

Denton County Public Health

2018 – 2019 Influenza Surveillance Program

CDC Week 52, Week Ending December 29, 2018



Epidemiologic Overview

Denton County

- High influenza activity was reported in Denton County for week 52.
- 105 positive influenza tests (83 Flu A and 22 Flu B) and 16 hospitalizations were reported by Denton County sentinel providers for week 52.
- Syndromic surveillance for influenza-like illness (ILI) in Denton County increased for week 52 when compared to the previous week.
- 0.3% of the total reported school population was absent due to ILI in week 51.

Texas

- Influenza activity in the state of Texas was reported as regional in week 52.
- The percentage of visits for ILI as reported by ILINet providers increased to 6.9% in week 52 compared to the previous week.
- The percentage of specimens testing positive for influenza in Texas increased to 26.54% in week 52 compared to the previous week.

US

- The proportion of outpatient visits for influenza-like illness (ILI) was 4.1%, 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 24 states was reported as widespread; 18 states was reported as regional; 6 states was reported as local; and 2 states reported sporadic activity.
- The percentage of specimens testing positive for influenza in the US was 13.7%.
- The proportion of deaths attributed to pneumonia and influenza (P&I) from the National Center for Health Statistics Mortality Surveillance System for week 51 was 6.1%. This percentage is below the epidemic threshold of 6.9% for week 51.

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

Week Ending	11/24/18	12/1/18	12/8/18	12/15/18	12/22/18	12/29/18	9/22/18 - Present
CDC Week	47	48	49	50	51	52	
Influenza Tests Performed Weekly	406	488	383	481	525	691	5420
Total Positive Influenza Tests	15	15	14	24	50	105	281
Percent Positive Influenza Tests*	3.7%	3.1%	3.7%	5.0%	9.5%	15.2%	
Positive A Influenza	7	5	8	17	41	83	182
Positive B Influenza	8	10	6	7	9	22	99
Non-differentiated Influenza	0	0	0	0	0	0	0
Influenza Hospitalizations	3	5	1	5	3	16	49
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

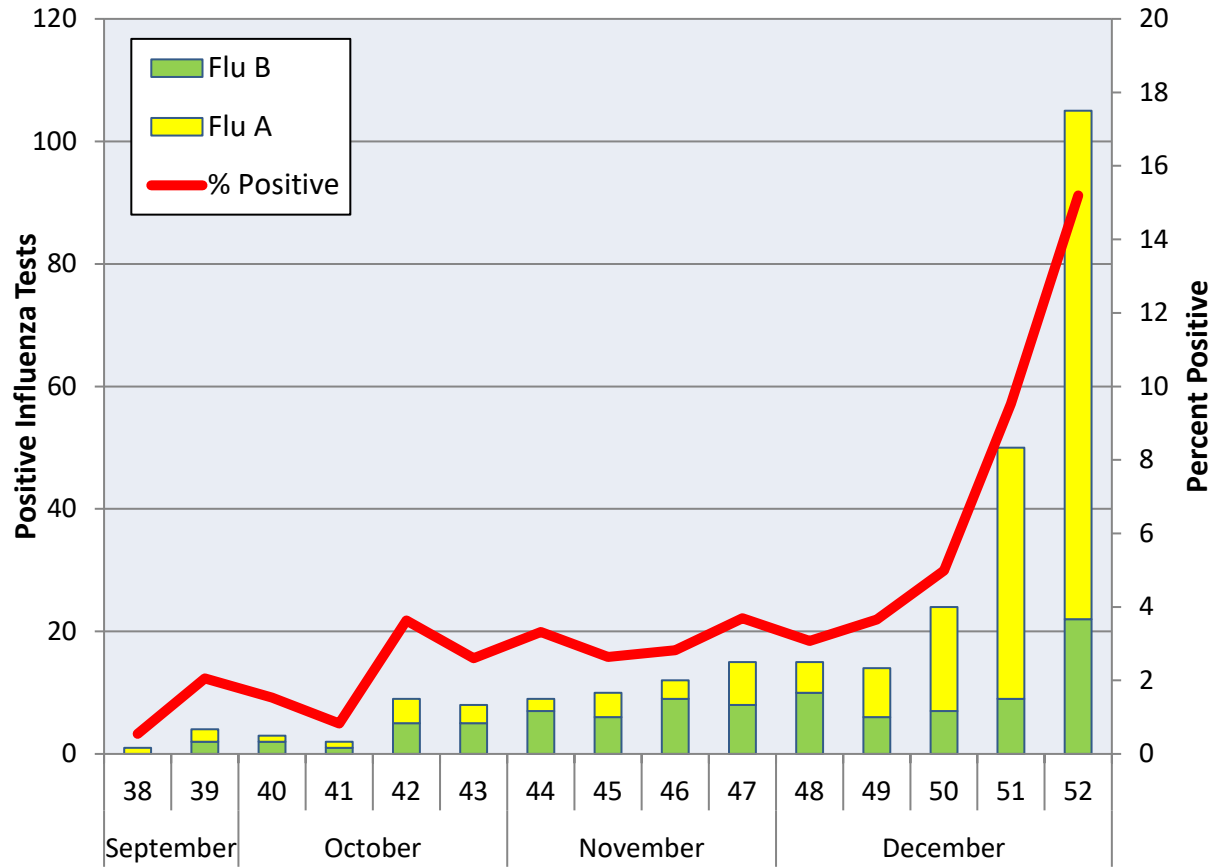
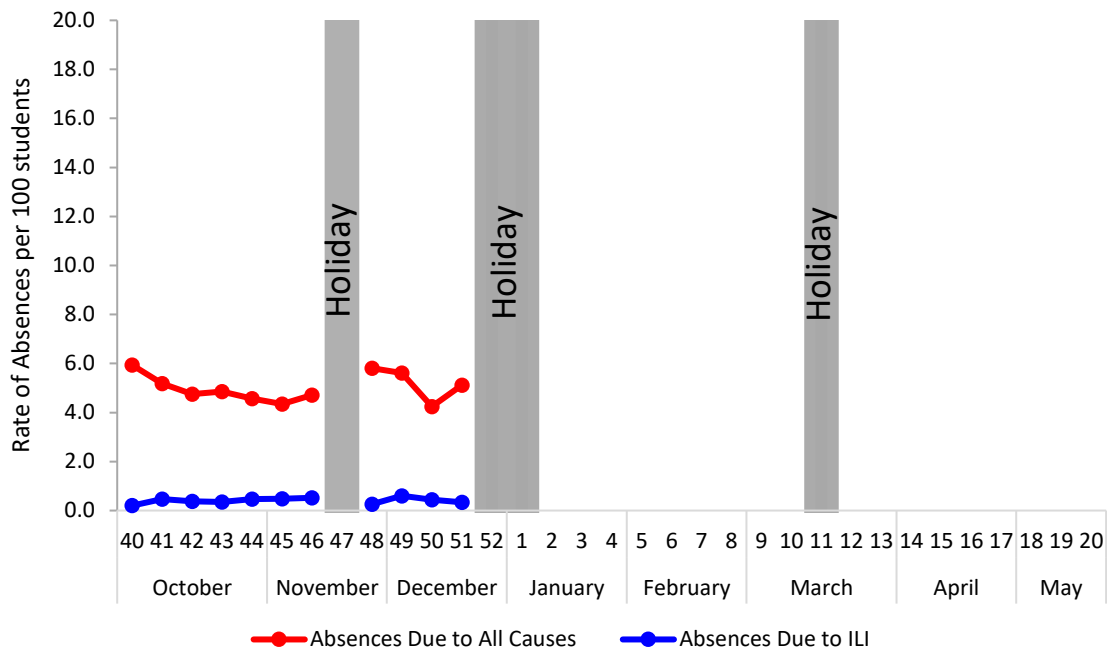


Figure 3. Percent of Absenteeism Due to All Causes and ILI, Denton County Schools*, 2018-2019 Season



*During week 51, a total of 3 Denton County Independent School Districts reported data to Denton County Public Health which included a total of 10,907 students.

Figure 4. Influenza Positive Tests Reported to CDC by U.S. Public Health Laboratories, National Summary, September 30, 2018 – December 29, 2018

Influenza Positive Tests Reported to CDC by U.S. Public Health Laboratories, National Summary, 2018-2019 Season

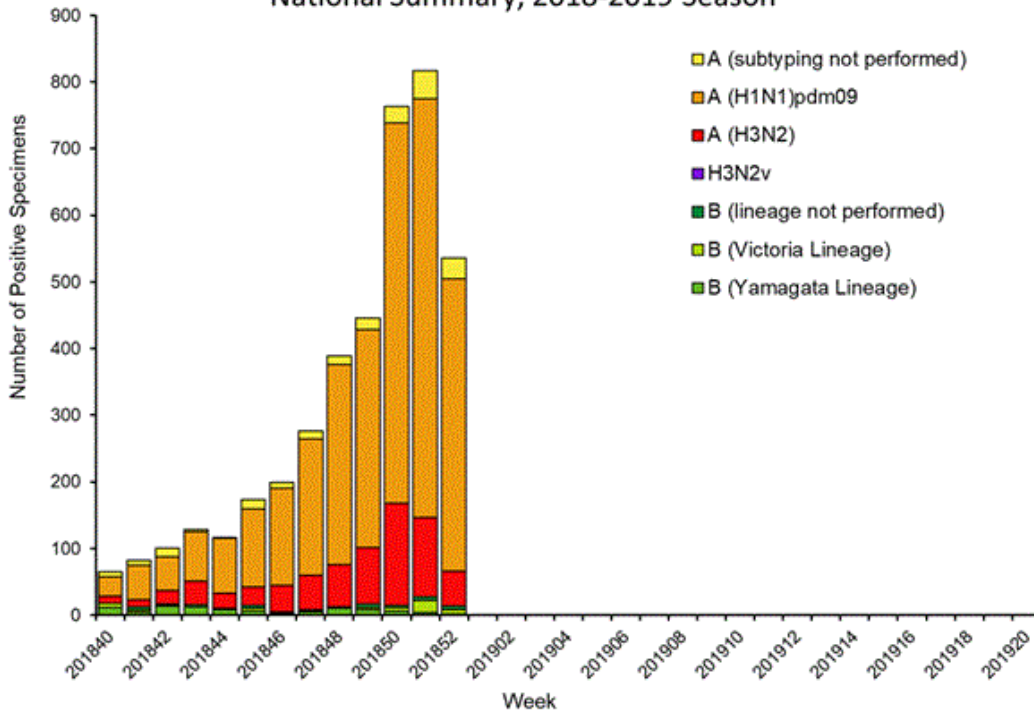


Figure 5. Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, September 30, 2018 – December 29, 2018

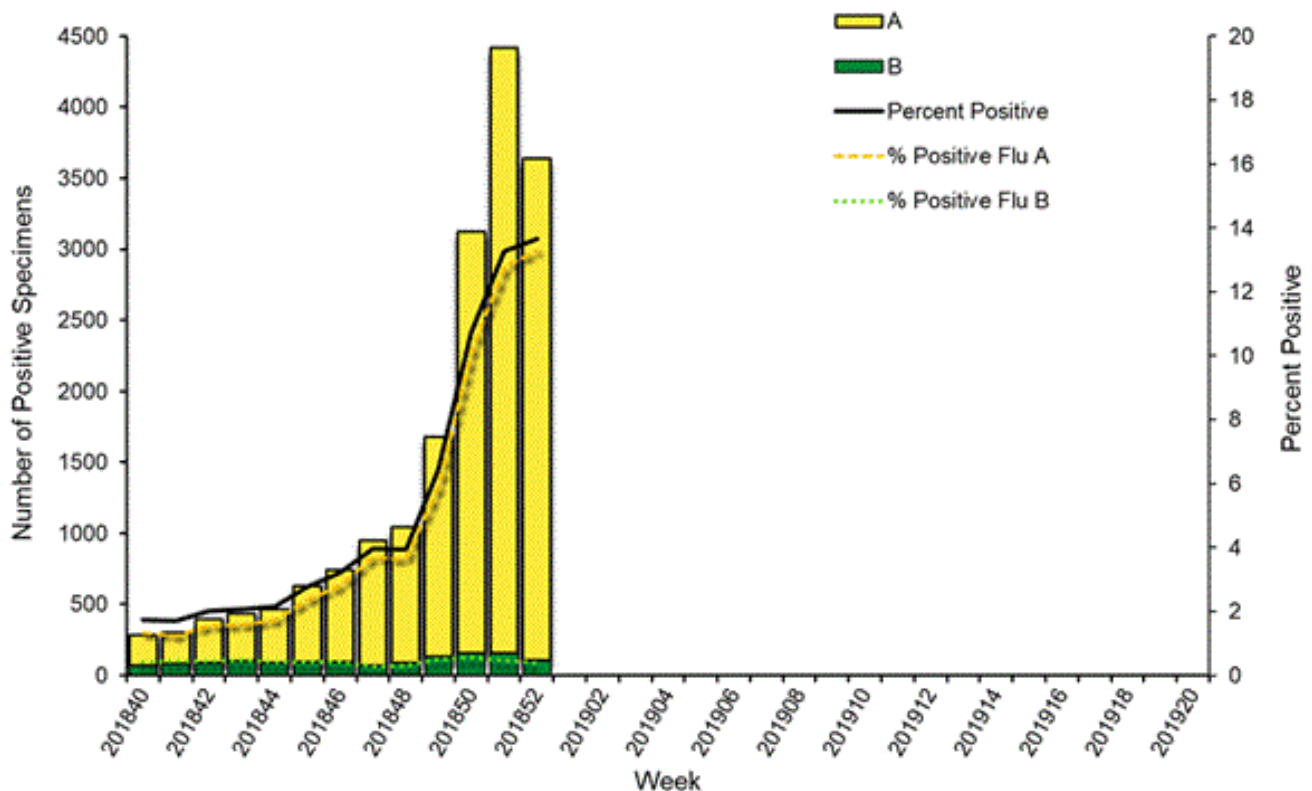


Figure 6. Antigenic Characterization of Influenza Isolates, Since September 30, 2018

Influenza A (H1N1)	78 of 79 (98.7%) – A/Michigan/45/2015 pdm09-like
Influenza A (H3N2)	6 of 6 (100%) – A/Singapore/INFIMH-16-0019/2016-like
Influenza B (Victoria Lineage)	4 of 8 (50%) – B/Colorado/06/2017-like
Influenza B (Yamagata Lineage)	16 of 16 (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 52

	Week 52	Data Cumulative since September 30, 2018 (Week 40)
No. of specimens tested	26,603	308,266
No. of positive specimens (%)	3,636 (13.7%)	18,096 (5.9%)
<i>Positive specimens by type</i>		
Influenza A	3,532 (97.1%)	16,776 (92.7%)
Influenza B	104 (2.9%)	1,320 (7.3%)

Figure 8. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, August 1, 2018- December 29, 2018

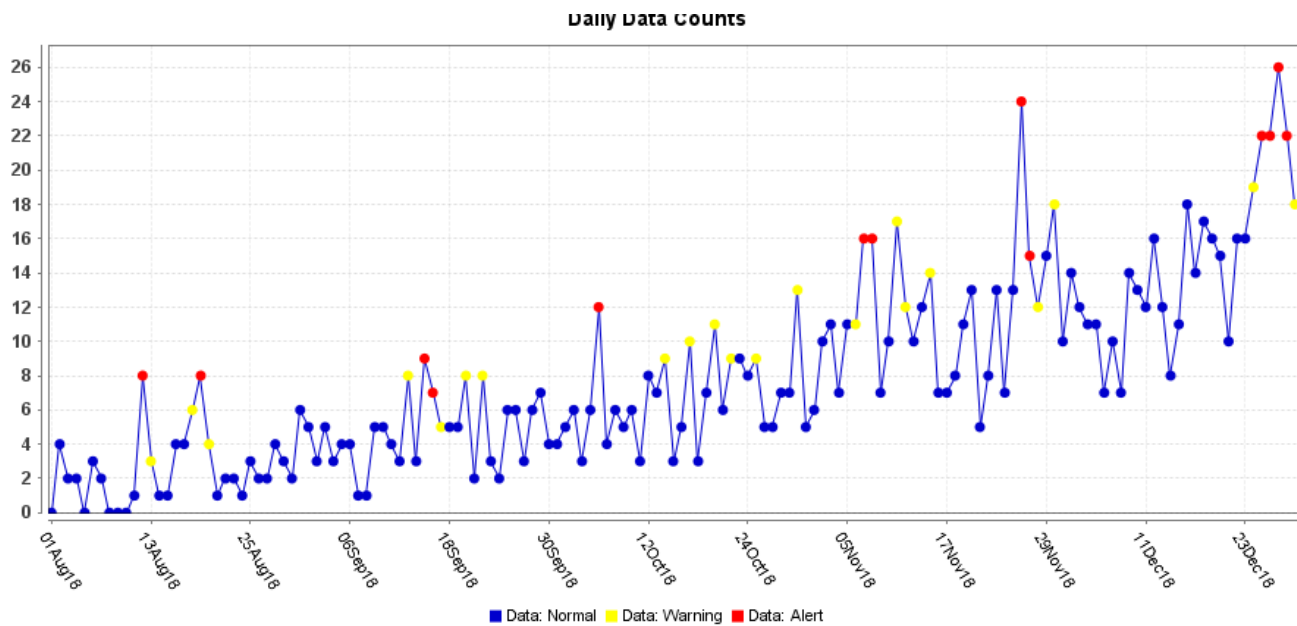
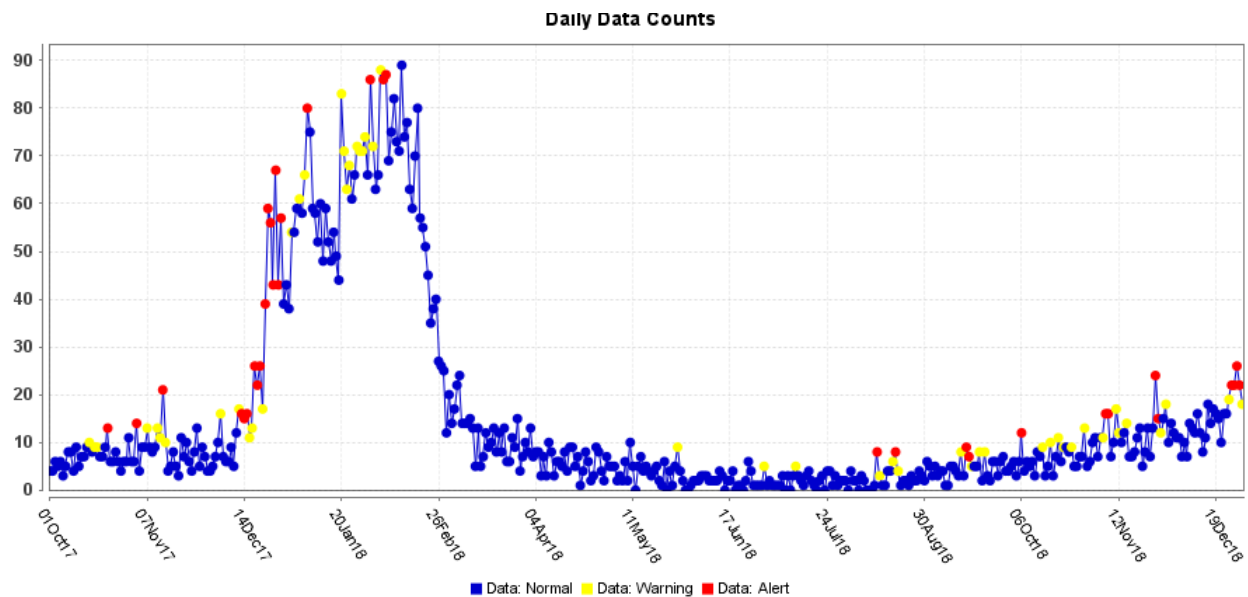


Figure 9. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, October 1, 2017 – December 29, 2018



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 December 22, 2018

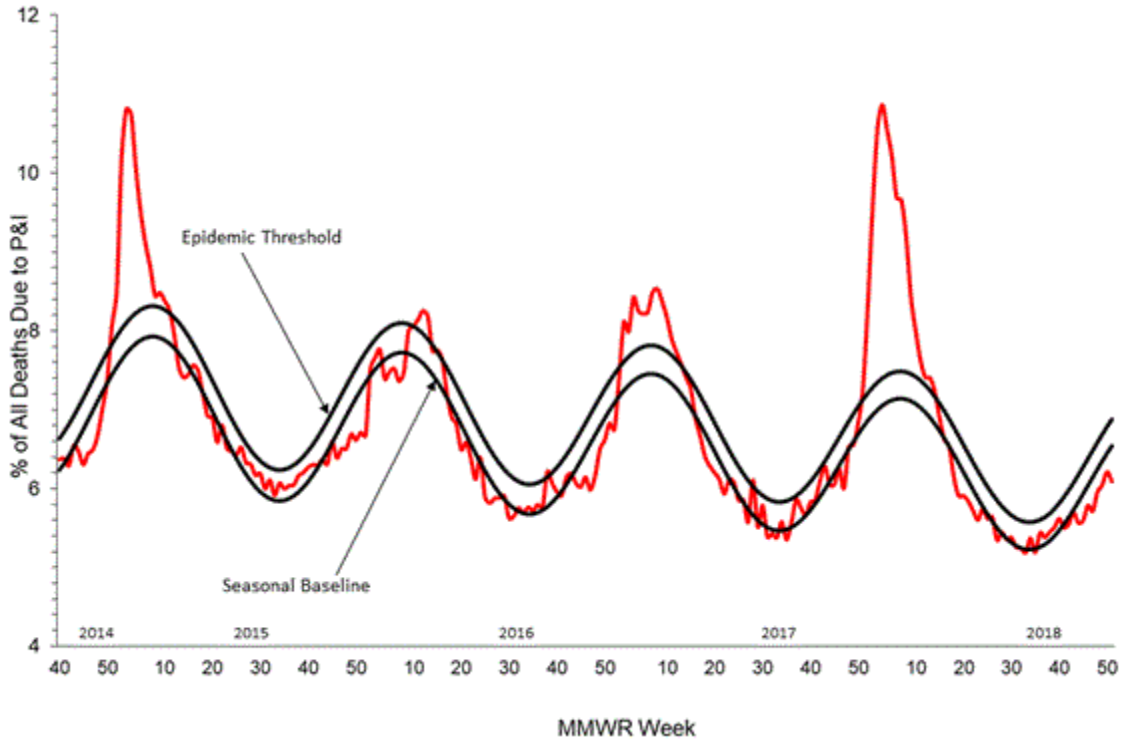


Figure 11. Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists: Week 52 – Week Ending December 29, 2018

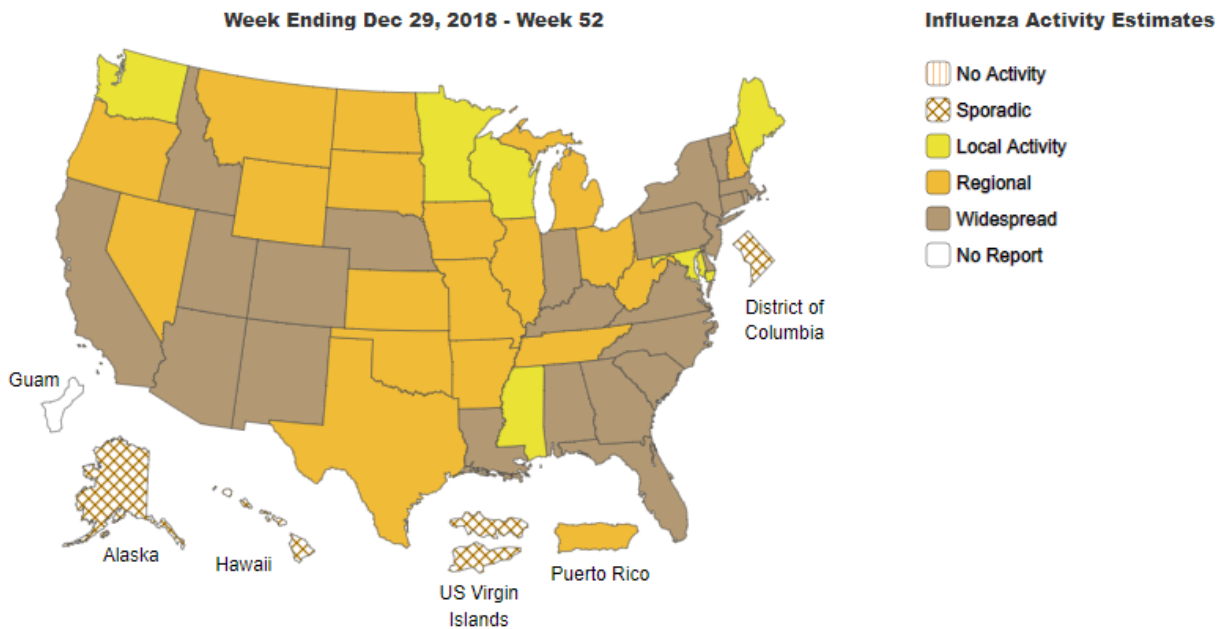
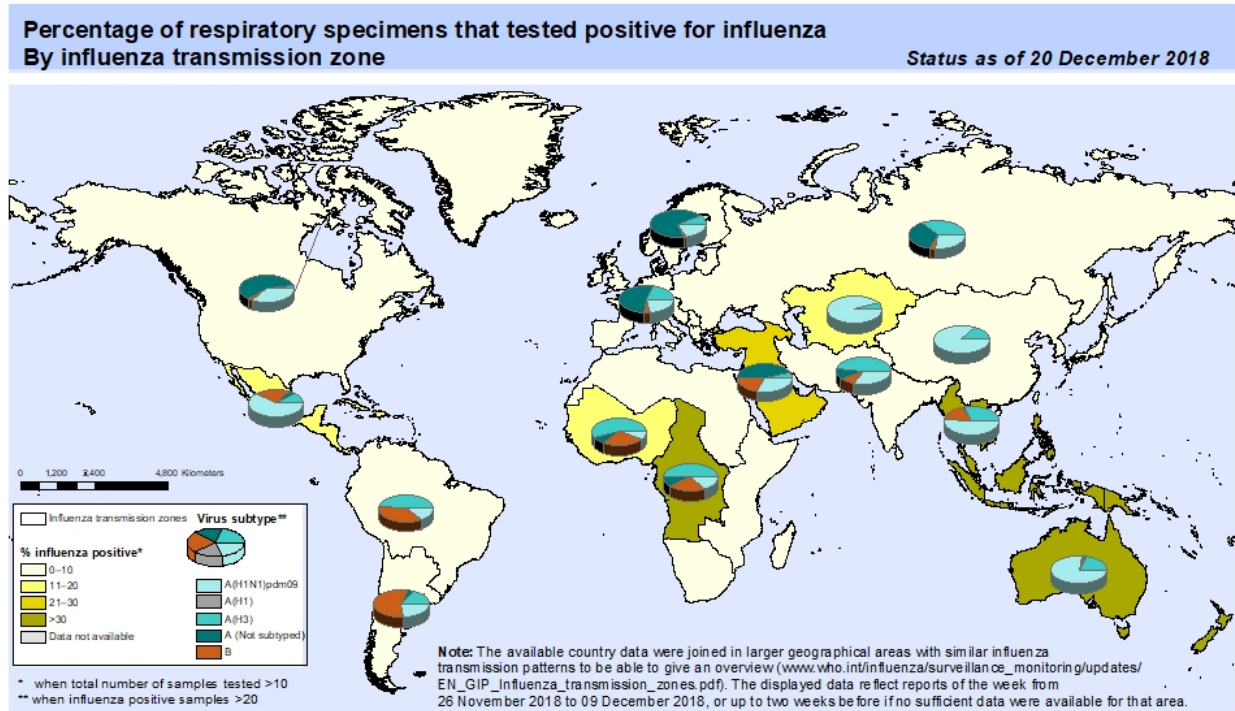


Figure 12. Percentage of Respiratory Specimens that Tested Positive for Influenza: WHO, based on data up to December 20, 2018



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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