	20	263
Influenza-associated Pediatric Deaths	0	0	0	0	0	0	0
Influenza-associated Adult Deaths	0	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

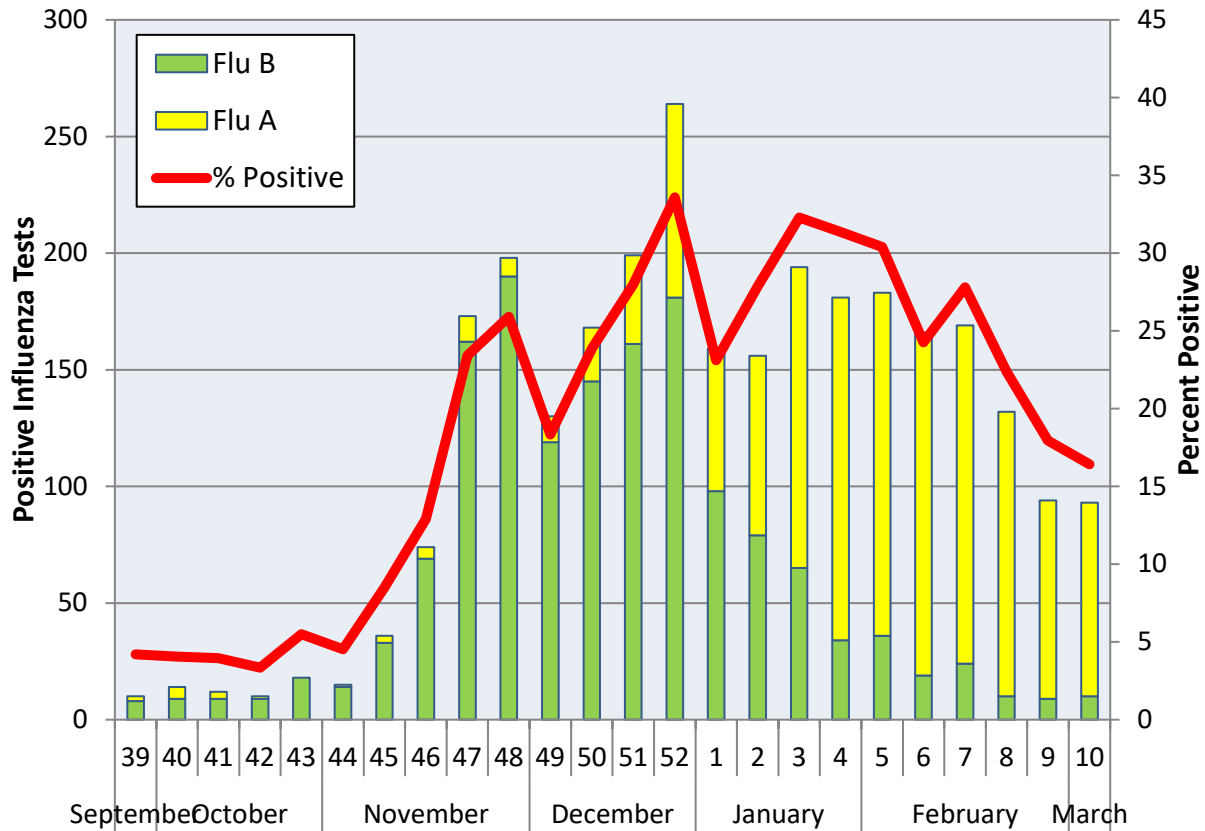
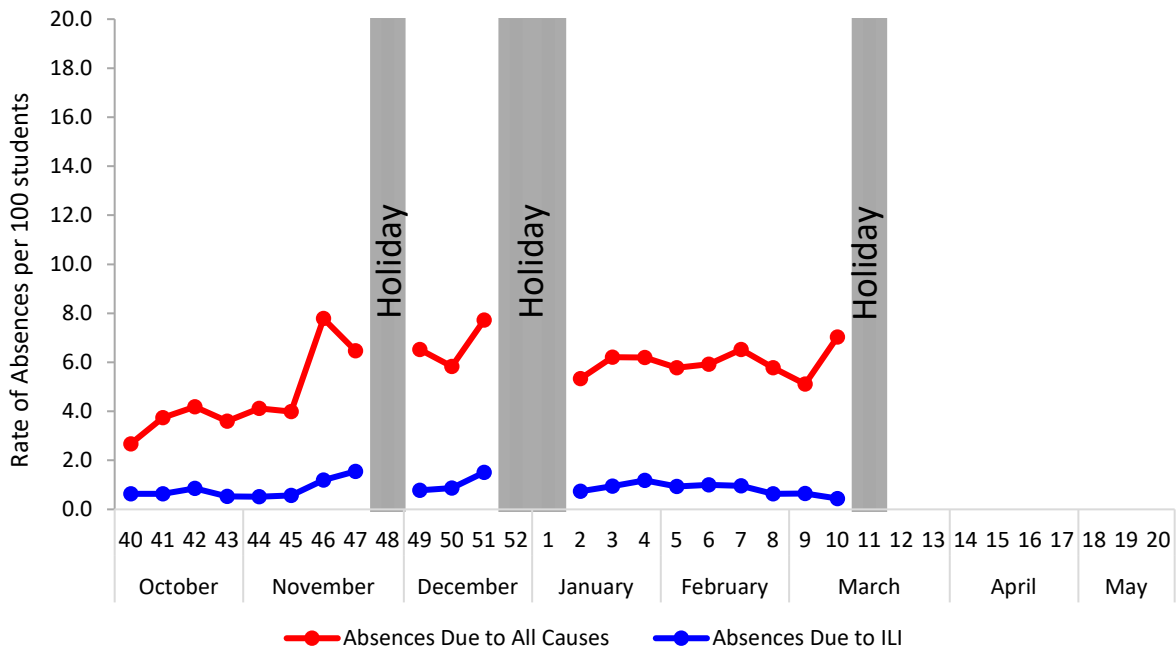


Figure 3. Percent of Absenteeism Due to All Causes and ILI, Denton County Schools*, 2019- 2020 Season



*During week 10, 4 Denton County Independent School Districts reported data to Denton County Public Health, which included 17,166 students.

Figure 4. Influenza Positive Tests Reported to CDC by U.S. Public Health Laboratories, National Summary, September 29, 2019 – March 7, 2020

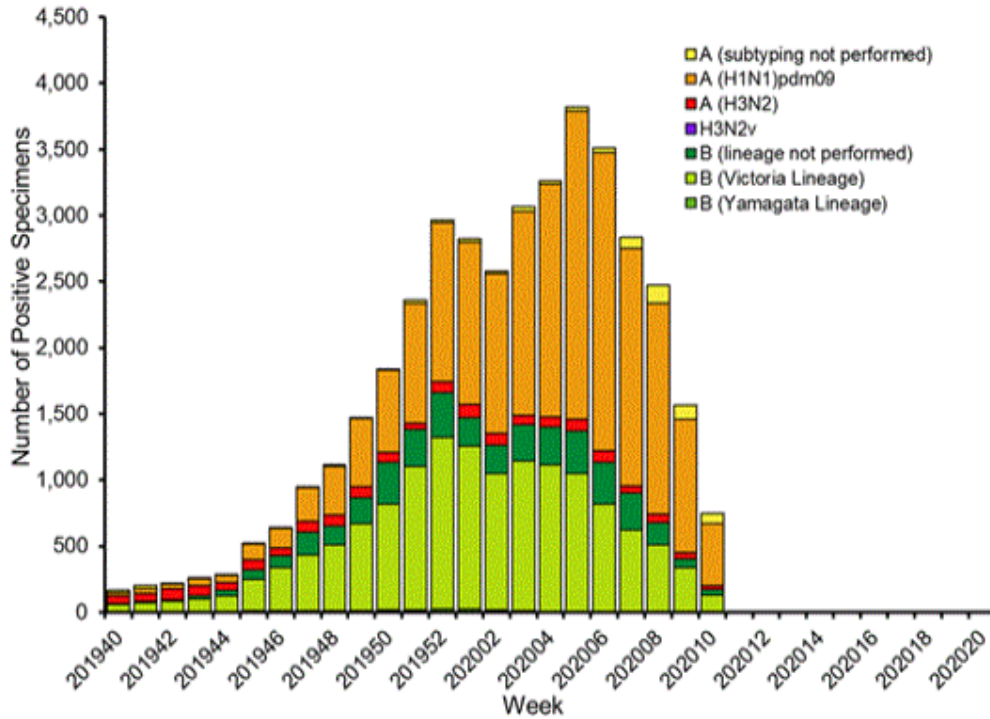


Figure 5. Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, September 29, 2019 – March 7, 2020

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

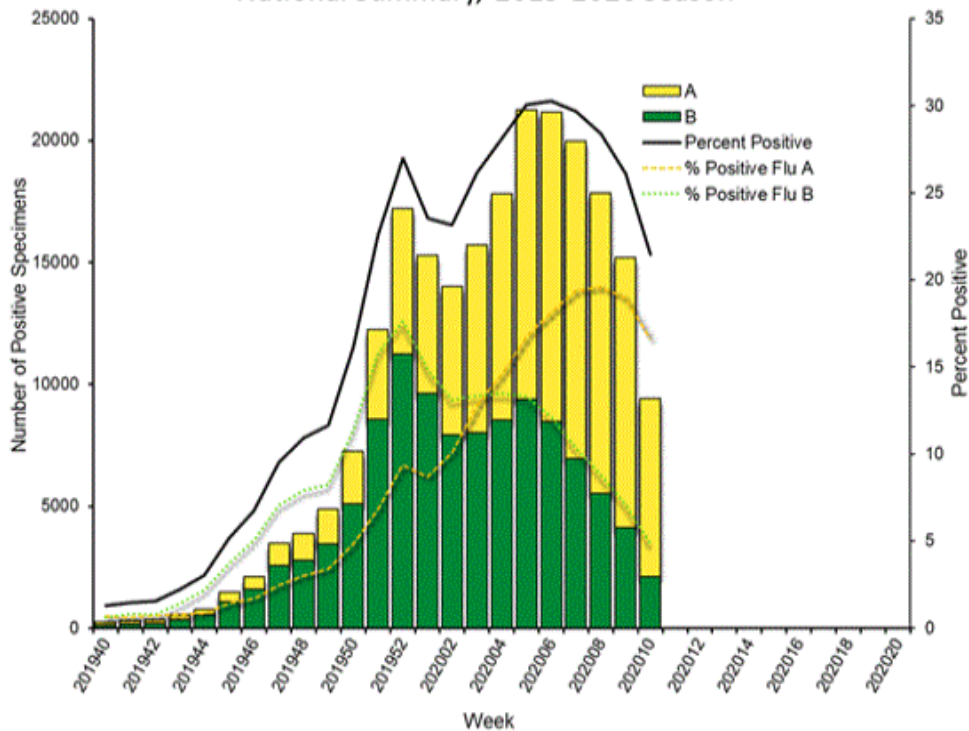


Figure 6. Antigenic Characterization of Influenza Isolates, Since September 29, 2019

Influenza A (H1N1)	123 of 153 (80.4%) – A/Brisbane/02/2018 (H1N1)pdm09 -like
Influenza A (H3N2)	31 of 76 (40.8%) – A/Kansas/14/2017 (H3N2)-like
Influenza B (Victoria Lineage)	95 of 146 (65.1%) – B/Colorado/06/2017-like
Influenza B (Yamagata Lineage)	28 of 28 (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 10

	Week 10	Data Cumulative since September 29, 2019 (week 40)
No. of specimens tested	43,868	1,073,976
No. of positive specimens (%)	9,413 (21.5%)	222,552 (20.7%)
<i>Positive specimens by type</i>		
Influenza A	7,294 (77.5%)	114,029 (51.2%)
Influenza B	2,119 (22.5%)	108,523 (48.8%)

Figure 8. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, August 1, 2019- March 7, 2020

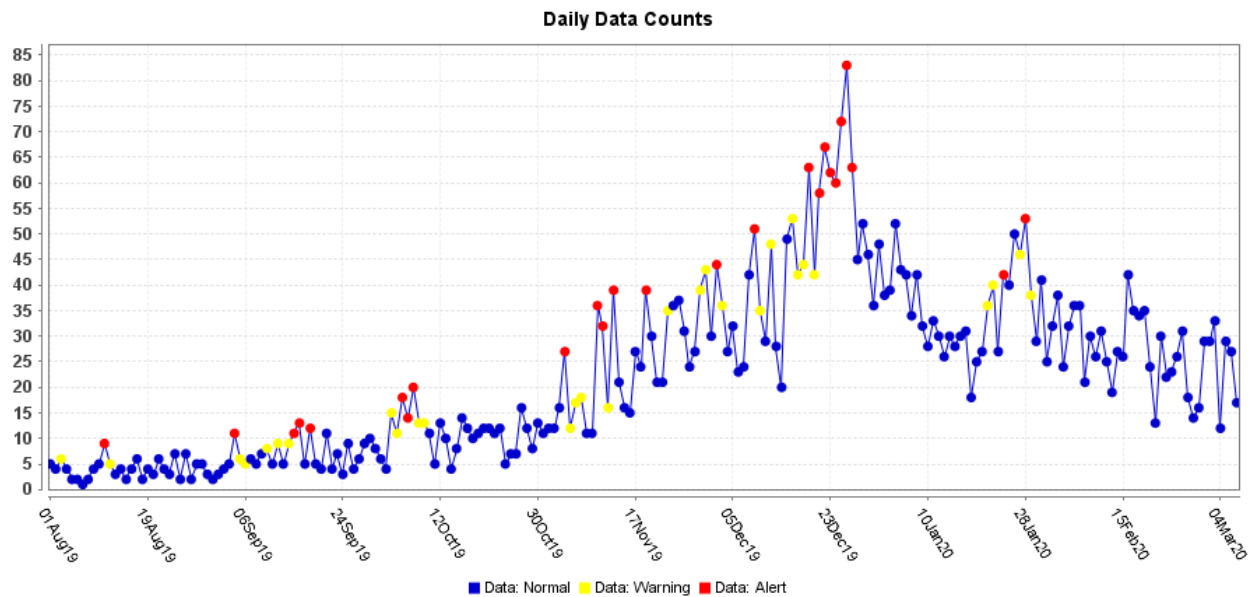
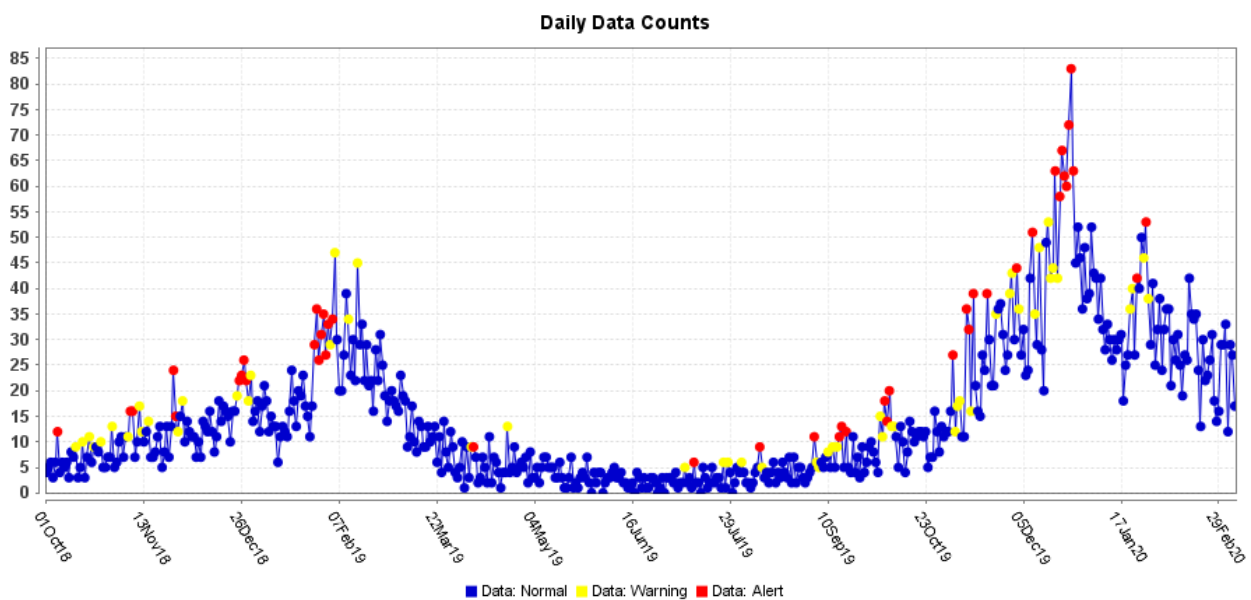


Figure 9. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, October 1, 2018 – March 7, 2020



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 February 29, 2020

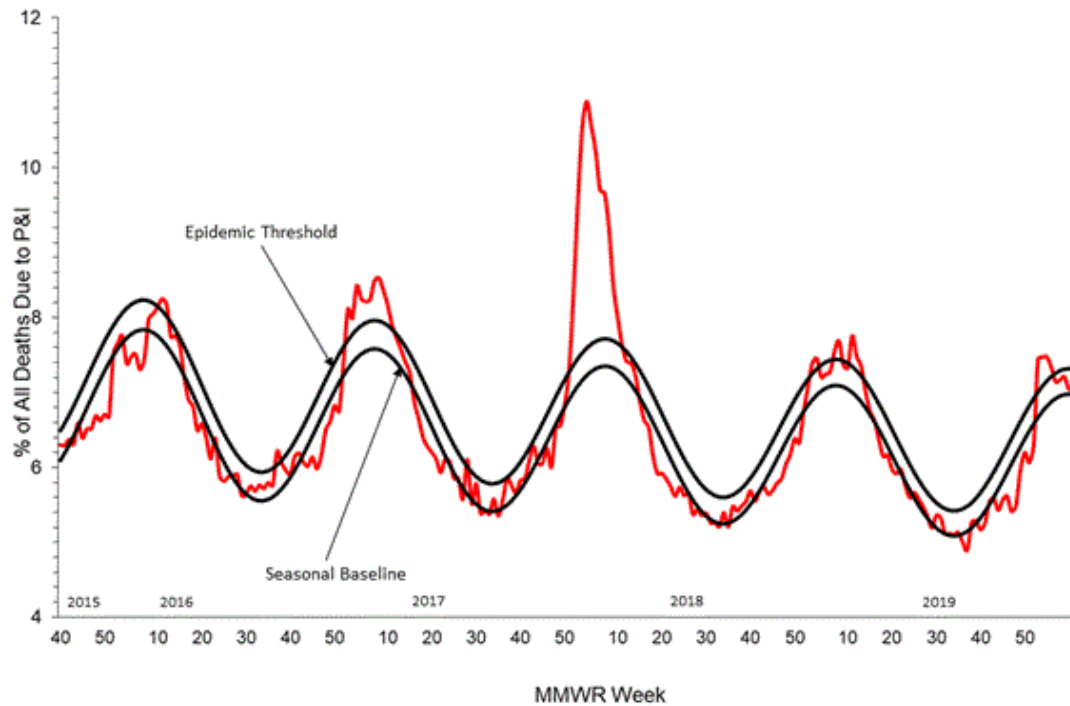
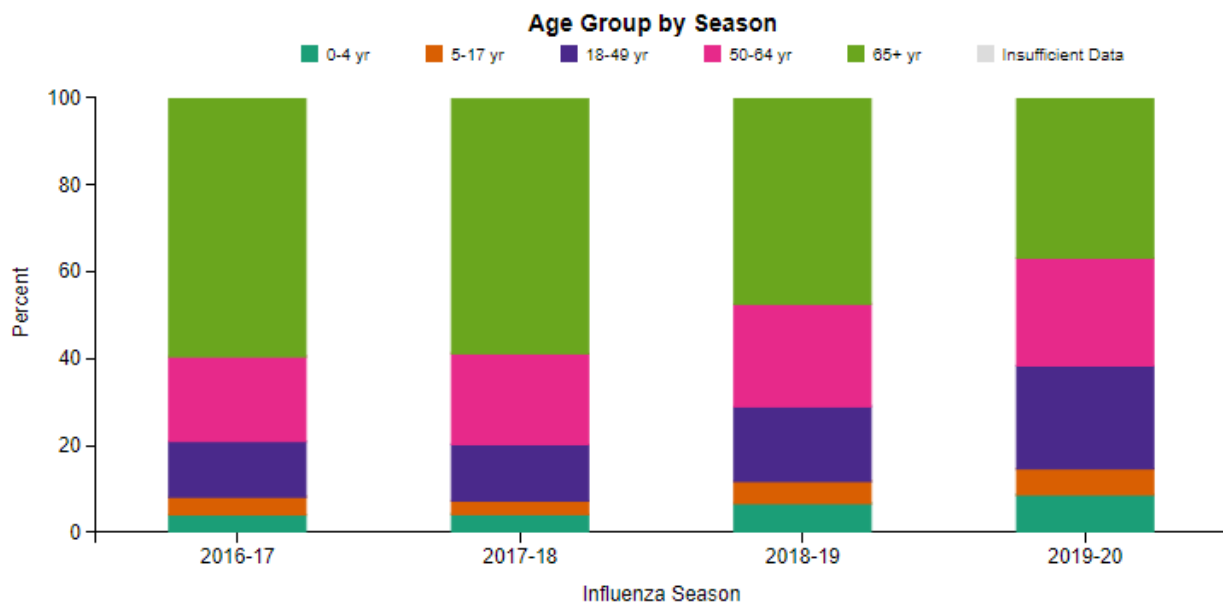
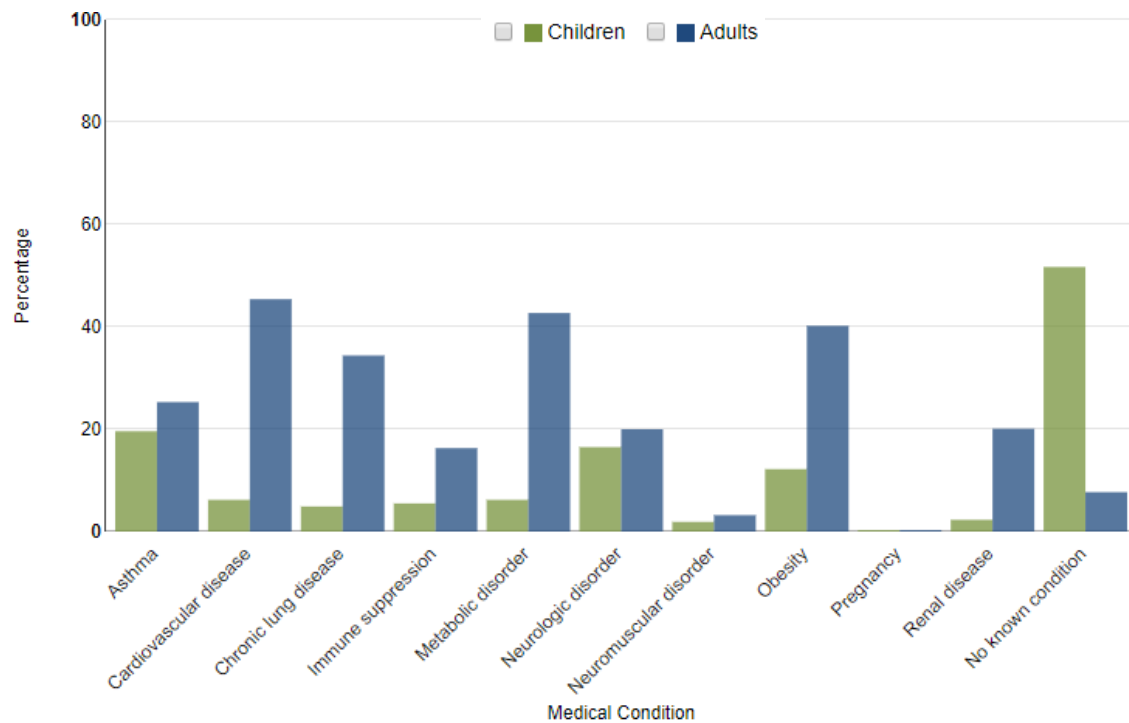


Figure 11. FluSurv-NET Laboratory Confirmed Influenza-Associated Hospitalizations by Age Group, National Summary, data as of March 7, 2020



FluView: Influenza Hospitalization Surveillance Network, Centers for Disease Control and Prevention. <http://www.cdc.gov/flu/weekly/>. Accessed on 3/13/2020.

Figure 12. FluSurv-NET Laboratory Confirmed Influenza-Associated Hospitalizations: Selected Underlying Conditions, 2019-2020 Season, data as of March 7, 2020



FluView: Influenza Hospitalization Surveillance Network, Centers for Disease Control and Prevention. <http://www.cdc.gov/flu/weekly/>. Accessed on 3/13/2020.

Figure 13. Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists: Week 10 – Week Ending March 7, 2020

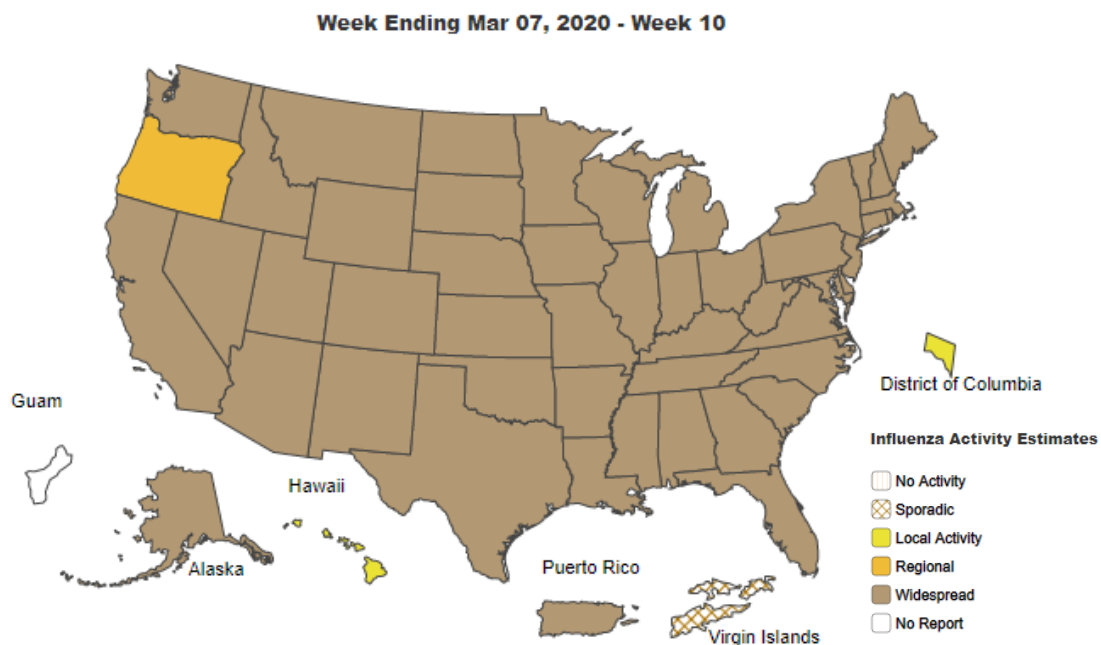
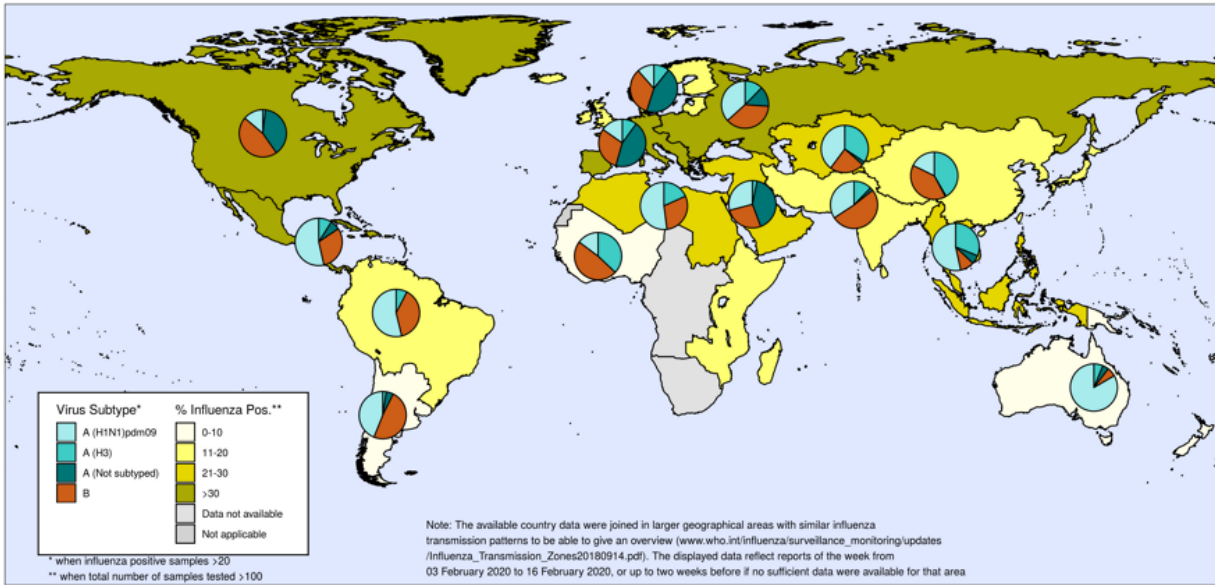


Figure 14. Percentage of Respiratory Specimens that tested Positive for Influenza: WHO, based on data through February 28, 2020

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

Map generated on 28 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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