

Denton County Public Health

2018 – 2019 Influenza Surveillance Program

CDC Week 16, Week Ending April 20, 2019



Epidemiologic Overview

Denton County

- Low influenza activity was reported in Denton County for week 16.
- 7 positive influenza tests (4 Flu A and 3 Flu B) and 0 hospitalizations were reported by Denton County sentinel providers for week 16.
- Syndromic surveillance for influenza-like illness (ILI) in Denton County decreased for week 16 when compared to the previous week.
- 0.3% of the total reported school population was absent due to ILI in week 16.

Texas

- Influenza activity in the state of Texas was reported as sporadic in week 16.
- The percentage of visits for ILI as reported by ILINet providers decreased to 3.3% in week 16 compared to the previous week.
- The percentage of specimens testing positive for influenza in Texas was 9.8% in week 16.

US

- The proportion of outpatient visits for influenza-like illness (ILI) was 2.1%, which is below the national baseline of 2.2%. 4 of 10 regions reported ILI at or above their region-specific baseline level.
- The geographic spread of influenza in 5 states was reported as widespread; 17 states was reported as regional; 19 states was reported as local; and 9 states was reported as sporadic.
- The percentage of specimens testing positive for influenza in the US was 8.1%.
- The proportion of deaths attributed to pneumonia and influenza (P&I) from the National Center for Health Statistics Mortality Surveillance System for week 15 was 6.6%. This percentage is below the epidemic threshold of 7.0% for week 15.

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

Week Ending	3/16/19	3/23/19	3/30/19	4/6/19	4/13/19	4/20/19	9/22/18 - Present
CDC Week	11	12	13	14	15	16	
Influenza Tests Performed Weekly	529	530	330	335	273	227	15122
Total Positive Influenza Tests	62	49	29	28	14	7	2066
Percent Positive Influenza Tests*	11.7%	9.3%	8.8%	8.4%	5.1%	3.1%	
Positive A Influenza	55	42	22	15	8	4	1791
Positive B Influenza	7	7	7	13	6	3	275
Non-differentiated Influenza	0	0	0	0	0	0	0
Influenza Hospitalizations	6	6	7	4	2	0	260
Influenza-associated Pediatric Deaths	0	0	0	0	0	0	1
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

‡ Table includes preliminary voluntary results which are subject to change

Figure 2. Influenza Positive Tests and Percent Positive, Denton County Hospitals and Providers, 2018-2019 Season

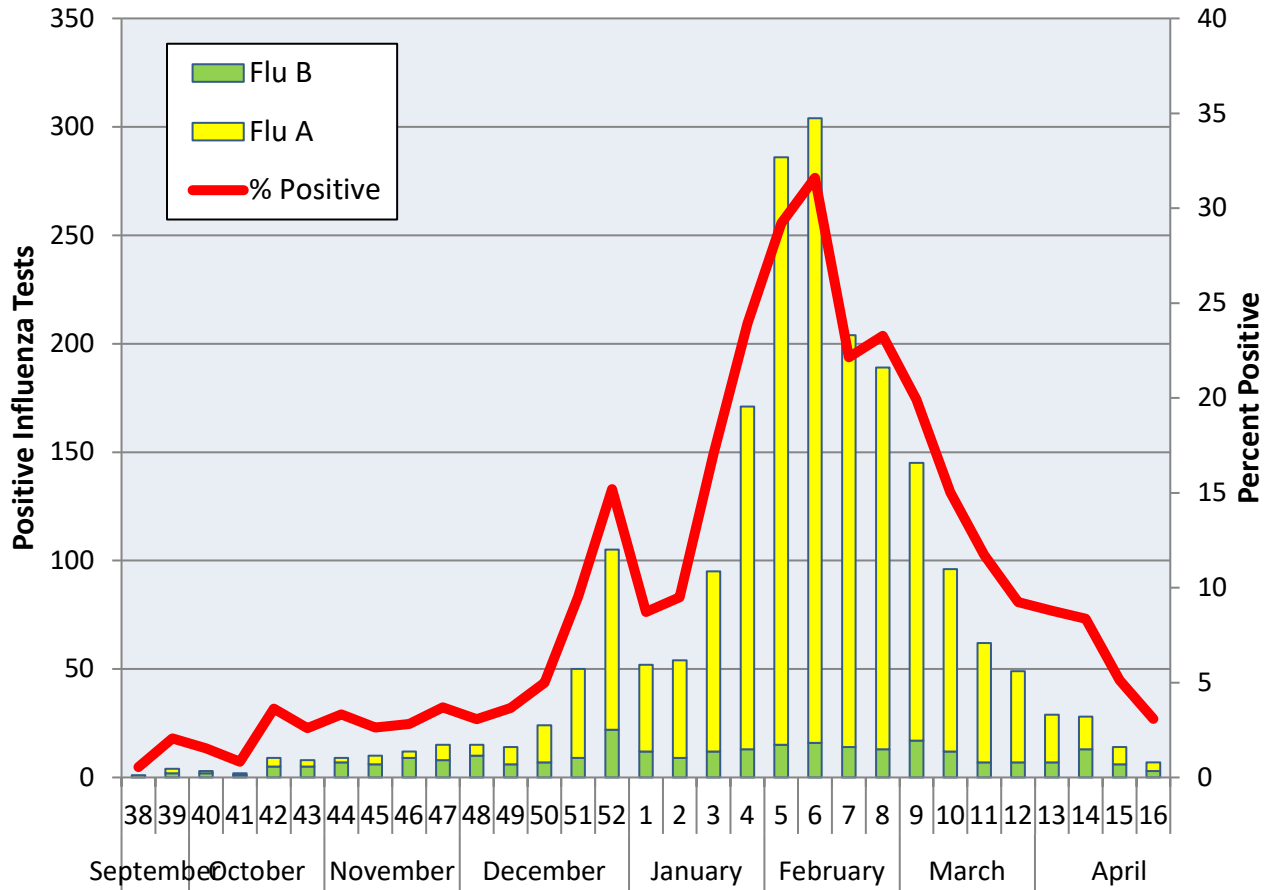
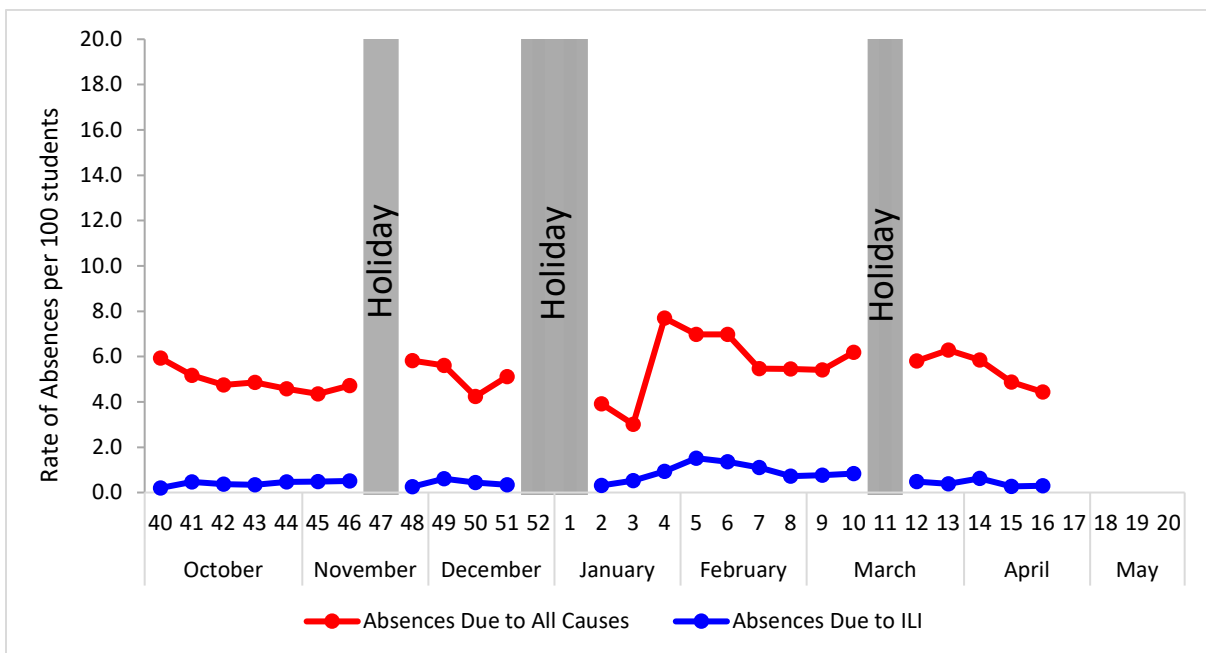


Figure 3. Percent of Absenteeism Due to All Causes and ILI, Denton County Schools*, 2018-2019 Season



*During week 16, a total of 3 Denton County Independent School Districts reported data to Denton County Public Health which included a total of 12,935 students.

Figure 4. Influenza Positive Tests Reported to CDC by U.S. Public Health Laboratories, National Summary, September 30, 2018 – April 20, 2019

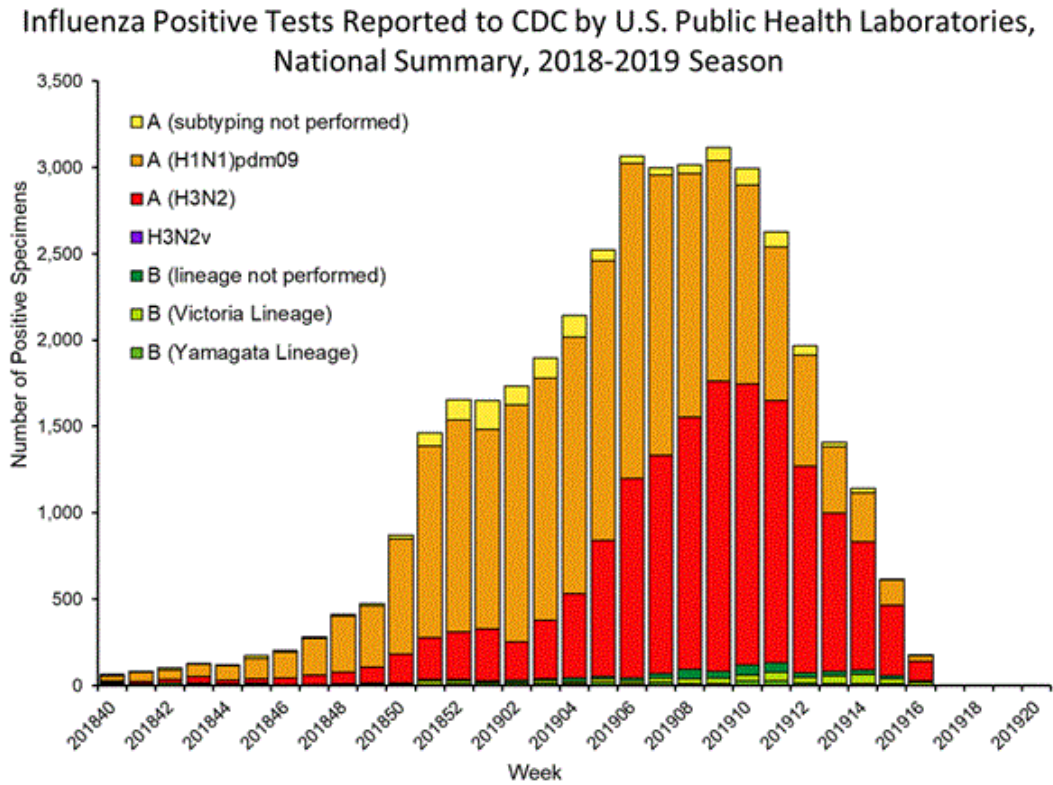


Figure 5. Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, September 30, 2018 – April 20, 2019

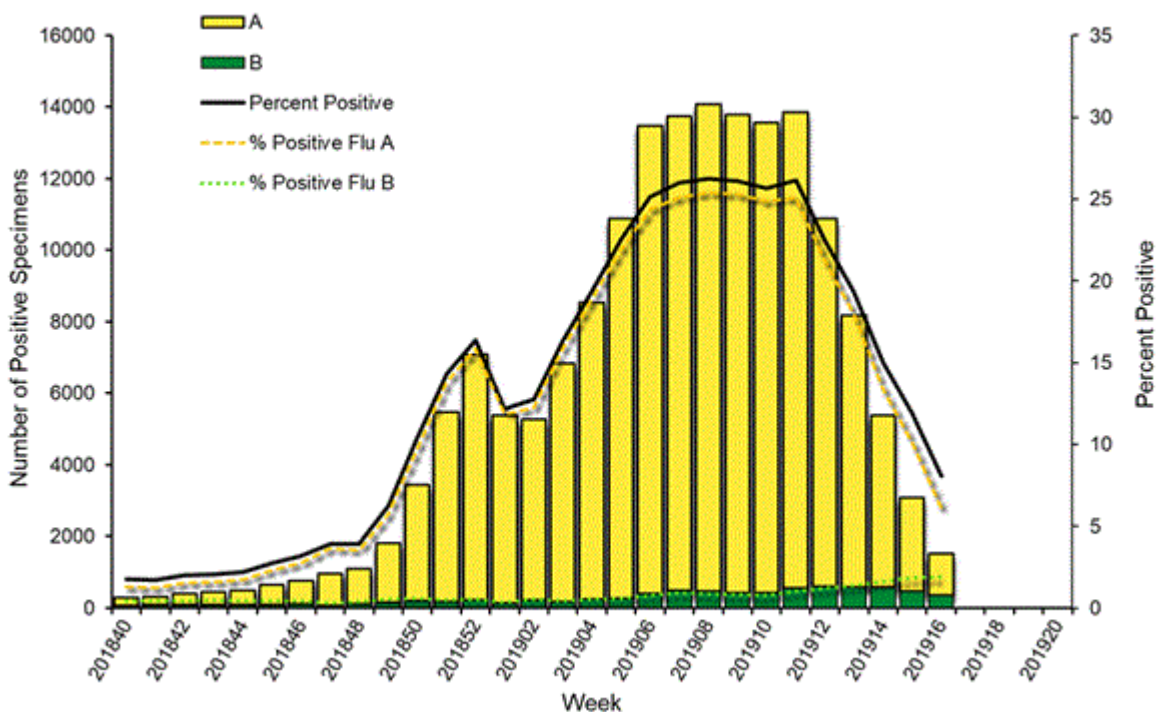


Figure 6. Antigenic Characterization of Influenza Isolates, Since September 30, 2018

Influenza A (H1N1)	295 of 304 (97%) – A/Michigan/45/2015 pdm09-like
Influenza A (H3N2)	167 of 370(45.1%) – A/Singapore/INFIMH-16-0019/2016-like
Influenza B (Victoria Lineage)	82 of 108 (75.9%) – B/Colorado/06/2017-like
Influenza B (Yamagata Lineage)	107 of 107 (100%) – B/Phuket/3073/2013-like*

2018-2019 Influenza Vaccine Composition, Northern Hemisphere:

- A/Michigan/45/2015 pdm09-like
- A/Singapore/INFIMH-16-0019/2016-like
- B/Colorado/06/2017-like
- B/Phuket/3073/2013-like*

*2018-2019 Northern Hemisphere quadrivalent influenza vaccine influenza B component

Figure 7. U.S. Virologic Surveillance, Week 16

	Week 16	Data Cumulative since September 30, 2018 (Week 40)
No. of specimens tested	18,777	1,051,664
No. of positive specimens (%)	1,516 (8.1%)	171,607 (16.3%)
<i>Positive specimens by type</i>		
Influenza A	1,155 (76.2%)	163,602 (95.3%)
Influenza B	361 (23.8%)	8,005 (4.7%)

Figure 8. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, August 1, 2018- April 20, 2019

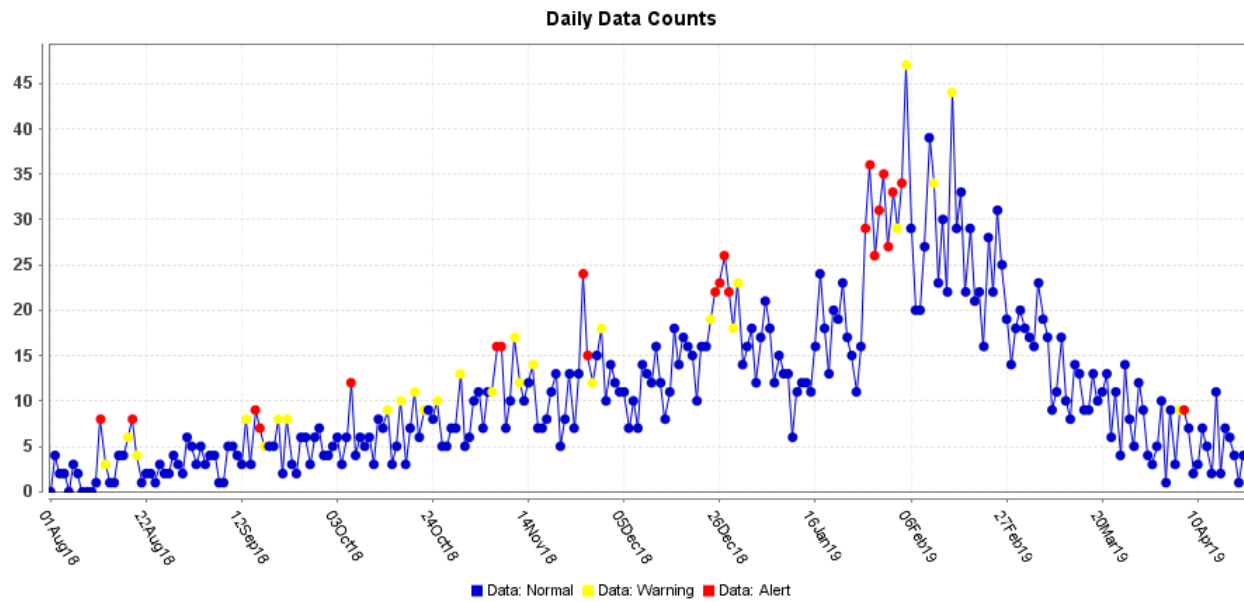
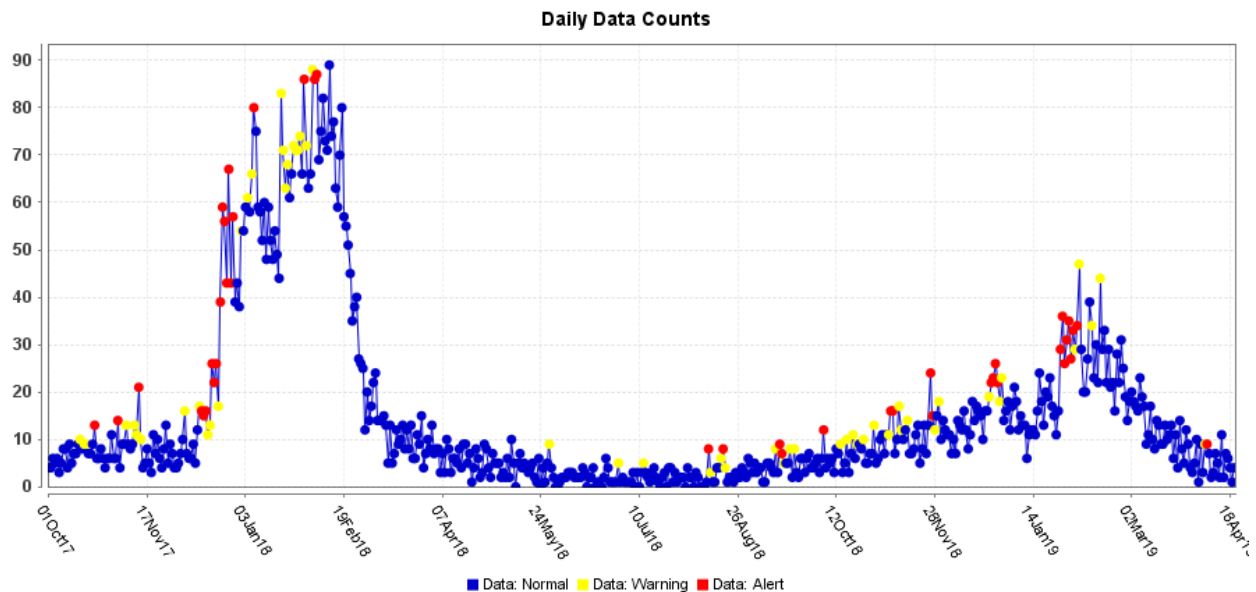


Figure 9. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, October 1, 2017 – April 20, 2019



Data obtained from hospitals participating in the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) from October 2017 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 April 13, 2019

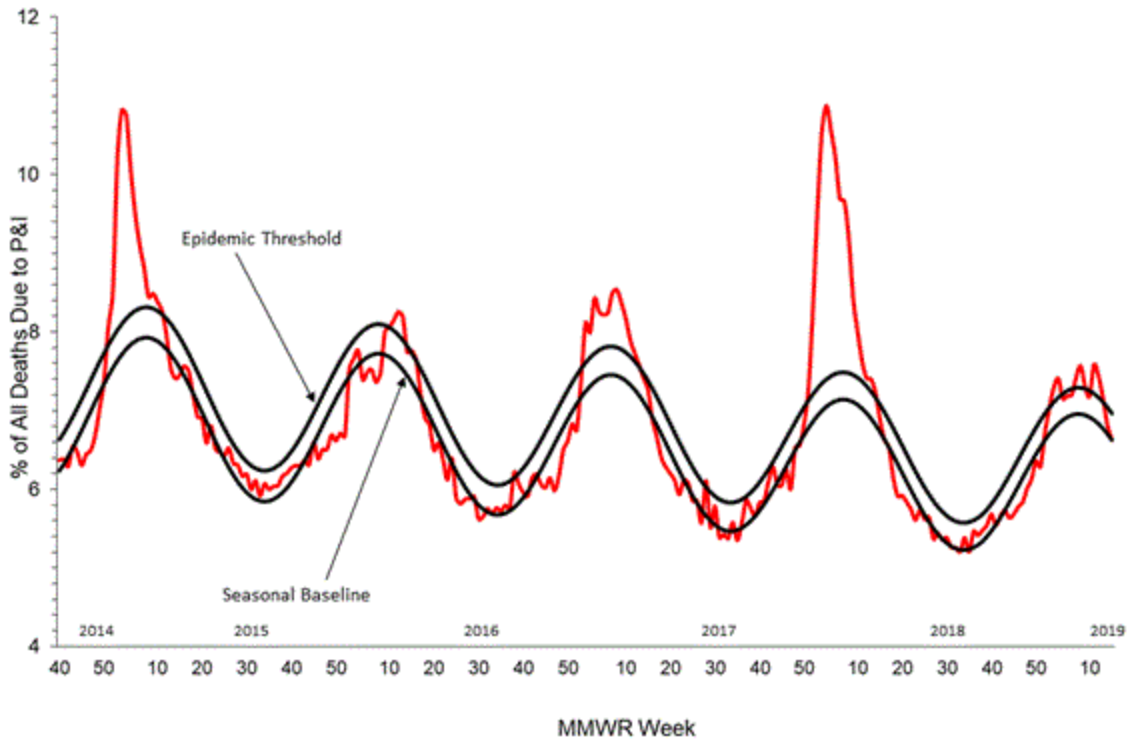
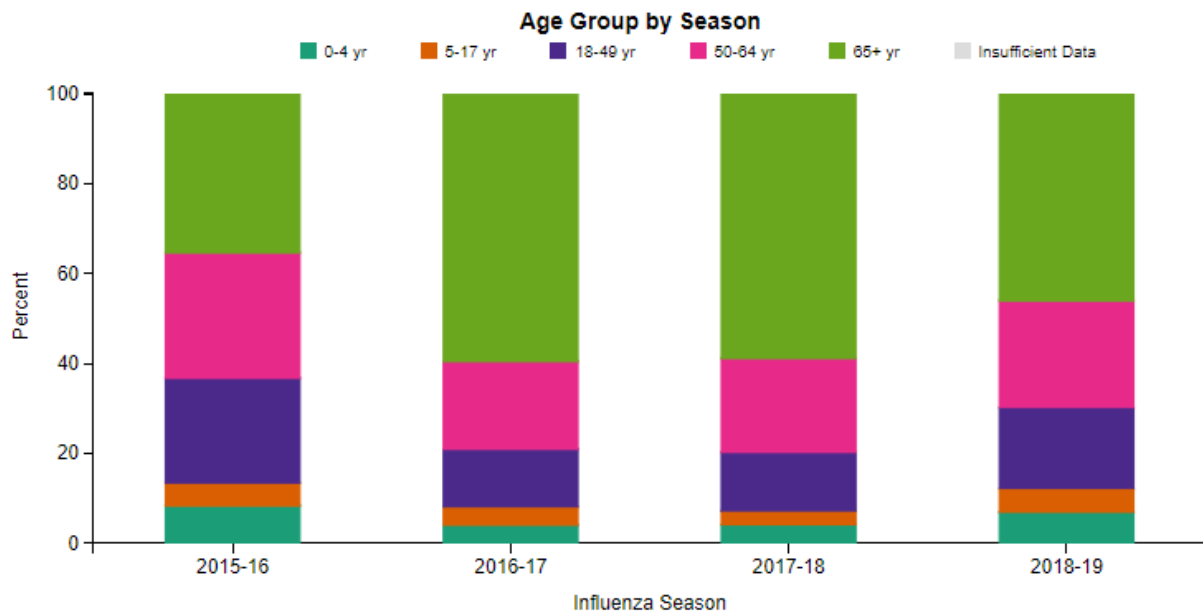
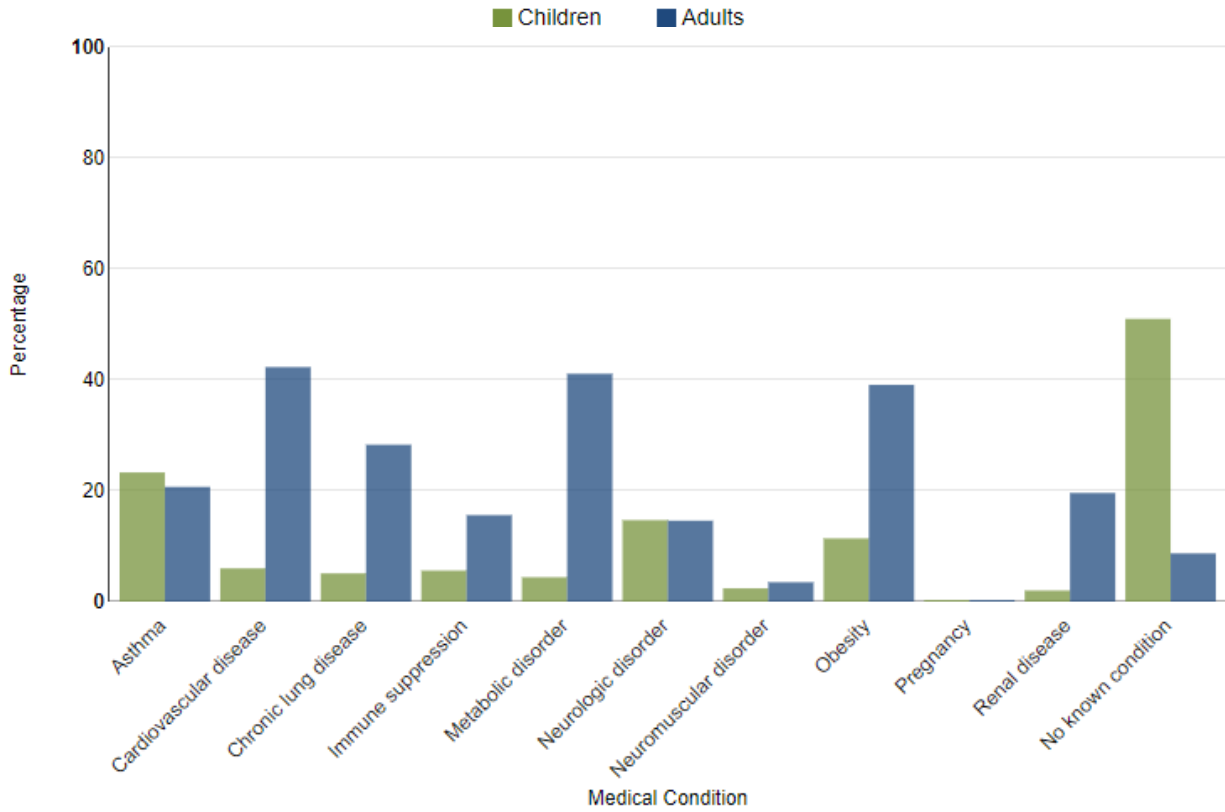


Figure 11. FluSurv-NET Laboratory Confirmed Influenza-Associated Hospitalizations by Age Group, National Summary, data as of April 20, 2019



FluView: Influenza Hospitalization Surveillance Network, Centers for Disease Control and Prevention. <http://www.cdc.gov/flu/weekly/>. Accessed on 4/26/2019.

Figure 12. FluSurv-NET Laboratory Confirmed Influenza-Associated Hospitalizations: Selected Underlying Conditions, 2018-2019 Season, data as of April 20, 2019



FluView: Influenza Hospitalization Surveillance Network, Centers for Disease Control and Prevention. <http://www.cdc.gov/flu/weekly/>. Accessed on 4/26/2019.

Figure 13. Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists: Week 16 – Week Ending April 20, 2019

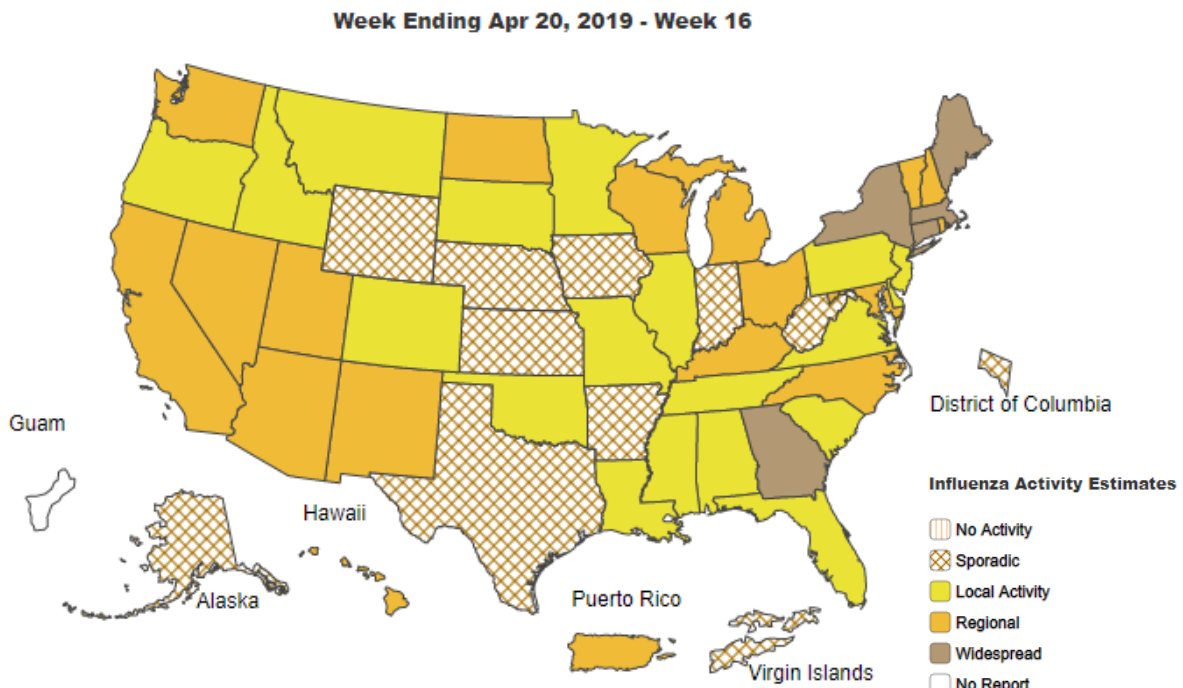
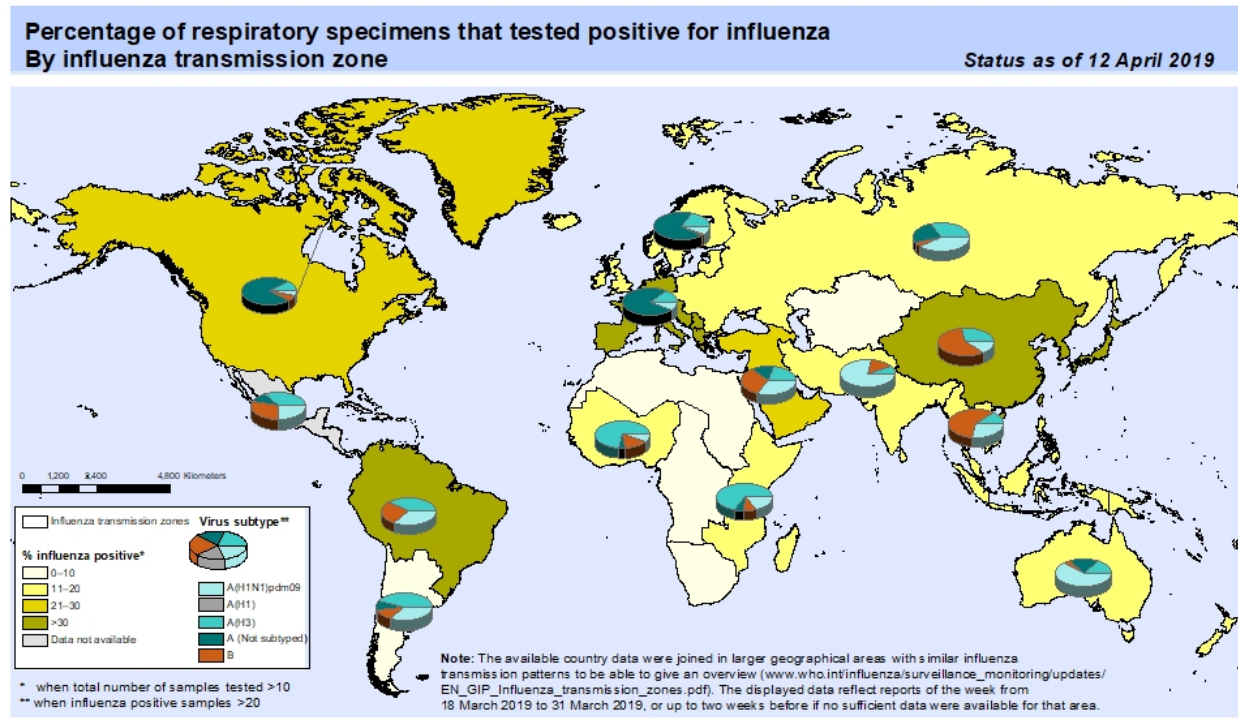


Figure 14. Percentage of Respiratory Specimens that Tested Positive for Influenza: WHO, based on data up to April 12, 2019



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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