



# **Influenza Updates and WG Considerations**

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# Acknowledgements

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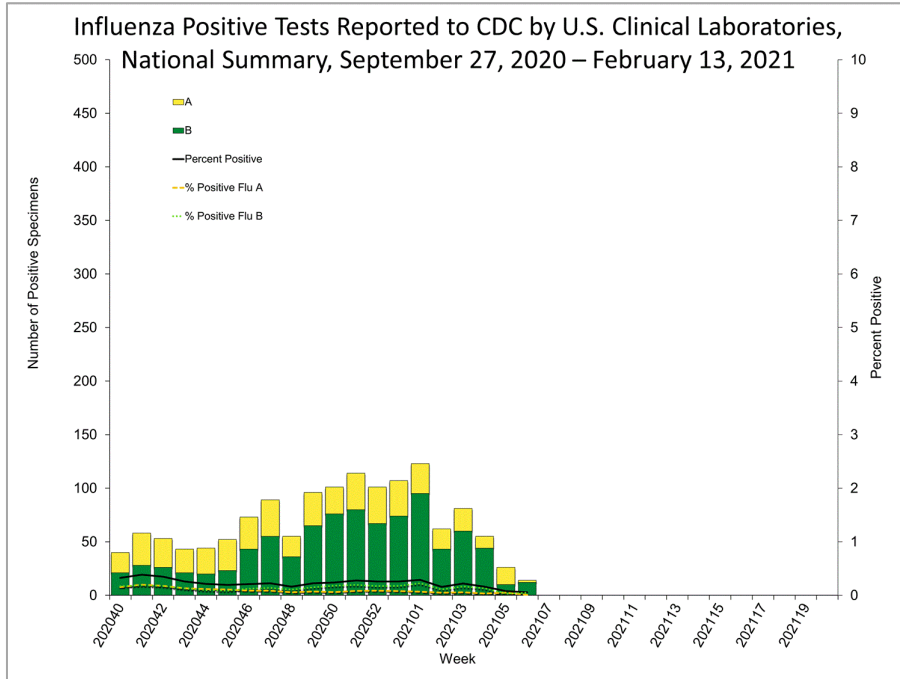
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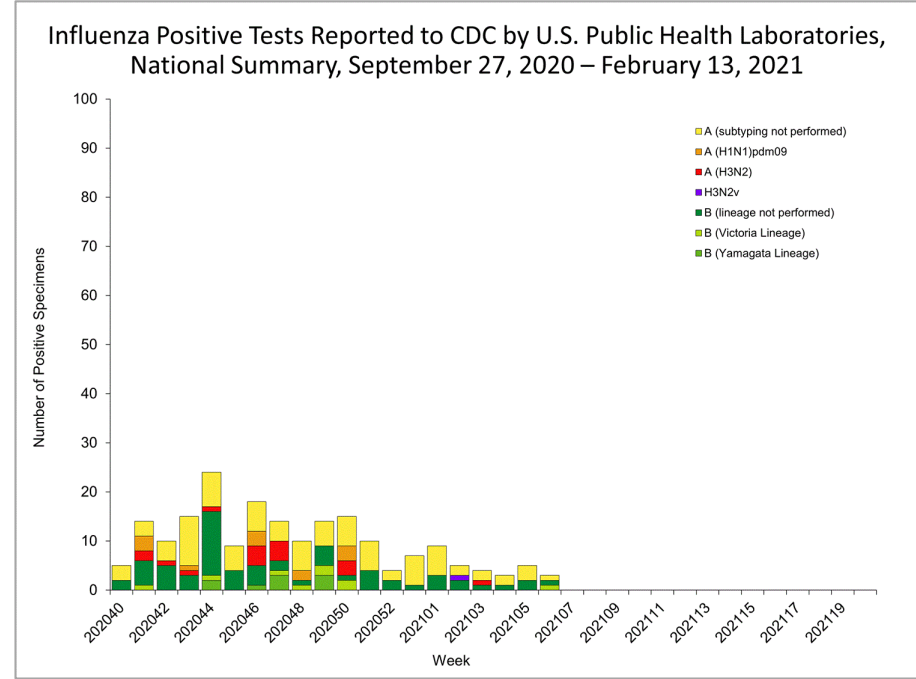
# Influenza Surveillance

# FluView, Week 6 (Ending February 13) 2021: Virologic Surveillance

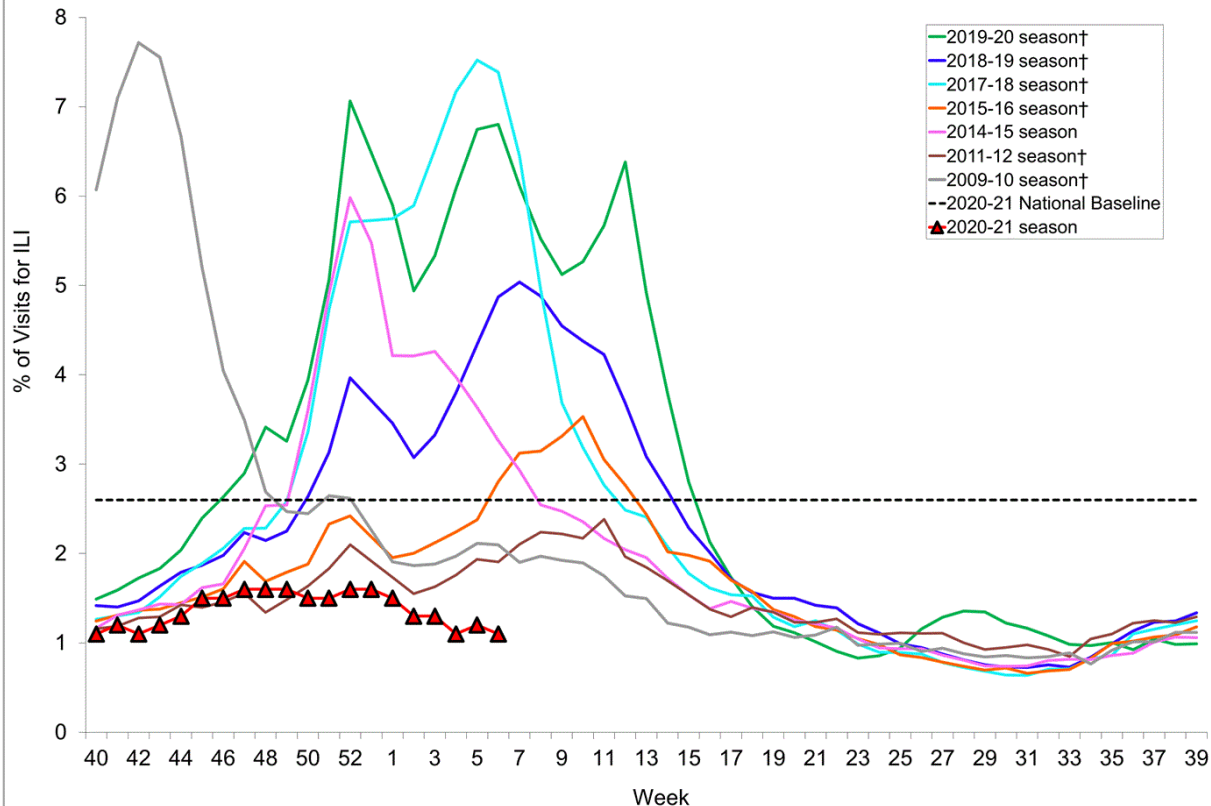
Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories,  
National Summary, September 27, 2020 – February 13, 2021



Influenza Positive Tests Reported to CDC by U.S. Public Health Laboratories,  
National Summary, September 27, 2020 – February 13, 2021



Percentage of Visits for Influenza-like Illness (ILI) Reported by the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), Weekly National Summary, 2020-2021 and Selected Previous Seasons



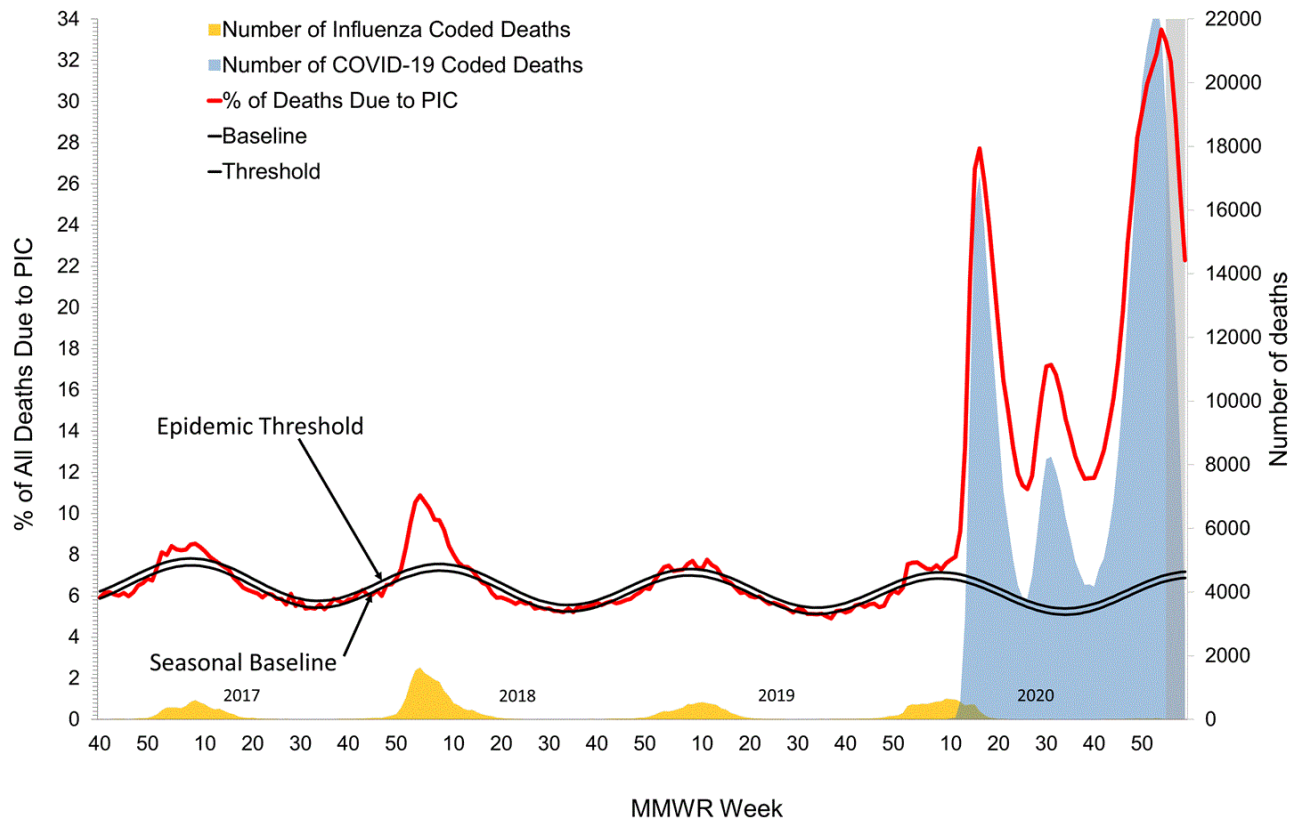
†These seasons did not have a week 53, so the week 53 value is an average of week 52 and week 1.

**FluView, Week 6  
(Ending February 13),  
2021**

**Influenza-Like Illness  
Surveillance (ILINet)**

# Pneumonia, Influenza, and COVID-19 Mortality from the National Center for Health Statistics Mortality Surveillance System

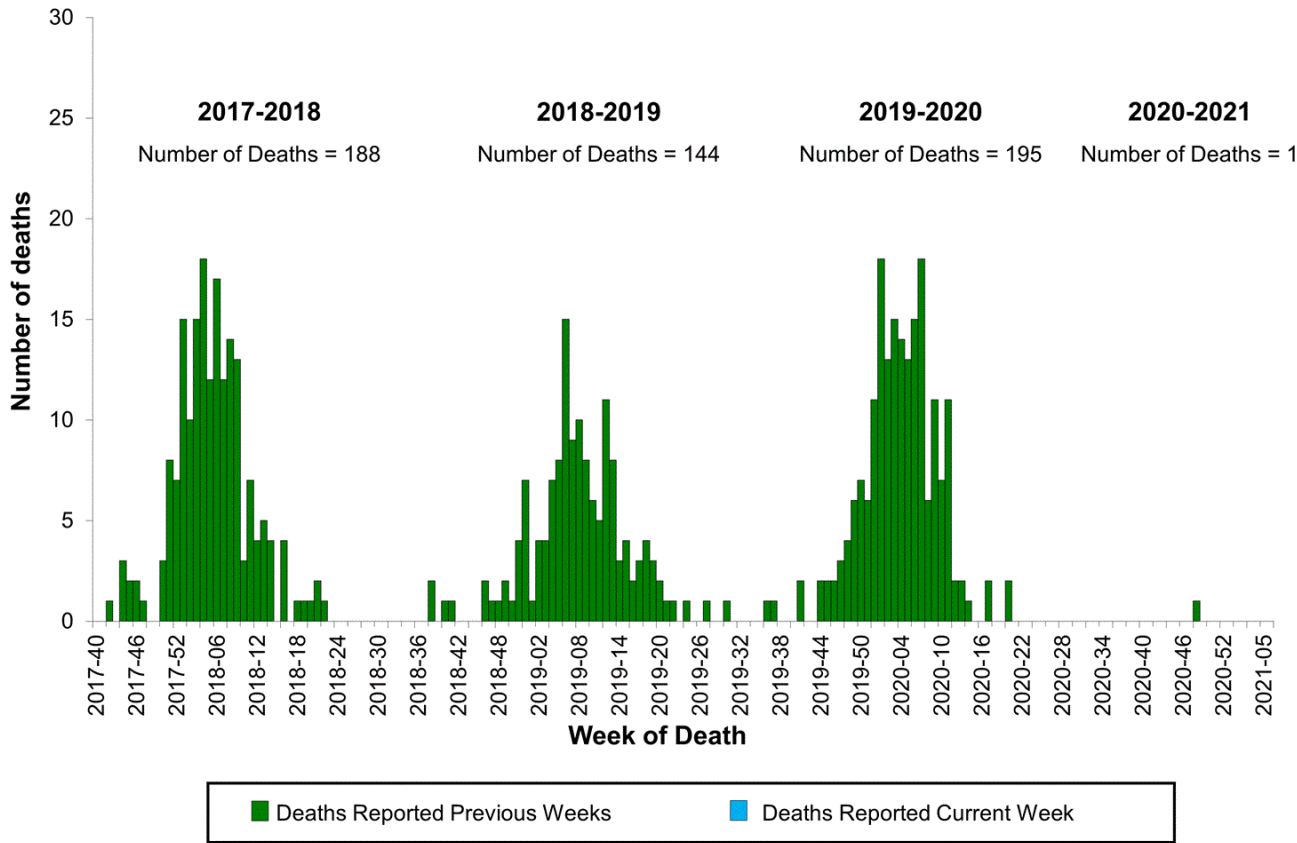
Data through the week ending February 13, 2021, as of February 18, 2021



**FluView, Week 6  
(ending February 13),  
2021**

**Pneumonia, Influenza,  
and COVID-19  
Mortality (NCHS)**

# Influenza-Associated Pediatric Deaths by Week of Death, 2017-2018 season to 2020-2021 season



**FluView, Week 6  
(ending February 13),  
2021**

**Influenza-Associated  
Pediatric Mortality**

# Influenza Activity Summary

- U.S. Influenza Activity for the 2020-21 season is low
  - Percent of influenza specimens testing positive reported by public health laboratories is unusually low
  - Influenza-like illness (ILI) activity below national and region-specific baselines
  - Cumulative hospitalization rate 0.6/100,000 (lowest since 2005; lower than the 2011-12 season)
- Low activity likely multifactorial, related to COVID-19 mitigation strategies (masks, social distancing, school closures, less/restricted travel)
- Not possible to predict extent and timing of influenza activity for 2021-22



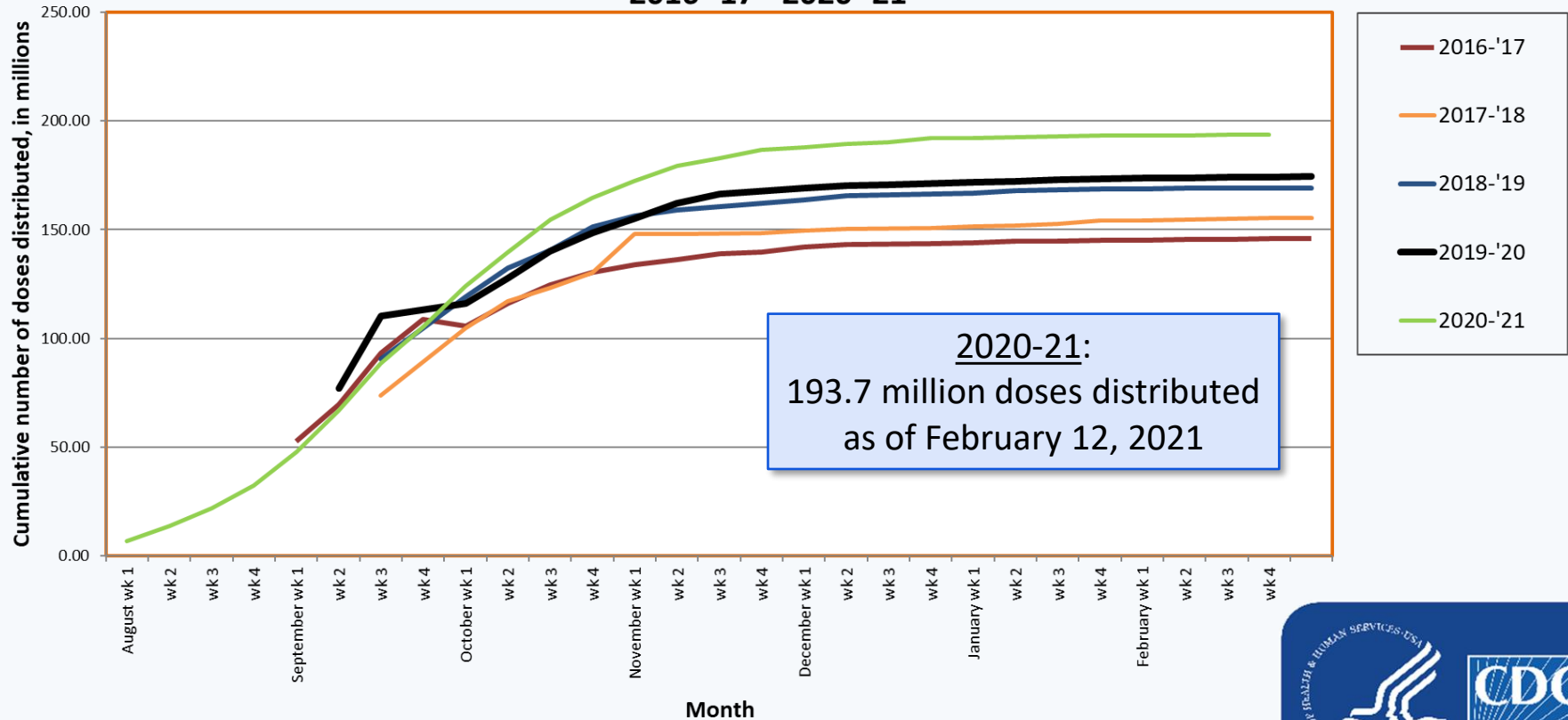
# Influenza Vaccine Effectiveness

# Influenza Vaccine Effectiveness for 2020-21

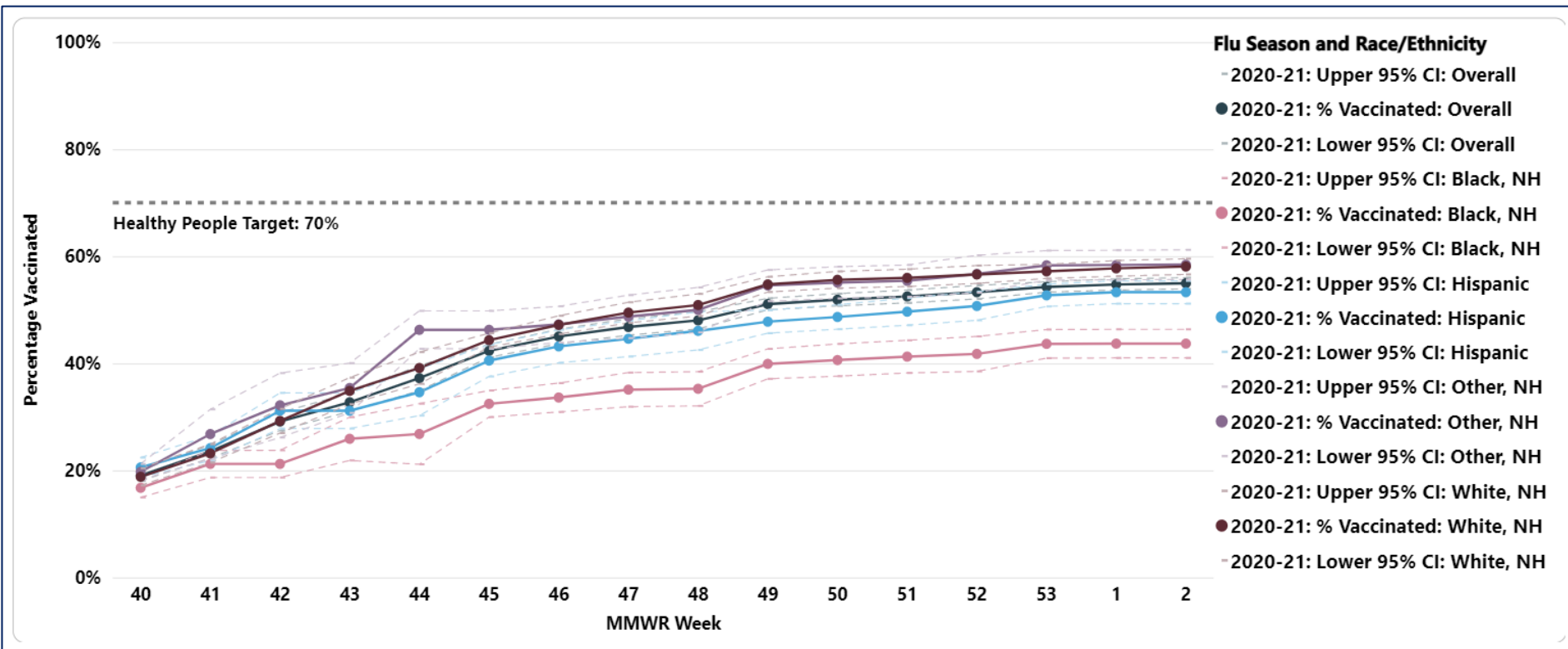
- Due to low influenza activity, no interim VE estimates available
- CDC networks continue to collect data and monitor activity
- Estimates later in the season dependent upon sufficient influenza activity within the CDC vaccine effectiveness networks

# Influenza Vaccine Distribution and Coverage

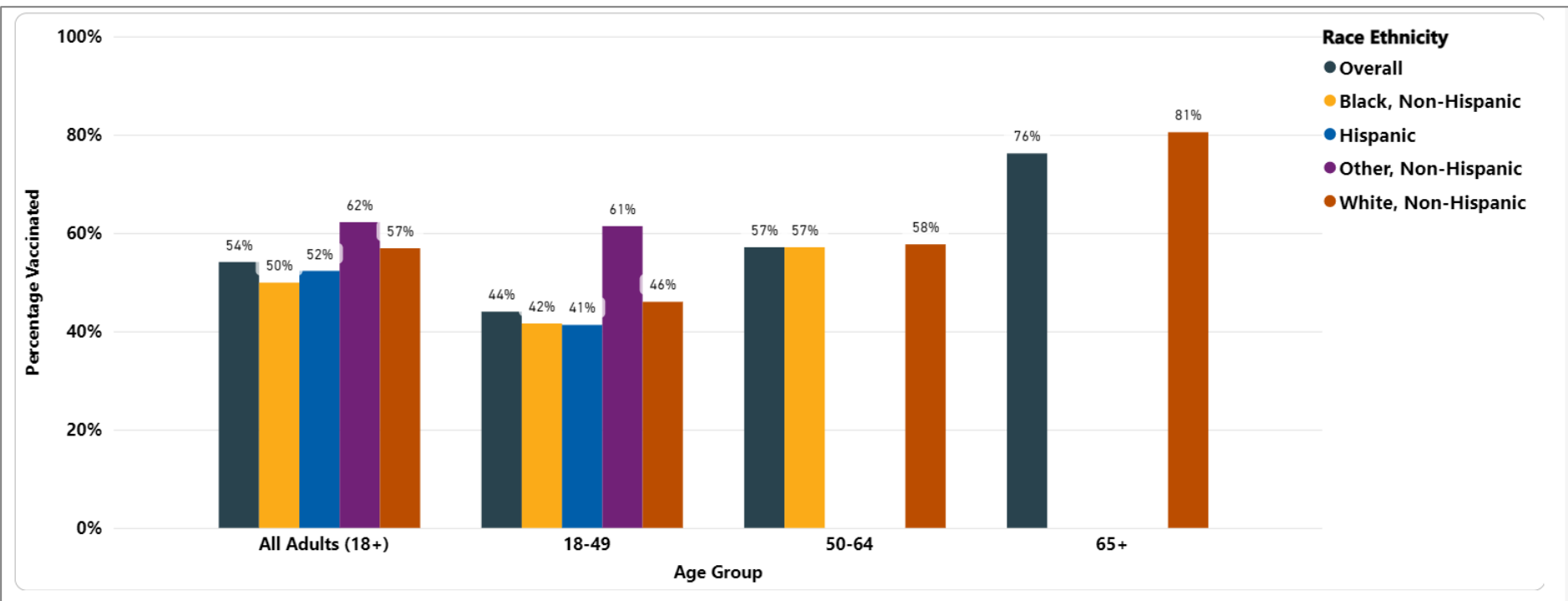
# CDC's FluFinder Distribution Tracking Program: Cumulative Doses of Influenza Vaccines Distributed by Month, by Season: 2016-'17 - 2020-'21



# Weekly Cumulative Influenza Vaccination Coverage, Children Aged 6 Months through 17 Years United States, 2020-21 Season, as of January 16, 2021 (Source: NIS-Flu)

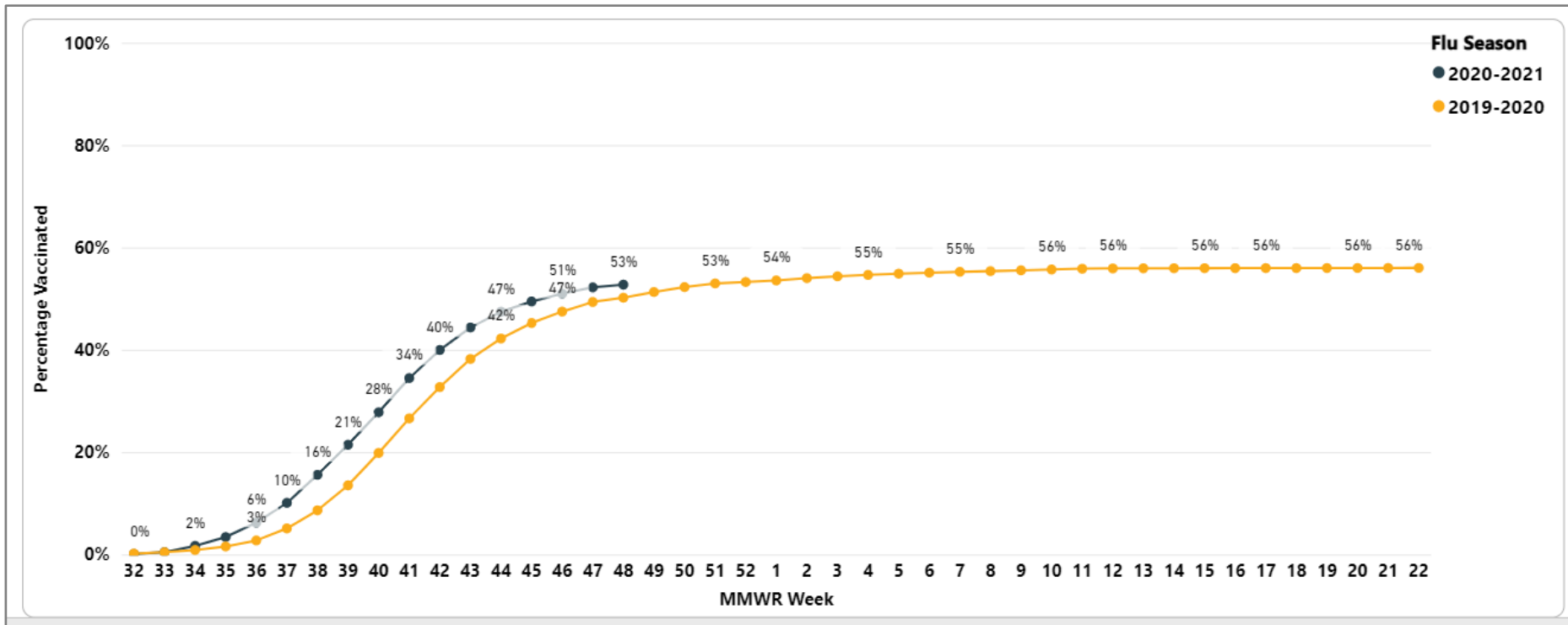


## Cumulative Influenza Vaccination Coverage, Adults ≥18 Years, United States, 2020-21 Seasons, Ipsos Knowledge Panel Omnibus Survey, Collected January 8-10, 2021



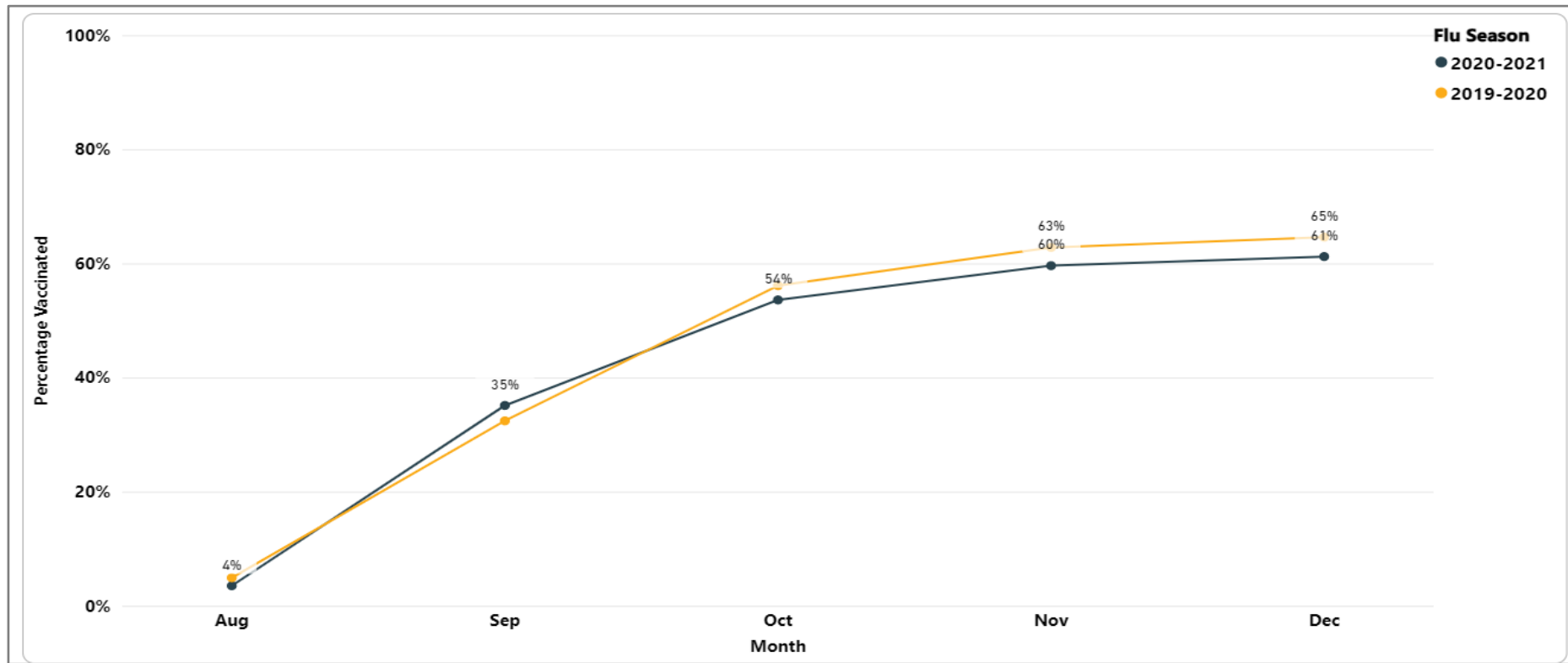
*Missing bars represent data suppressed due to sample size <30*

## Weekly Cumulative Influenza Vaccination Coverage, Medicare Fee-For-Service Beneficiaries Aged ≥ 65 Years, United States, 2019-20 and 2020-21 Seasons (estimates based on data released by CMS on January 9, 2021)



# Monthly Cumulative Influenza Vaccination Coverage, Pregnant Persons 18 through 49 Years United States, 2019-20 and 2020-21 Seasons, as of December 31, 2020

(Source: Vaccine Safety Datalink)





# 2020-21 ACIP Influenza Statement

- Discussion of timing of vaccination, in particular as relates to current guidance recommending interval of 14 days between COVID-19 vaccines and other vaccines
- No new language proposed for this meeting
- WG will continue to monitor COVID-19 vaccine clinical guidance

# **Update: Influenza Vaccines for Older Adults**

# Systematic Review—Influenza Vaccines for Older Adults

**Review Team:**

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**Librarian:**

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**Methods resource:**

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# Systematic Review/Meta-analysis: Context and Question

- Older adults ( $\geq 65$  years) are at increased risk of severe illness hospitalization, and death due to influenza
- This population responds less well to influenza vaccines
- There is evidence of relative benefit of some vaccines for this age group
- Question: Whether the relative benefits and harms of high dose inactivated (HD-IIV), adjuvanted inactivated (aIIV), and recombinant (RIV) influenza vaccines, as compared with one another and with other influenza vaccines, favor the use of any one or more of these vaccines over other age-appropriate influenza vaccines for persons  $\geq 65$  years of age.

# Current Systematic Review/Meta-analysis—PICO (1)

- Population:** Adults aged  $\geq 65$  years
- Interventions:** Trivalent quadrivalent HD-IIV, aIIV, or RIV  
(U.S.-licensed or similar)
- Comparators:** Other trivalent or quadrivalent influenza vaccines  
(U.S.-licensed or similar)  
Non-influenza control vaccine  
Placebo  
No vaccine

# Current Systematic Review/Meta-analysis—PICO (2)

## Primary Outcomes:

### Efficacy/Effectiveness

- All influenza -- A and B
- Influenza-associated outpatient/emergency visits
- Influenza-associated hospitalizations
- Influenza-associated deaths

### Safety

- Any systemic adverse event (grade  $\geq 3$ )
- Any injection site adverse event (grade  $\geq 3$ )
- Any serious adverse event (SAE)
- Guillain-Barre syndrome

# Screening and Full-Text Review

- Title/abstract screen: 8519 reports screened
- Full text review: 3189 reports assessed
- Marked for inclusion 366
  - 40 reports of randomized studies
  - 326 reports of observational studies
- Many observational studies do not report vaccine-specific results; tentatively included because use of vaccine of interest possible (author queries needed)
- Approximately 66 publications referred for full-text review not currently available due to library closures (requests to be re-submitted later)

# Next Steps

- Currently extracting data, first from randomized studies
- Updated literature search covering December 2019—early February 2021
- Author queries
- Risk of bias assessments and GRADE
- Meta-analyses for outcomes where sufficient comparable data can be pooled
- Discussion anticipated at June and October 2021 ACIP meetings



*Thank you!*

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# Inclusion/Exclusion Criteria

- **Peer-reviewed literature; no language restriction**
- **Publication dates from 1990 forward**
- **Main inclusion criteria:**
  - Randomized studies (individually- and cluster-randomized designs)
  - Retrospective case-control studies (traditional and test-negative designs)
  - Retrospective and prospective cohort studies.
- **Main exclusion criteria:**
  - Data involving influenza vaccines not licensed in the United States for persons  $\geq 65$  years of age
  - Studies/data for which the entire population falls outside age range of interest
  - Studies/data assessing monovalent or bivalent vaccines
  - Case series, case reports, registry reports without comparator or denominator information
  - Animal studies
  - Interim reports superseded by final reports
  - Abstracts and clinical trial registry synopses not included, but will be used to locate other relevant literature
  - Review articles analyses not included, but bibliographies checked for relevant references