



RSV Vaccination Implementation Update

Carla Black, PhD

Surveillance and Epidemiology Branch

Immunization Services Division, NCIRD, CDC

Advisory Committee on Immunization Practices

February 29, 2024

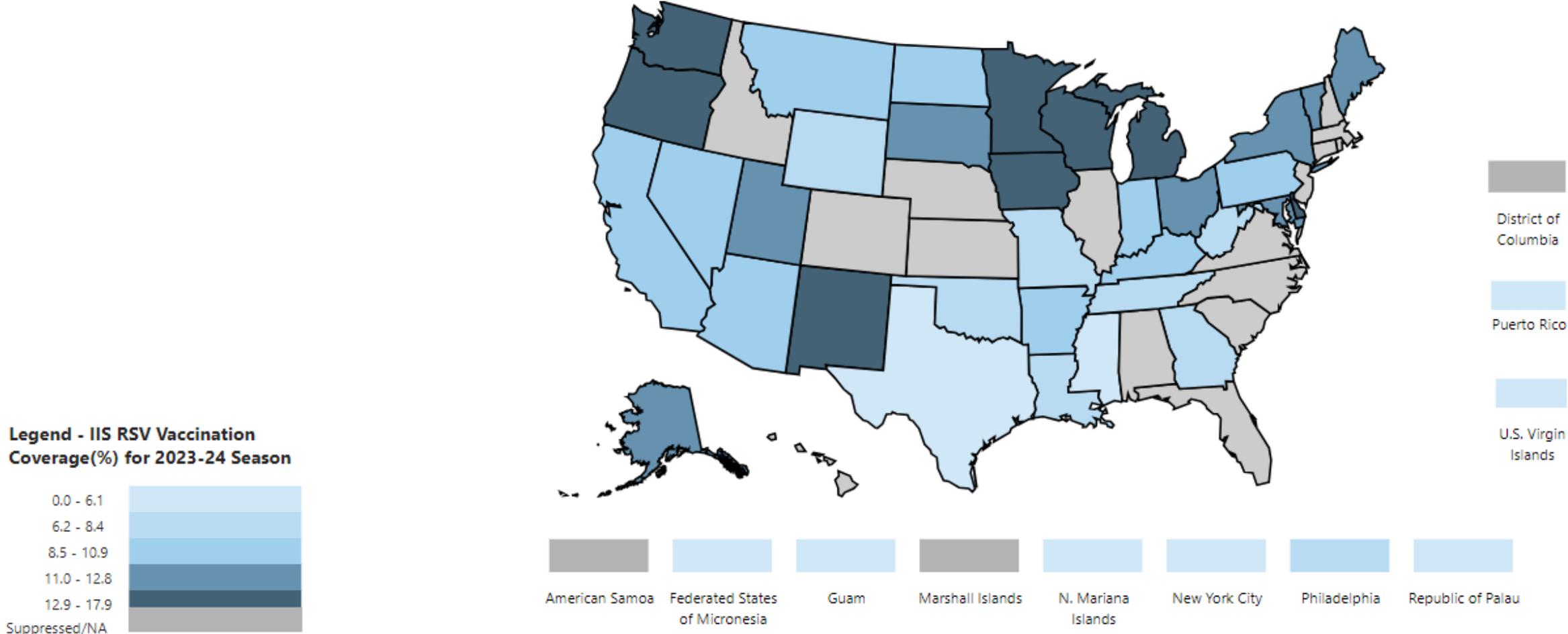
Presentation Outline

- Data reported by jurisdiction Immunization Information Systems
- Vaccination coverage estimates by demographic characteristics and high risk conditions, National Immunization Survey
- Doses administered in pharmacies and physician offices, by product type, IQVIA
- Vaccination attitudes and concerns, CDC Omnibus Surveys
- RSV vaccine implementation considerations

Data Reported by Jurisdiction Immunization Information Systems (IIS)

Percent of Adults 60 Years and Older Who Have Received ≥ 1 Dose RSV Vaccine Reported by Jurisdiction Immunization Information Systems, Through December 2023

- Among the currently reporting 37 state and city IIS jurisdictions, RSV vaccination coverage among adults 60 years and older ranged from 4.6% to 17.9%



National Immunization Survey (NIS) Data Update

National Immunization Survey-Adult COVID Module (NIS-ACM) Methods

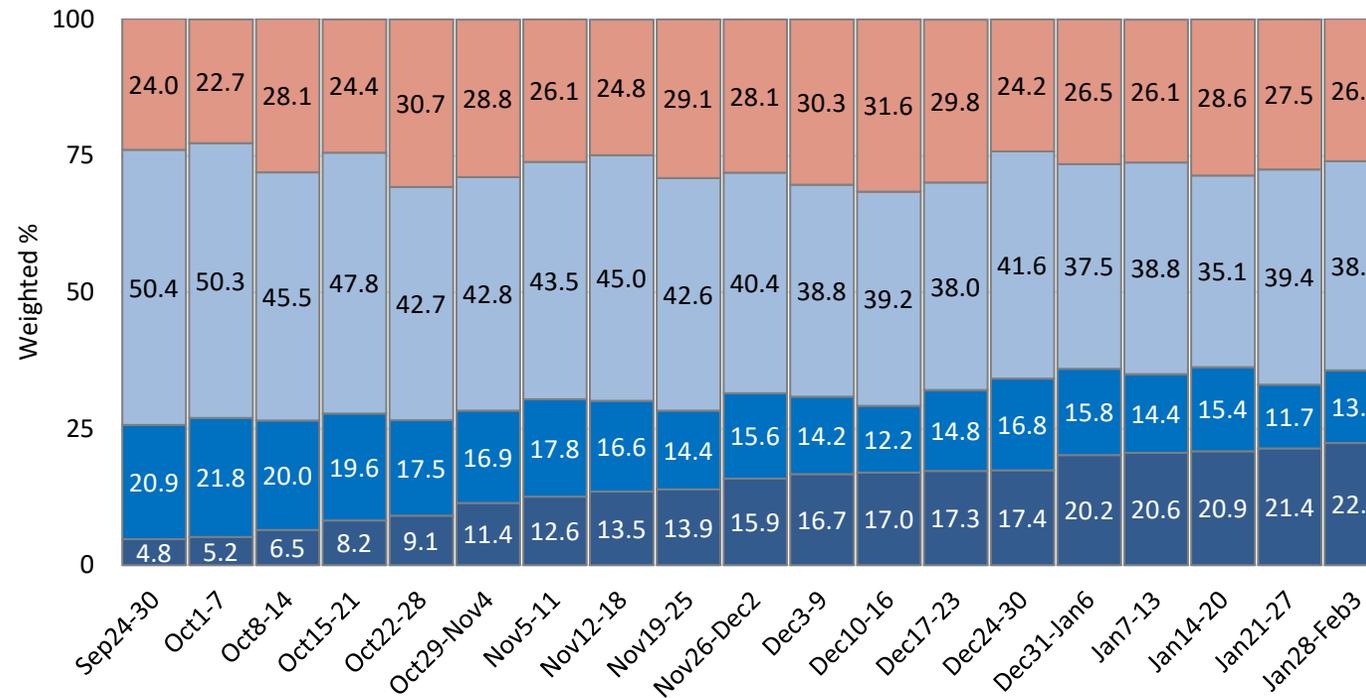
- The NIS-ACM is a random-digit-dial cellular telephone survey of adults age ≥ 18 years in the U.S.
- Respondents are sampled within all 50 states, District of Columbia, five local jurisdictions (Bexar County TX, Chicago IL, Houston TX, New York City NY, and Philadelphia County PA), Puerto Rico and the U.S. Virgin Islands (sampled in 2023 only).
- Data are weighted to represent the non-institutionalized U.S. population.
 - Estimates from the NIS-ACM may differ from estimates based on other data sources, and are subject to errors resulting from incomplete sample frame (exclusion of households without cell phones), selection bias (survey respondents may be more likely to be vaccinated than non-respondents), and errors in self-reported vaccination status. Estimates are weighted to selected sociodemographic characteristics of the U.S. population to reduce possible bias from incomplete sample frame and selection bias.
- All responses are self-reported.
- Enhanced weekly estimates:
 - Coverage estimates are based on all interviews through the current week and represent approximately the cumulative percent vaccinated by mid-week. Each week, estimates for prior weeks are recalculated using the additional interviews conducted that week (combined with all previous interviews).
 - Estimates for vaccination intent are based on interviews conducted that week and are adjusted to the cumulative vaccination coverage estimate for that week.
- Kaplan-Meier estimates:
 - Based on interviews conducted September 24, 2023–January 27, 2024
 - Kaplan-Meier estimation procedure used to estimate RSV vaccination coverage through end of December 2023
- Additional information available at: [About the National Immunization Surveys](#)

RSV Vaccination Status and Intent Among Adults 60 Years and Older

National Immunization Survey-Adult COVID Module (NIS-ACM)

- Among adults aged ≥60 years responding to the National Immunization Survey through February 3, **22.4%** (95% CI: 21.1-23.6) reported having received an RSV vaccine.
- 13.3% (95% CI: 11.5-15.1) of adults ≥60 years said they definitely will get vaccinated, and 26.1% (95% CI: 23.7-28.4) said they probably or definitely will not get vaccinated.

Weekly RSV Vaccination Status and Intent Among Adults Age ≥60 Years, NIS-ACM (n = 97,574)

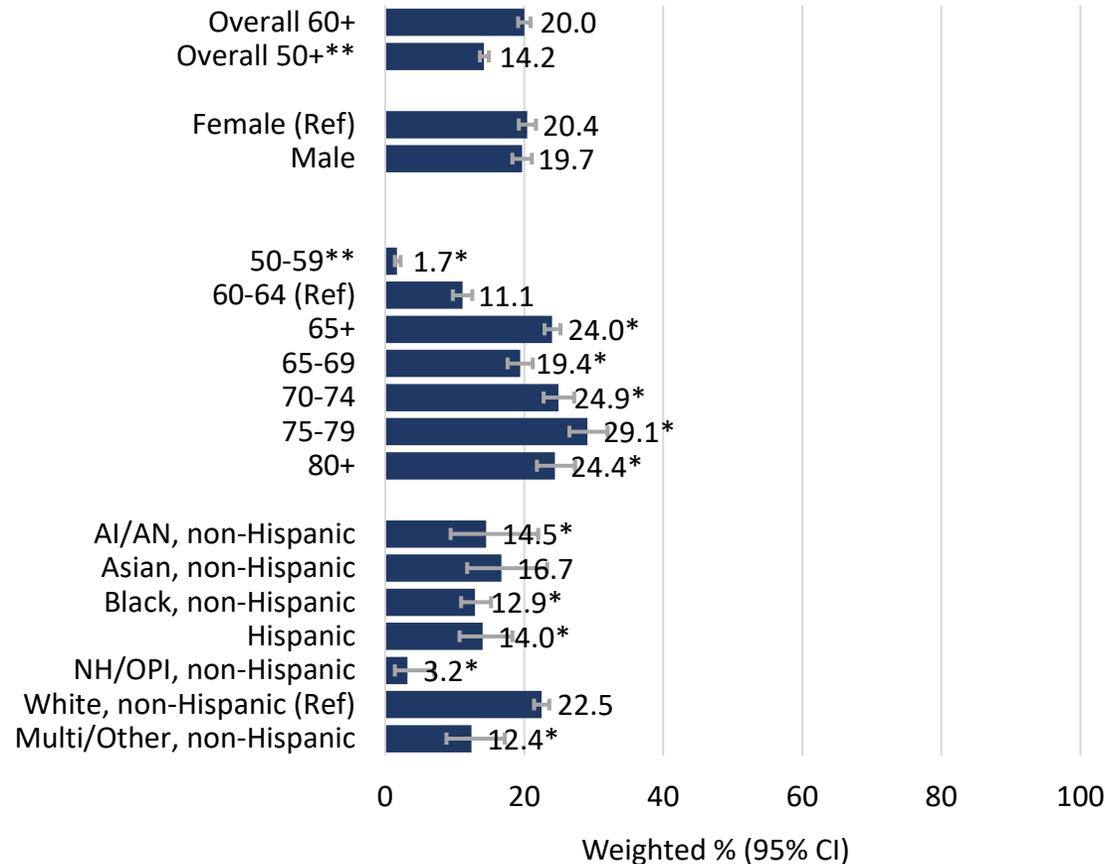


■ Probably or definitely will not get RSV vaccine
■ Probably will get RSV vaccine or unsure
■ Definitely will get RSV vaccine
■ Received RSV vaccine

RSV vaccination coverage among adults 60 years and older, by end of December 2023

National Immunization Survey-Adult COVID Module (NIS-ACM)

(N = 91,680)



- 20.0% (95% CI: 19.1-20.9) of adults ≥60 years reported having received an RSV vaccine by the end of December 2023.
- Vaccination was highest among older adults and white non-Hispanic adults.

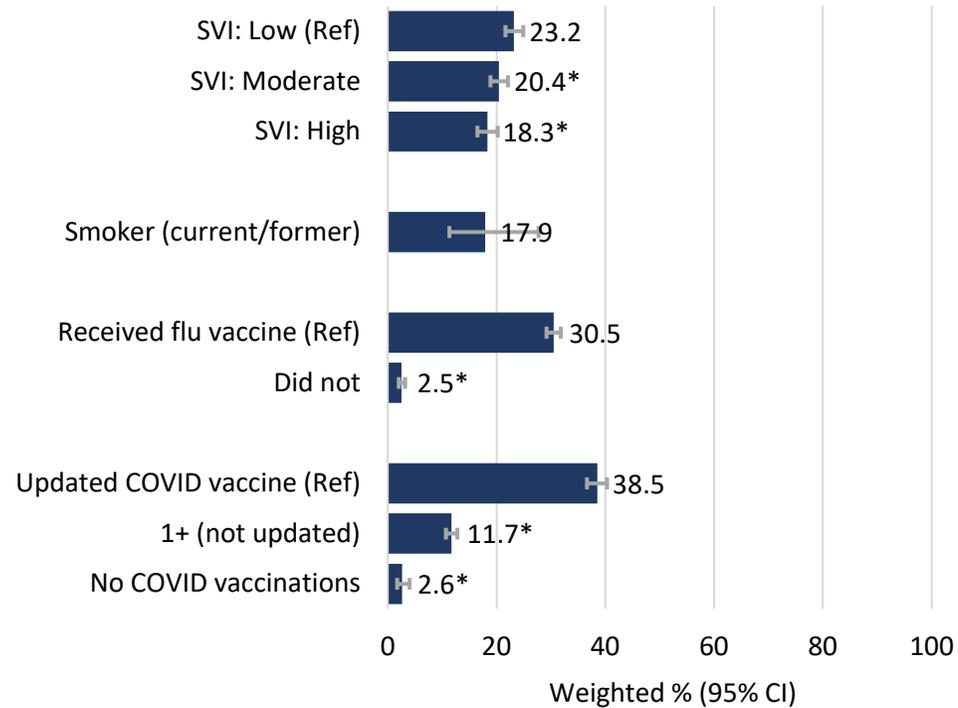
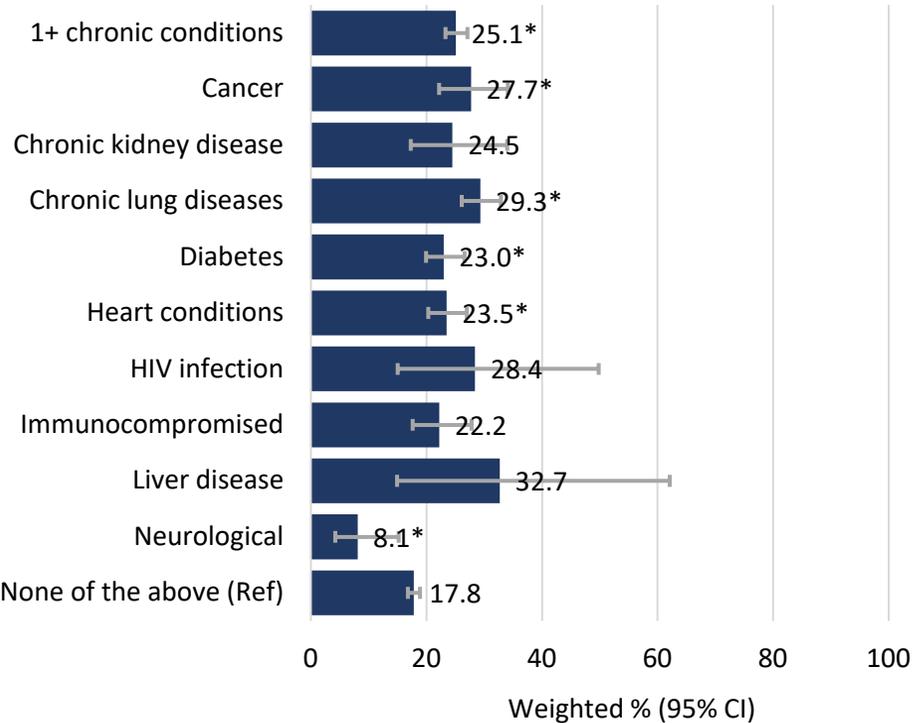
AI/AN: American Indian or Alaska Native; NH/OPI: Native Hawaiian or Other Pacific Islander; CI: 95% confidence interval; Ref: Referent category.

*Statistically significant at $p < 0.05$ compared to the referent category.

**This bar only among age 50+, all other bars age 60+ only.

RSV vaccination coverage among adults 60 years and older, by end of December 2023

National Immunization Survey-Adult COVID Module (NIS-ACM)

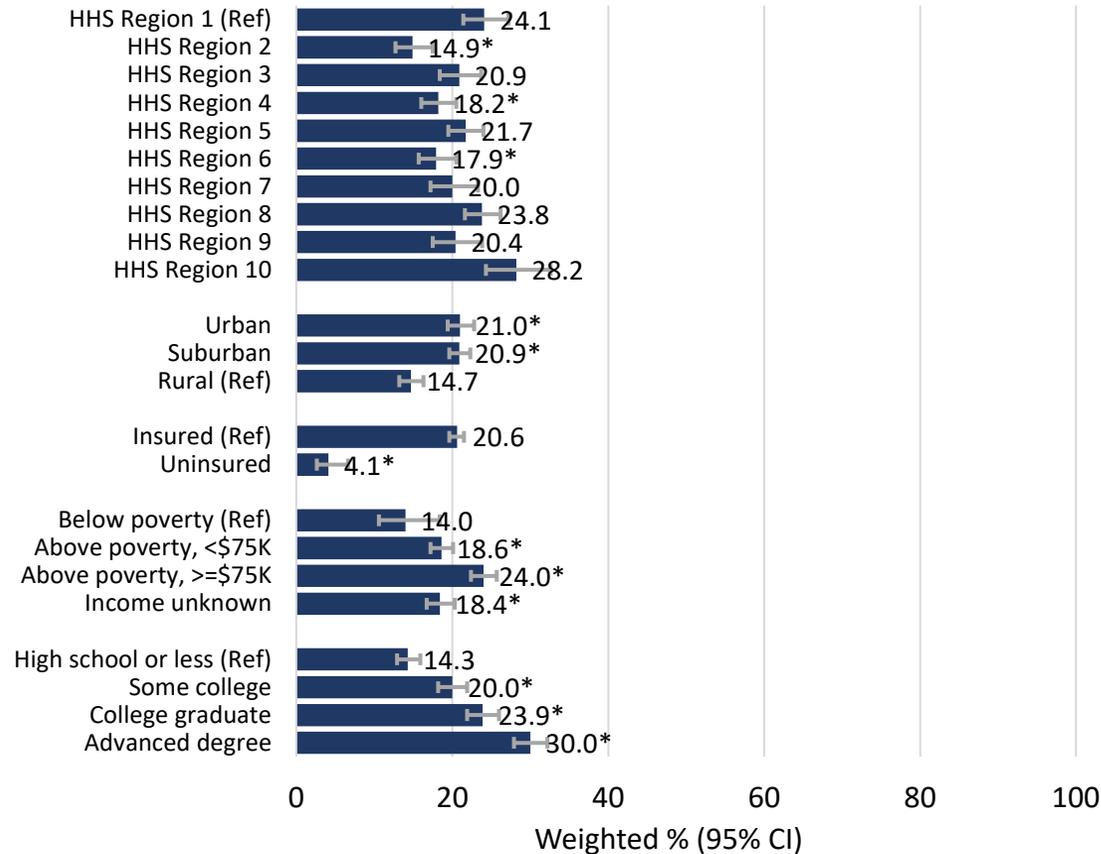


- Adults ≥ 60 years with 1+ chronic conditions had significantly higher RSV vaccination coverage (25.1%) than those with no chronic conditions (17.8%).
- RSV vaccination coverage was higher among those who have received a flu vaccine or who have received the updated 2023-24 COVID-19 vaccine.

RSV vaccination coverage among adults 60 years and older, by end of December 2023

National Immunization Survey-Adult COVID Module (NIS-ACM)

(N = 91,680)



- RSV vaccination coverage was highest in HHS regions 10 (28.2%; AK, ID, OR, WA) and 1 (24.1; CT, ME, MA, NH, RI, VT).
- Adults in rural areas had lower vaccination coverage (14.7%).
- Adults with health insurance had significantly higher vaccination coverage (20.6%) than adults without insurance (4.1%).
- RSV vaccination increased with increasing household income and education.

HHS Regions

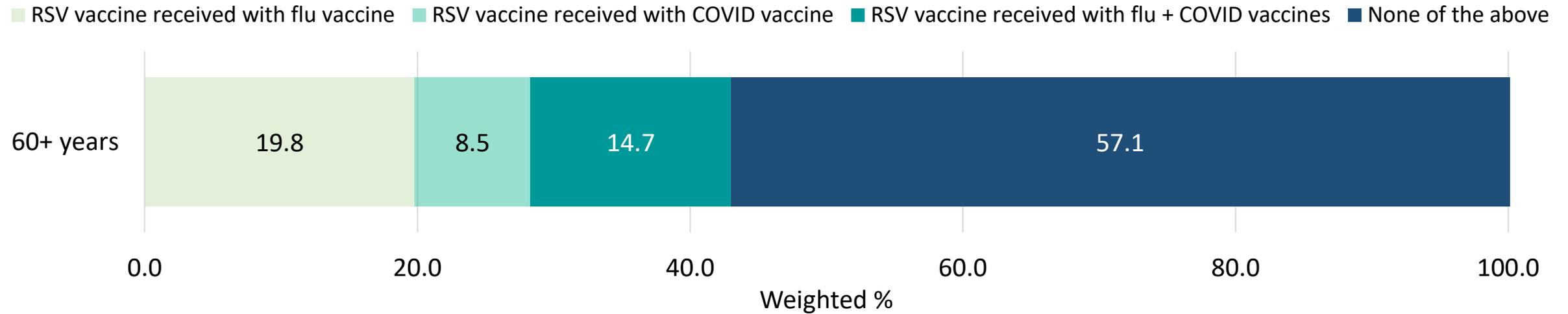
- | | |
|-----------------------------------|---------------------------|
| 1: CT, ME, MA, NH, RI, VT | 6: AR, LA, NM, OK, TX |
| 2: NJ, NY, PR, VI | 7: IA, KS, MO, NE |
| 3: DE, DC, MD, PA, VA, WV | 8: CO, MT, ND, SD, UT, WY |
| 4: AL, FL, GA, KY, MS, NC, SC, TN | 9: AZ, CA, HI, NV, GU |
| 5: IL, IN, MI, MN, OH, WI | 10: AK, ID, OR, WA |

AI/AN: American Indian or Alaska Native; NH/OPI: Native Hawaiian or Other Pacific Islander; CI: 95% confidence interval; Ref: Referent category.

*Statistically significant at p<0.05 compared to the referent category.

Coadministration among adults 60 years and older who received an RSV vaccine, January 2024

National Immunization Survey-Adult COVID Module (NIS-ACM)

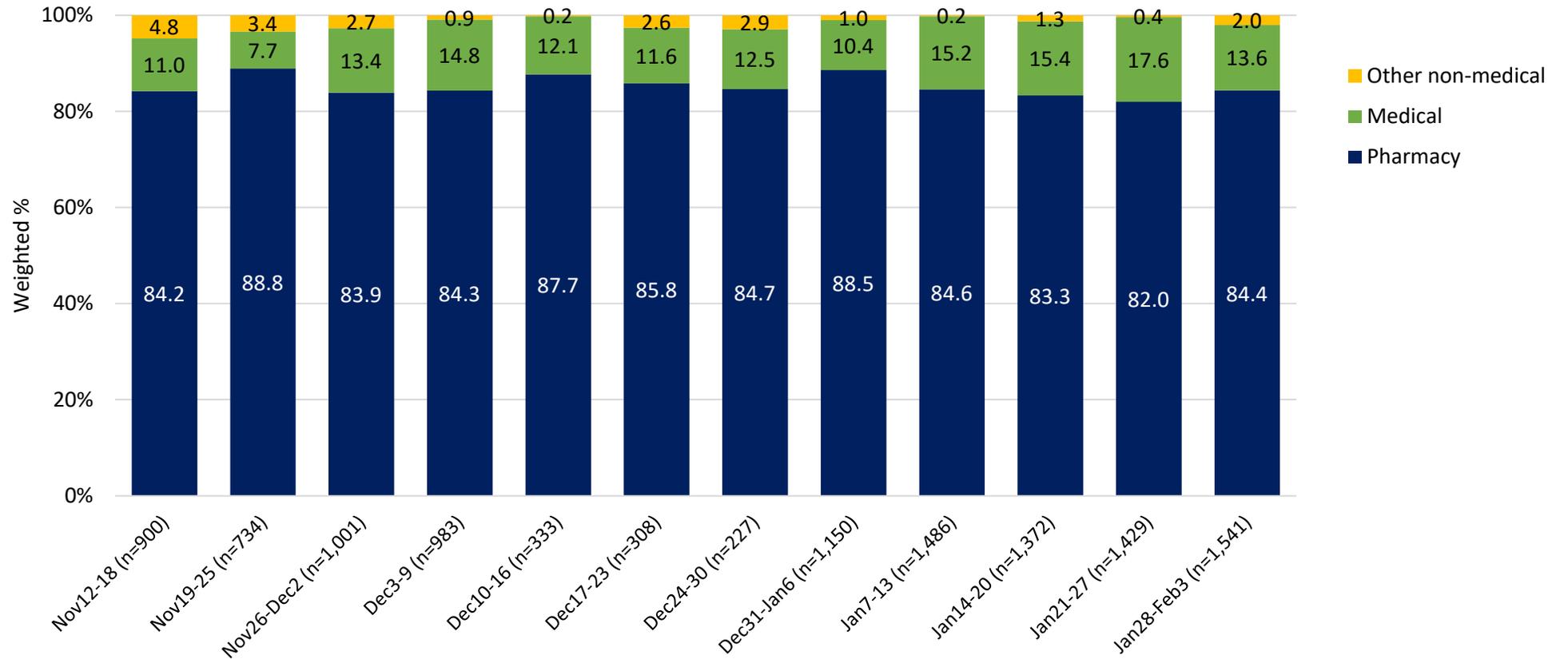


- Among adults ≥ 60 years who received an RSV vaccine,
 - 19.8% received RSV + Flu vaccines at the same visit
 - 8.5% received RSV + COVID vaccines at the same visit
 - 14.7% received RSV + Flu + COVID vaccines at the same visit

Place of RSV vaccination among vaccinated adults 60 years and older

National Immunization Survey-Adult COVID Module (NIS-ACM)

Place of RSV Vaccination Among Vaccinated Adults Age ≥60 Years, NIS-ACM, November 2023-February 2024



Medical: includes doctor's office, health department, clinic or health center, hospital, mass vaccination site, or "other" medically-related place.
Other non-medical: includes workplace, high school/college/university, or "other" nonmedically-related place.

IQVIA Data Update

IQVIA Methodology

- RSV vaccine doses administered in retail pharmacies, long-term care pharmacies, and American Medical Association (AMA) physicians' medical offices* based on claims submitted to insurers and cash payments (pharmacies only).
- IQVIA data include raw (actual) number of doses administered at a sample of pharmacies and medical offices of a sample of AMA physicians.
 - IQVIA uses a proprietary projection methodology to estimate the projected number of vaccinations administered in all pharmacies and medical offices of all AMA physicians.
- National medical offices projected estimates are based on 2,866 (48%) of the 5,979 AMA physicians that IQVIA monitors who provide RSV vaccinations.
 - Range for states is 0% – 73%
 - Projected estimates are updated monthly and do not mature until about two months. This results in an increase or decrease in the initial or subsequent estimates for a given week (up to ~10% based on initial evaluations)

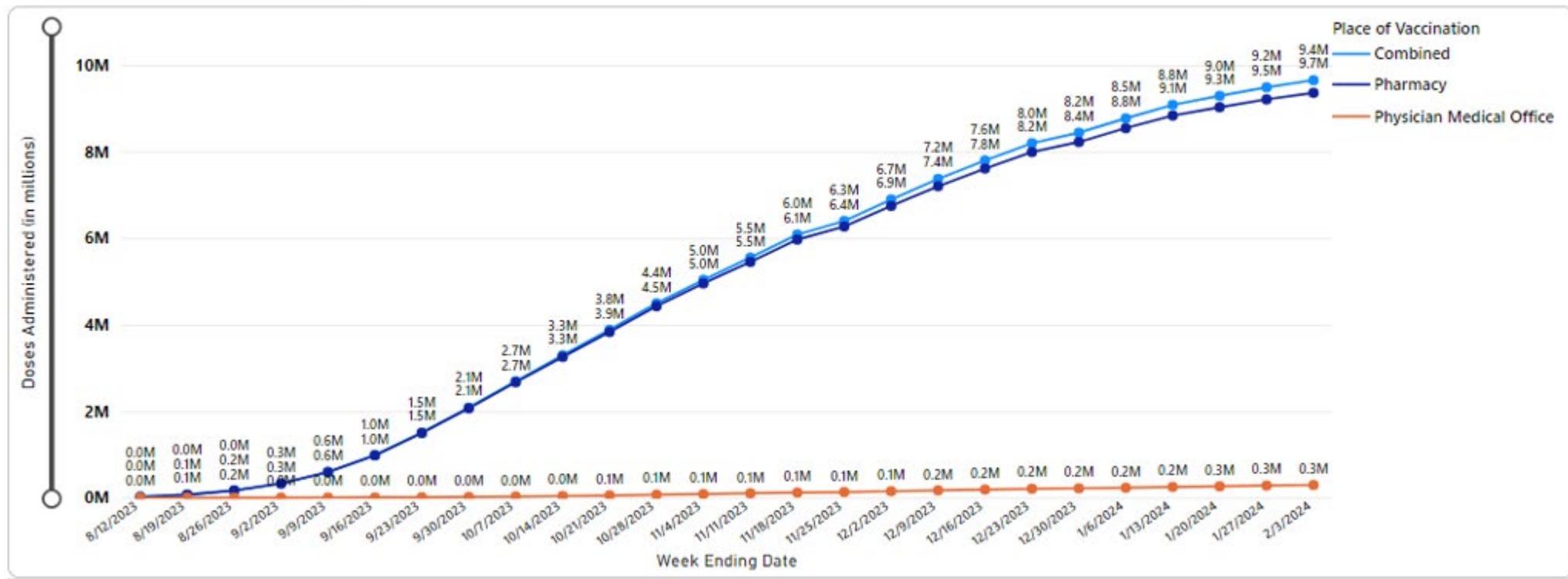
IQVIA methodology (cont)

- National retail pharmacy projected estimates are based on a sample of 40,469 (97%) of the 41,583 pharmacies that IQVIA monitors that provide RSV vaccinations.
 - Range for states is 94% – 100%
 - Higher confidence in the accuracy of national estimates for pharmacy data compared with physician office data
- Data are not available for vaccinations administered in:
 - Other medical settings (e.g. public health clinics, hospitals)
 - Non-medical, non-pharmacy settings (e.g. workplace, community settings)

Weekly Cumulative Projected RSV Vaccinations Administered in Retail Pharmacies and Physician Medical Offices, Adults 60 years and older, August 12, 2023 – February 3, 2024.

Data Source: IQVIA*

- As of February 3, 2024, a combined total of 9.65 million RSV vaccinations were administered in retail pharmacies (9.36 million) and physician medical offices (291,599).
- An additional 164,254 RSV vaccinations were administered in long-term care pharmacies.**

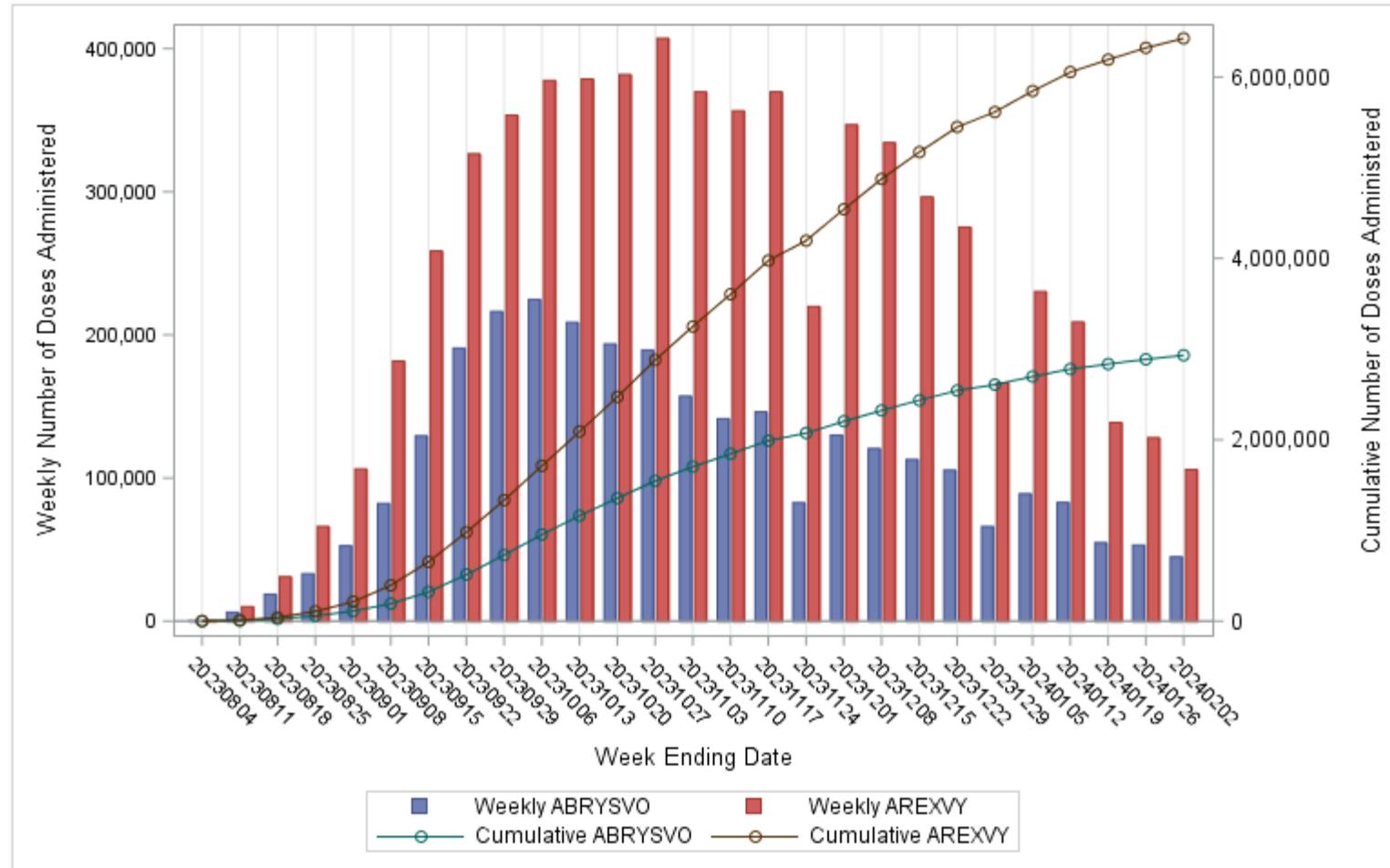


*Data Source: IQVIA Custom Weekly LRx and Custom Weekly Dx. Data are available [Respiratory Syncytial Virus \(RSV\) Adult Vaccinations Administered | CDC](#)

**IQVIA SMART NPA; Data pulled 2/12/24. This is a subset of vaccinations administered in long-term care settings.

Weekly and Cumulative Projected RSV Vaccinations Administered in Retail Pharmacies by Product, Adults 60 years and older, August 12, 2024 – February 2, 2024. Data Source: IQVIA*

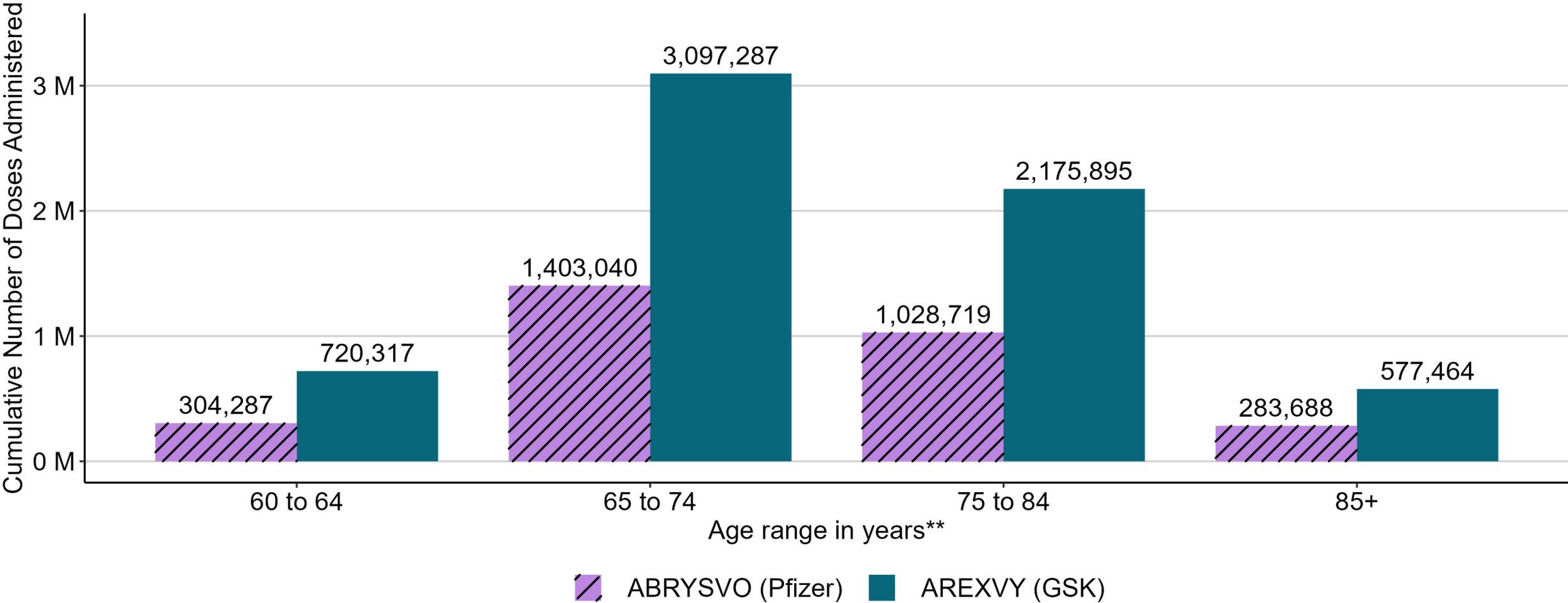
- Of the total 9,360,148 RSV vaccinations administered, 2,933,112 (31%) were Abrysvo (Pfizer) and 6,427,035 (69%) were Arexvy (GSK).



*IQVIA Custom Weekly LRx; File delivery date 2/8/24.

Cumulative Projected RSV Vaccinations Administered in Pharmacies, by Age Group and Product, August 4, 2023 – February 2, 2024. Data Source: IQVIA*

- As with all persons 60 years and older, for each age group, about 30% received Abrysvo (Pfizer) and 70% received Arexvy (GSK).

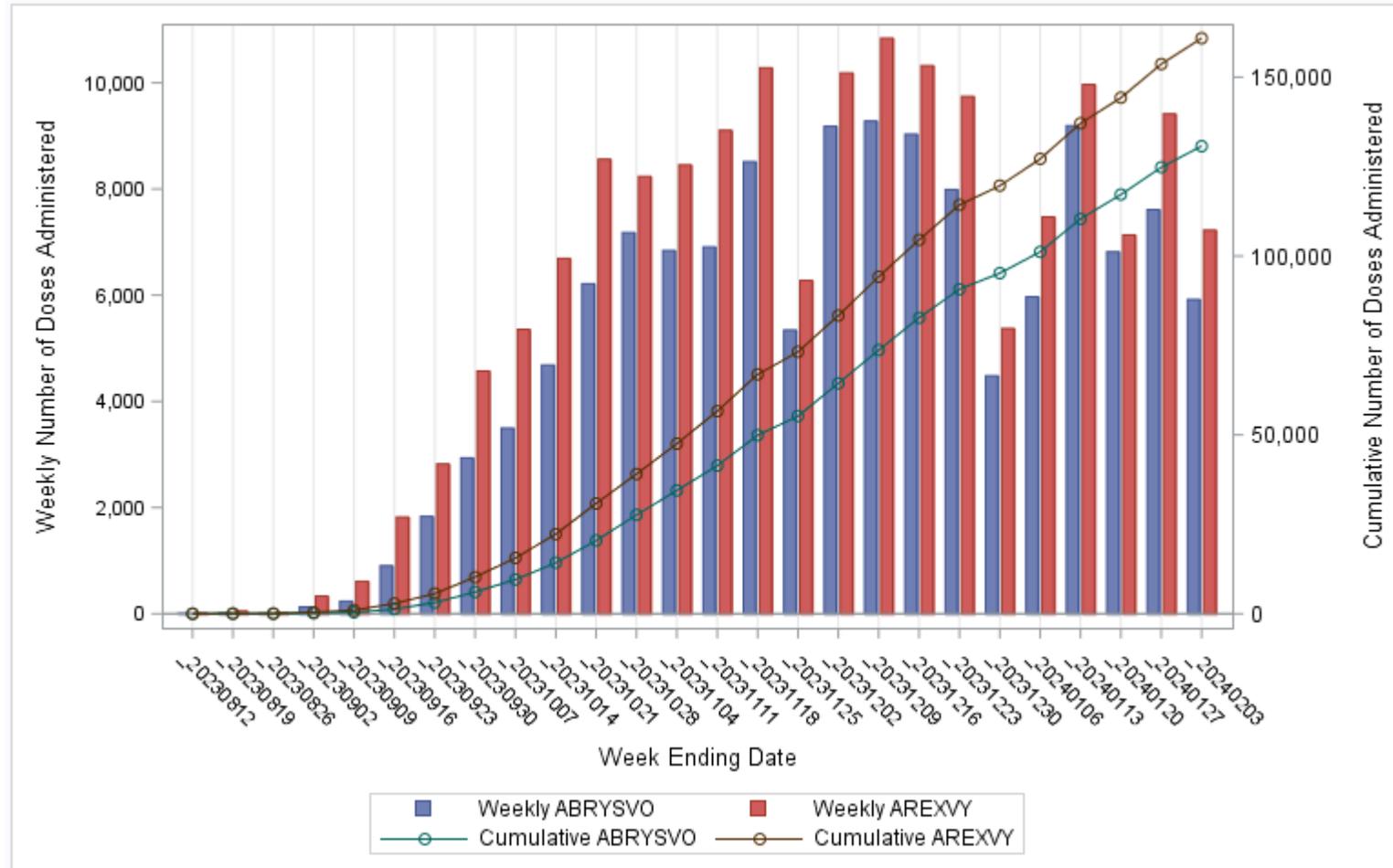


*Data Source: IQVIA SMART National Prescription Audit (NPA) Weekly Extended Insights. Information about these sources is available via IQVIA.

**An additional 1,543 ABRYSVO and 2,860 AREXVY doses were administered to unspecified ages.

Weekly and Cumulative Projected RSV Vaccinations Administered in Physicians' Medical Offices by Product, Adults 60 years and older, August 12, 2024 - February 3, 2024

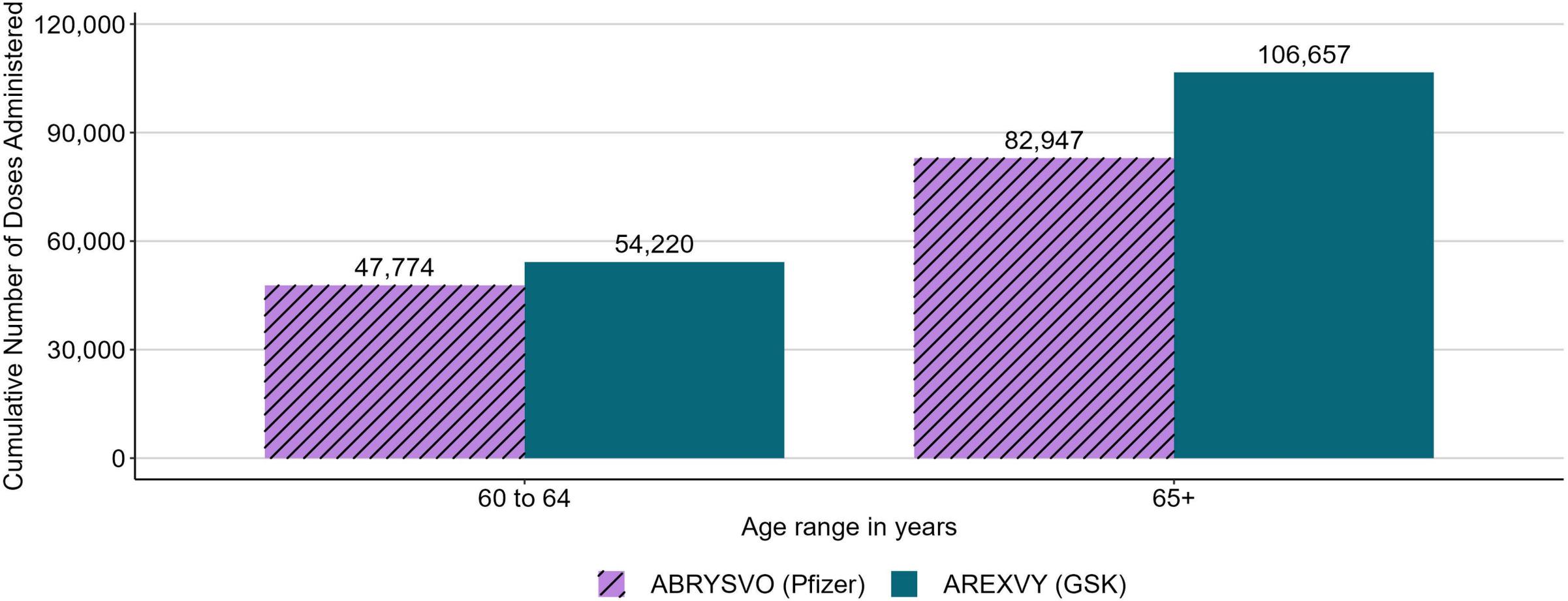
- Of the total 291,598 RSV vaccinations administered, 130,720 (45%) were Abrysvo (Pfizer) and 160,877 (55%) were Arexvy (GSK).



*IQVIA Custom Weekly Dx; File delivery date 2/20/24.

Cumulative Projected RSV Vaccinations Administered in Physicians' Medical Offices, by Age Group and Product, U.S., August 4, 2023–February 3, 2024. Data Source: IQVIA*

- Of the 291,598 doses administered, Arexvy was administered in 53% of adults 60-64 years and 56% among 65 and older



*IQVIA Custom Weekly Dx; File delivery date 2/20/24.

Cumulative Raw (Actual)* RSV Vaccinations Administered Alone or On the Same Day with Influenza and/or COVID Vaccinations, in Retail Pharmacies and Physicians' Medical Offices Combined, Adults 60 years and older, August 2023 – December 2023

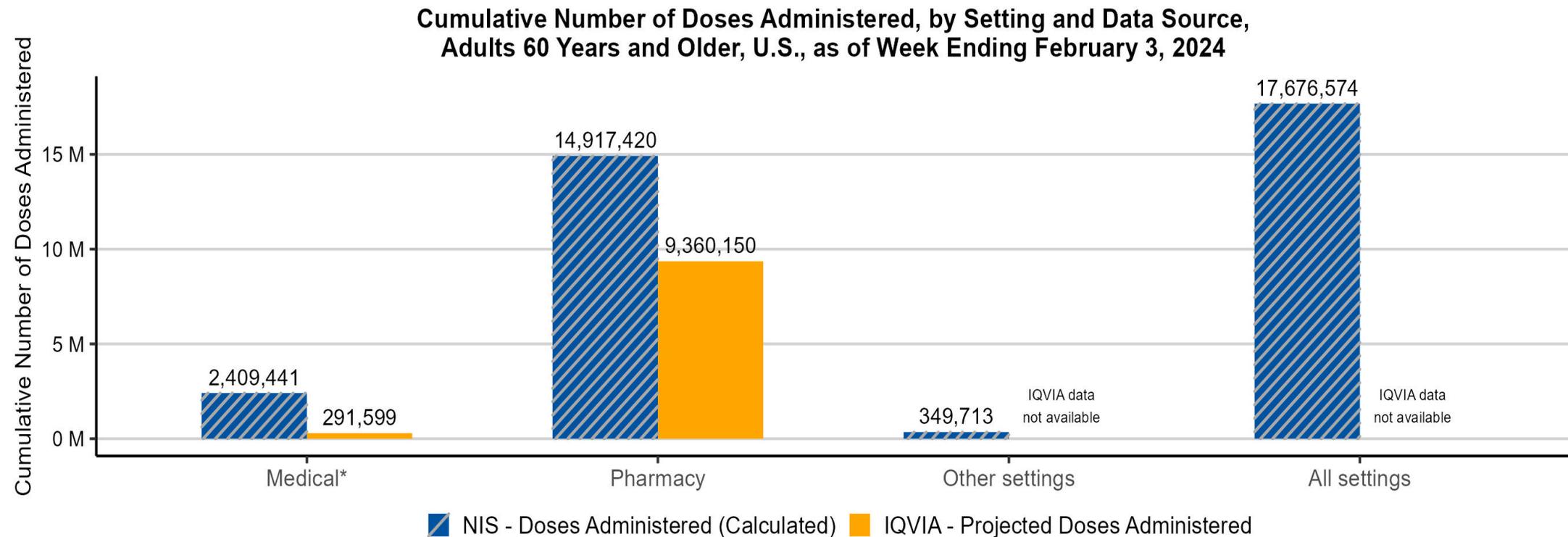
- Of the ~7 million doses of RSV administered through end of December, 52% were administered alone and 48% with either flu or COVID vaccination or all three vaccine on the same day.

Vaccination(s) received	Number (%) of persons receiving vaccinations
RSV only (without flu and/or COVID)	3,635,795 (52.0%)
RSV and flu	1,557,403 (22.3%)
RSV and COVID	852,591 (12.2%)
RSV, flu, and COVID	943,676 (13.5%)
Total	6,989,465

*Raw estimates are based on actual sample of pharmacies and medical offices and thus will be different than projected estimates presented elsewhere. IQVIA was unable to provide projected estimates due to complexity of analysis.

Comparison of NIS and IQVIA Projected Doses Administered by Setting

- Number of doses reported from the NIS projected by applying the vaccination coverage estimates and reported place of vaccination to the 2022 U.S. Census population of persons 60 years and older
- IQVIA data do not capture all medical settings and settings other than medical and pharm.acy.
- NIS-based estimate for number of doses administered in pharmacies is 14.9 million compared with 9.4 million doses based on IQVIA’s projected estimate. NIS-based estimate for all medical settings is 2.4 million compared with 0.29 million in physicians’ medical offices.



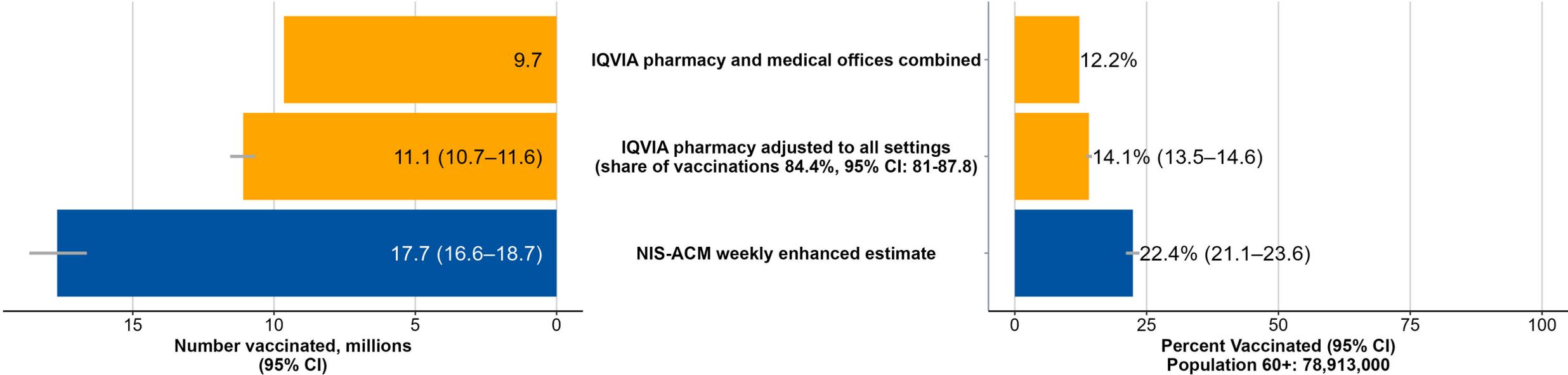
*IQVIA medical offices are a subset of all medical settings.

*Data Source: IQVIA SMART NPA and Custom Weekly Dx. NIS ACM Weekly enhanced coverage estimates by week ending February 3, 2024, and reported place of vaccination for persons interviewed during the week ending February 3, 2024.

Comparison of NIS and IQVIA Projected Estimates to Determine Possible Range of Vaccination Coverage and Persons Vaccinated

- The IQVIA projected total for physicians’ medical offices and pharmacies combined is 9.7 million (coverage 12.2%).
- Based on adjusting IQVIA pharmacy estimates by the proportion of people vaccinated in pharmacies reported from the NIS, 11.1 million doses were administered in all settings (coverage 14.1%).
- Based on applying NIS vaccination coverage estimates to the 2022 U.S. Census population of persons 60 years and older, 17.7 million doses of RSV vaccine were administered in all settings (coverage 22.4%).
- Using data from both sources, estimated range of persons vaccinated is approximately 11–18 million and estimated percent of persons vaccinated is 14%–22% .

Cumulative number of RSV vaccine doses administered (left bars) and cumulative RSV vaccination coverage (right bars), among persons 60 years and older, as of week ending February 3, 2024.



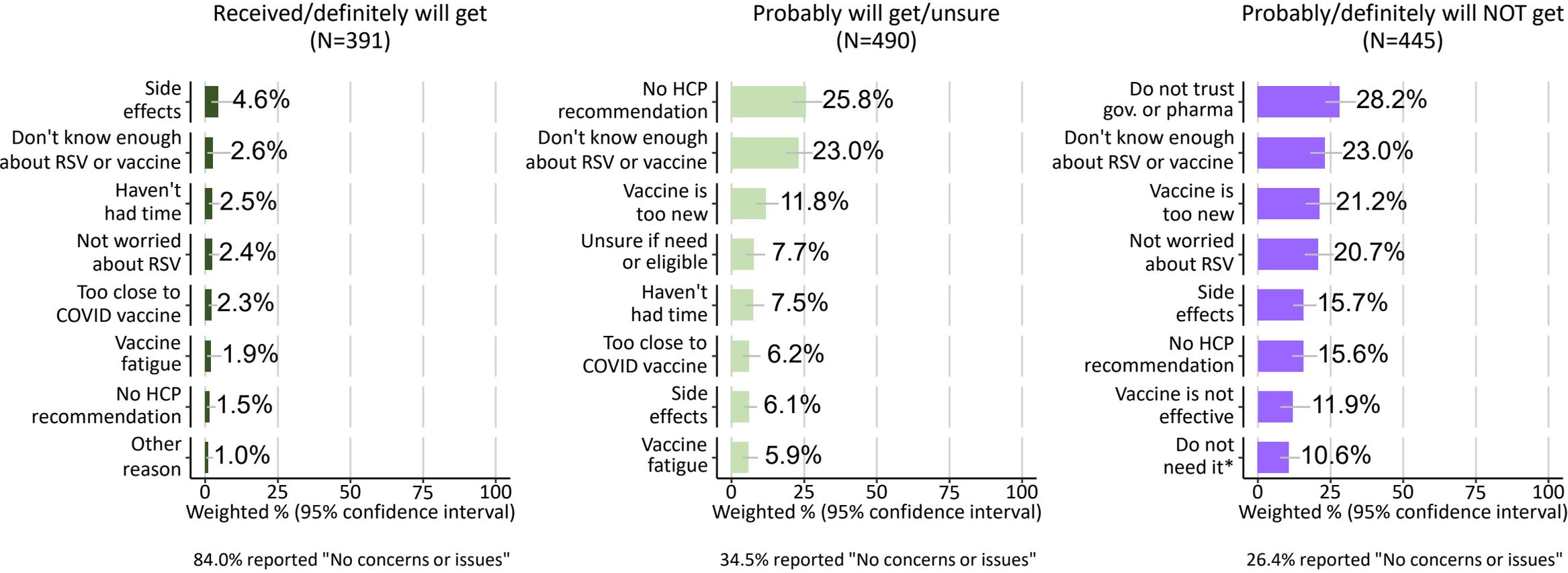
*Data Source: IQVIA SMART NPA and Custom Weekly Dx. NIS ACM Weekly enhanced coverage estimates by week ending February 3, 2024, and reported place of vaccination for persons interviewed during the week ending February 3, 2024.

RSV Vaccination Attitudes, Omnibus Surveys, January 2024

Omnibus Survey Methods

- Data for this analysis were collected through the IPSOS KnowledgePanel and NORC AmeriSpeak Omnibus Surveys, which use probability-based panels to survey a nationally representative sample of U.S. adults aged 18 years and older.
- CDC fields questions about vaccination status, intent, knowledge, attitudes, beliefs, and behaviors on each survey for 2 waves each month, for a combined sample size of ~4,000 respondents.
- Data were weighted to represent the non-institutionalized U.S. population and mitigate possible non-response bias. All responses are self-reported.

Top RSV Vaccination Concerns and Issues Among Adults ≥60 Years of Age, by Status/Intent, Omnibus Surveys, January 5-29, 2024 (N=1,326)



Other response options included: "Cost/insurance issues," "Already had RSV*," "HCP recommended against," "Medical reasons*," "Afraid of needles," "Vaccine not available."
 *Option not offered to those who already received the vaccine.

Implementation Considerations

Potential factors contributing to relatively low vaccination coverage among people ages 60 years and older

- Takes time to integrate into systems, gain wide access, increase awareness among healthcare providers, and normalize among the population.
- RSV is recommended based on SCDM.
- SCDM recommendations are difficult to implement.
- Coadministration messaging is complex and may result in missed opportunities for vaccination.
- Insurance plans have a year to cover the vaccine and not all plans may cover RSV vaccine in its first year.
- Vaccines are costly, meaning a costly upfront investment to carry the vaccine.
- RSV vaccine is billed under Medicare Part D.
- Residents of long-term care have additional, specific challenges.

What is CDC doing to increase coverage or RSV vaccination in people ages 60+?

- Frequent speaking engagements with healthcare providers to provide education on recommendations and answer questions
- Social media and other consumer resources to promote vaccination
- Resources to increase clinician knowledge of RSV vaccination recommendations and coadministration recommendations
- Regular communication with CMS to communicate challenges with billing
- Regular collaboration and communication with long-term care partners
- Planning analysis on shared clinical decision making

Thank you!

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 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.

Photographs and images included in this presentation are licensed solely for CDC/NCIRD online and presentation use. No rights are implied or extended for use in printing or any use by other CDC CIOs or any external audiences.

