Influenza Vaccination Coverage, 2022-23 Season

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Coverage among the general population

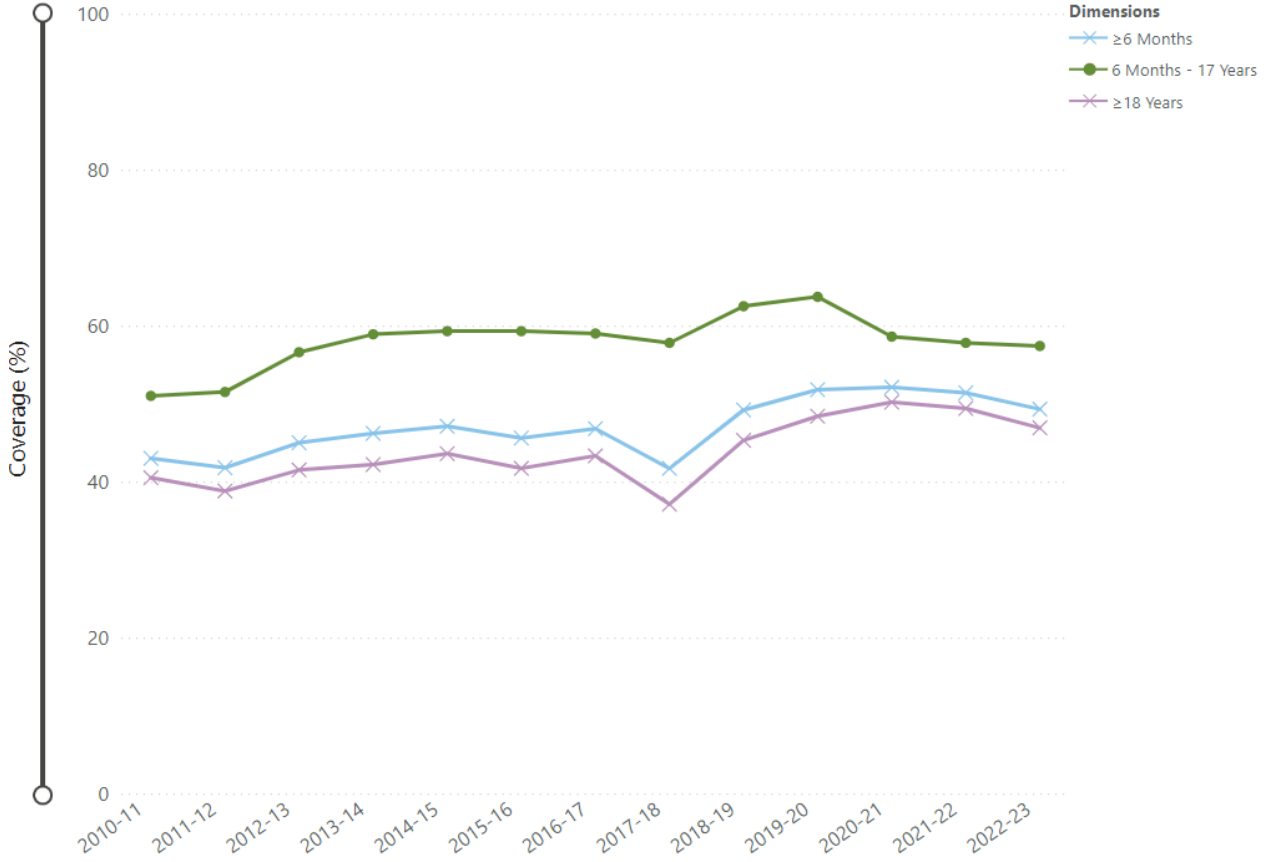
Data sources

- **Adults 18+: Behavioral Risk Factor Surveillance System (BRFSS)**
  - state-based random-digit-dialed cellular and landline telephone survey of one randomly selected adult ≥18 years in a household
  - Interviews conducted September 2022–June 2023
  - Kaplan-Meier survival analysis used to determine cumulative influenza vaccination coverage July 1, 2022–May 2023
  - Median state BRFSS response rate was 44.5% for September–December 2022 and 45.4% for January–June 2023
  - n=297,255

Data sources

- **Children 6 months–17 years: National Immunization Survey-Flu (NIS-Flu)**
  - National random-digit-dialed cellular telephone survey of households with children
    - Respondents ≥18 years knowledgeable about the child's vaccinations were asked if their child received a flu vaccination since July 1, 2022
  - Interviews conducted October 2022–June 2023
  - Kaplan-Meier survival analysis used to determine cumulative influenza vaccination coverage July 1, 2022–May 2023
  - Response rate 23.4%–25.6%
  - n=131,255
- **Coverage estimates for all persons ≥6 months were determined by combining the state-level monthly NIS-Flu and BRFSS estimates weighted by the age-specific populations of each state**

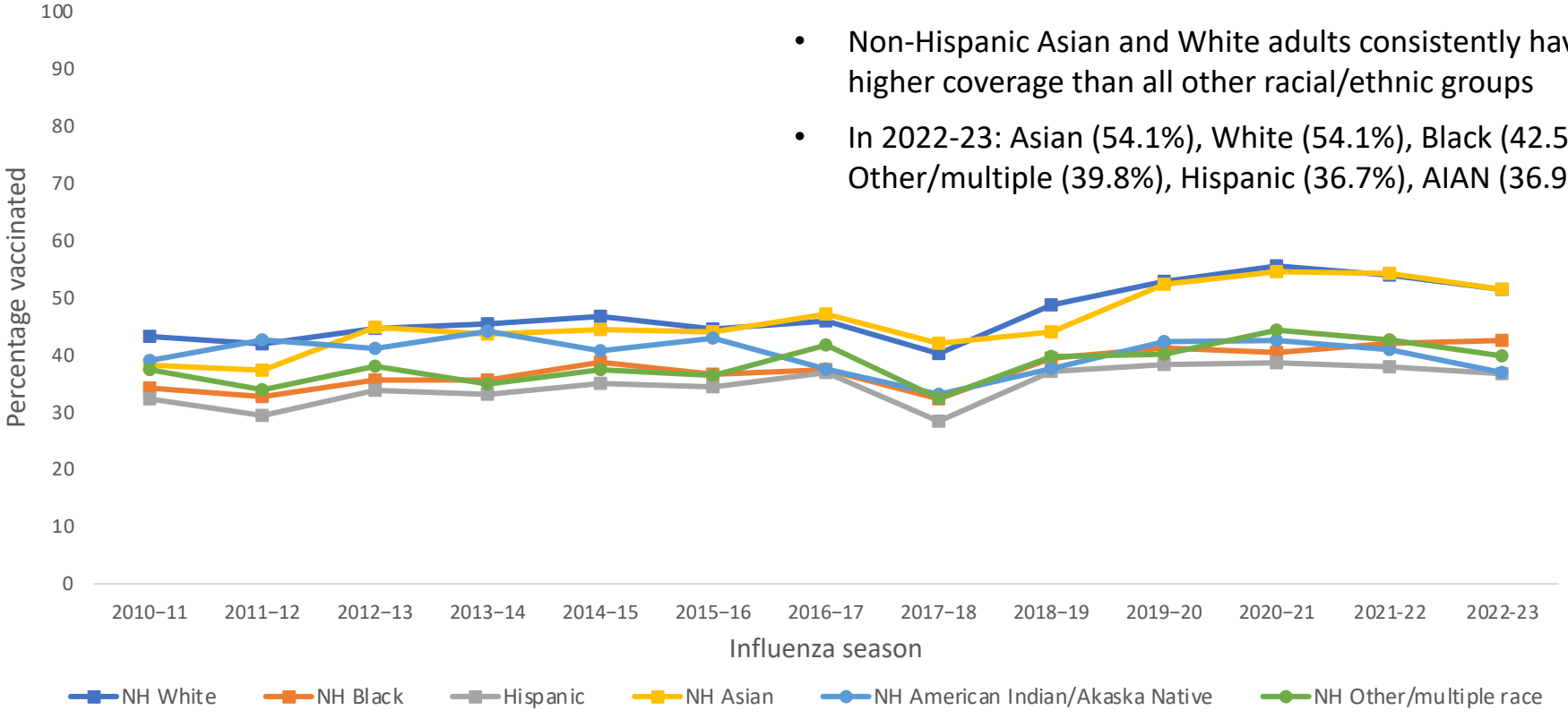
Influenza Vaccination Coverage Among Persons Age ≥6 Months, United States, 2010–2023



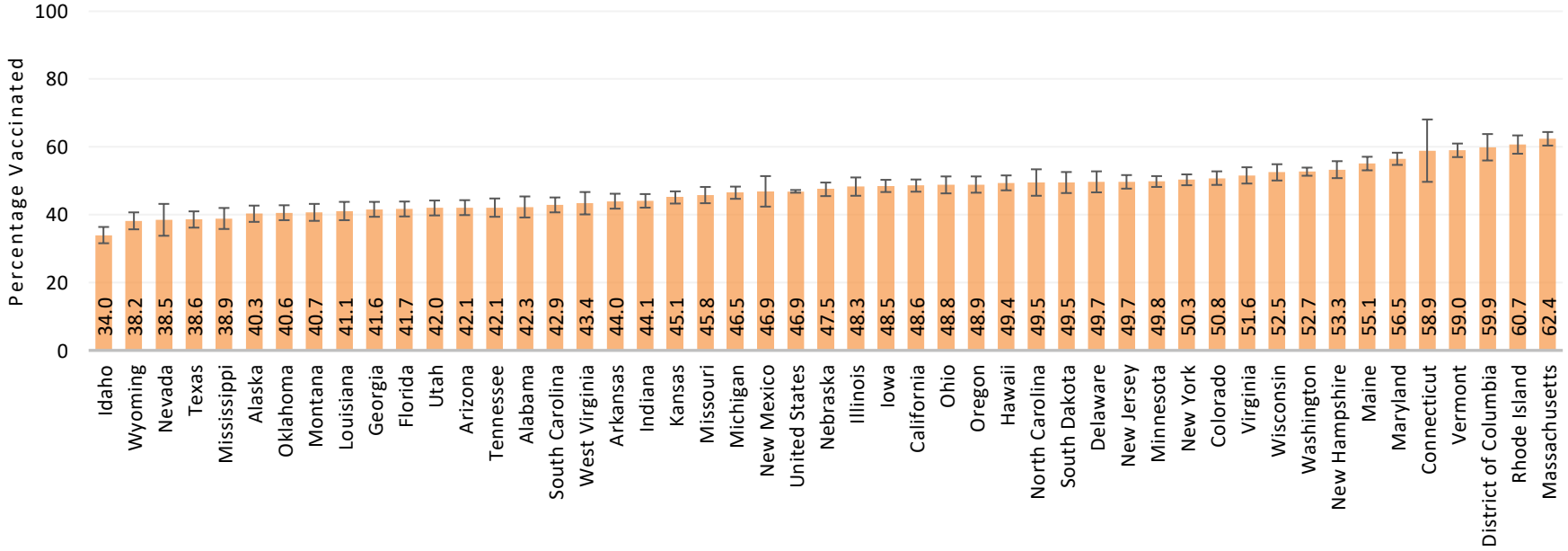
- Coverage among children was 57.4% in 2022-23
  - Similar to last season
  - ~6 percentage points lower than 2019-20
- Coverage among adults was 46.9% in 2022-23
  - 2.5 percentage points lower than last season
  - Similar to 2019-20
- Coverage among all persons 6 months and older was 49.3%
  - 2.1 percentage lower than last season
  - ~2 percentage points lower than 2019-20

Influenza Vaccination Coverage by Race/Ethnicity, Adults 18 years and older, United States, 2010–2023

- Non-Hispanic Asian and White adults consistently have higher coverage than all other racial/ethnic groups
- In 2022-23: Asian (54.1%), White (54.1%), Black (42.5%), Other/multiple (39.8%), Hispanic (36.7%), AIAN (36.9%)



Influenza Vaccination Coverage by State, Adults 18 years and older, United States, 2022–2023 Season

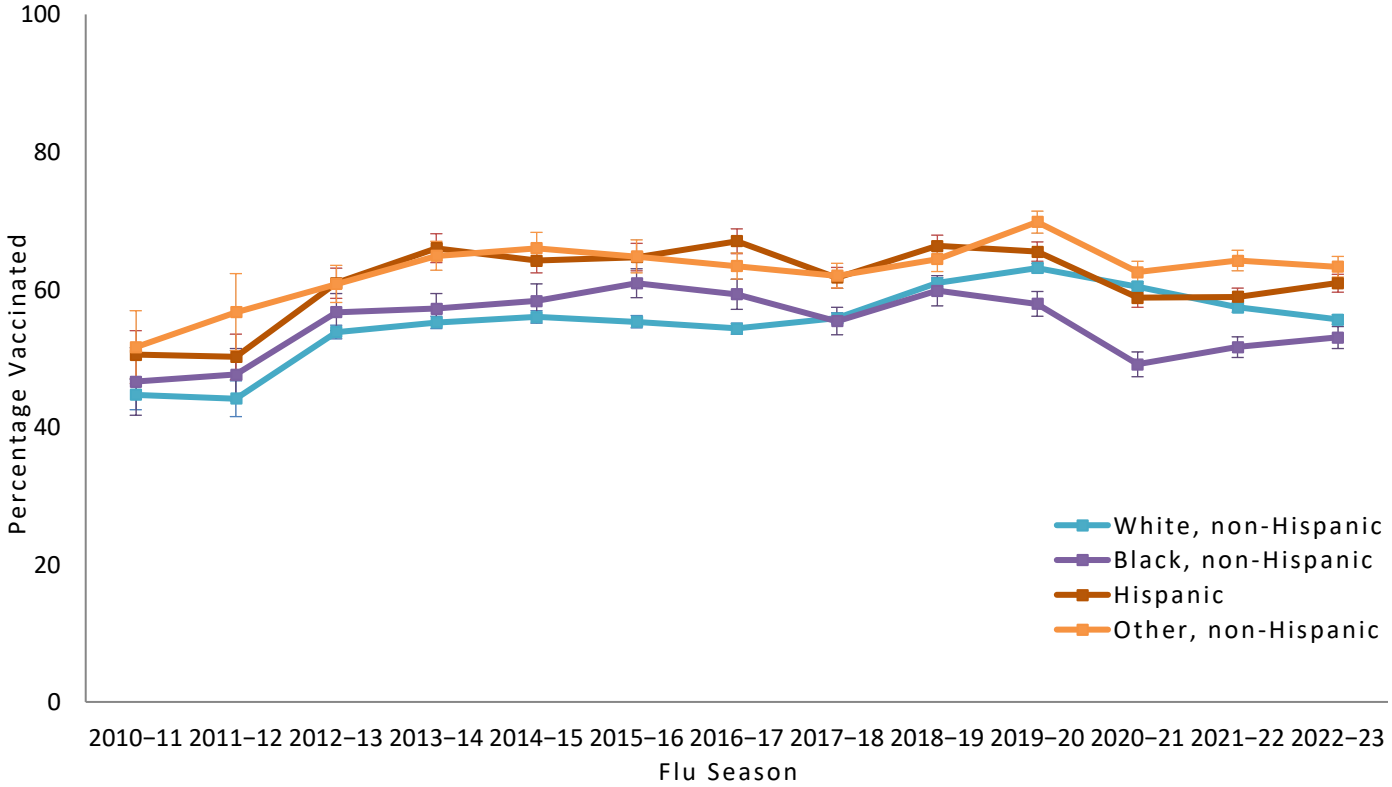


Data Source: Behavioral Risk Factor Surveillance System (BRFSS)

Error bars represent 95% confidence intervals around the estimates.

Coverage estimates for Kentucky, North Dakota, and Pennsylvania were 35.8%, 38.2%, and 53.5%, respectively, but are excluded from the figure because these estimates represent vaccinations only through November 2022.

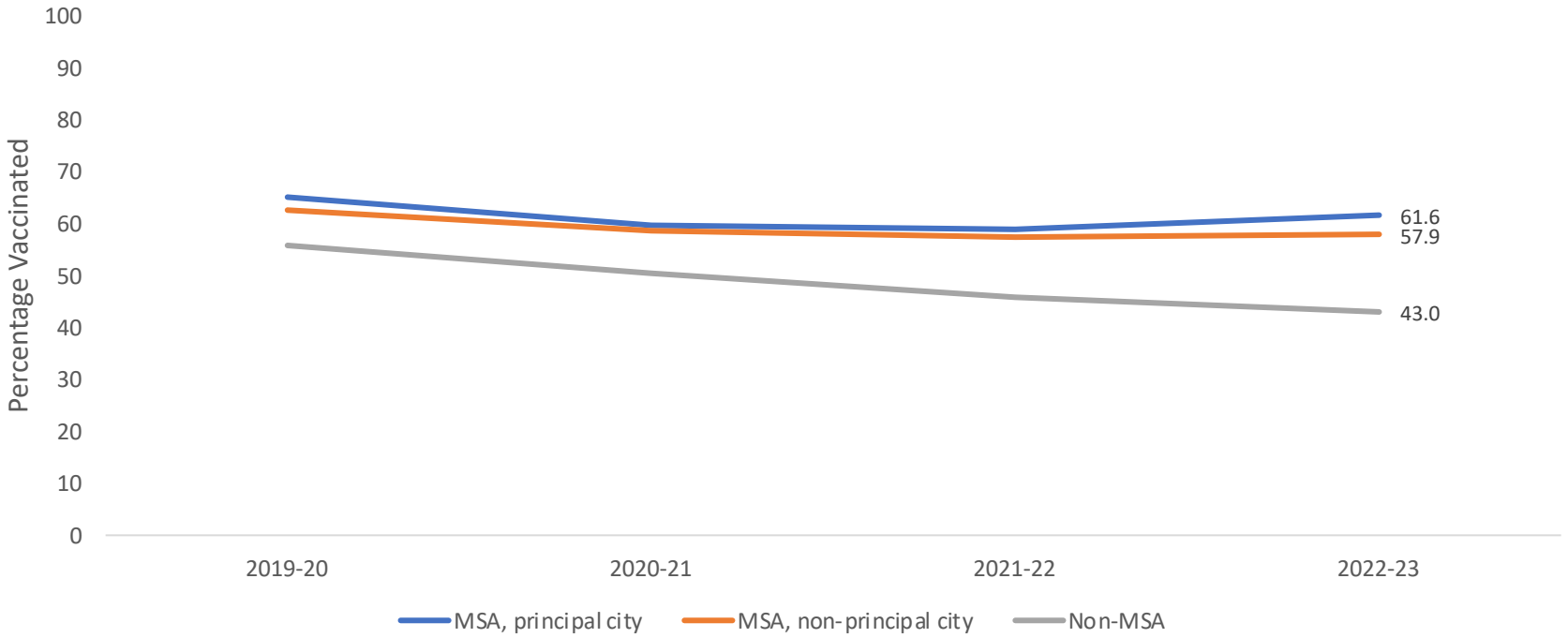
Influenza Vaccination Coverage by Race/Ethnicity, Children 6 months–17 years, United States, 2010–2023



- In 2022-23: Other (63.3%), Hispanic (60.9%), White (55.6%), Black (53.0%)
- Hispanic and children of other races had higher coverage than White and Black children
- Lowest coverage among Black children
- Coverage decreased in 2022-23 only among White children

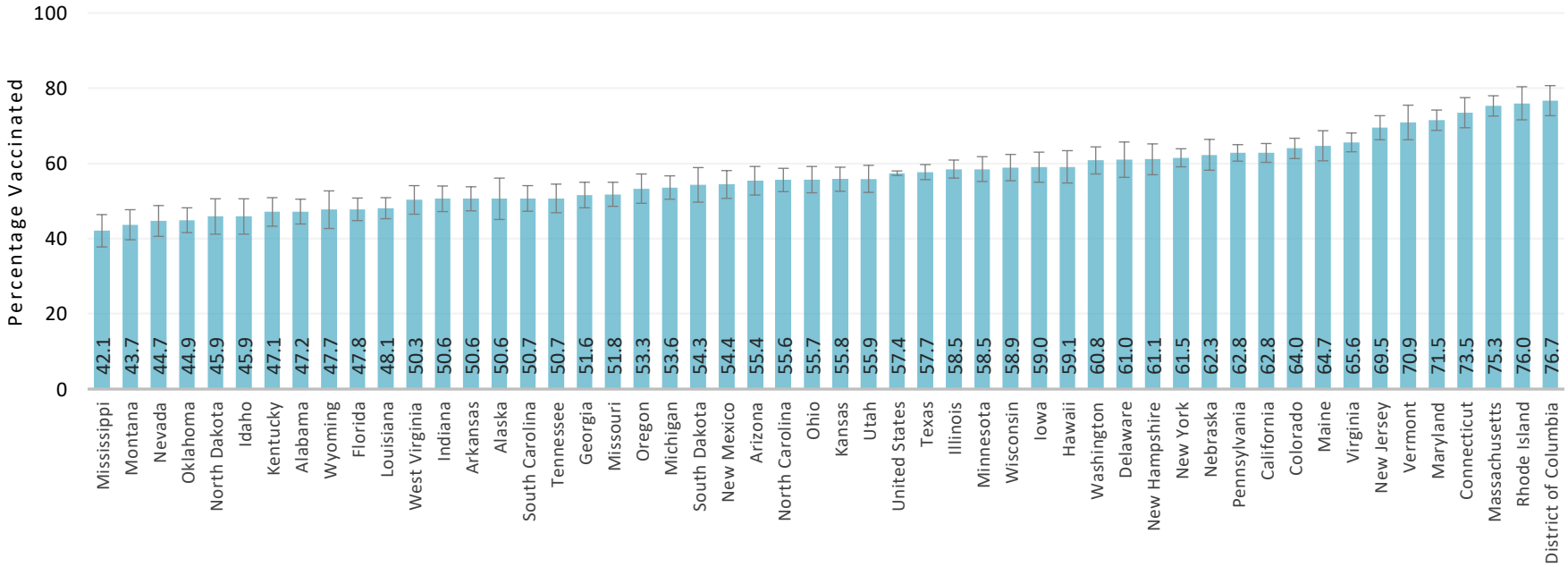
Data Source: National Immunization Survey-Flu (NIS-Flu)

Influenza Vaccination Coverage by Urbanicity, Children 6 months–17 years, United States, 2019–2023



Data Source: National Immunization Survey-Flu (NIS-Flu)

Influenza Vaccination Coverage by State, Children 6 months–17 years, United States, 2010–2023



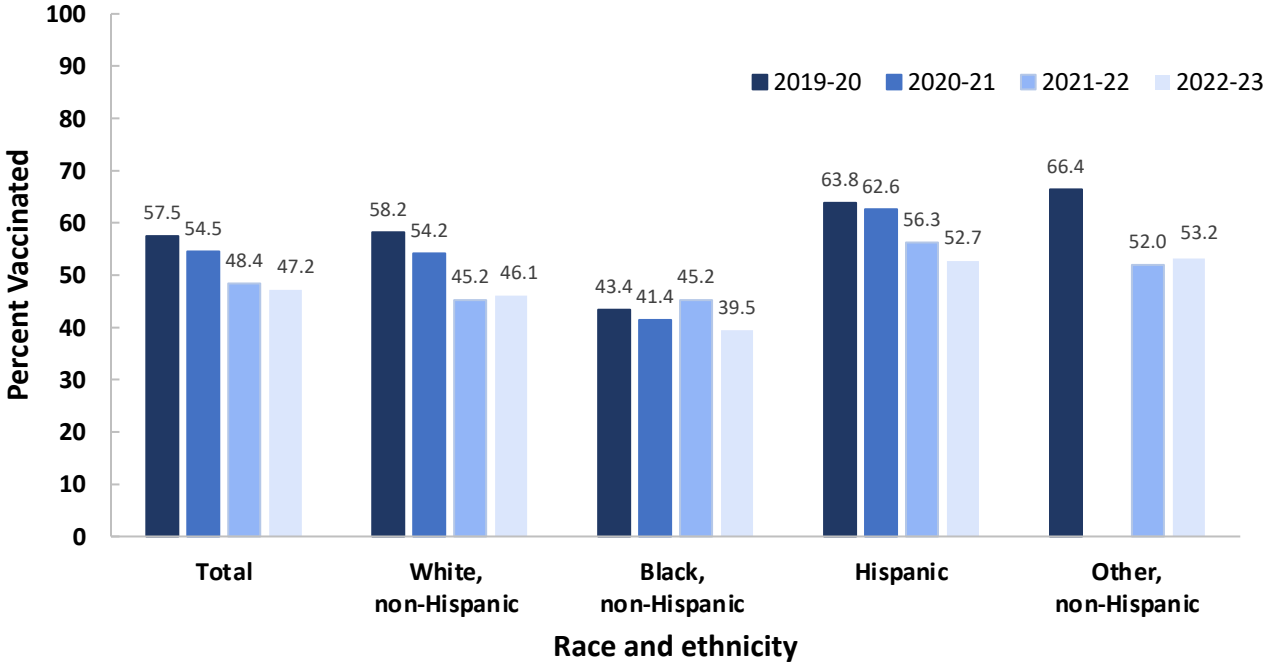
Data Source: National Immunization Survey-Flu (NIS-Flu)
Error bars represent 95% confidence intervals around the estimates.

Coverage among pregnant women

Data sources

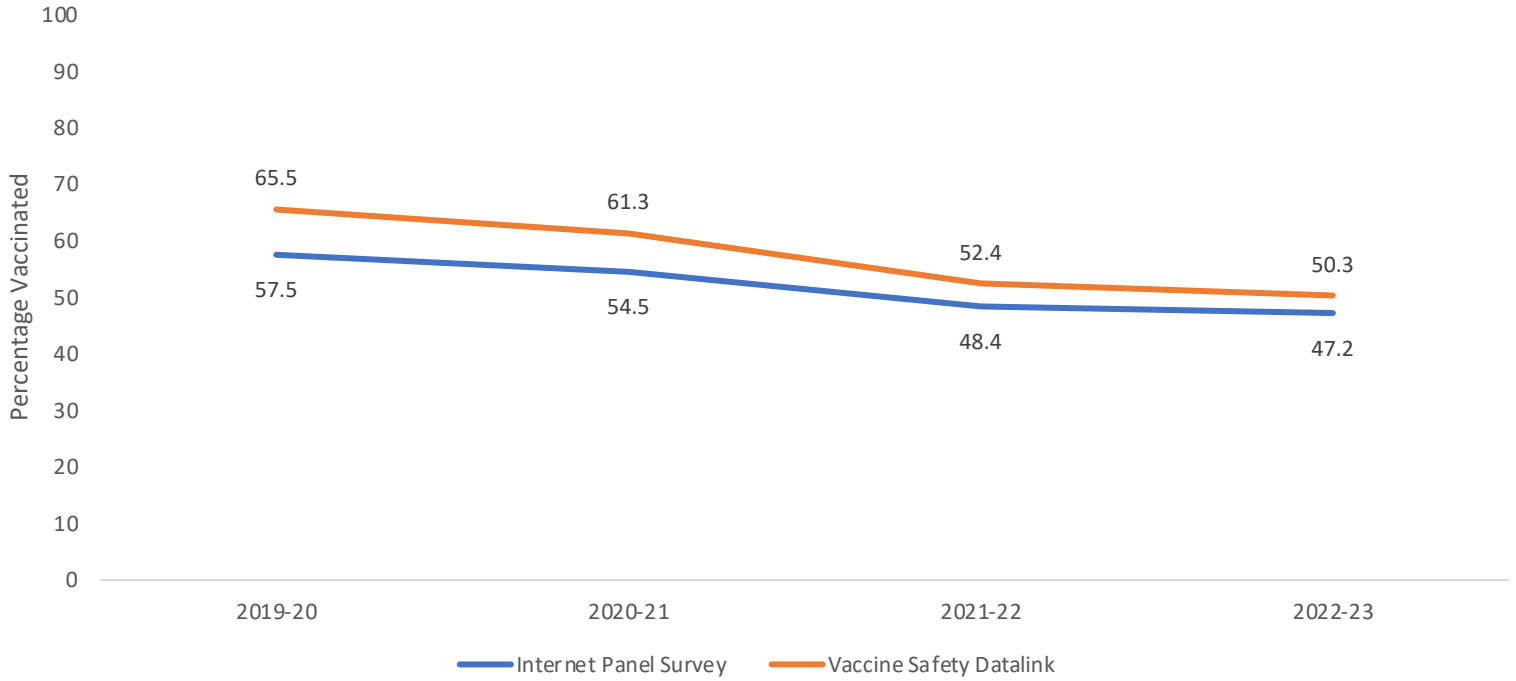
- **Pregnant women: Internet Panel Survey**
  - Women recruited from general population opt-in internet panel
  - Survey conducted March 28–April 16, 2023
  - Included women pregnant anytime during October 2022–January 2023
  - Women self-reported vaccinations received before or during pregnancy
  - Weighted to U.S. population of pregnant women
  - n=1,841
- **Pregnant women: Vaccine Safety Datalink**
  - Eight participating integrated healthcare organizations in six states
  - Includes women pregnant during August to March who received a flu vaccine before, during, or after current pregnancy
  - Vaccine status ascertained by medical records
  - Used for monitoring coverage during the influenza season

Influenza Vaccination Coverage among Pregnant Women, by Race/Ethnicity, United States, Internet Panel Survey, 2019–2023



- Overall coverage 47.2% in 2022-23
- Coverage similar to last season but ~10 percentage points lower than 2019-20

Influenza Vaccination Coverage among Pregnant Women, Internet Panel Survey and Vaccine Safety Datalink, 2019–2023



Coverage among Health care personnel

Data source: Health Care Personnel

- **Internet Panel Survey**
  - HCP recruited from Medscape, a medical website managed by WebMD Health Professional Network, and a general population opt-in internet panel
  - Survey conducted March 28–May 14, 2023
  - Vaccination self-reported
  - n=3,437

Influenza Vaccination Coverage among Healthcare Personnel, by Occupation and Work Setting, United States, 2020-21 and 2021-22 Seasons

Characteristics	2021-22 Influenza season		2022-23 Influenza season		Percentage point change in weighted % vaccinated from 2021-22 to 2022-23
	Number (weighted %)	Weighted % Vaccinated (95% CI)	Number (weighted %)	Weighted % Vaccinated (95% CI)	(95% CI)
Total/Overall	3,618	80.6 (77.4, 83.5)	3,437	75.9 (73.1, 78.6)	-4.7 (-8.7, -0.6)*
Work setting†					
Hospital	1,488 (40.1)	92.2 (89.4, 94.4)**	1,125 (39.4)	85.7 (81.3, 89.4)**	-6.5 (-11.1, -1.9)*
Ambulatory care	1,335 (31.7)	81.4 (76.9, 85.3)	1,083 (32.4)	75.3 (70.9, 79.4)	-6.0 (-11.8, -0.2)*
Long-term care facility/home health care	648 (28.6)	67.9 (59.6, 75.4)**	1,029 (28.1)	68.3 (61.4, 74.5)**	0.3 (-9.6, 10.3)
Other clinical setting	783 (10.2)	80.4 (73.0, 86.4)	674 (11.9)	68.5 (61.3, 75.0)**	-11.9 (-21.1, -2.7)*

*Statistically significant ($p<0.05$) when compared across seasons.
†Respondents could select more than one work setting. Each work setting is represented by a separate variable with two levels (yes/no, where reference level is no).
**Statistically significant ($p<0.05$) when compared with referent in the same season.

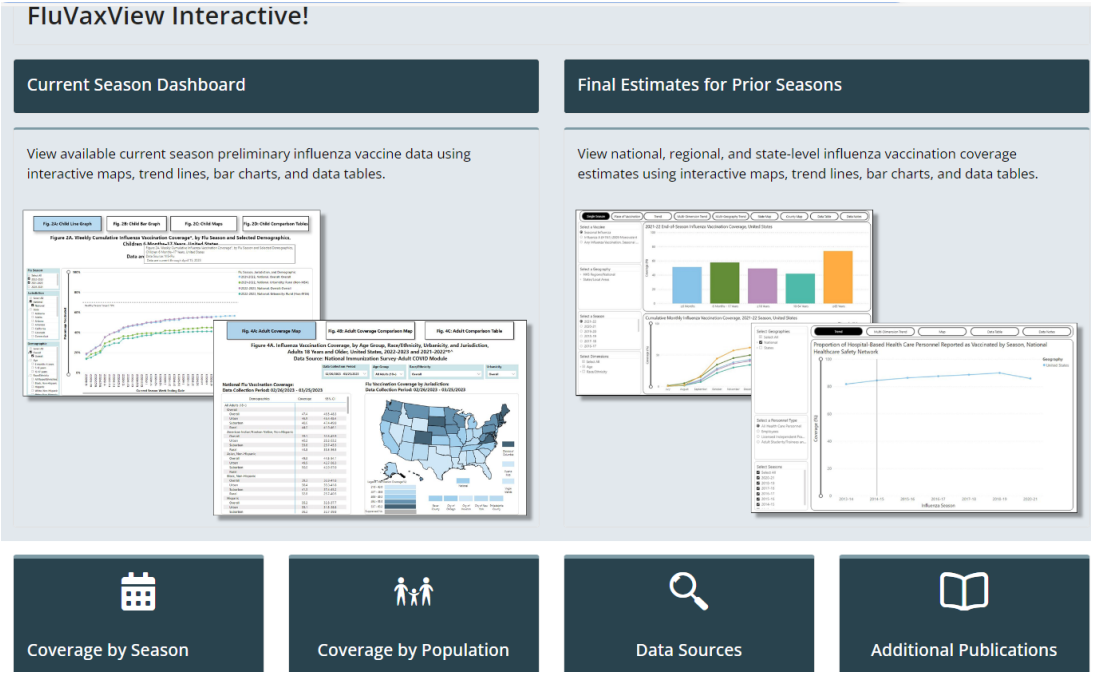
Limitations

- **Vaccination coverage data rely upon self-report and are not validated with medical records.**
  - Validity studies have shown that parental report (for children) may overestimate influenza vaccination coverage.
  - Published studies of validity of self-report of adult influenza vaccination have shown mixed results, with net bias ranging from 1-29 percentage points.
- **Bias might remain after weighting adjustments.**
  - NIS and BRFSS are telephone surveys excluding households with no telephone service.
  - Internet panel surveys are non-probability samples of people who self-selected entry into the panel and participation in the survey.
  - Selection bias possible if participation in the surveys is related to vaccination status.

Summary

- **Among children, flu vaccination coverage is similar to last flu season**
  - Remains ~6 percentage points lower than the 2019-20 season
  - Lowest among non-Hispanic Black children
  - Has decreased among children living in rural areas and remains lower than urban and suburban children
- **Among adults, flu vaccination coverage is 2.5 percentage points lower than last season**
  - Similar to pre-pandemic coverage
  - Remains lower among all other racial/ethnic groups compared with White and Asian adults
- **Coverage among pregnant women has decreased 10-15 percentage points since the 2019-20 season**
- **Coverage among health care personnel decreased ~5 percentage points compared to last season**

Flu vaccination coverage estimates for previous seasons and the current season can be found at: [FluVaxView | FluVaxView | Seasonal Influenza (Flu) | CDC]



Thank you!

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For more information, contact CDC
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