

Denton County Public Health

2018 – 2019 Influenza Surveillance Program

CDC Week 50, Week Ending December 15, 2018



Epidemiologic Overview

Denton County

- Low influenza activity was reported in Denton County for week 50.
- 24 positive influenza tests (17 Flu A and 7 Flu B) and 5 hospitalizations were reported by Denton County sentinel providers for week 50.
- Syndromic surveillance for influenza-like illness (ILI) in Denton County increased for week 50 when compared to the previous week.
- 0.4% of the total reported school population was absent due to ILI in week 50.

Texas

- Influenza activity in the state of Texas was reported as regional in week 50.
- The percentage of visits for ILI as reported by ILINet providers increased to 4.6% in week 50 compared to the previous week.
- The percentage of specimens testing positive for influenza in Texas increased to 13.2% in week 50 compared to the previous week.

US

- The proportion of outpatient visits for influenza-like illness (ILI) was 2.7%, which is above the national baseline of 2.2%. 8 of 10 regions reported ILI at or above their region-specific baseline level.
- The geographic spread of influenza in 6 states was reported as widespread; 18 states was reported as regional; 19 states was reported as local; and 7 states reported sporadic activity.
- The percentage of specimens testing positive for influenza in the US was 11.0%.
- The proportion of deaths attributed to pneumonia and influenza (P&I) from the National Center for Health Statistics Mortality Surveillance System for week 49 was 6.0%. This percentage is below the epidemic threshold of 6.7% for week 49.

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

Week Ending	11/10/18	11/17/18	11/24/18	12/1/18	12/8/18	12/15/18	9/22/18 - Present
CDC Week	45	46	47	48	49	50	
Influenza Tests Performed Weekly	379	425	406	488	383	481	4204
Total Positive Influenza Tests	10	12	15	15	14	24	126
Percent Positive Influenza Tests*	2.6%	2.8%	3.7%	3.1%	3.7%	5.0%	
Positive A Influenza	4	3	7	5	8	17	58
Positive B Influenza	6	9	8	10	6	7	68
Non-differentiated Influenza	0	0	0	0	0	0	0
Influenza Hospitalizations	1	3	3	5	1	5	30
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

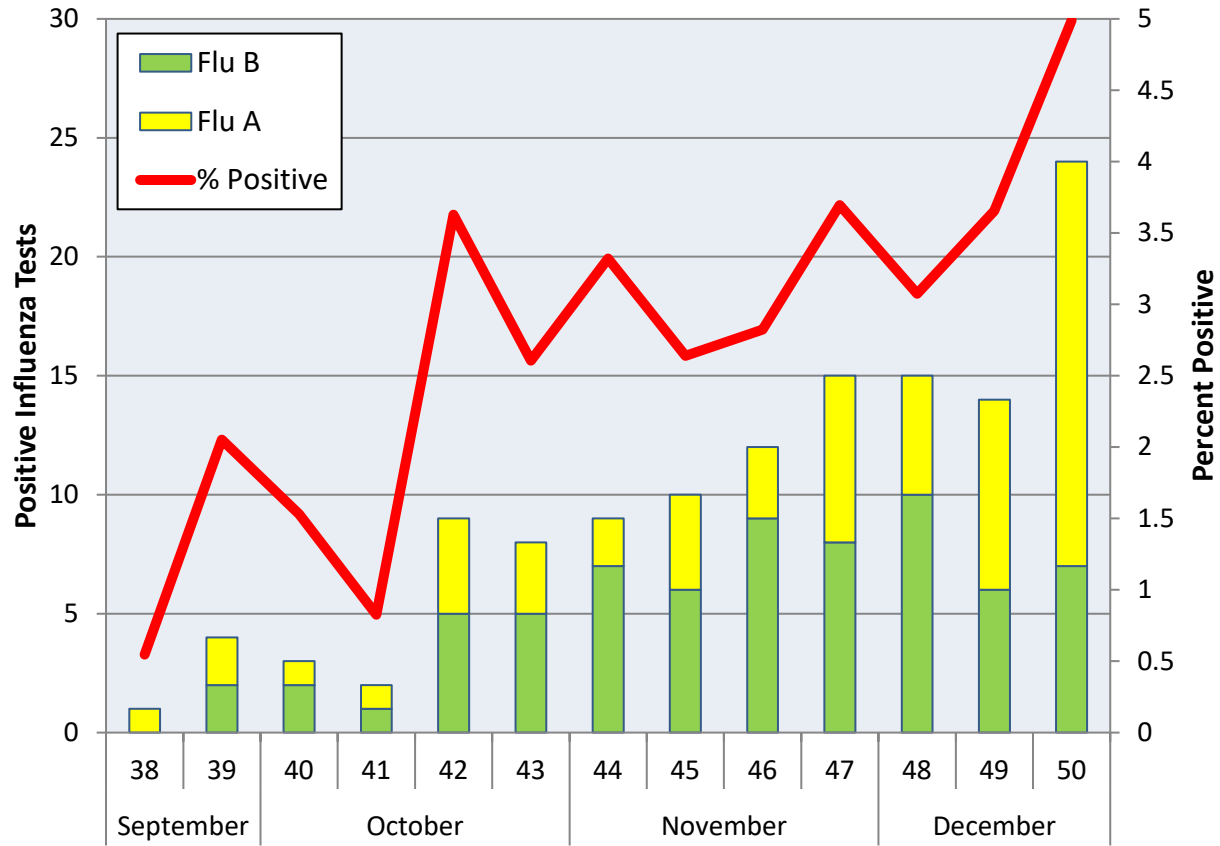
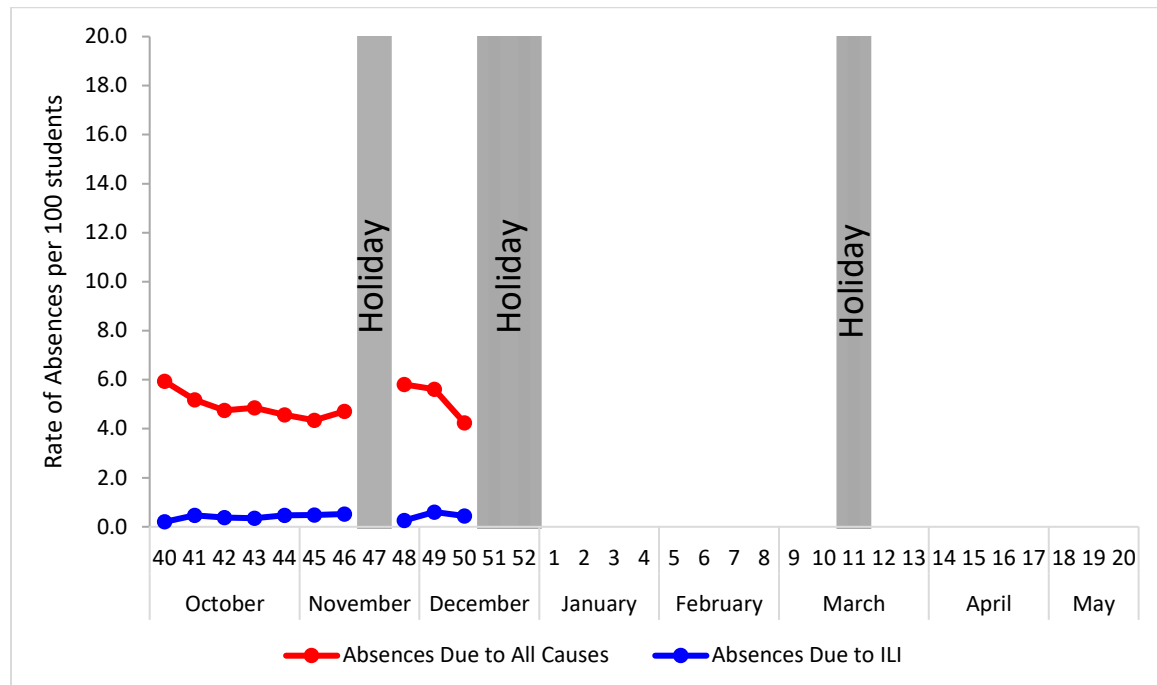


Figure 3. Percent of Absenteeism Due to All Causes and ILI, Denton County Schools*, 2018-2019 Season



*During week 50, a total of 3 Denton County Independent School Districts reported data to Denton County Public Health which included a total of 15,466 students.

Figure 4. Influenza Positive Tests Reported to CDC by U.S. Public Health Laboratories, National Summary, October 1, 2017 – December 15, 2018

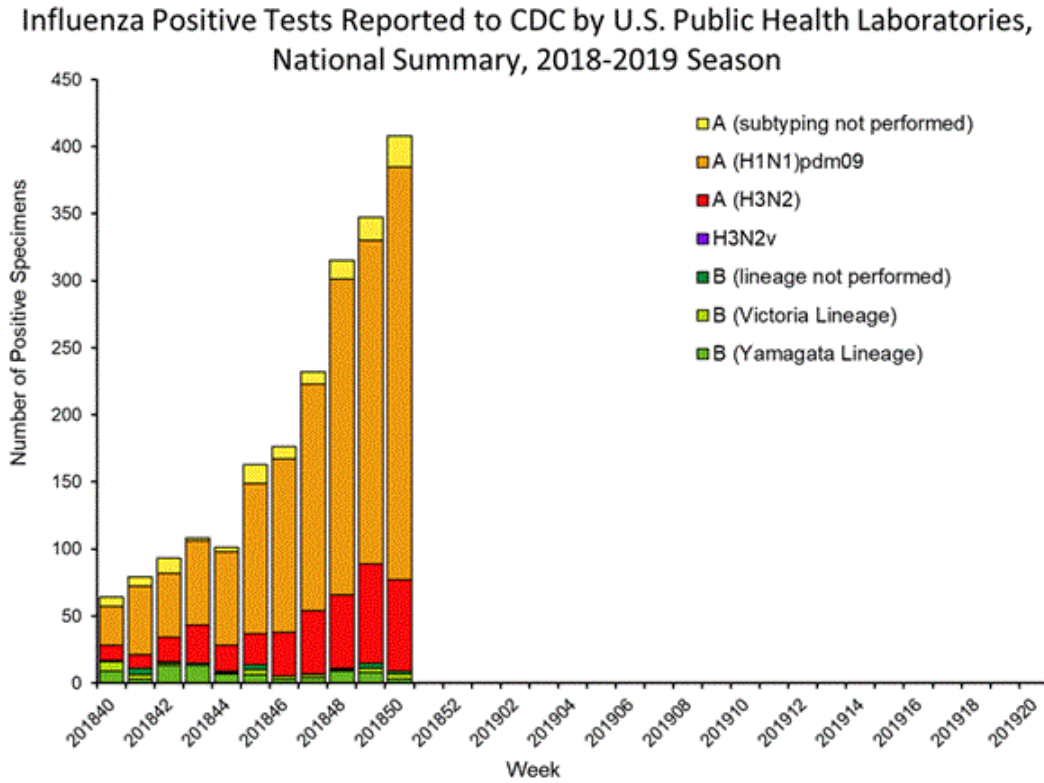


Figure 5. Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, October 1, 2017 – December 15, 2018

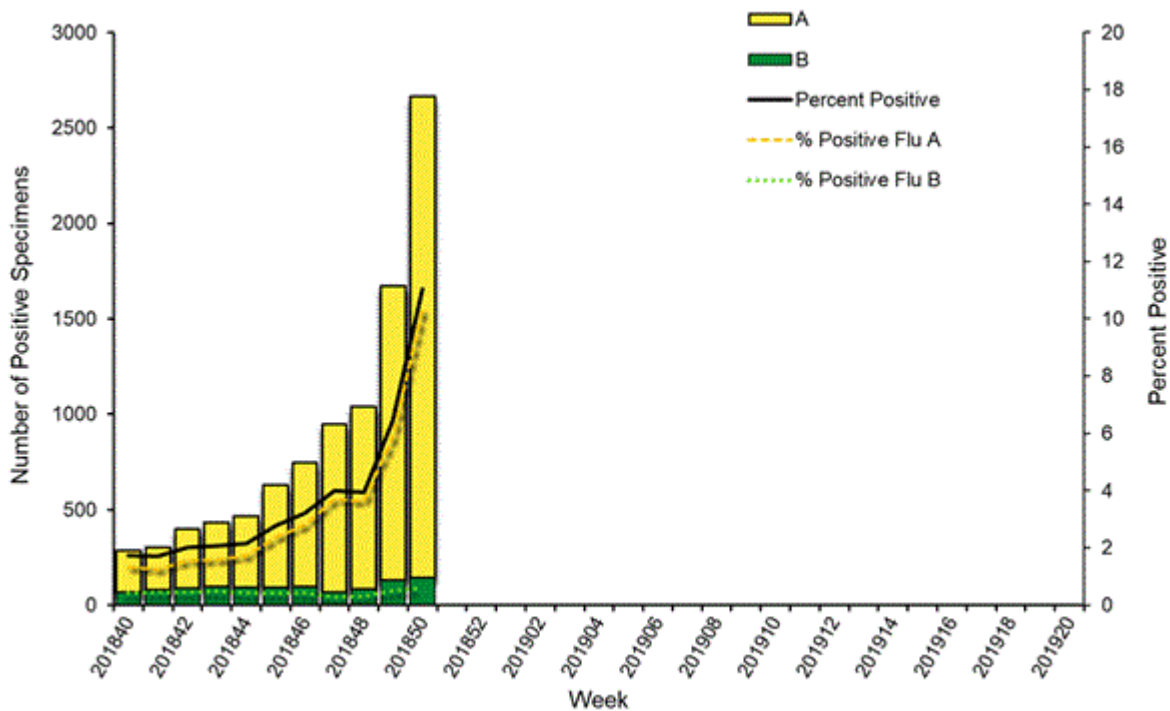


Figure 6. Antigenic Characterization of Influenza Isolates, Since December 15, 2018

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)	3 of 3 (100%) – 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 50

	Week 50	Data Cumulative since September 30, 2018 (Week 40)
No. of specimens tested	24,176	242,938
No. of positive specimens (%)	2,666 (11.0%)	9,582 (3.9%)
<i>Positive specimens by type</i>		
Influenza A	2,522 (94.6%)	8,540 (89.1%)
Influenza B	144 (5.4%)	1,042 (10.9%)

Figure 8. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, August 1, 2018- December 15, 2018

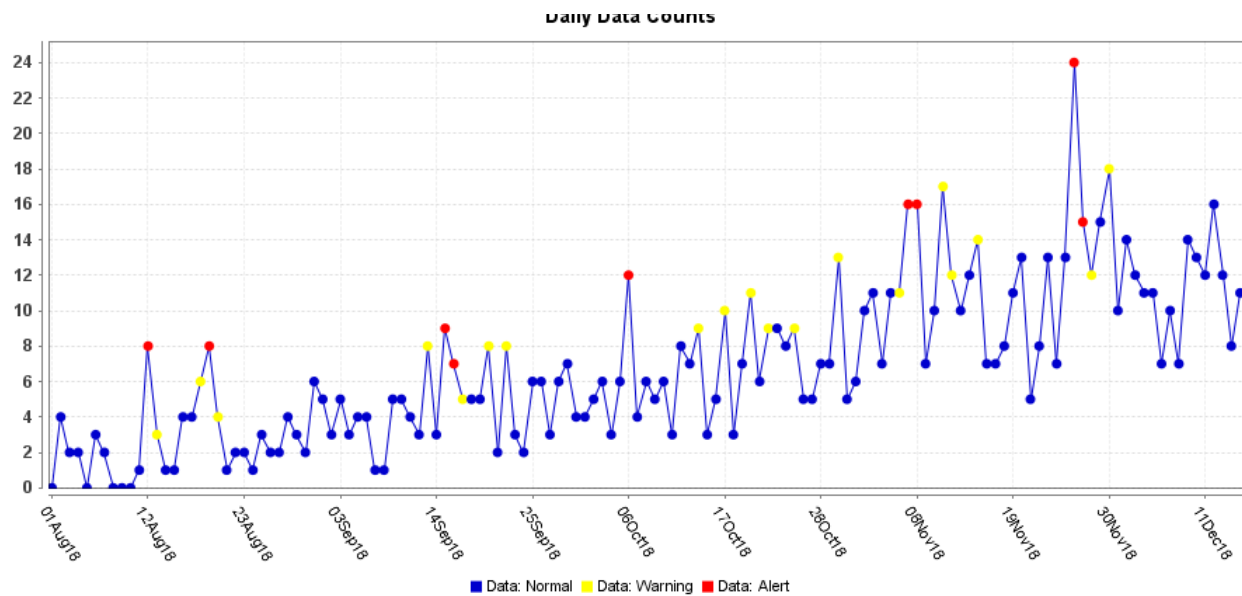
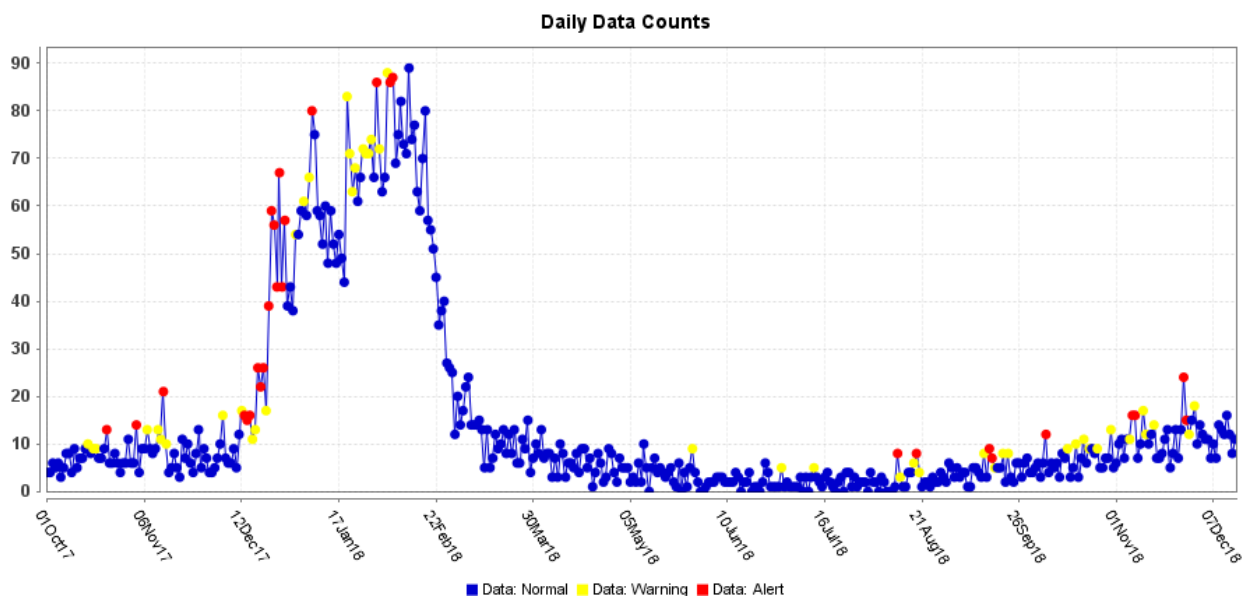


Figure 9. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, October 1, 2017 – December 15, 2018



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 8, 2018

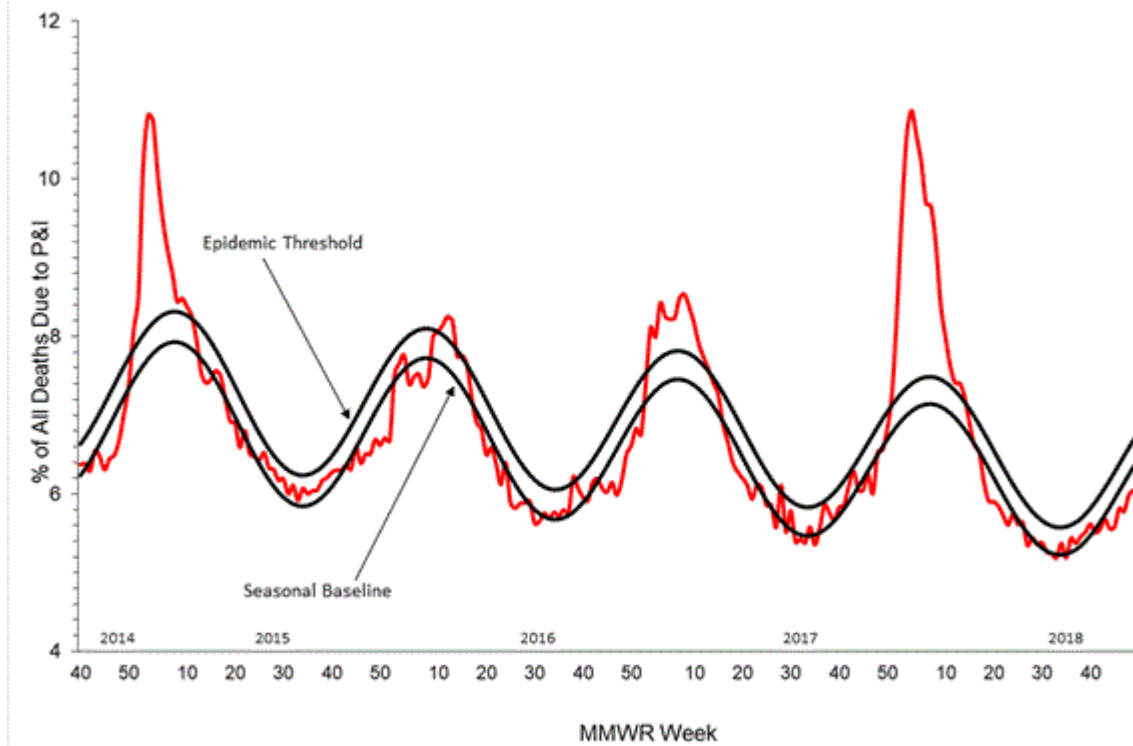


Figure 11. Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists: Week 50 – Week Ending December 15, 2018

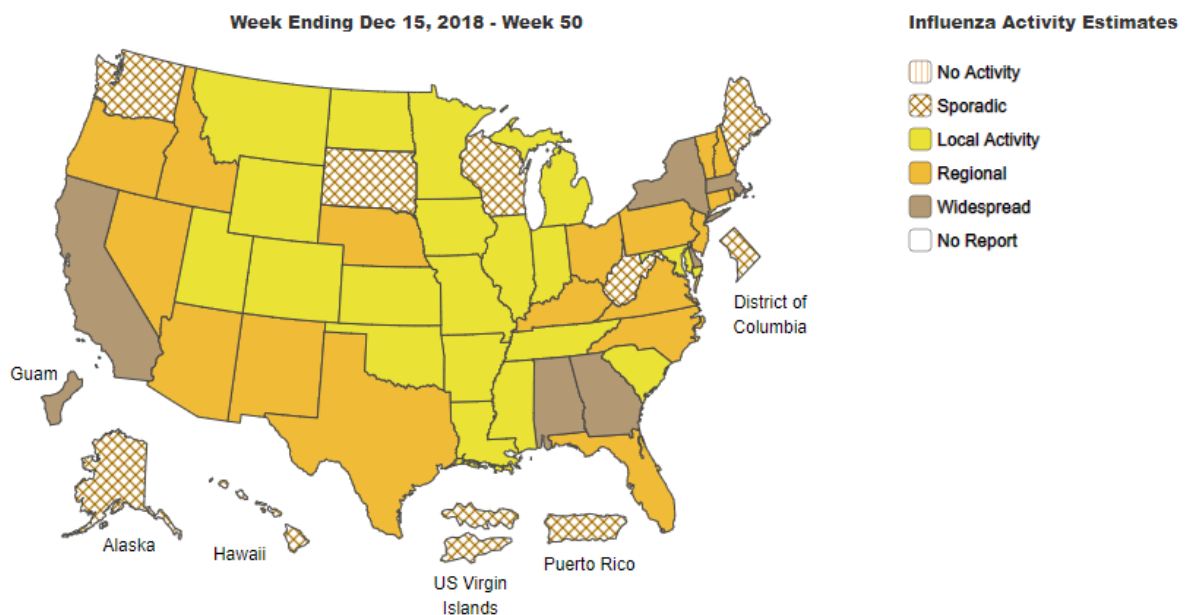
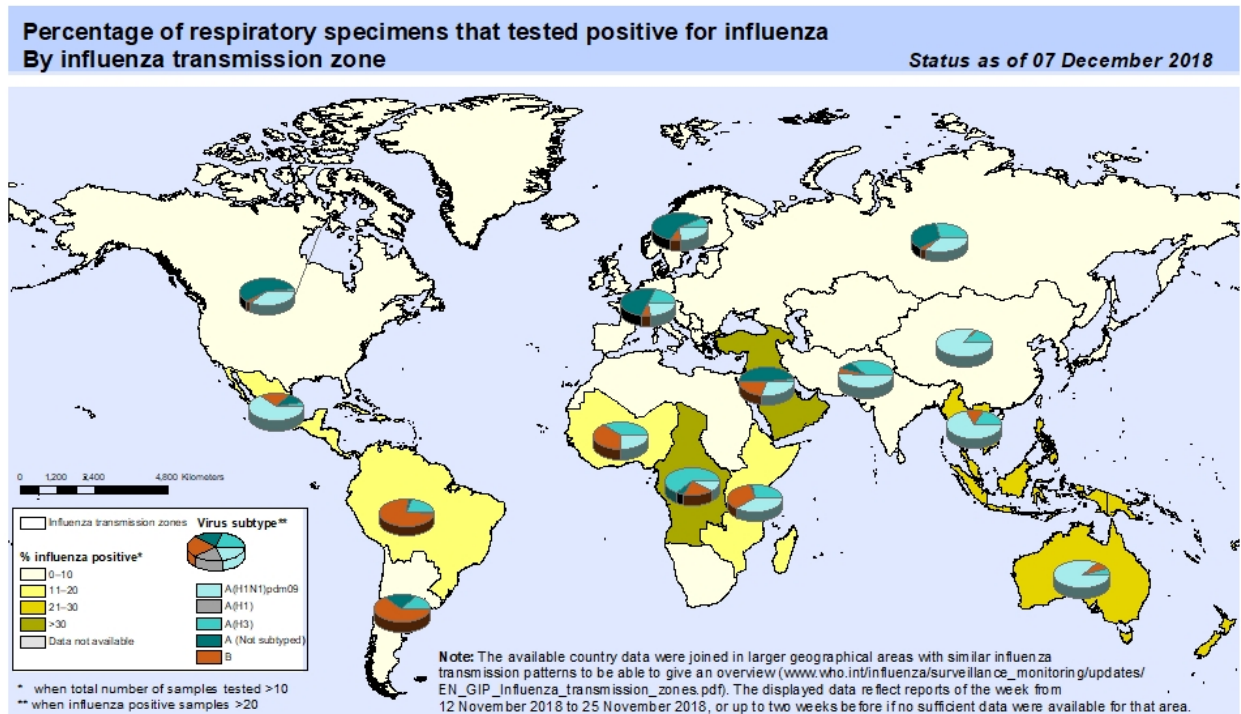


Figure 12. Percentage of Respiratory Specimens that Tested Positive for Influenza: WHO, based on data up to December 7, 2018



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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