



Influenza Updates and WG Considerations

Lisa Grohskopf, MD, MPH

Influenza Division, NCIRD, CDC

Advisory Committee on Immunization Practices

February 25, 2021

Acknowledgements

Influenza Division

Elif Alyanak
Noreen Alabi
Lenee Blanton
Lynnette Brammer
Alicia Budd
Jessie Chung
Vivien Dugan
Scott Epperson
Jill Ferdinands
Brendan Flannery
Alicia Fry
Krista Kniss
Manish Patel
Melissa Rolfes
Jerry Tokars
Tim Uyeki

Immunization Safety Office

Karen Broder
Frank Destefano
Anamika Dua
Penina Haber
Tom Shimabukuro
Naomi Tepper
Patricia Wodi

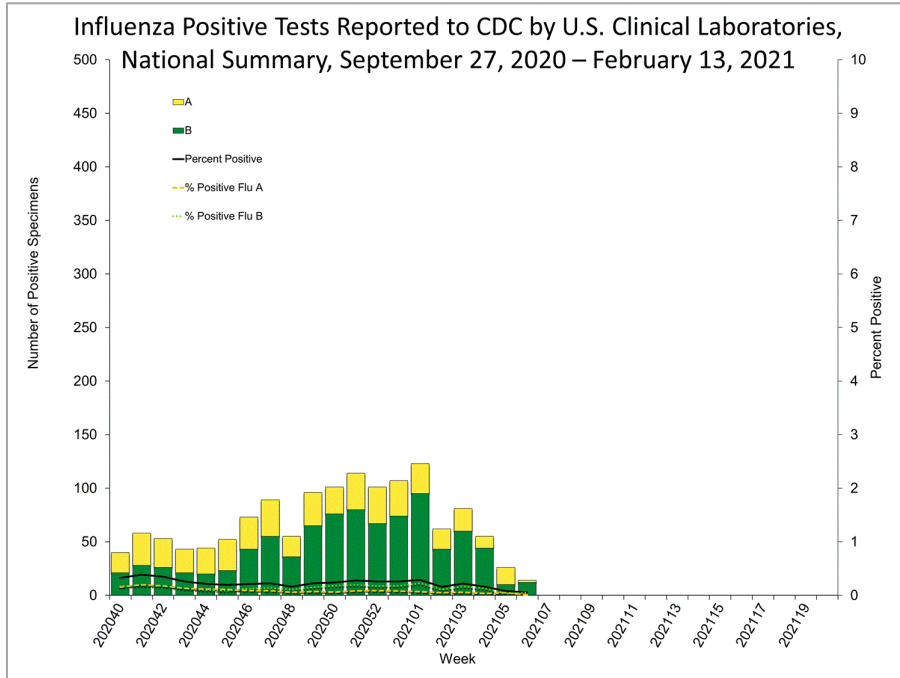
Immunization Services Division

Shaho Alae
Sam Graitcer
Andrew Kroger
Amy Parker Fiebelkorn
Suchita Patel
Jeanne Santoli
Jim Singleton

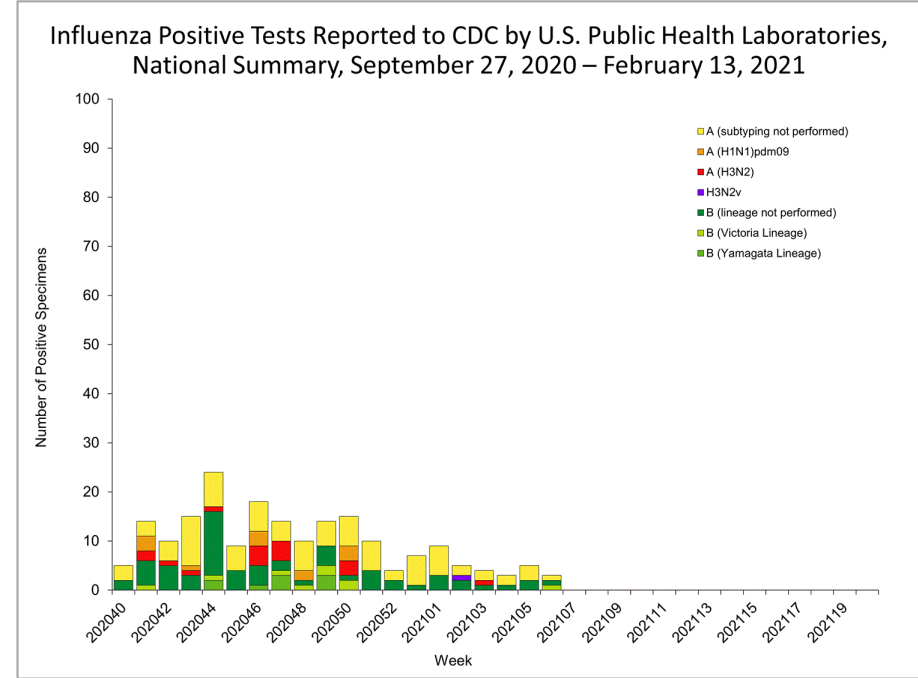
Influenza Surveillance

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

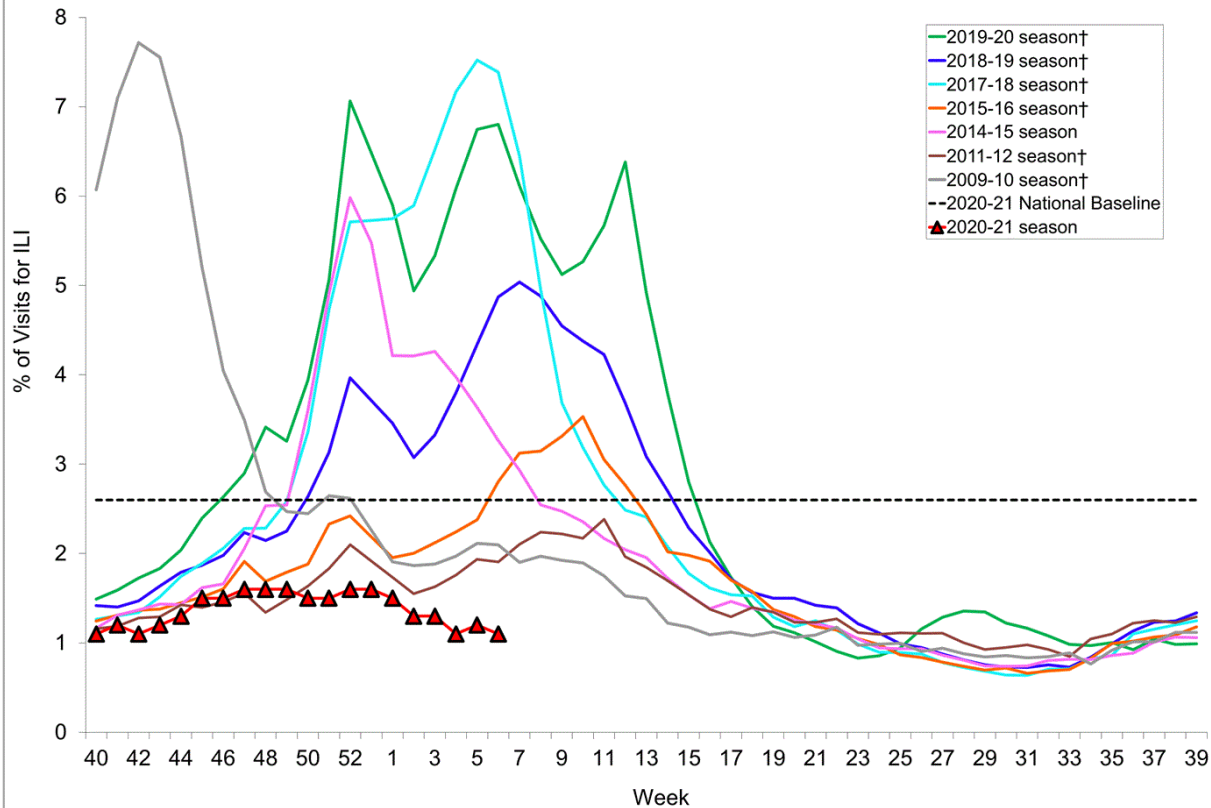
Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories,
National Summary, September 27, 2020 – February 13, 2021



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



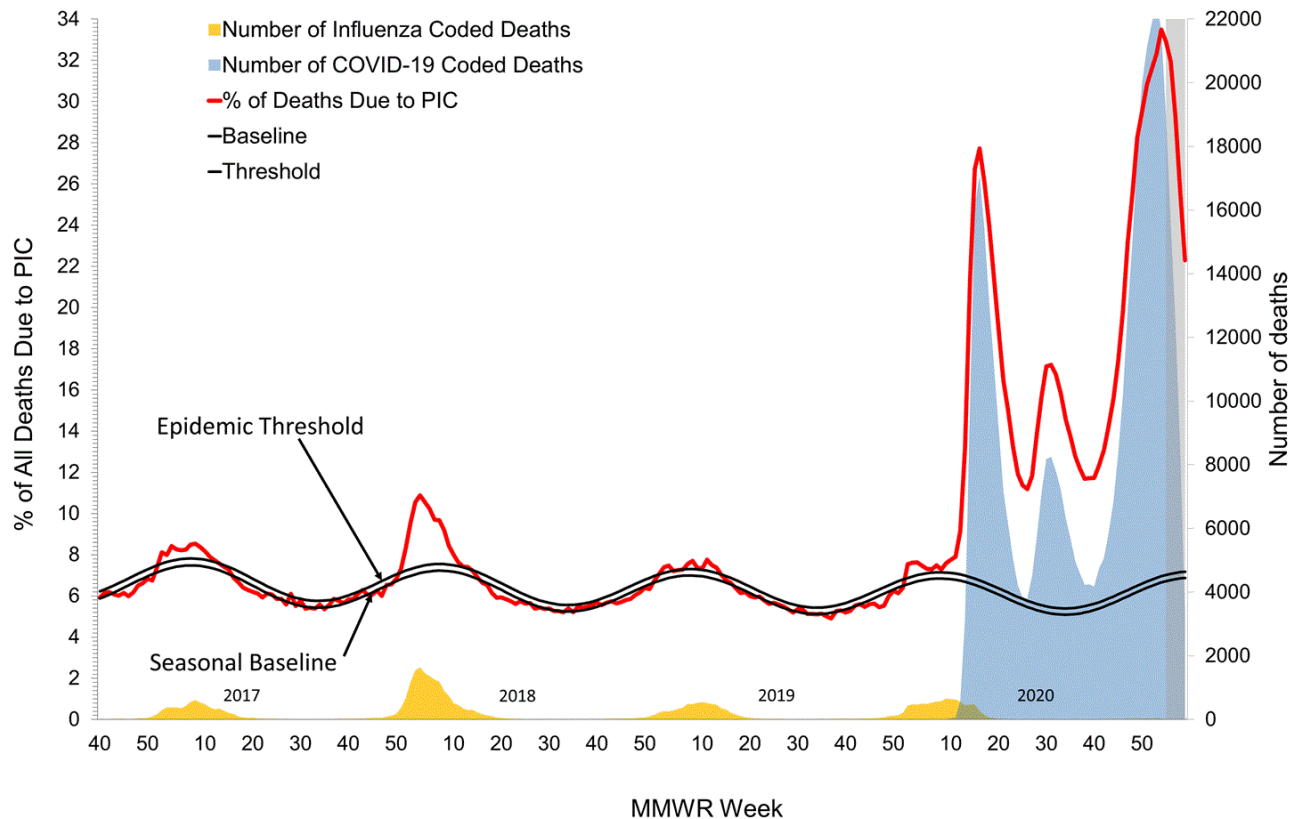
†These seasons did not have a week 53, so the week 53 value is an average of week 52 and week 1.

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

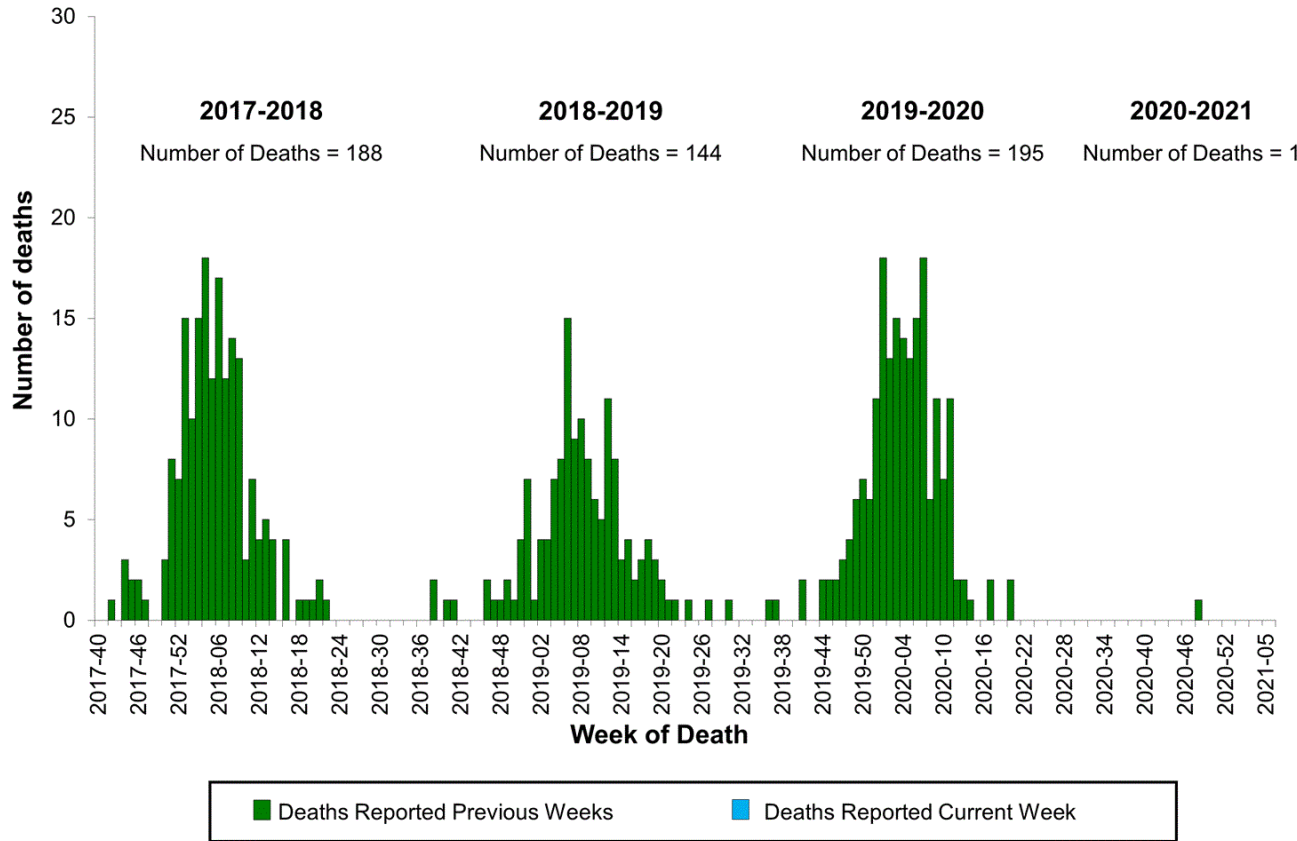
Data through the week ending February 13, 2021, as of February 18, 2021



**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

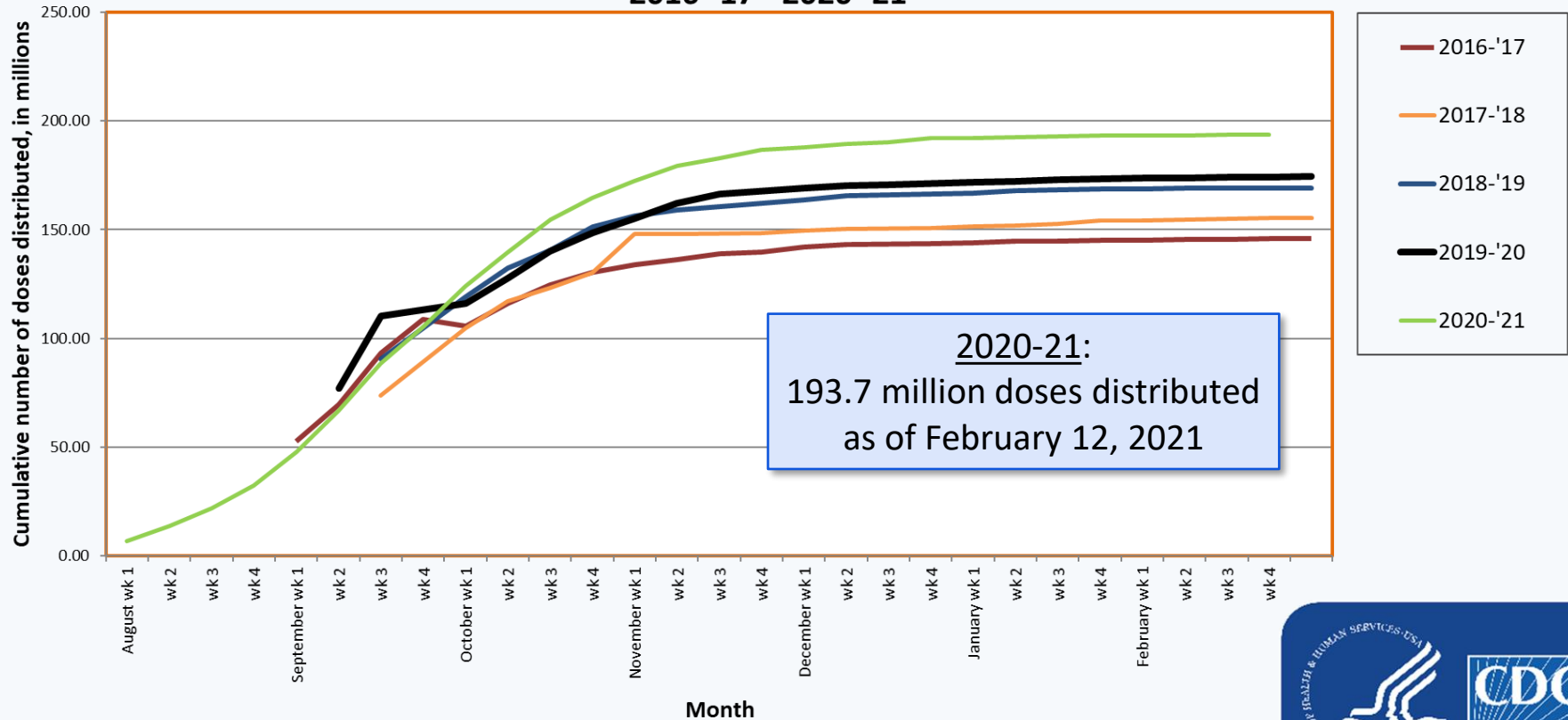
Influenza Vaccine Effectiveness

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

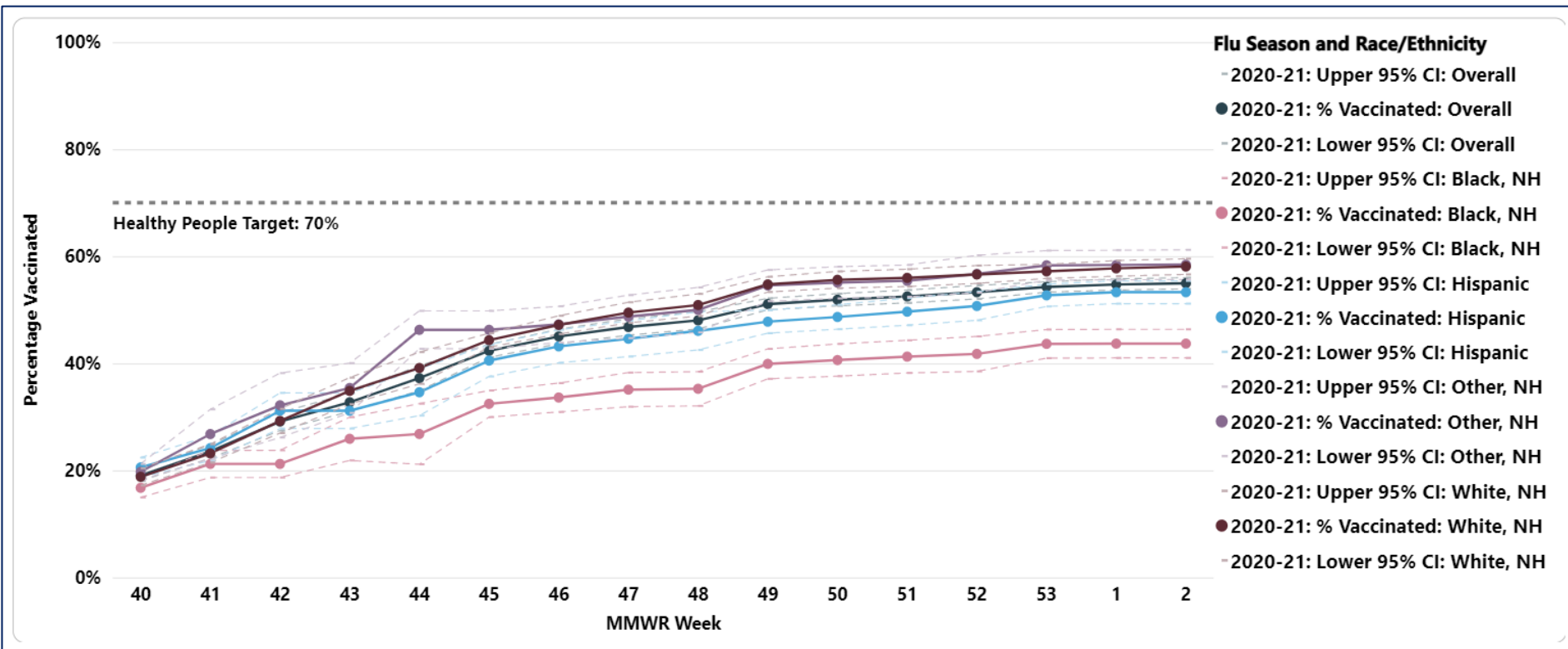
CDC's FluFinder Distribution Tracking Program: Cumulative Doses of Influenza Vaccines Distributed by Month, by Season: 2016-'17 - 2020-'21



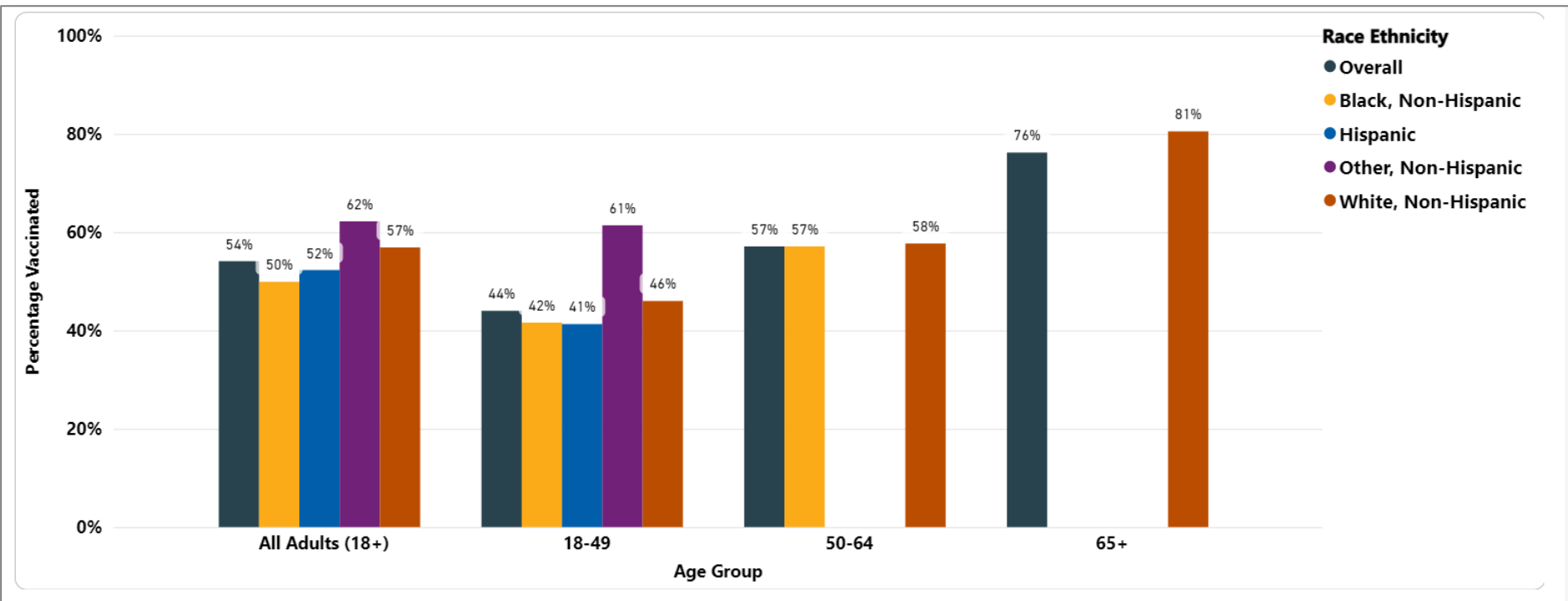
2020-21:
193.7 million doses distributed
as of February 12, 2021



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)

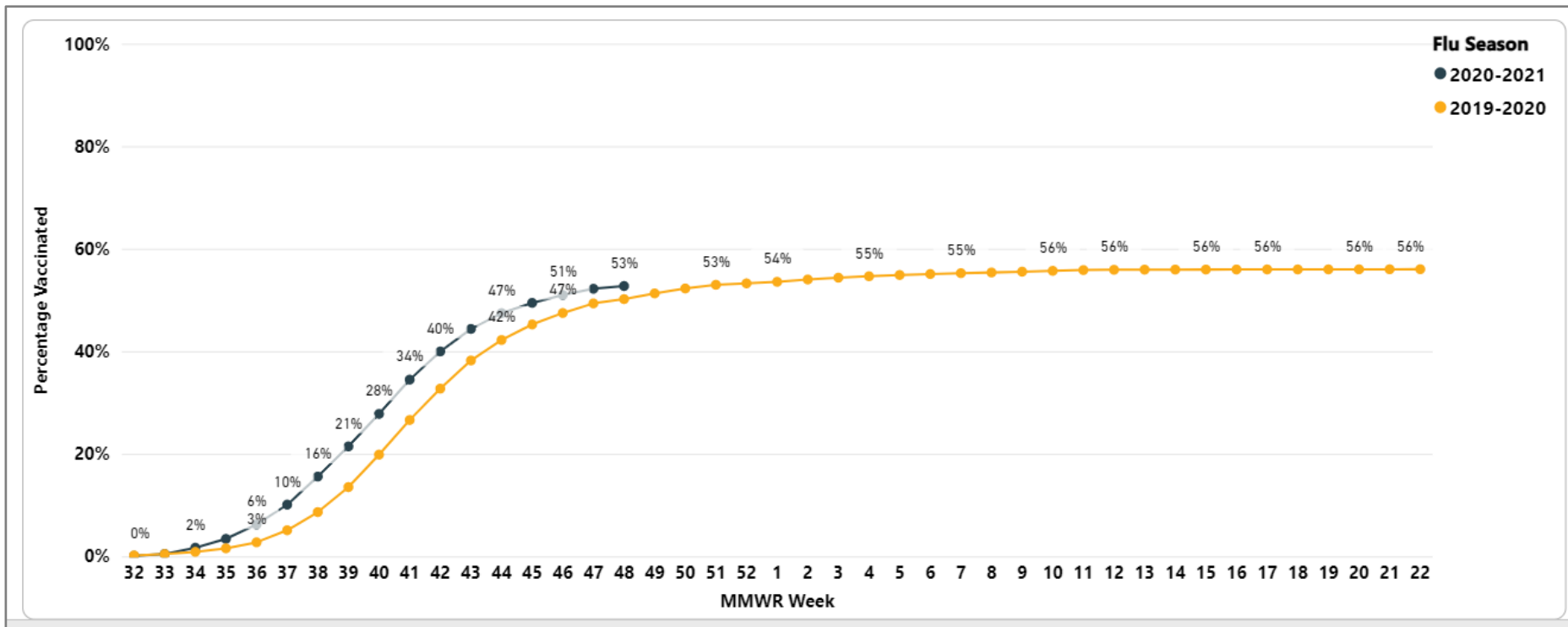


Cumulative Influenza Vaccination Coverage, Adults ≥18 Years, United States, 2020-21 Seasons, Ipsos Knowledge Panel Omnibus Survey, Collected January 8-10, 2021



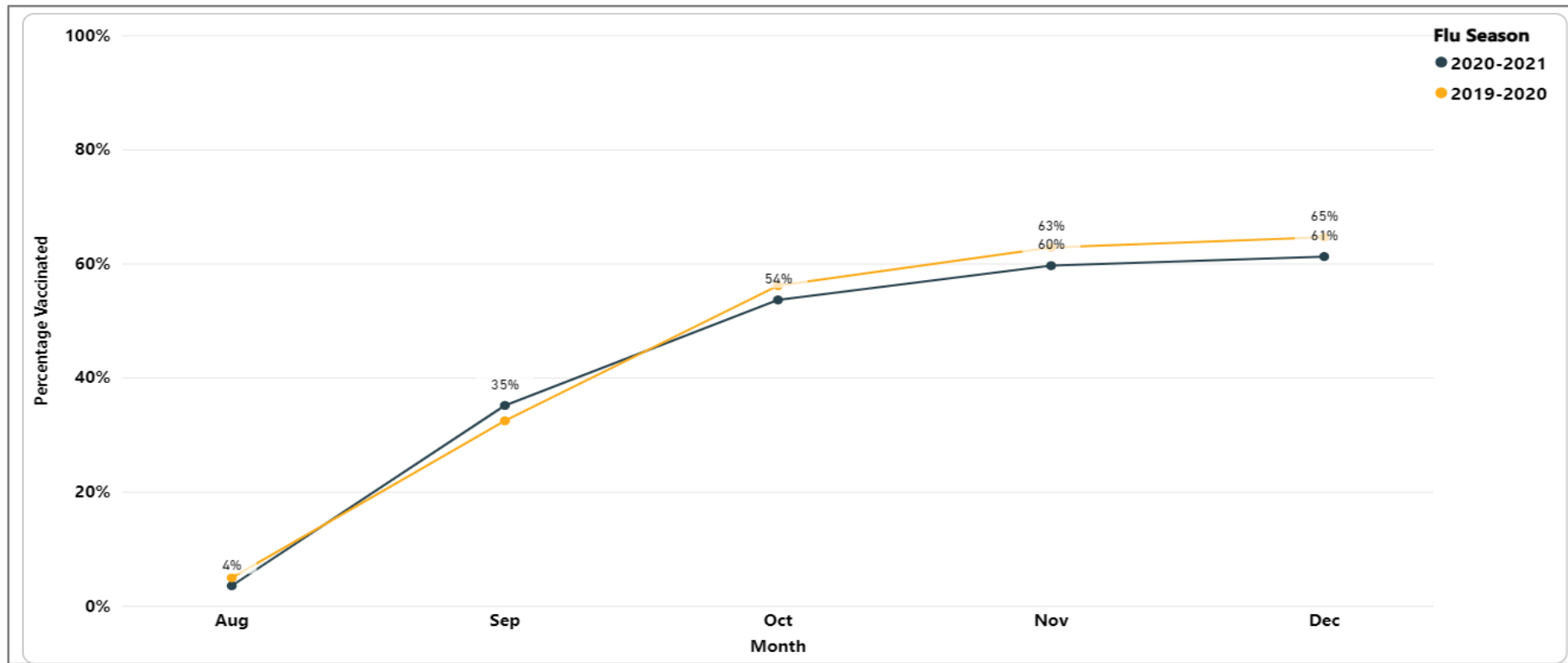
Missing bars represent data suppressed due to sample size <30

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:

Elif Alyanak

Lenee Blanton

Jessie Chung

Jill Ferdinands

Lisa Grohskopf

Librarian:

Joanna Taliano

Methods resource:

Rebecca Morgan

Systematic Review/Meta-analysis: Context and Question

- Older adults (≥ 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 ≥ 65 years of age.

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

- Population:** Adults aged ≥ 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 ≥ 3)
- Any injection site adverse event (grade ≥ 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!

A decorative horizontal bar at the bottom of the slide, composed of several colored rectangular segments: a long grey segment on the left, followed by purple, olive green, maroon, yellow, and blue segments on the right.

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 ≥ 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