

Denton County Public Health

2018 – 2019 Influenza Surveillance Program

CDC Week 14, Week Ending April 6, 2019



Epidemiologic Overview

Denton County

- Low influenza activity was reported in Denton County for week 14.
- 28 positive influenza tests (15 Flu A and 13 Flu B) and 4 hospitalizations were reported by Denton County sentinel providers for week 14.
- Syndromic surveillance for influenza-like illness (ILI) in Denton County stayed the same for week 14 when compared to the previous week.
- 0.6% of the total reported school population was absent due to ILI in week 14.

Texas

- Influenza activity in the state of Texas was reported as local in week 14.
- The percentage of visits for ILI as reported by ILINet providers decreased to 4.1% in week 14 compared to the previous week.
- The percentage of specimens testing positive for influenza in Texas was 10.02% in week 14.

US

- The proportion of outpatient visits for influenza-like illness (ILI) was 2.8%, which is above the national baseline of 2.2%. 9 of 10 regions reported ILI at or above their region-specific baseline level.
- The geographic spread of influenza in 20 states was reported as widespread; 25 states was reported as regional; and 5 states was reported as local.
- The percentage of specimens testing positive for influenza in the US was 15.1%.
- The proportion of deaths attributed to pneumonia and influenza (P&I) from the National Center for Health Statistics Mortality Surveillance System for week 13 was 7.0%. This percentage is below the epidemic threshold of 7.1% for week 13.

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

Week Ending	3/2/19	3/9/19	3/16/19	3/23/19	3/30/19	4/6/19	9/22/18 - Present
CDC Week	9	10	11	12	13	14	
Influenza Tests Performed Weekly	728	639	529	530	330	335	14622
Total Positive Influenza Tests	145	96	62	49	29	28	2045
Percent Positive Influenza Tests*	19.9%	15.0%	11.7%	9.3%	8.8%	8.4%	
Positive A Influenza	128	84	55	42	22	15	1779
Positive B Influenza	17	12	7	7	7	13	266
Non-differentiated Influenza	0	0	0	0	0	0	0
Influenza Hospitalizations	22	17	6	6	7	4	258
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

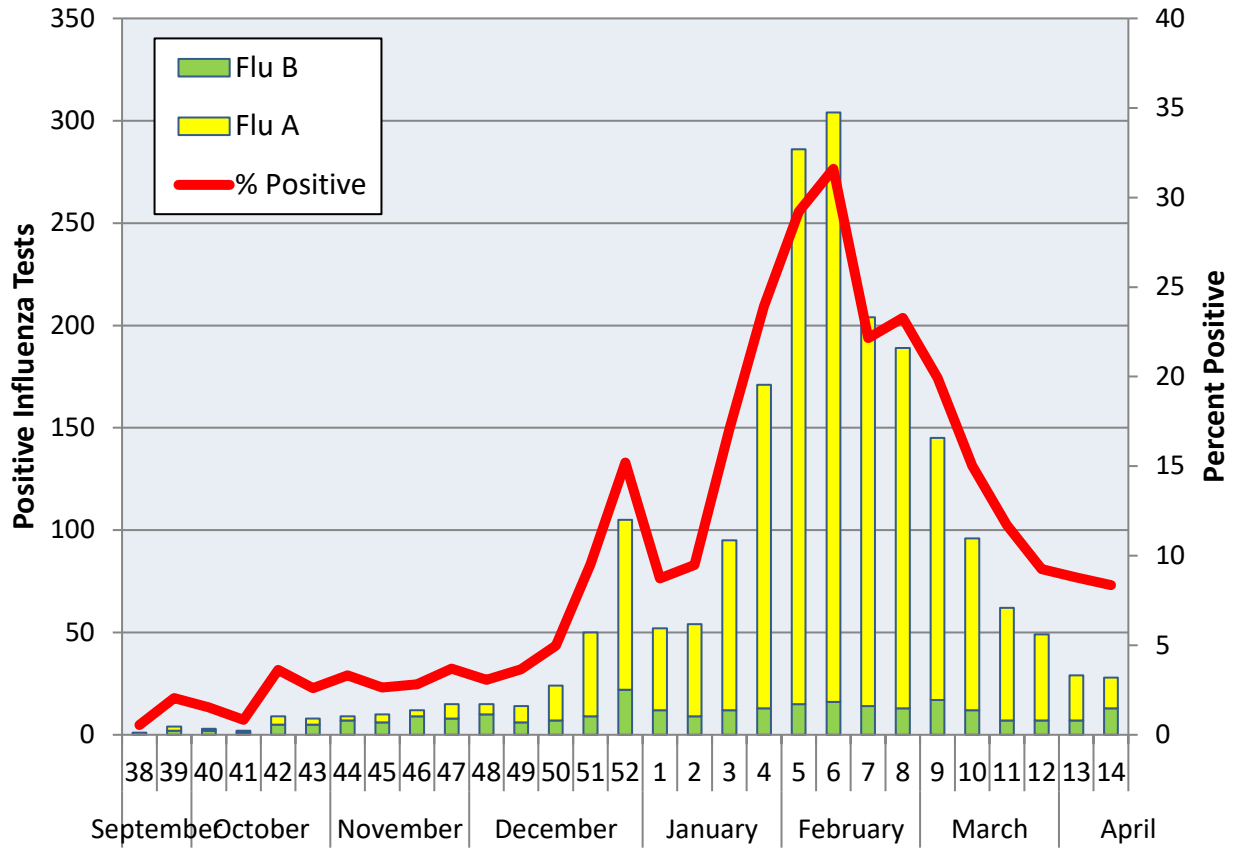
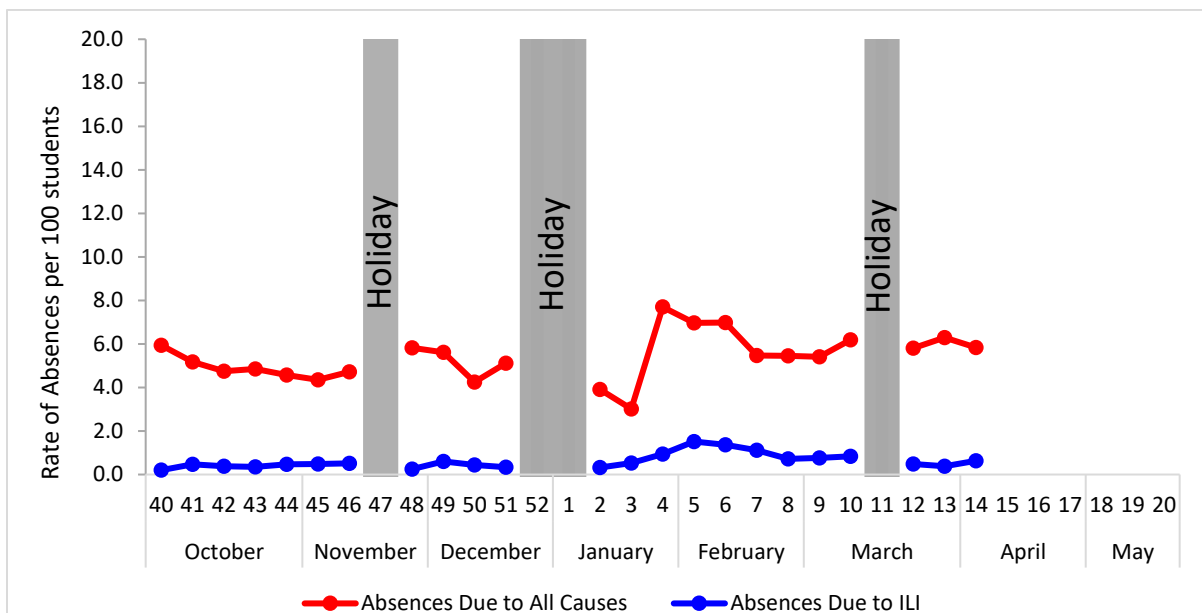


Figure 3. Percent of Absenteeism Due to All Causes and ILI, Denton County Schools*, 2018-2019 Season



*During week 14, a total of 3 Denton County Independent School Districts reported data to Denton County Public Health which included a total of 12,327 students.

Figure 4. Influenza Positive Tests Reported to CDC by U.S. Public Health Laboratories, National Summary, September 30, 2018 – April 6, 2019

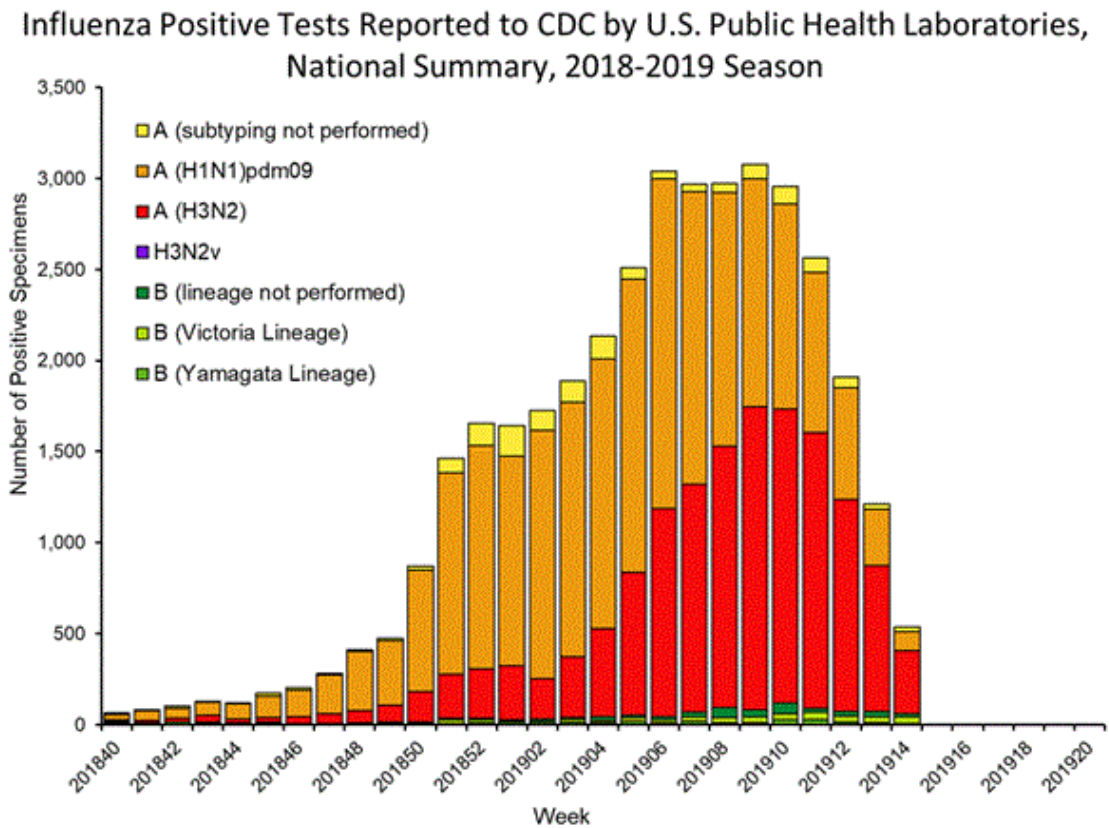


Figure 5. Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, September 30, 2018 – April 6, 2019

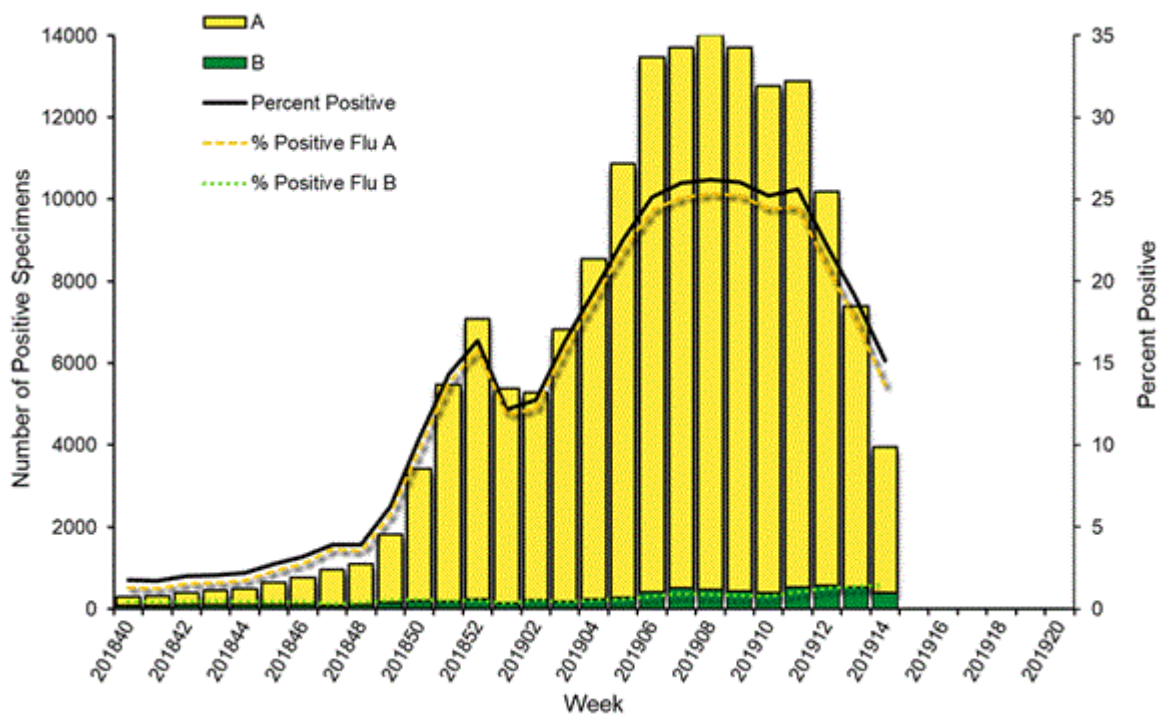


Figure 6. Antigenic Characterization of Influenza Isolates, Since September 30, 2018

Influenza A (H1N1)	295 of 304 (97%) – A/Michigan/45/2015 pdm09-like
Influenza A (H3N2)	162 of 294 (55.1%) – A/Singapore/INFIMH-16-0019/2016-like
Influenza B (Victoria Lineage)	63 of 83 (75.9%) – B/Colorado/06/2017-like
Influenza B (Yamagata Lineage)	100 of 100 (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 14

	Week 14	Data Cumulative since September 30, 2018 (Week 40)
No. of specimens tested	26,127	986,085
No. of positive specimens (%)	3,957 (15.1%)	162,150 (16.4%)
<i>Positive specimens by type</i>		
Influenza A	3,570 (90.2%)	155,300 (95.8%)
Influenza B	387 (9.8%)	6,850 (4.2%)

Figure 8. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, August 1, 2018- April 6, 2019

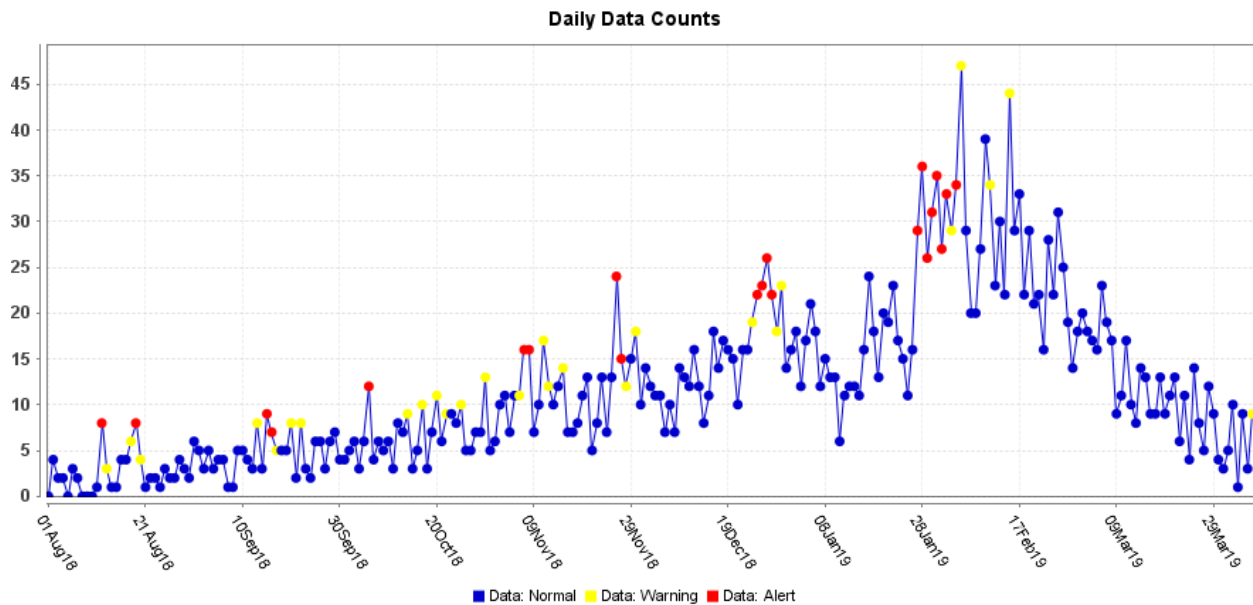
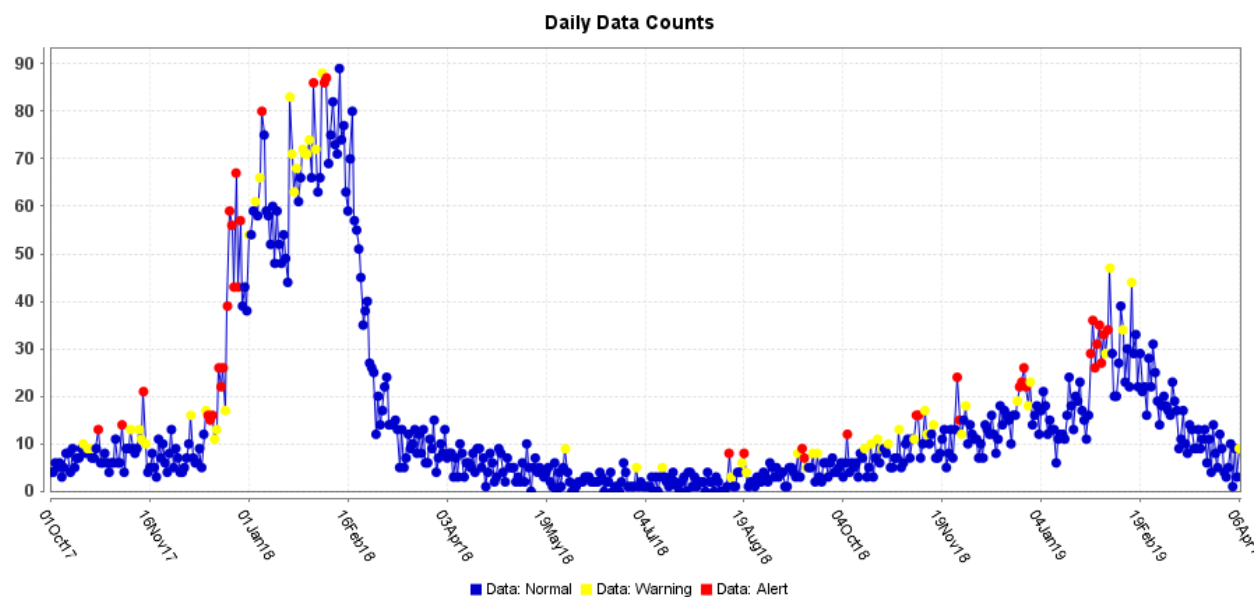


Figure 9. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, October 1, 2017 – April 6, 2019



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 March 30, 2019

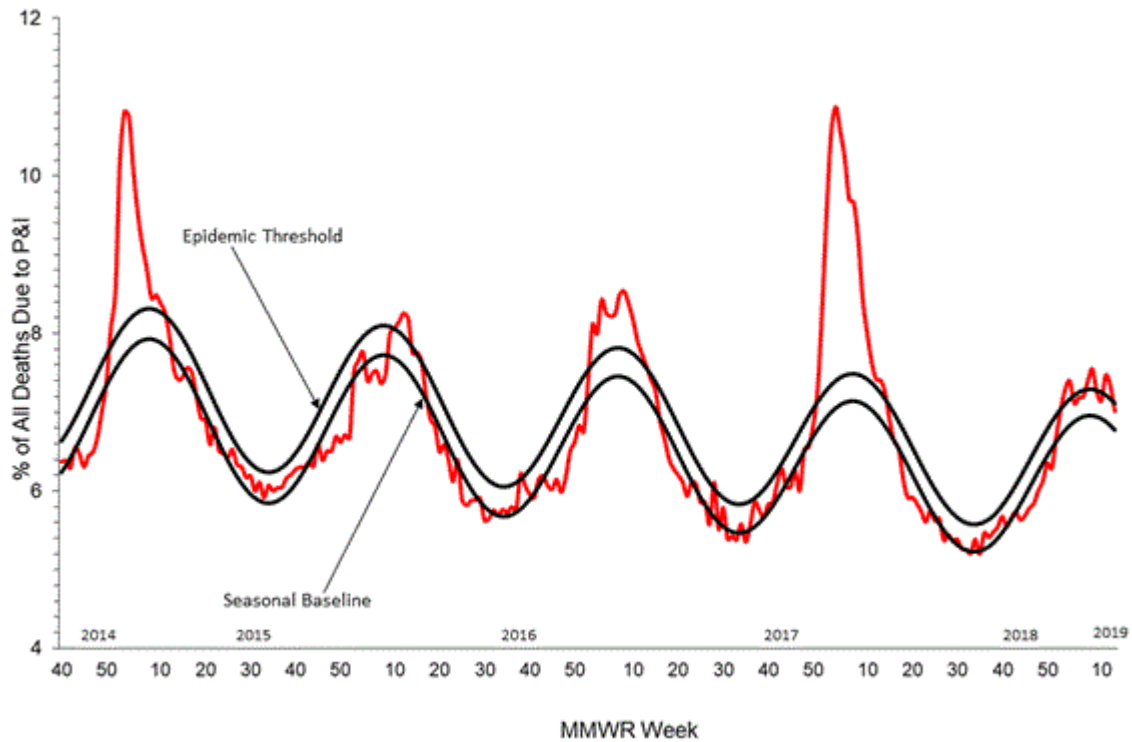


Figure 11. FluSurv-NET Laboratory Confirmed Influenza-Associated Hospitalizations by Age Group, National Summary, data as of April 6, 2019

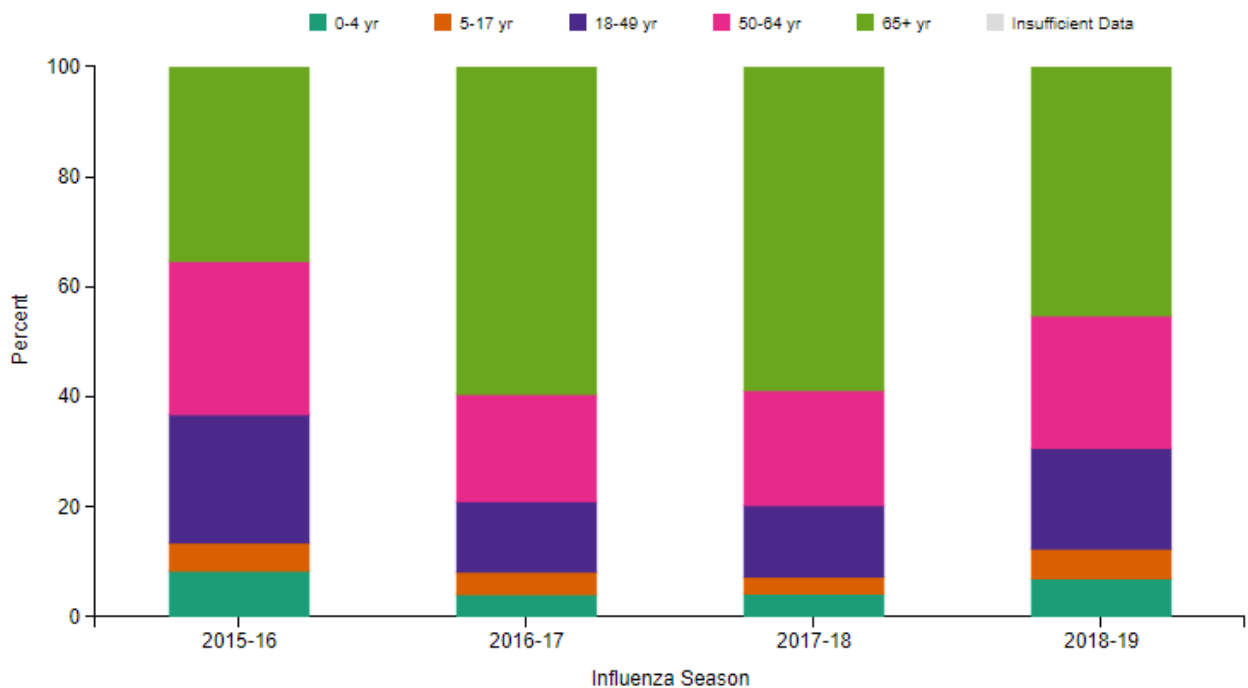
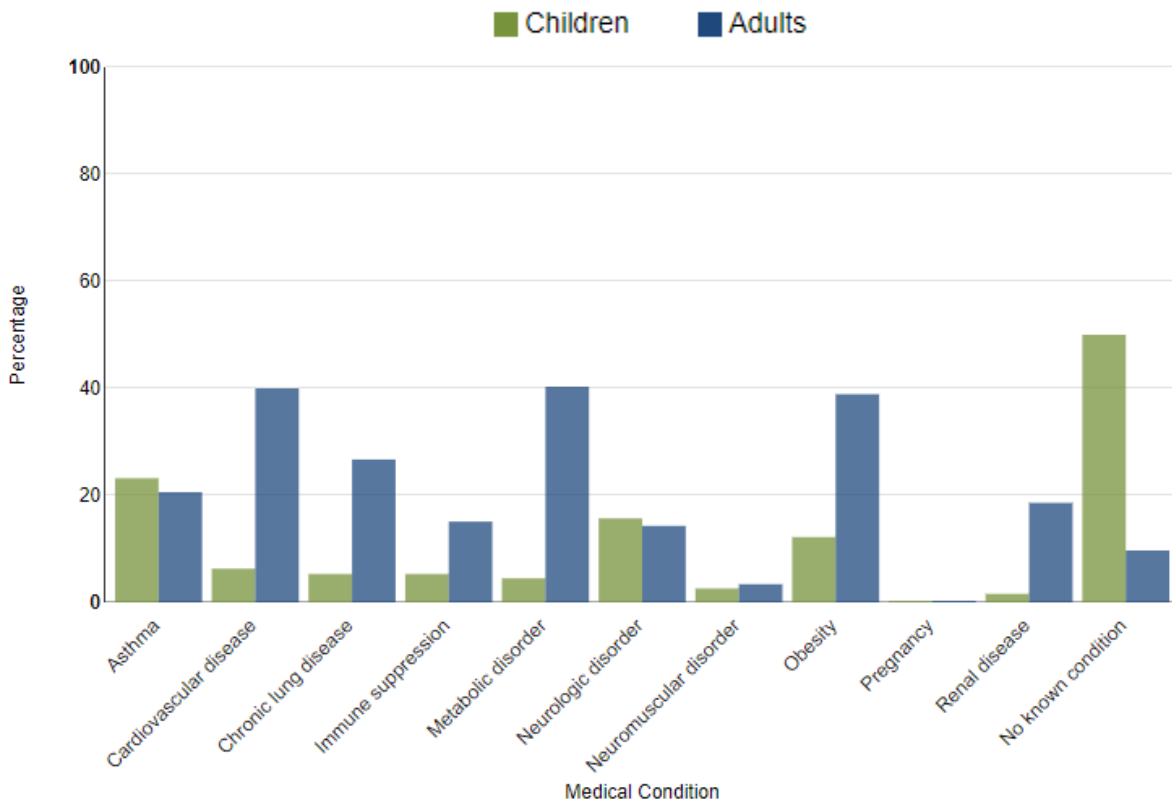


Figure 12. FluSurv-NET Laboratory Confirmed Influenza-Associated Hospitalizations: Selected Underlying Conditions, 2018-2019 Season, data as of April 6, 2019



FluView: Influenza Hospitalization Surveillance Network, Centers for Disease Control and Prevention. <http://www.cdc.gov/flu/weekly/>. Accessed on 4/12/2019.

Figure 13. Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists: Week 14 – Week Ending April 6, 2019

Week Ending Apr 06, 2019 - Week 14

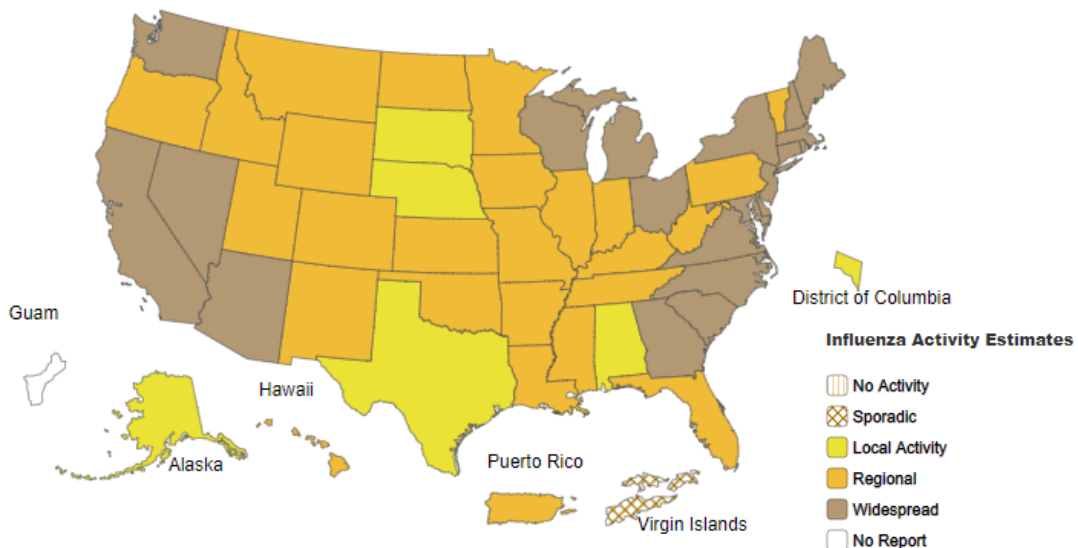
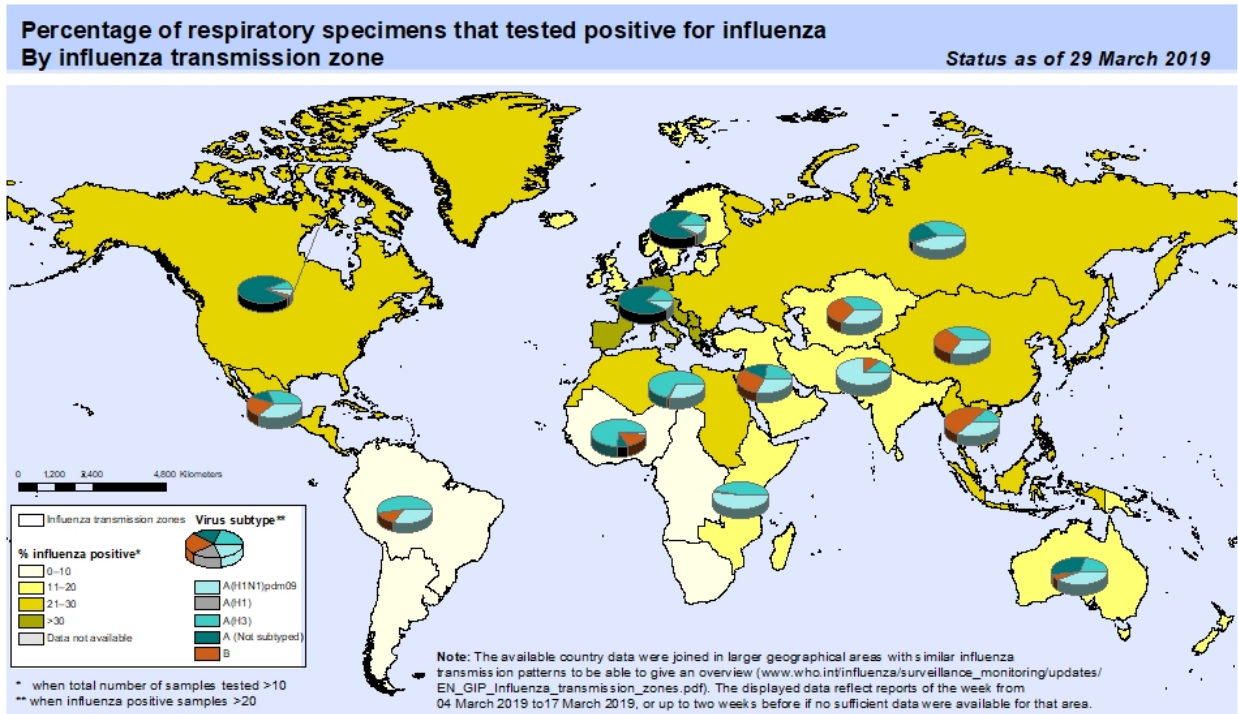


Figure 14. Percentage of Respiratory Specimens that Tested Positive for Influenza: WHO, based on data up to March 29, 2019



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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