



# Influenza Surveillance Update

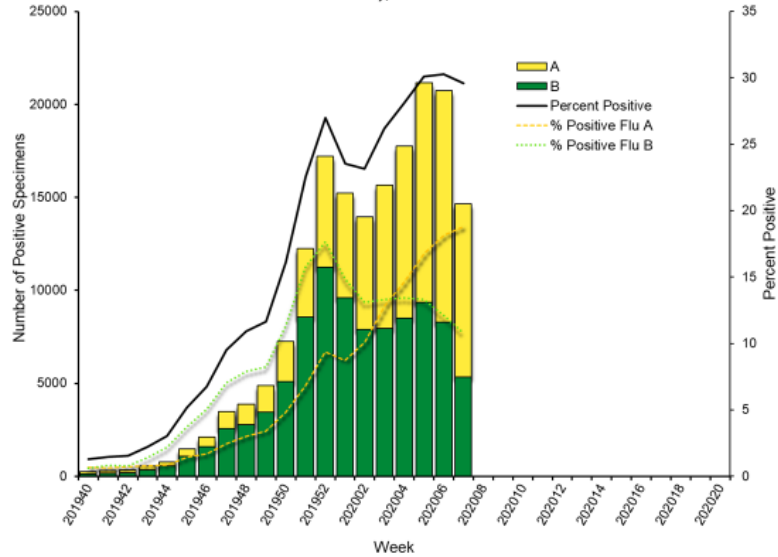
**Lynnette Brammer, MPH**

Advisory Committee on Immunization Practices

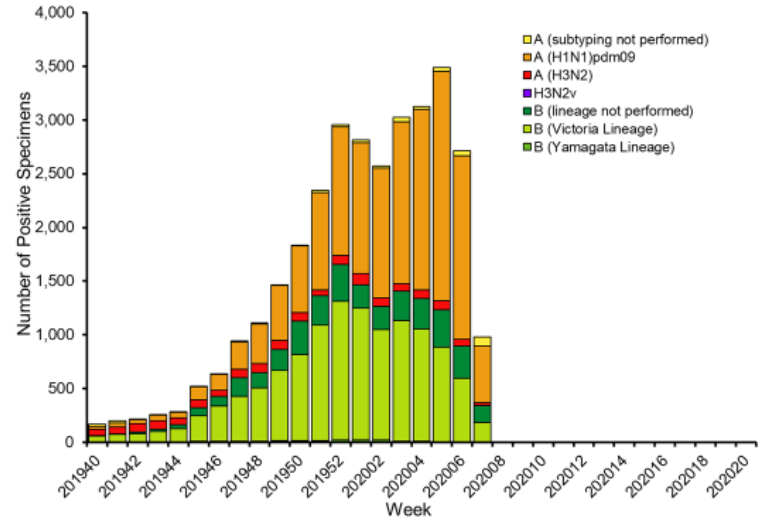
February 26, 2020

# Influenza Virologic Surveillance, 2019-2020 Season

Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, 2019-2020 Season

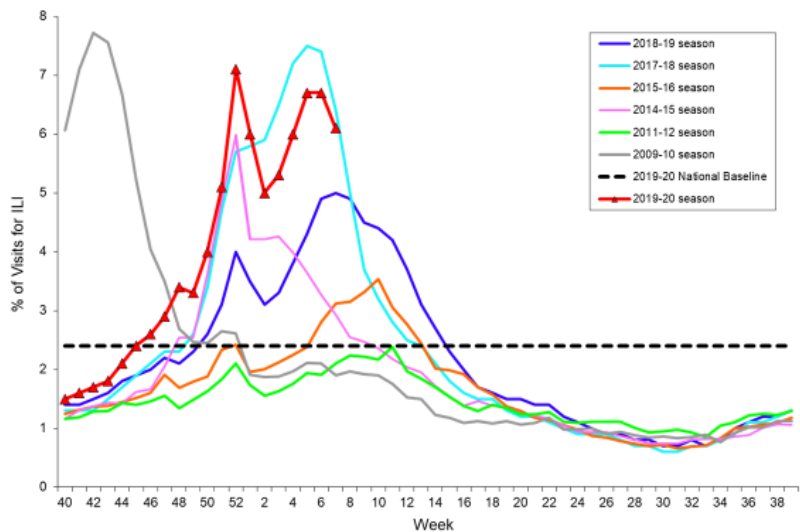


Influenza Positive Tests Reported to CDC by U.S. Public Health Laboratories, National Summary, 2019-2020 Season



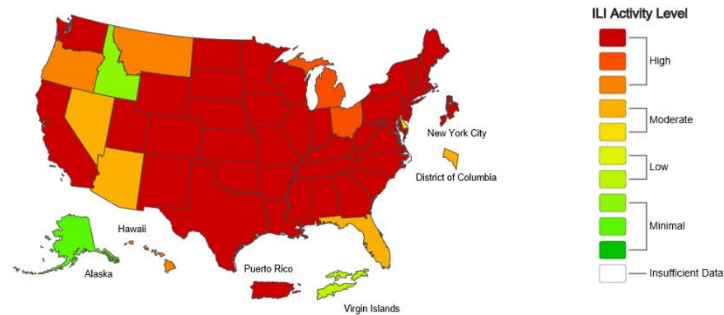
# Outpatient Visits for Influenza-like Illness

Percentage of Visits for Influenza-like Illness (ILI) Reported by the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), Weekly National Summary, 2019-2020 and Selected Previous Seasons



Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet

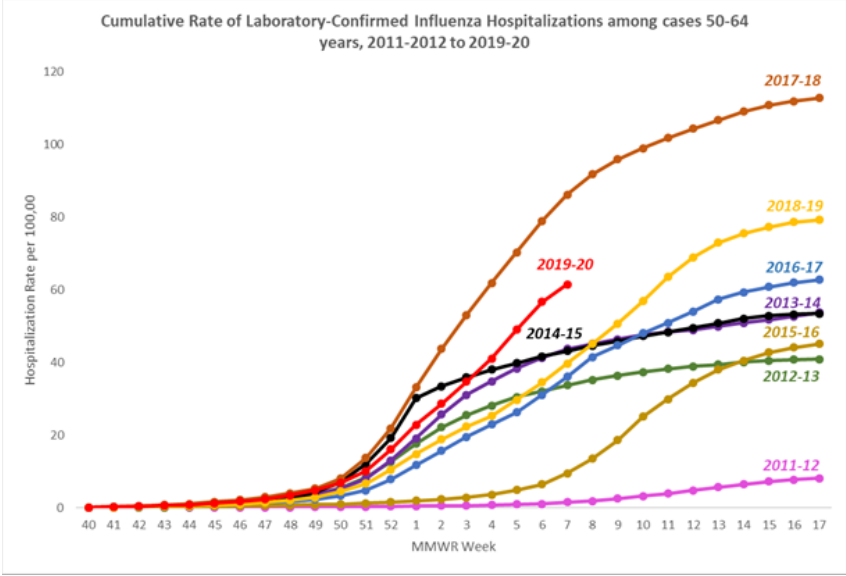
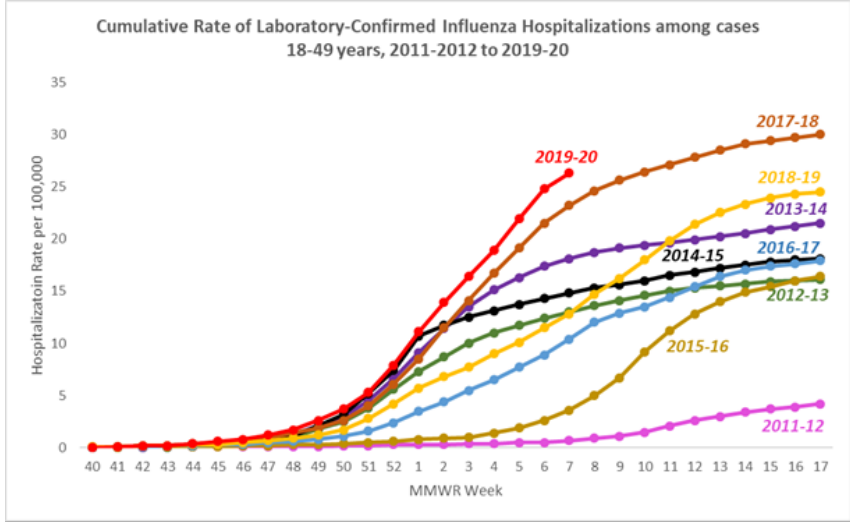
2019-20 Influenza Season Week 7 ending Feb 15, 2020





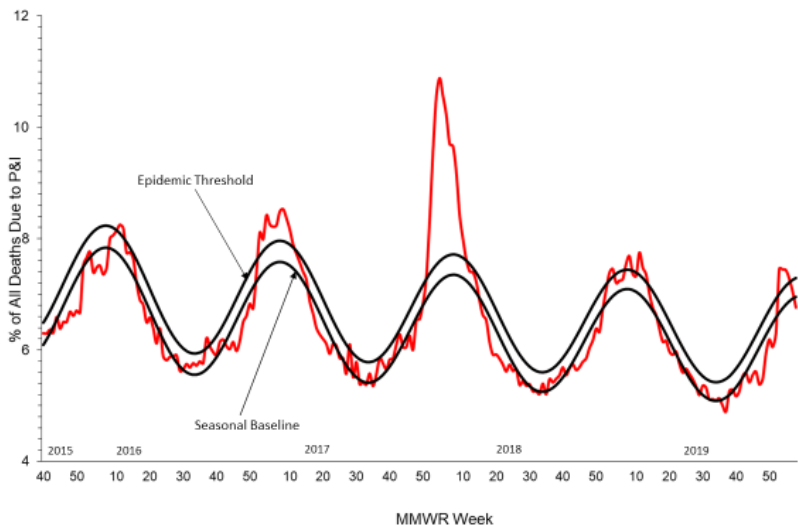


# Laboratory Confirmed Influenza-Associated Hospitalizations, FluSurvNet, 2019-20

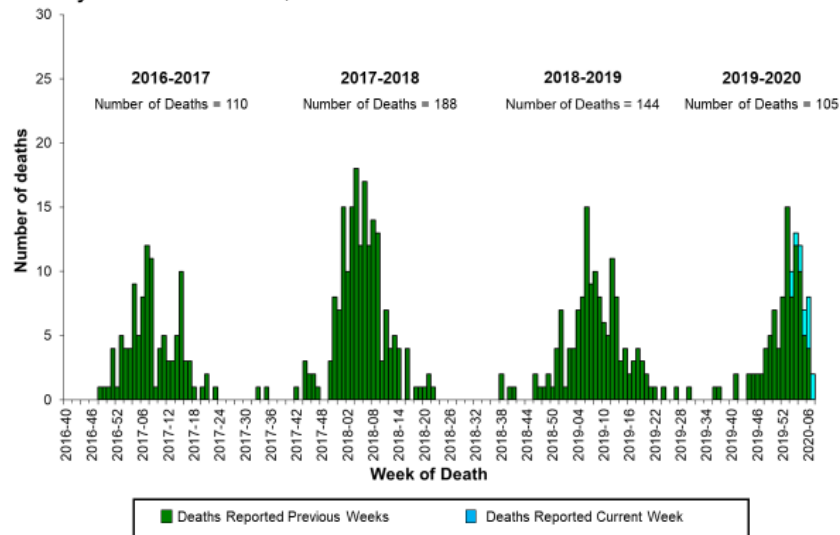


# Influenza-Associated Mortality

Pneumonia and Influenza Mortality from  
the National Center for Health Statistics Mortality Surveillance System  
Data through the week ending February 8, 2020, as of February 20, 2020



Influenza-Associated Pediatric Deaths  
by Week of Death, 2016-2017 season to 2019-2020 season



# 2019-20 Flu Season: Preliminary Burden Estimates

CDC estimates\* that, from October 1, 2019, through February 15, 2020, there have been:

29,000,000 – 41,000,000  
flu **illnesses**



13,000,000 – 19,000,000  
flu **medical visits**



280,000 – 500,000  
flu **hospitalizations**



16,000 – 41,000  
flu **deaths**





# Characterization of U.S. Influenza A (H1N1)pdm09 Viruses Collected September 29, 2019 to Present

- All 563 influenza A (H1N1)pdm09 viruses tested belong to genetic group 6B.1A
- All 74 A(H1N1)pdm09 viruses antigenically characterized using a hemagglutination inhibition (HI) assay with ferret antisera were similar to the cell culture-propagated A/Brisbane/02/2018-like reference virus representing the 2019-20 Northern Hemisphere vaccine component

# Characterization of U.S. Influenza A (H3N2) Viruses Collected September 29, 2019 to Present

- 365 of 381 (95.8%) A(H3N2) viruses belong to 3C.2a1 subclade
- 16 (4.2%) belong to 3C.3a clade
- 31 of 72 (43.1%) of A(H3N2) viruses antigenically characterized by FRA were well-inhibited by ferret antisera raised against A/Kansas/14/2017 (3C.3a), a cell-propagated reference virus representing the A(H3N2) component of 2019-20 Northern Hemisphere influenza vaccines.

# Characterization of U.S. Influenza B Victoria Lineage Viruses Collected September 29, 2019 to Present

- Two genetic groups of B/Victoria lineage viruses are co-circulating, V1A.1 and V1A.3
  - 50 of 655 (7.6%) B/Victoria lineage viruses belonged to the V1A.1 subclade, the remaining 605 belonged to the V1A.3 subclade
  - B/Colorado/06/2017, the reference virus representing the B/Victoria lineage virus in the 2019-20 Northern Hemisphere vaccines belongs to the V1A.1 subclade
- 53 of 88 (60.2%) B/Victoria lineage viruses antigenically characterized by HI using ferret antisera were similar to the cell-propagated B/Colorado/06/2017-like V1A.1 reference virus.

# Characterization of U.S. Influenza B Yamagata Lineage Viruses Collected September 29, 2019 to Present

- All B/Yamagata lineage viruses tested belong to a single genetic group, Y3
- All influenza B/Yamagata-lineage viruses antigenically characterized are similar to cell-propagated B/Phuket/3073/2013 (Y3), the reference vaccine virus representing the influenza B/Yamagata-lineage component of the 2019-20 Northern Hemisphere quadrivalent vaccines.

# Vaccine Virus Selection for 2020-21

- WHO Consultation on the Composition of Influenza Virus Vaccines for Use in the 2020-2021 Northern Hemisphere Influenza Season - February 24 – 28
- March 4, 2020: FDA's Vaccines and Related Biological Products Committee Meeting

# Summary

- Influenza activity remains elevated
- Influenza B/Victoria lineage viruses predominated early in the season but A(H1N1)pdm09 viruses have increased in recent weeks. For the season overall approximately equal numbers of B/Victoria and A(H1N1) have been reported
- Overall severity has been low but hospitalization rates among children and young adults have been high.
- So far, 105 influenza-associated deaths in children have been reported

For more information, contact CDC  
1-800-CDC-INFO (232-4636)  
TTY: 1-888-232-6348 [www.cdc.gov](http://www.cdc.gov)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

