

Denton County Public Health

2018 – 2019 Influenza Surveillance Program

CDC Week 45, Week Ending November 10, 2018



Epidemiologic Overview

Denton County

- Low influenza activity was reported in Denton County for week 45.
- 10 positive influenza tests (4 Flu A and 6 Flu B) and 1 hospitalization were reported by Denton County sentinel providers for week 45.
- Syndromic surveillance for influenza-like illness (ILI) in Denton County increased for week 45 when compared to the previous week.
- 0.3% of the total reported school population was absent due to ILI in week 45.

Texas

- Influenza activity in the state of Texas moved to local in week 45.
- The percentage of visits for ILI as reported by ILINet providers increased to 3.4% in week 45 compared to the previous week.
- The percentage of specimens testing positive for influenza in Texas decreased to 1.0% in week 45 compared to the previous week.

US

- The proportion of outpatient visits for influenza-like illness (ILI) was 1.9%, which is below the national baseline of 2.2%. 1 of 10 regions reported ILI at or above their region-specific baseline level.
- The geographic spread of influenza in 3 states was reported as regional; 10 states was reported as local; 35 states reported sporadic activity; and 2 states reported no activity.
- The percentage of specimens testing positive for influenza in the US was 1.2%.
- The proportion of deaths attributed to pneumonia and influenza (P&I) from the National Center for Health Statistics Mortality Surveillance System for week 44 was 5.4%. This percentage is below the epidemic threshold of 6.2% for week 44.

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

Week Ending	10/6/18	10/13/18	10/20/18	10/27/18	11/3/18	11/10/18	9/22/18 - Present
CDC Week	40	41	42	43	44	45	
Influenza Tests Performed Weekly	196	242	248	307	271	379	2021
Total Positive Influenza Tests	3	2	9	8	9	10	46
Percent Positive Influenza Tests*	1.5%	0.8%	3.6%	2.6%	3.3%	2.6%	
Positive A Influenza	1	1	4	3	2	4	18
Positive B Influenza	2	1	5	5	7	6	28
Non-differentiated Influenza	0	0	0	0	0	0	0
Influenza Hospitalizations	1	0	4	2	4	1	13
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

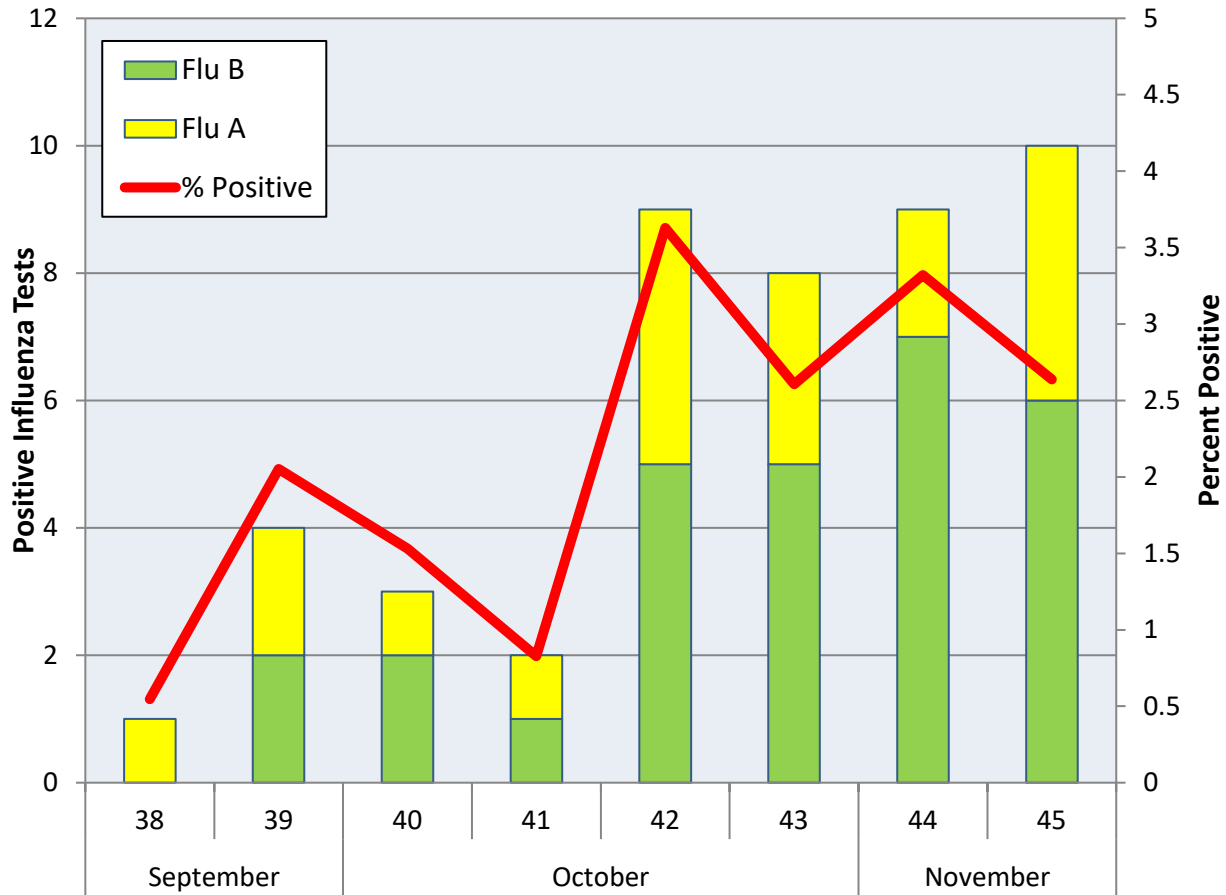
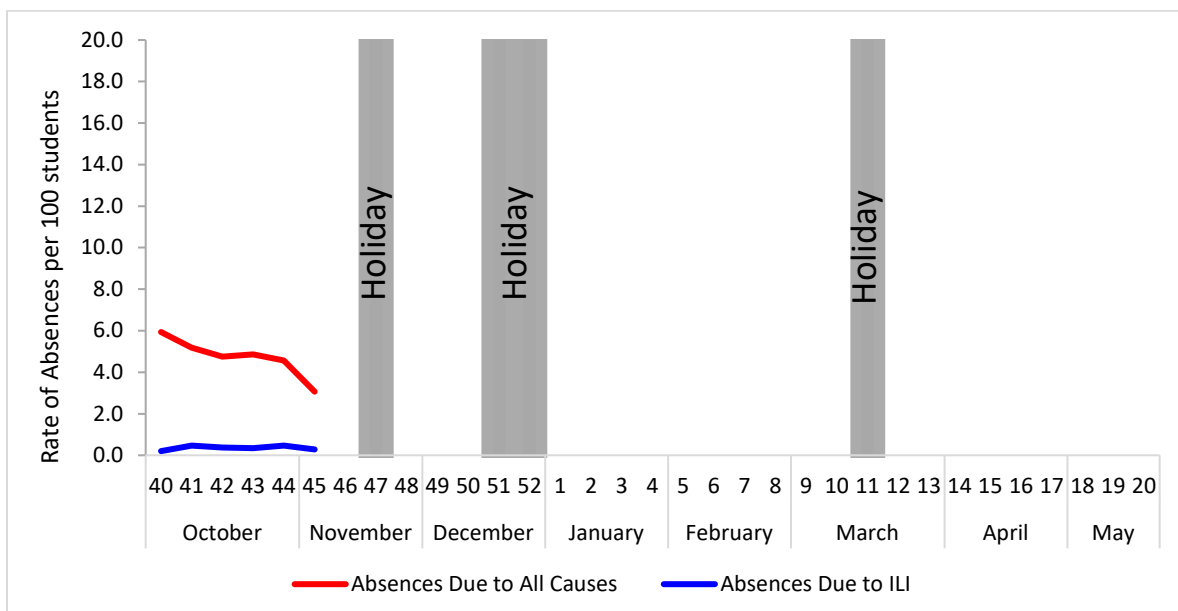


Figure 3. Percent of Absenteeism Due to All Causes and ILI, Denton County Schools*, 2018-2019 Season



*During week 45, a total of 5 Denton County Independent School Districts reported data to Denton County Public Health which included a total of 162,135 students.

Figure 4. Influenza Positive Tests Reported to CDC by U.S. Public Health Laboratories, National Summary, October 1, 2017 – November 10, 2018

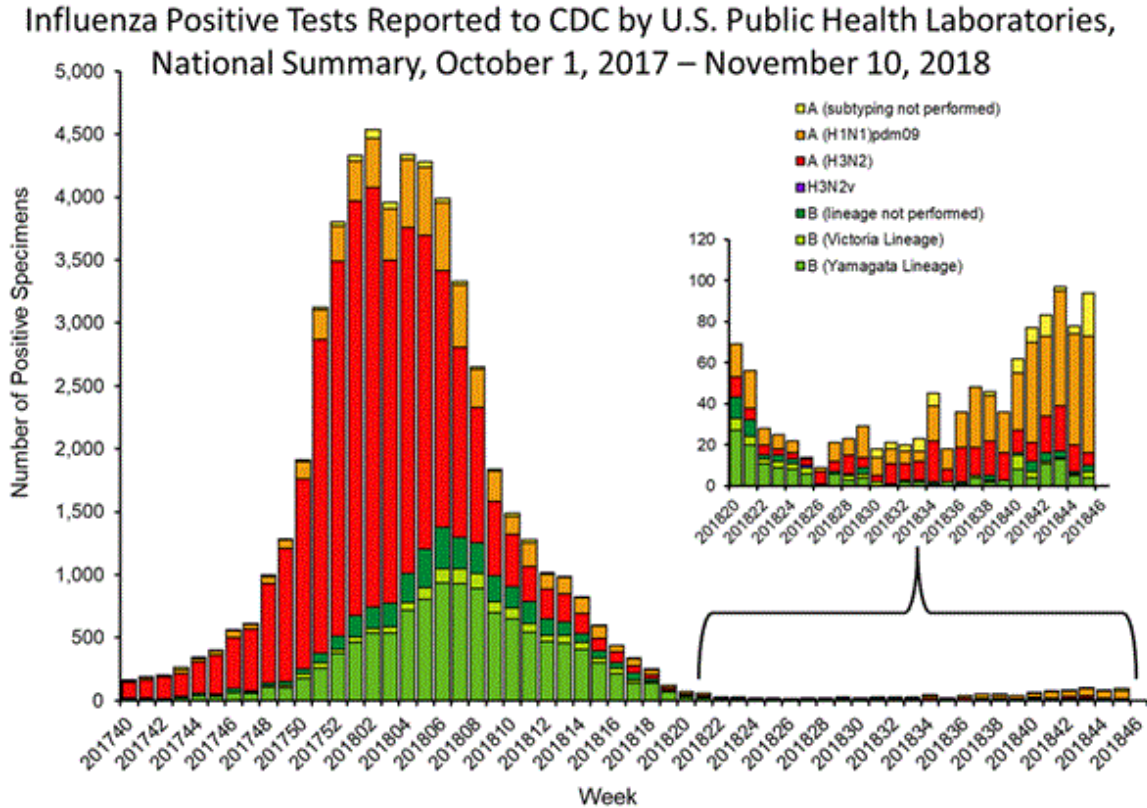


Figure 5. Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, October 1, 2017 – November 10, 2018

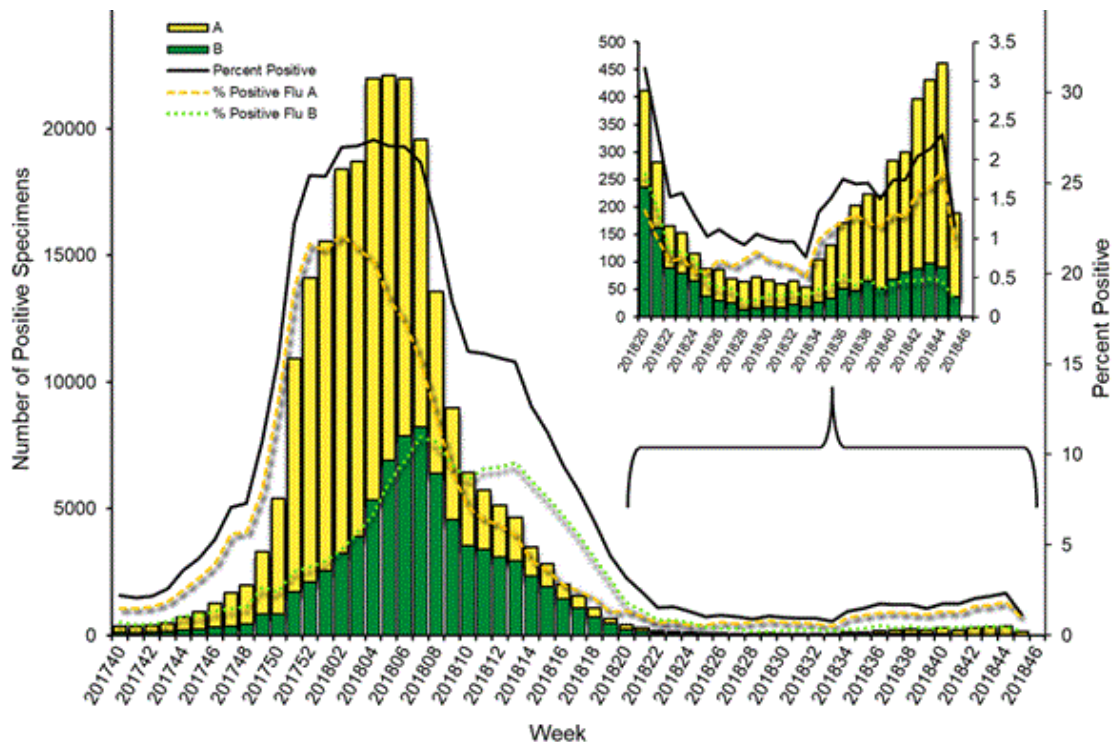


Figure 6. Antigenic Characterization of Influenza Isolates, Since November 10, 2018

Influenza A (H1N1)	86 of 86 (100%) – A/Michigan/45/2015 pdm09-like
Influenza A (H3N2)	53 of 58 (91.4%) – A/Singapore/INFIMH-16-0019/2016-like
Influenza B (Victoria Lineage)	9 of 11 (81.8%) – B/Colorado/06/2017-like
Influenza B (Yamagata Lineage)	39 of 39 (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 45

	Week 45	Data Cumulative since September 30, 2018 (Week 40)
No. of specimens tested	620	4,665
No. of positive specimens*	94	491
<i>Positive specimens by type/subtype</i>		
Influenza A	84 (89.4%)	413 (84.1%)
(H1N1)pdm09	57 (90.5%)	283 (78.2%)
H3N2	6 (9.5%)	79 (21.8%)
Subtyping not performed	21	51
Influenza B	10 (10.6%)	78 (15.9%)
Yamagata lineage	4 (57.1%)	45 (73.8%)
Victoria lineage	3 (42.9%)	16 (26.2%)
Lineage not performed	3	17

Figure 8. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, August 1, 2018- November 10, 2018

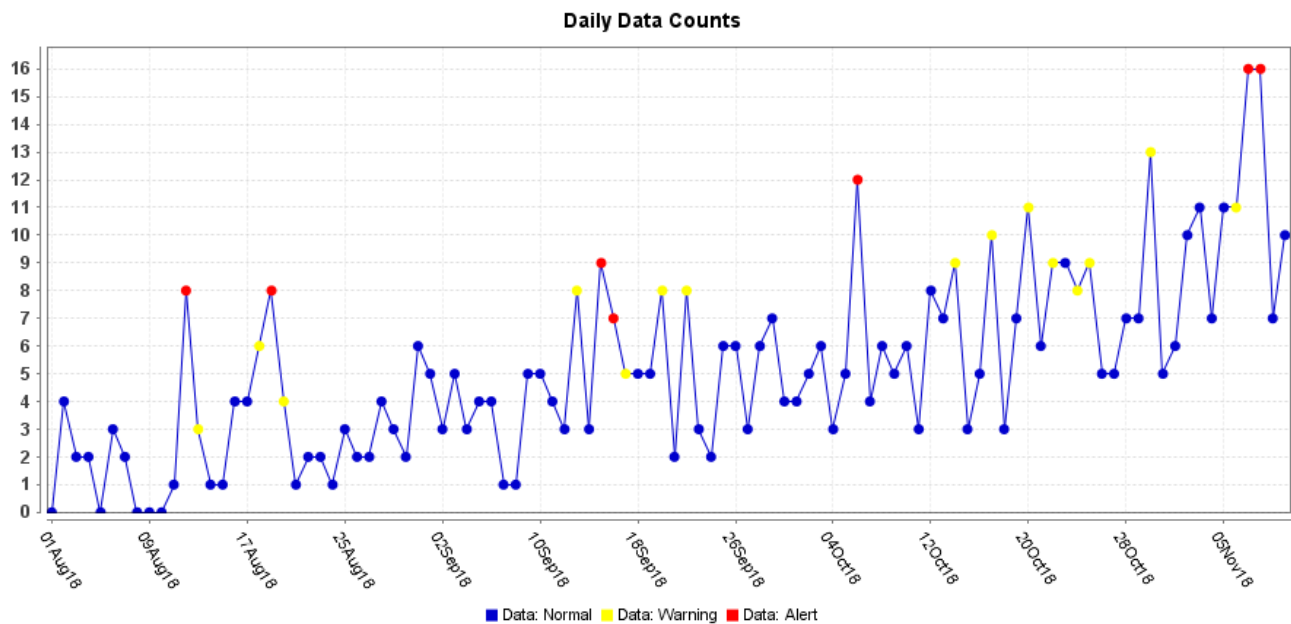
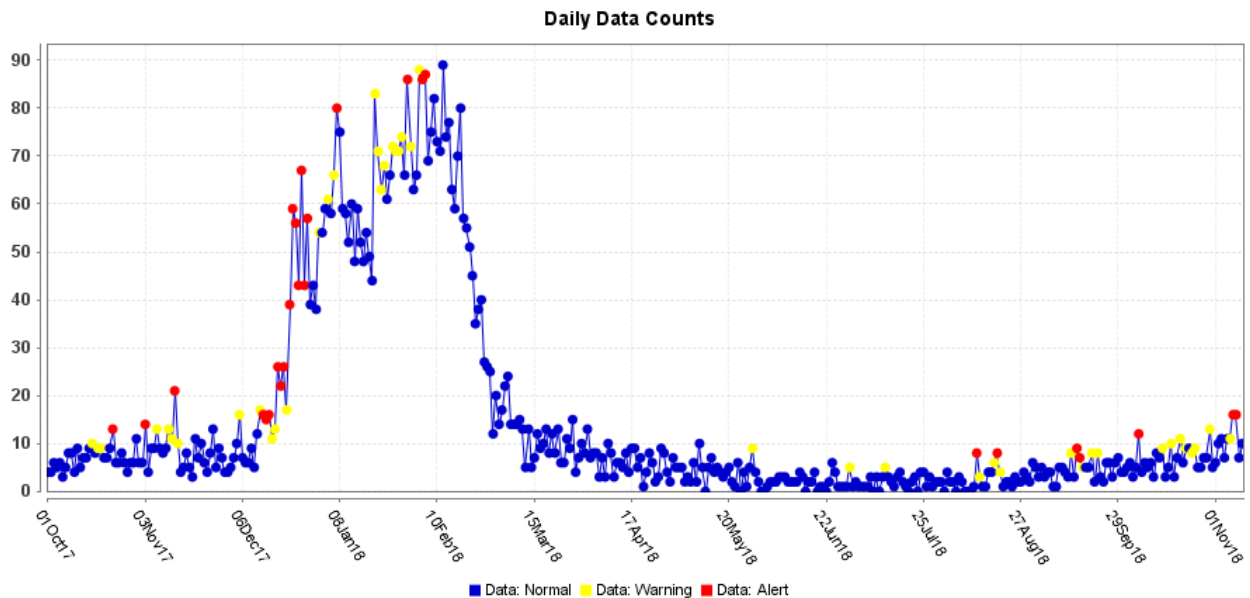


Figure 9. ESSENCE Syndromic Surveillance for Influenza-like Illness: Denton County, October 1, 2017 – November 10, 2018



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 November 3, 2018

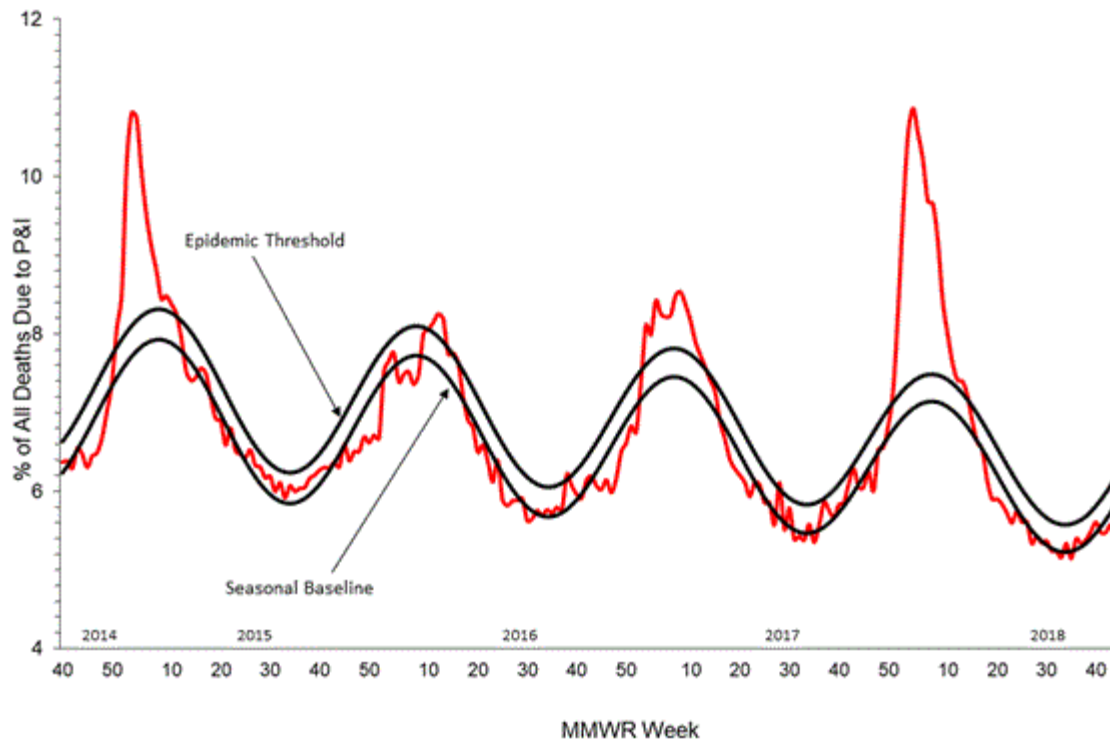


Figure 11. Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists: Week 45 – Week Ending November 10, 2018

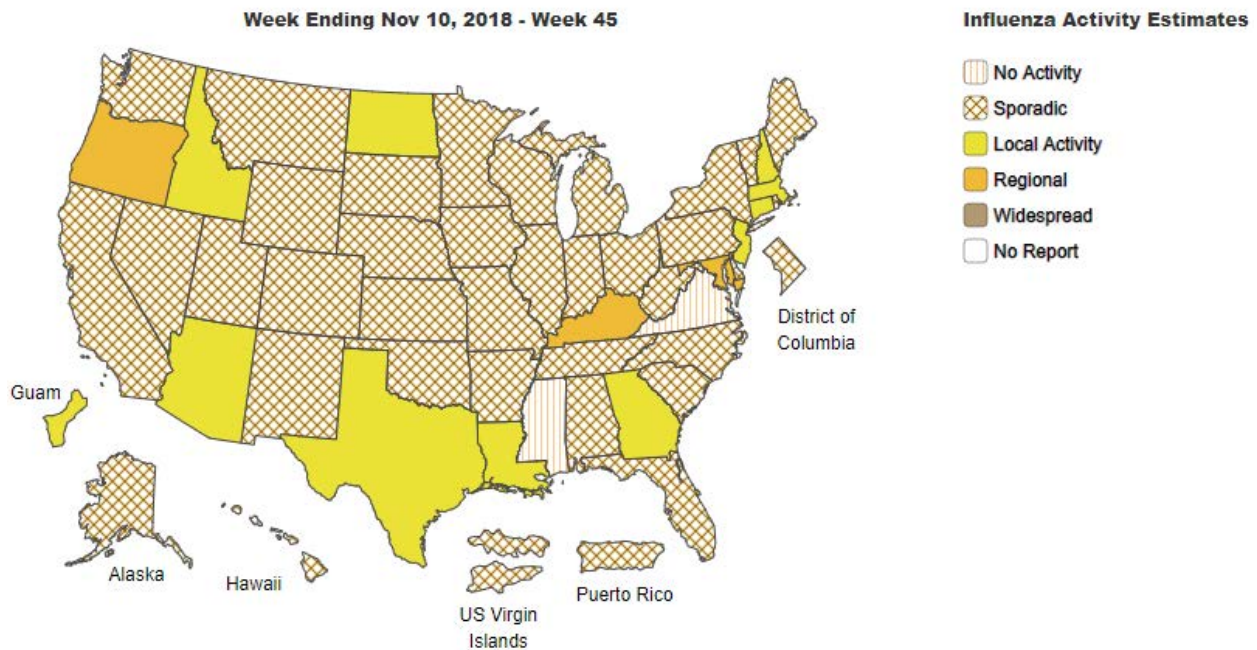
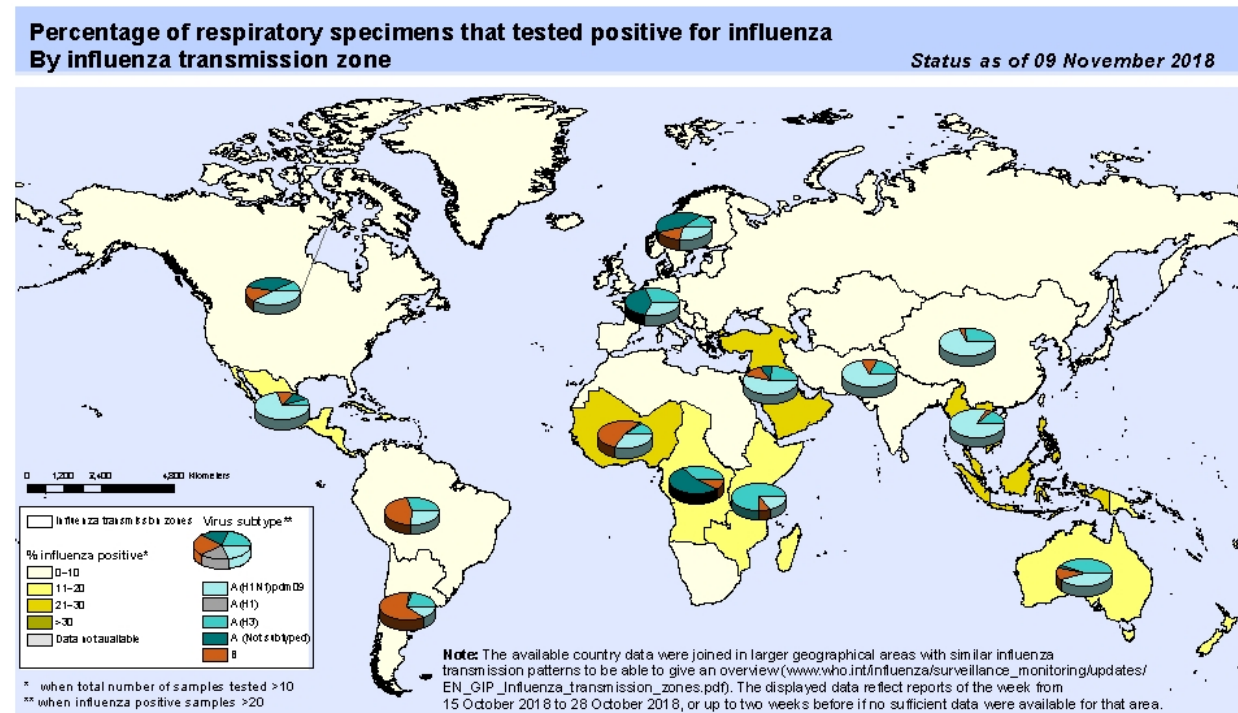


Figure 12. Percentage of Respiratory Specimens that Tested Positive for Influenza: WHO, based on data up to November 9, 2018



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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