



# 2016-17 Surveillance Overview

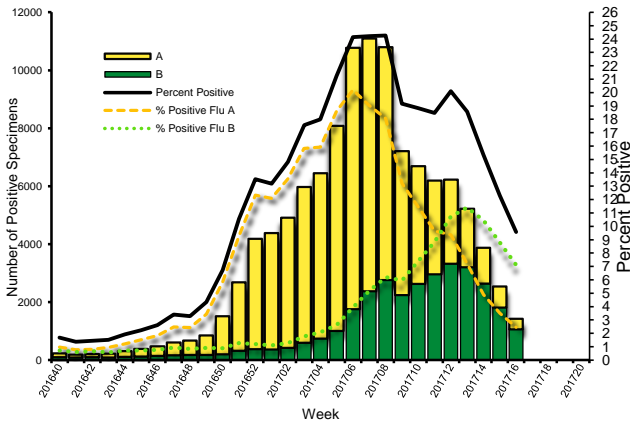
Lynnette Brammer, MPH  
Epidemiologist, Influenza Division

National Adult and Influenza Immunization Summit

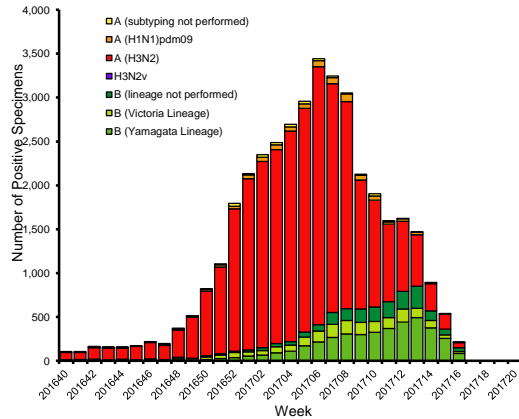
May 11, 2017

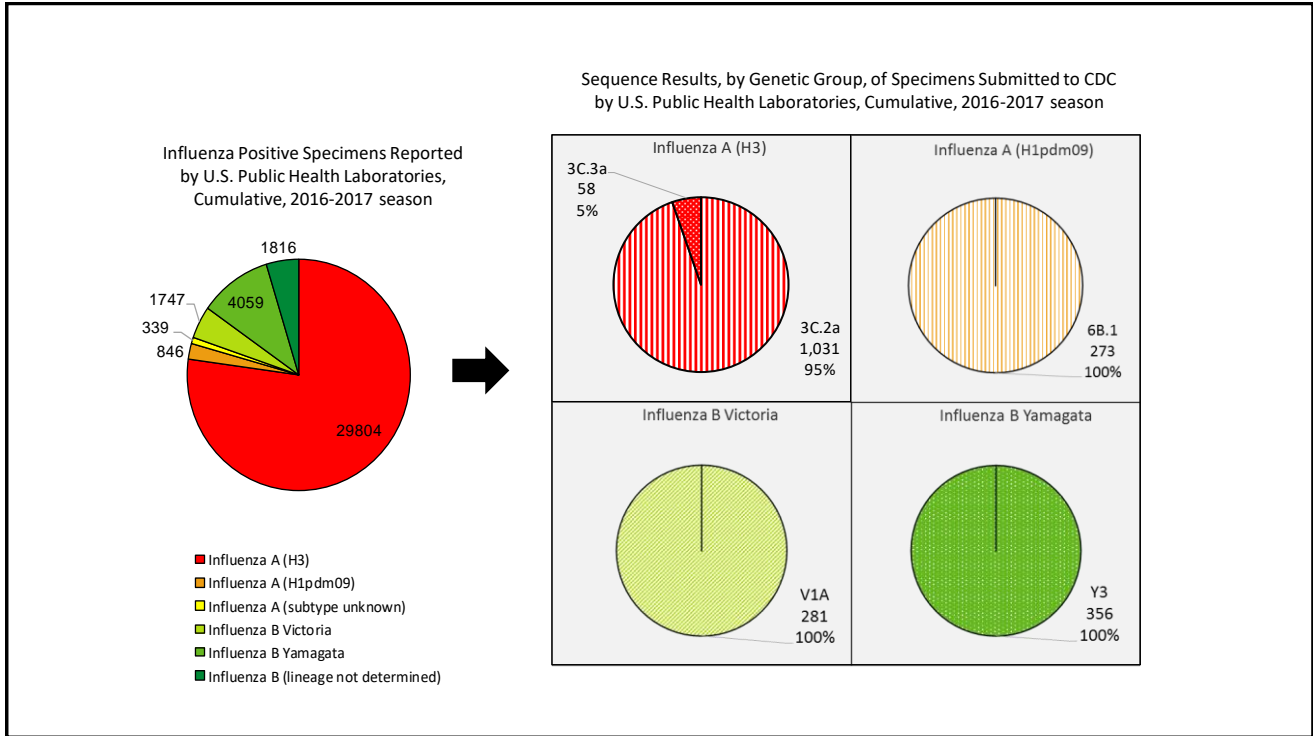
## Influenza Positive Tests Reported to CDC 2016-2017 Season

Clinical Laboratories



Public Health Laboratories

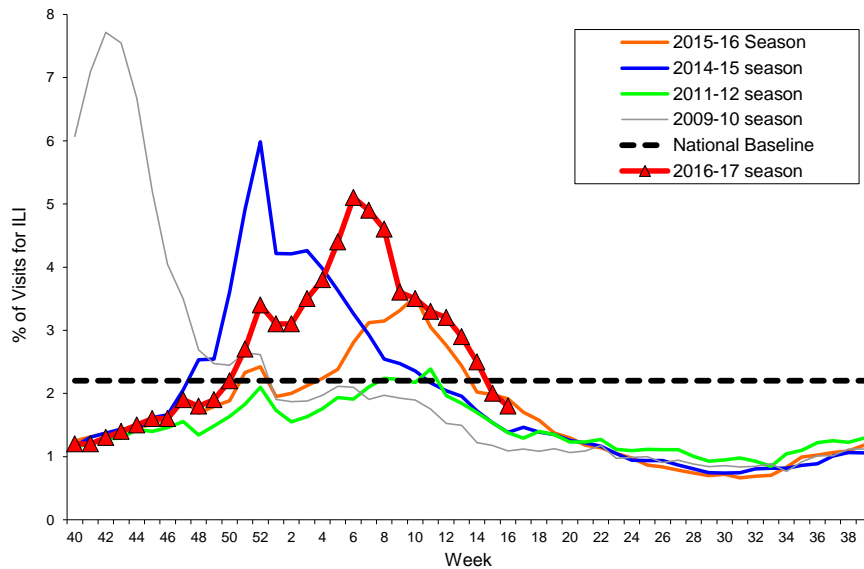




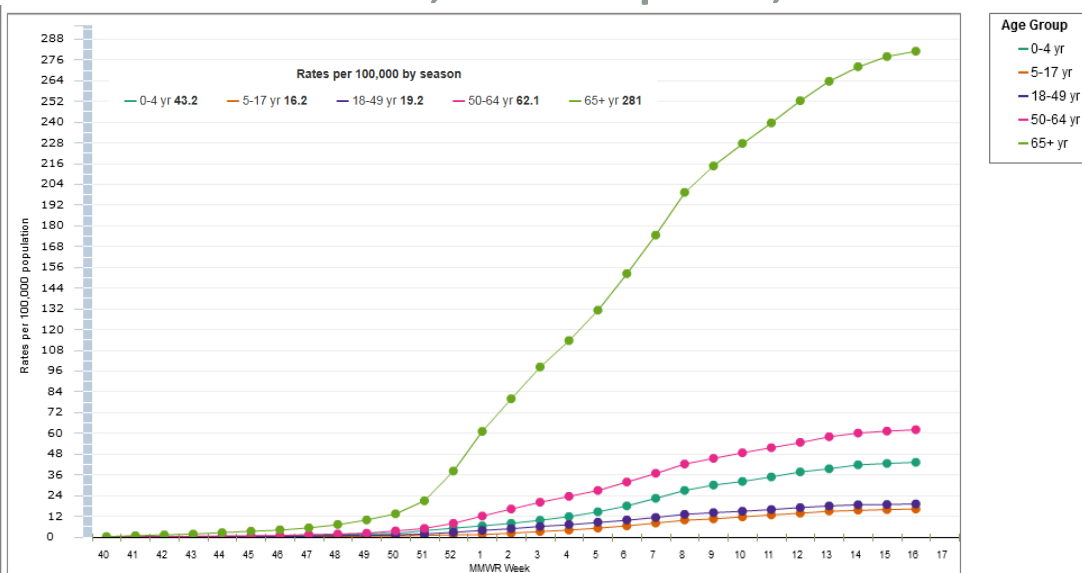
## Antigenic Characterization of U.S. Influenza Viruses Collected October 1, 2016 to Present

- A (H1N1)pdm09: 251 of 253 (99.2%) of viruses antigenically characterized using ferret post-infection antisera are A/California/07/2009-like, the H1N1 component of the 2016-17 vaccine
- A(H3N2): 625 of 647(96.6%) were antigenically characterized as A/Hong Kong/4801/2014-like, the H3N2 component of the 2016-17 vaccine
- B/Victoria lineage: 240 of 267 (89.9%) were antigenically characterized as B/Brisbane/60/2008-like, which is included in both quadrivalent and trivalent influenza vaccines for the 2016-17 season
- B/Yamagata lineage: All 312 were antigenically characterized as B/Phuket/3073/2013-like, an influenza B virus included in the quadrivalent influenza vaccines for the 2016-17 season

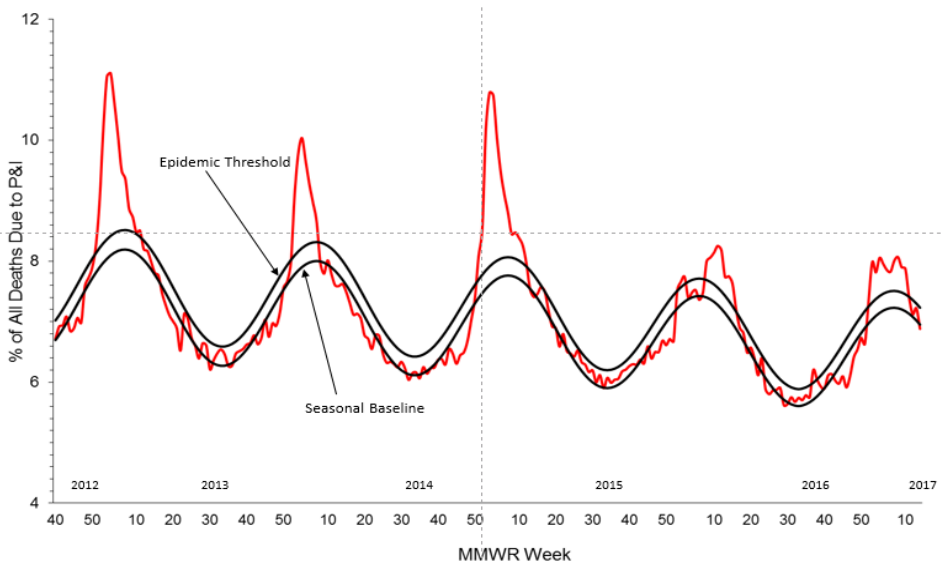
## Percentage of Visits for Influenza-like Illness (ILI), 2016-2017 and Selected Previous Seasons



## Laboratory-Confirmed Influenza Hospitalizations Cumulative October 1, 2016 – April 15, 2017



## Pneumonia and Influenza Mortality NCHS Mortality Surveillance System, September 30, 2012 – April 8, 2017



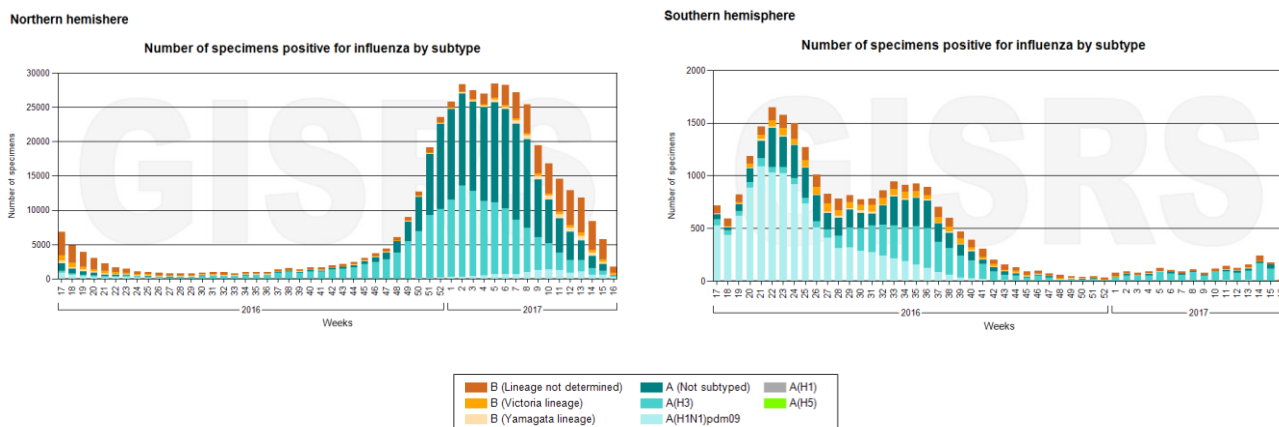
## Novel Influenza A Virus Infection: United States, 2016-17 Season

- Human infection with an influenza A virus that is different from currently circulating human seasonal viruses
- Influenza A (H1N2)v – Iowa
  - Not hospitalized, fully recovered
  - Close contact with swine in week prior to illness onset
  - No human-to-human transmission

## Novel Influenza A Virus Infection: United States, 2016-17 Season

- Influenza A (H7N2) – New York City
  - Not hospitalized, fully recovered
  - Close, prolonged, unprotected exposure to sick cats infected with H7N2
  - No human-to-human transmission
  - First H7N2 infection in humans in the U.S. since 2003
  - First known human infection with an influenza virus likely acquired through exposure to a cat

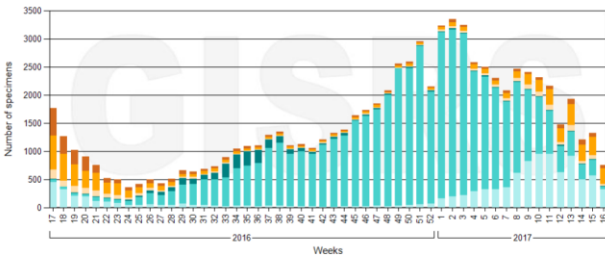
## Influenza Positives Reported to WHO FluNet, 2016-17



# Influenza Positives Reported to WHO FluNet, 2016-17

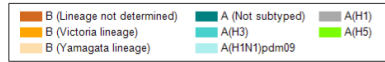
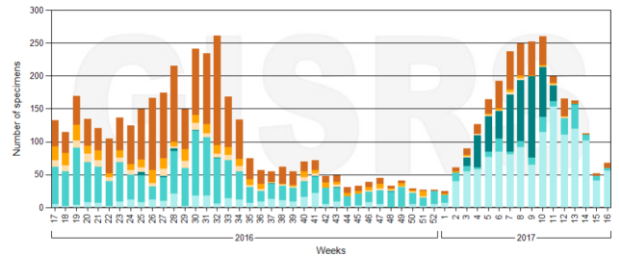
Western Pacific Region of WHO

Number of specimens positive for influenza by subtype

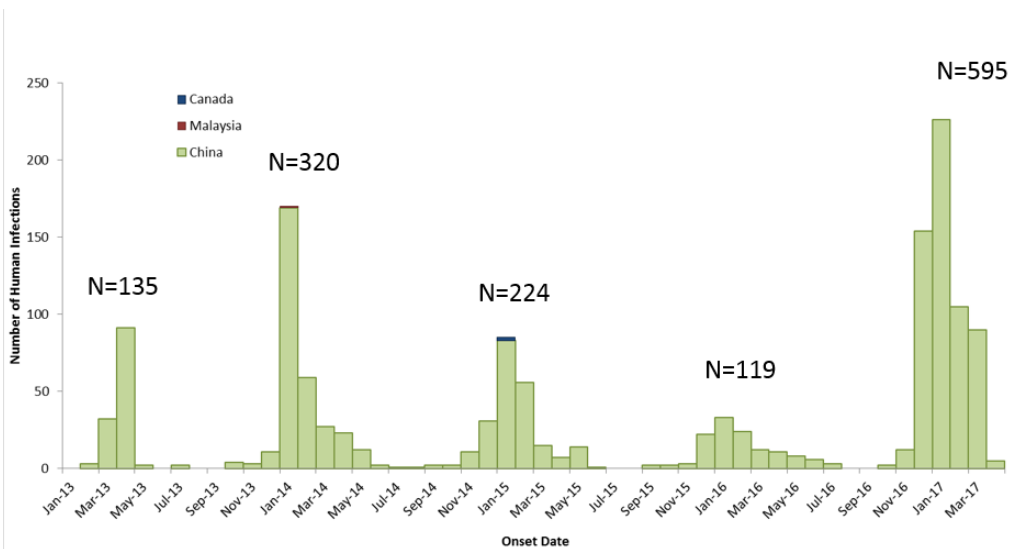


South-East Asia Region of WHO

Number of specimens positive for influenza by subtype



# Human H7N9 Infections in China



## H7N9 in poultry in the United States 2017

- HPAI H7N9 detected at 2 commercial poultry farms in Tennessee
- LPAI H7N9 detected in commercial or backyard poultry in Alabama (6), Georgia (1), Kentucky (2), and Tennessee (3)
- These are North American lineage H7N9
- Different than the Asia H7N9 viruses

## Summary

- The 2016-17 influenza season in the United States was moderately severe
- Influenza A(H3N2) viruses predominated but influenza B viruses were more common in the Spring
  - International picture similar to the United States
- The majority of viruses were similar to the 2016-17 Northern Hemisphere vaccine components
- Human infections with avian influenza viruses, most notably H7N9, continue to occur
  - No significant changes in the epidemiology of human cases

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.

