

Denton County Public Health

2018 – 2019 Influenza Surveillance Program

CDC Week 4, Week Ending January 26, 2019



Epidemiologic Overview

Denton County

- High influenza activity was reported in Denton County for week 4.
- 171 positive influenza tests (158 Flu A and 13 Flu B) and 19 hospitalizations were reported by Denton County sentinel providers for week 4.
- Syndromic surveillance for influenza-like illness (ILI) in Denton County increased for week 4 when compared to the previous week.
- 0.9% of the total reported school population was absent due to ILI in week 4.

Texas

- Influenza activity in the state of Texas was reported as widespread in week 4.
- The percentage of visits for ILI as reported by ILINet providers increased to 7.03% in week 4 compared to the previous week.
- The percentage of specimens testing positive for influenza in Texas increased to 24.6% in week 4 compared to the previous week.

US

- The proportion of outpatient visits for influenza-like illness (ILI) was 3.8%, which is above the national baseline of 2.2%. 10 of 10 regions reported ILI at or above their region-specific baseline level.
- The geographic spread of influenza in 45 states was reported as widespread; 3 states was reported as regional; and 2 states was reported as local.
- The percentage of specimens testing positive for influenza in the US was 19.2%.
- The proportion of deaths attributed to pneumonia and influenza (P&I) from the National Center for Health Statistics Mortality Surveillance System for week 3 was 7.2%. This percentage is at the epidemic threshold of 7.2% for week 3.

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

Week Ending	12/22/18	12/29/18	1/05/19	1/12/19	1/19/19	1/26/19	9/22/18 - Present
CDC Week	51	52	1	2	3	4	
Influenza Tests Performed Weekly	525	691	596	569	557	715	7857
Total Positive Influenza Tests	50	105	52	54	95	171	653
Percent Positive Influenza Tests*	9.5%	15.2%	8.7%	9.5%	17.1%	23.9%	
Positive A Influenza	41	83	40	45	83	158	508
Positive B Influenza	9	22	12	9	12	13	145
Non-differentiated Influenza	0	0	0	0	0	0	0
Influenza Hospitalizations	3	16	15	11	4	19	98
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, 2018-2019 Season

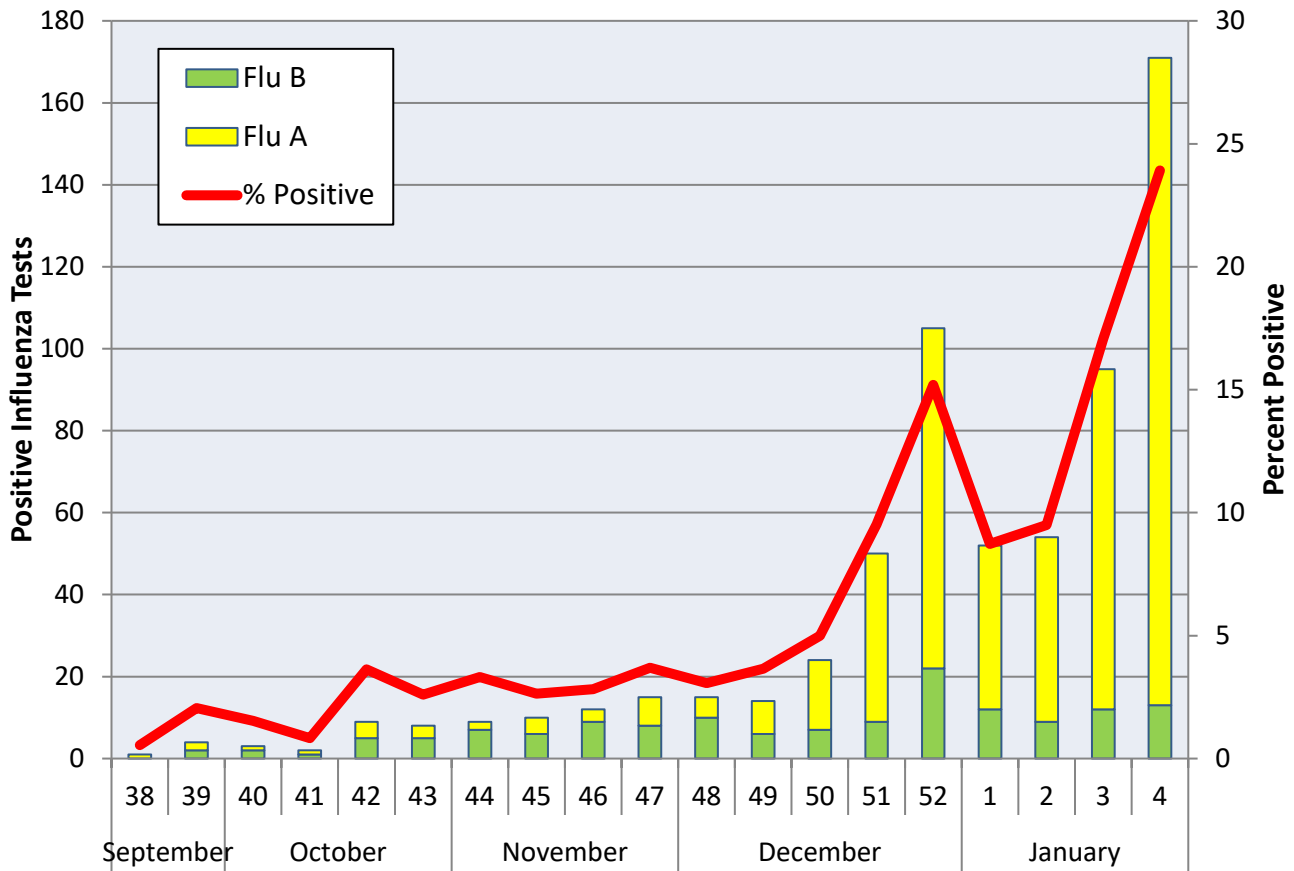
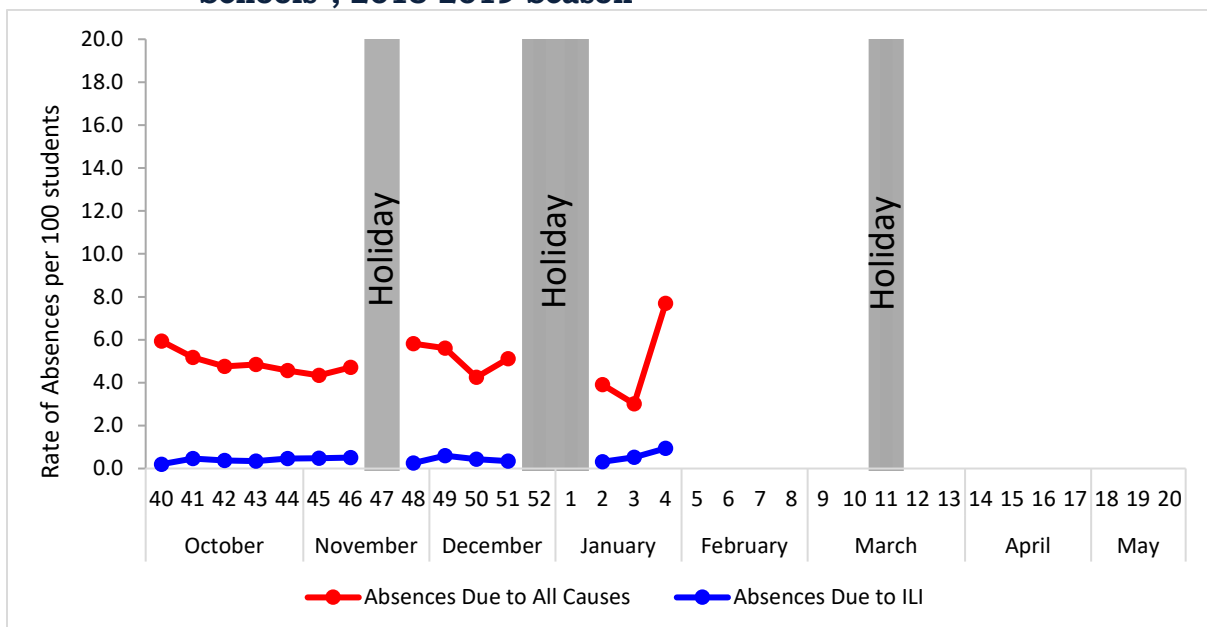


Figure 3. Percent of Absenteeism Due to All Causes and ILI, Denton County Schools*, 2018-2019 Season



*During week 4, a total of 3 Denton County Independent School Districts reported data to Denton County Public Health which included a total of 17,274 students.

Figure 4. Influenza Positive Tests Reported to CDC by U.S. Public Health Laboratories, National Summary, September 30, 2018 – January 26, 2019

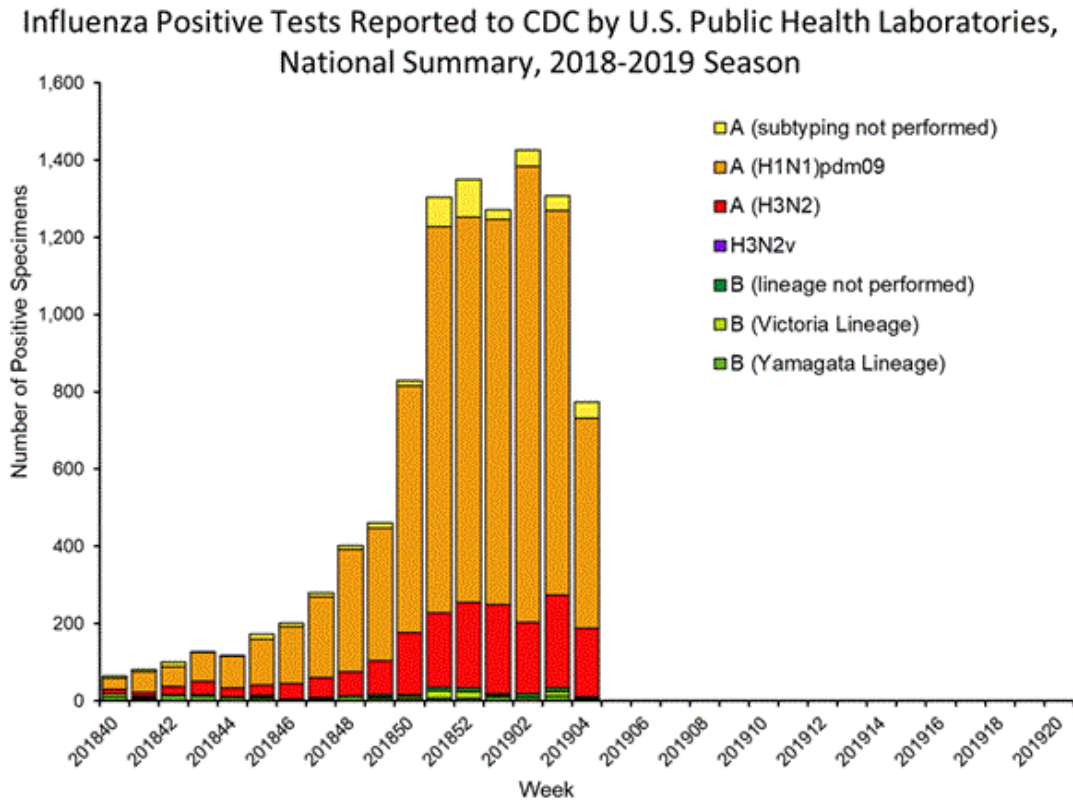


Figure 5. Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, September 30, 2018 – January 26, 2019

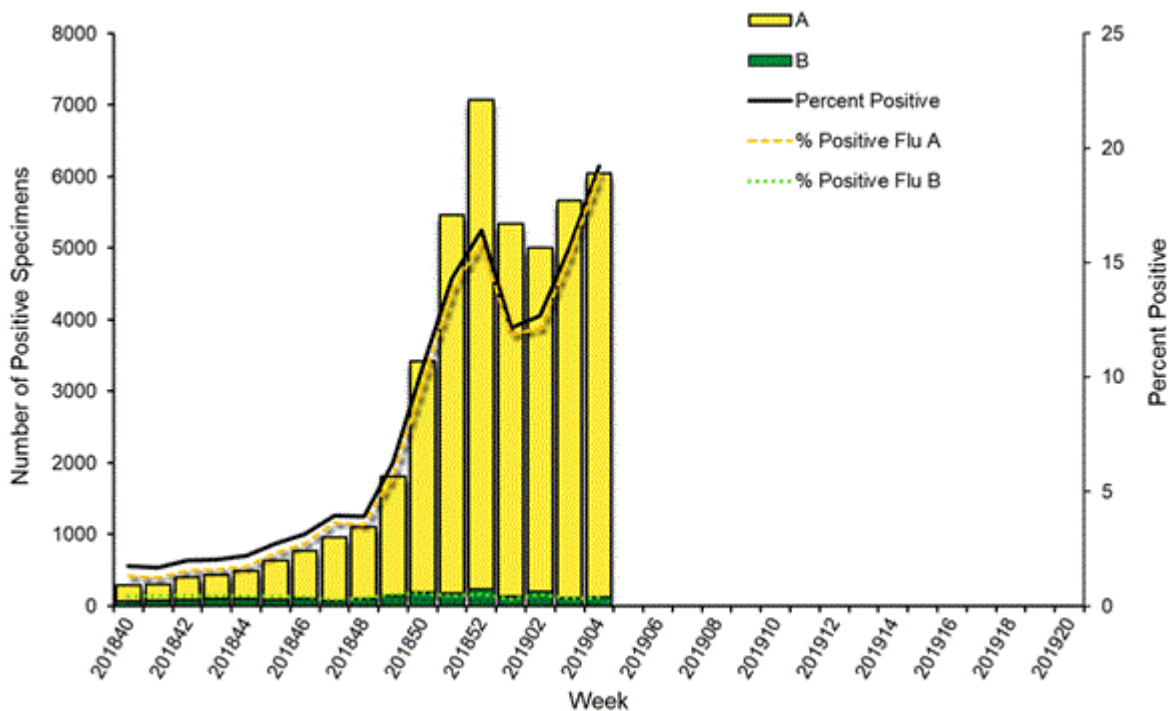


Figure 6. Antigenic Characterization of Influenza Isolates, Since September 30, 2018

Influenza A (H1N1)	194 of 191 (98.5%) – A/Michigan/45/2015 pdm09-like
Influenza A (H3N2)	43 of 45 (95.6%) – A/Singapore/INFIMH-16-0019/2016-like
Influenza B (Victoria Lineage)	15 of 21 (71.4%) – B/Colorado/06/2017-like
Influenza B (Yamagata Lineage)	33 of 33 (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 4

	Week 4	Data Cumulative since September 30, 2018 (Week 40)
No. of specimens tested	31,460	493,313
No. of positive specimens (%)	6,042 (19.2%)	45,190 (9.2%)
<i>Positive specimens by type</i>		
Influenza A	5,922 (98.0%)	43,071 (95.3%)
Influenza B	120 (2.0%)	2,119 (4.7%)

Figure 8. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, August 1, 2018- January 26, 2019

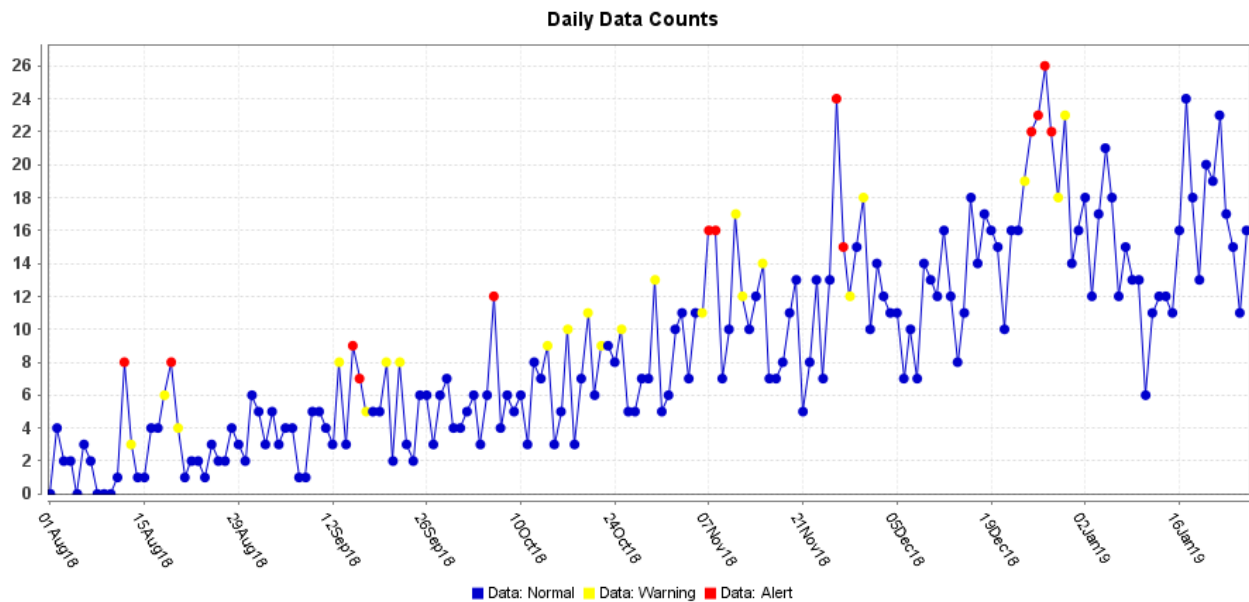
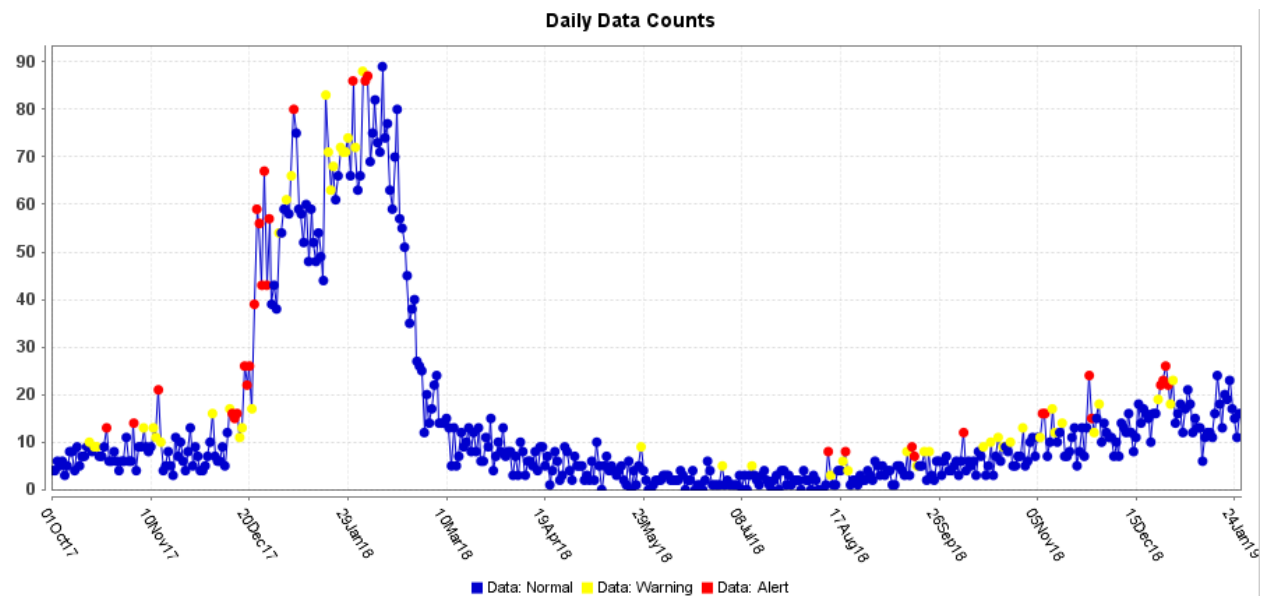


Figure 9. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, October 1, 2017 – January 26, 2019



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 January 19, 2018

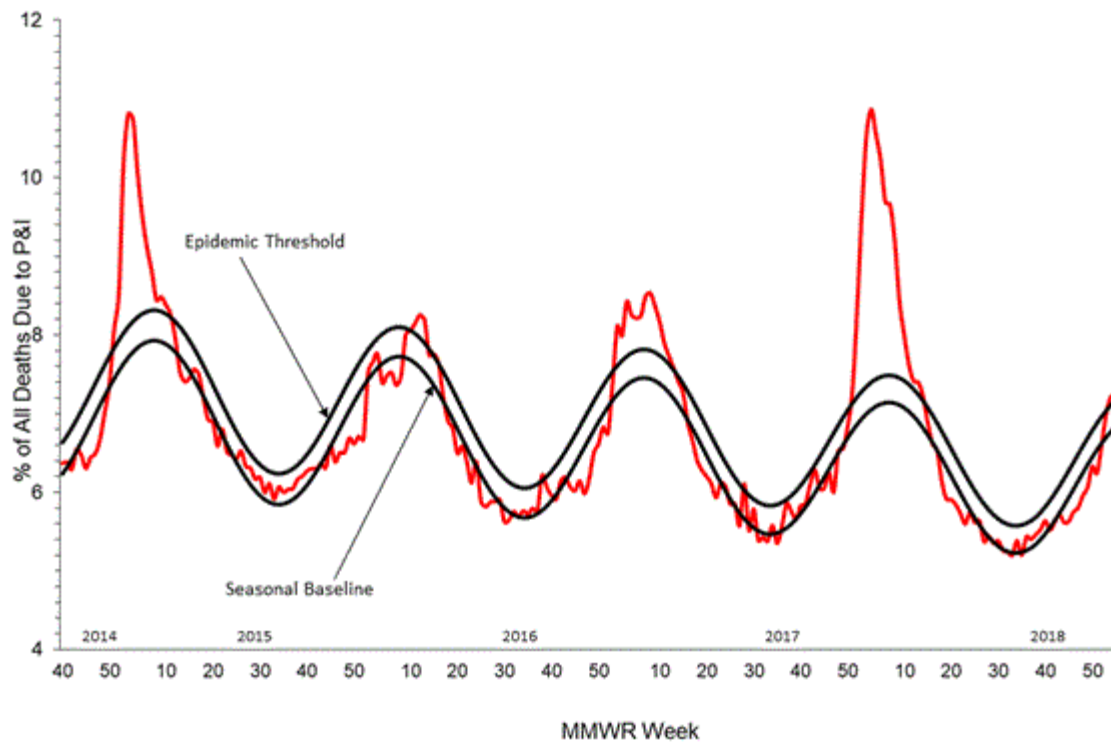


Figure 11. Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists: Week 4 – Week Ending January 26, 2019

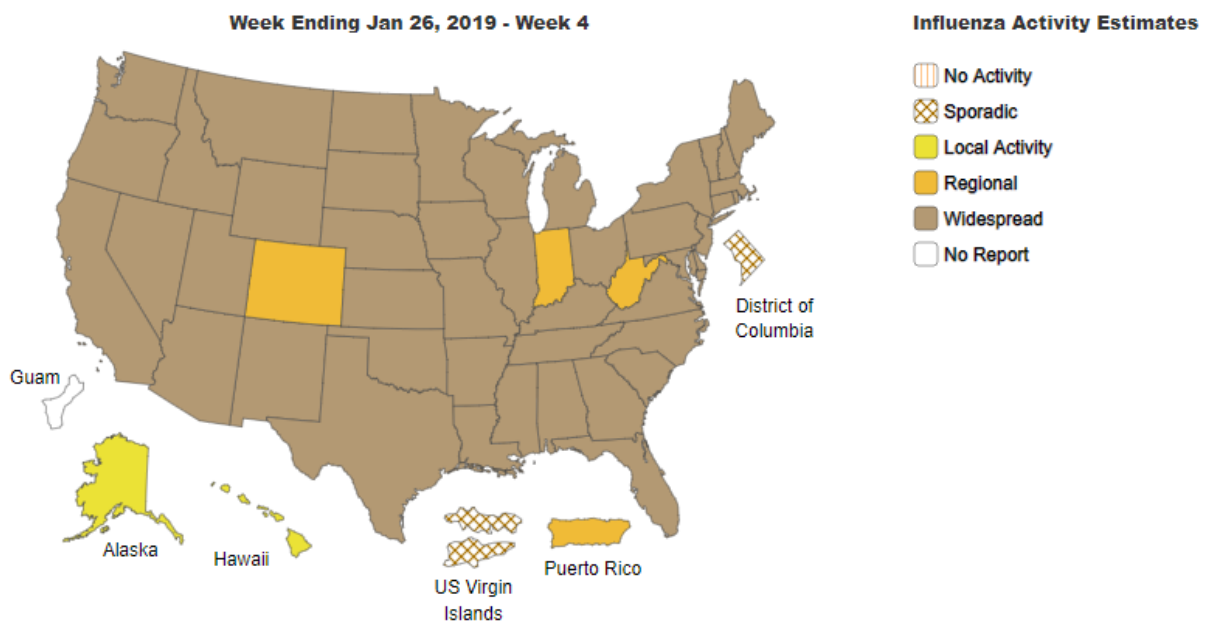
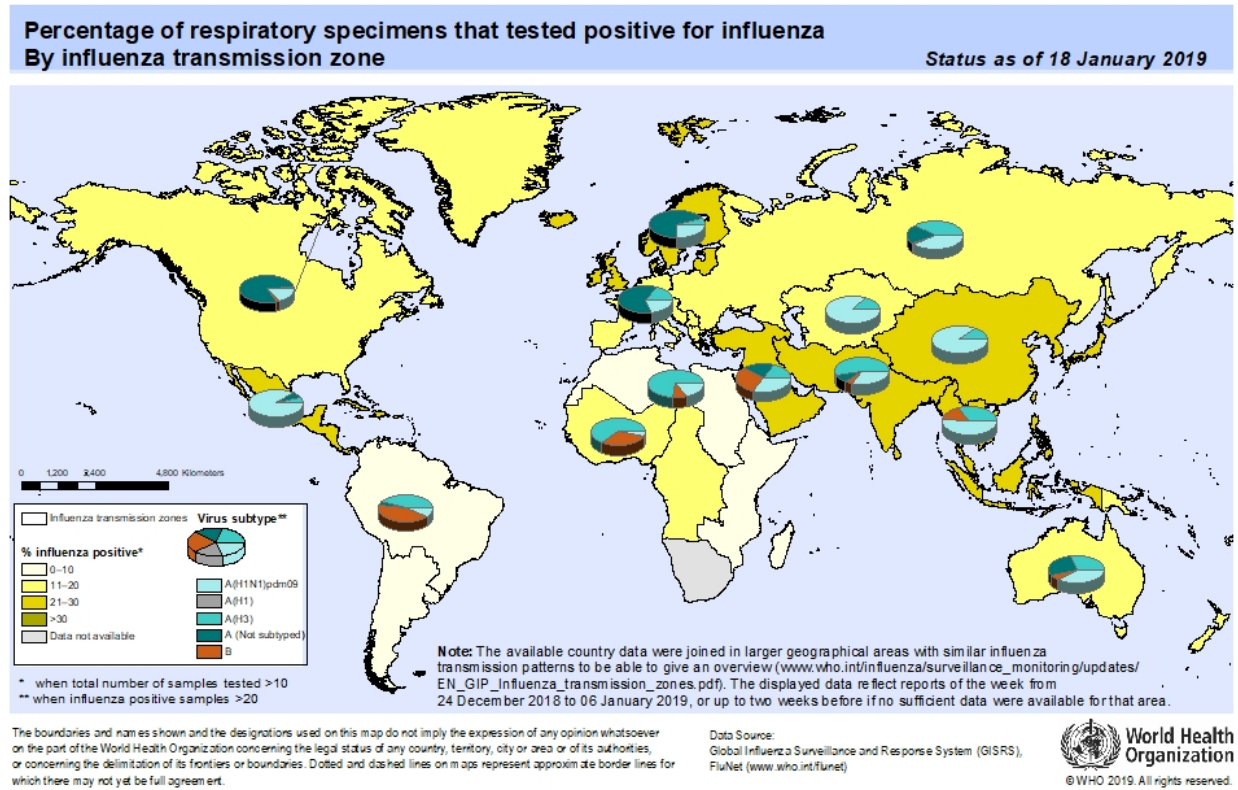


Figure 12. Percentage of Respiratory Specimens that Tested Positive for Influenza: WHO, based on data up to January 18, 2019



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