



INFLUENZA AND COVID-19 VACCINATION COVERAGE

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Outline

- **Estimates of influenza vaccination coverage for the 2021-22 season**
 - Children 6 months through 17 years (NIS-Flu)
 - Adults ≥18 years (BRFSS)
 - Pregnant women (Internet Panel Survey)
 - Healthcare personnel (internet Panel Survey)

- **Preliminary estimates of influenza vaccination coverage for the 2022-23 season**
 - Doses administered in pharmacies and provider offices (IQVIA)
 - Children 6 months through 17 years (NIS-Flu)
 - Pregnant women (Vaccine Safety Datalink)

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Outline (cont)

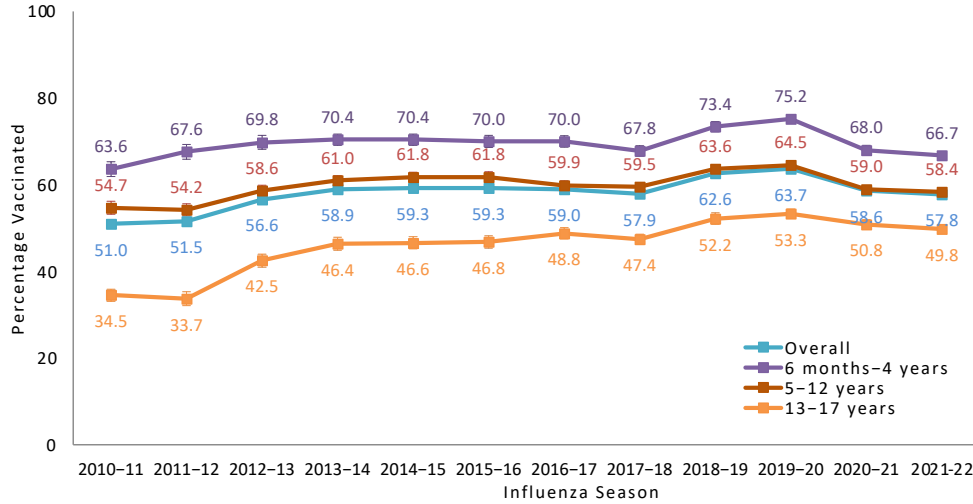
- **COVID-19 vaccination coverage**
 - ≥1 dose, primary series, bivalent booster (administration data)
 - ≥ dose and bivalent booster coverage by demographics (NIS-Adult COVID Module)
- **Influenza and COVID-19 vaccine coadministration**
 - Vaccine Safety Datalink, NIS-Adult COVID Module
- **Limitations and conclusions**

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Influenza Vaccination Coverage, 2021-22 Season

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Influenza Vaccination Coverage by Age, Children 6 months–17 years, United States, 2010–2022

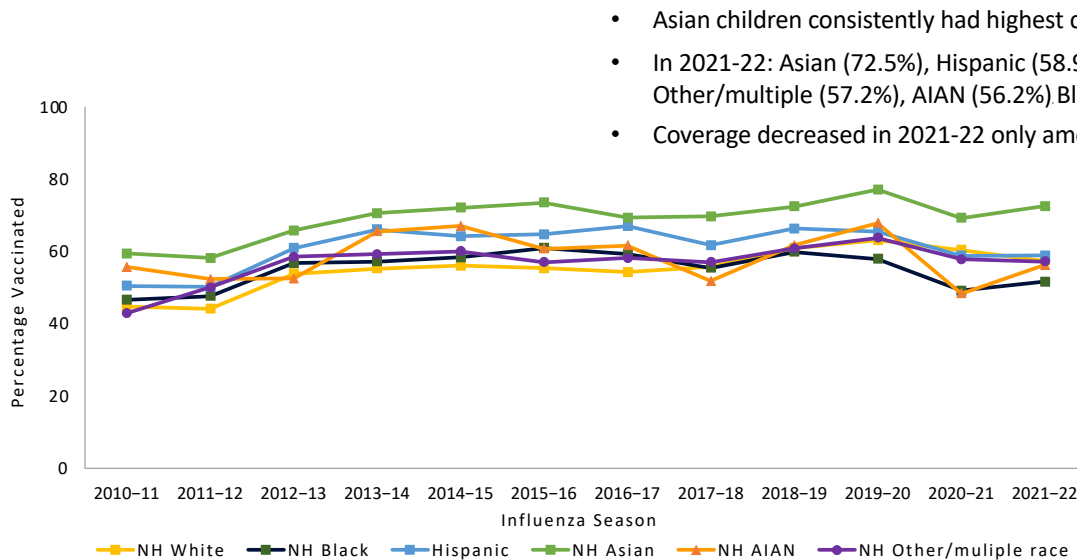


- 57.8% in 2021-22
- Decreased 0.8 percentage points since 2020-21
- Decreased 5.9 percentage points since 2019-20

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

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Influenza Vaccination Coverage by Race/Ethnicity, Children 6 months–17 years, United States, 2010–2022

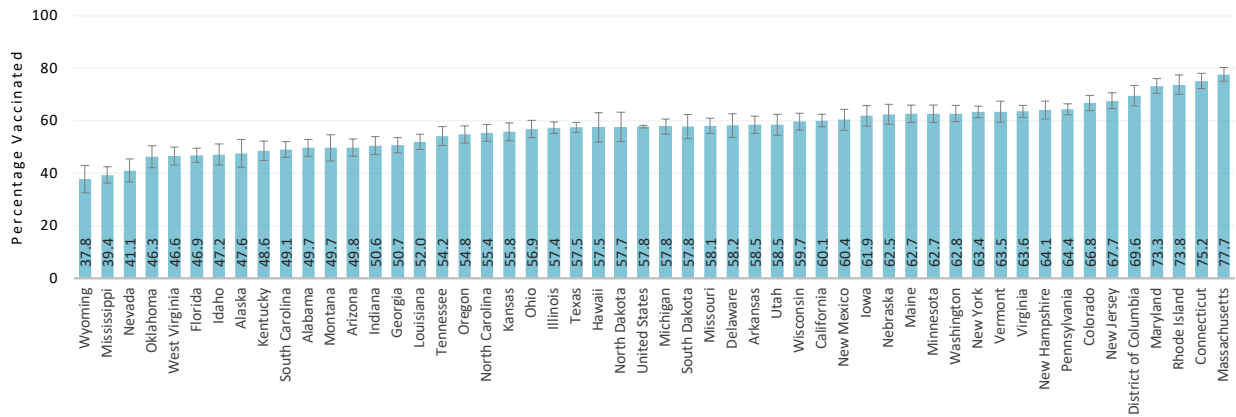


- Asian children consistently had highest coverage
- In 2021-22: Asian (72.5%), Hispanic (58.9%), White (57.4%), Other/multiple (57.2%), AIAN (56.2%) Black (51.6%)
- Coverage decreased in 2021-22 only among White children

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

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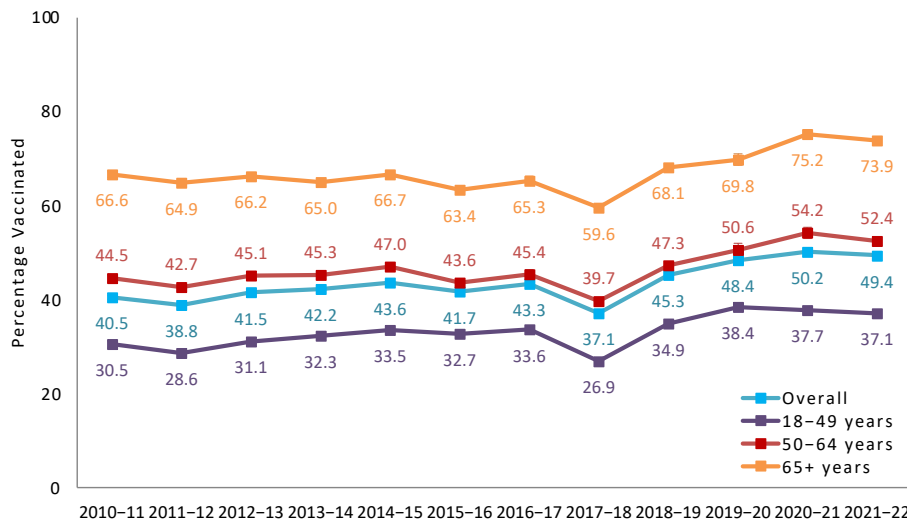
Influenza Vaccination Coverage by State, Children 6 months–17 years, United States, 2010–2022



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

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Influenza Vaccination Coverage by Age Group, Adults ≥18 years, United States, 2010–2022

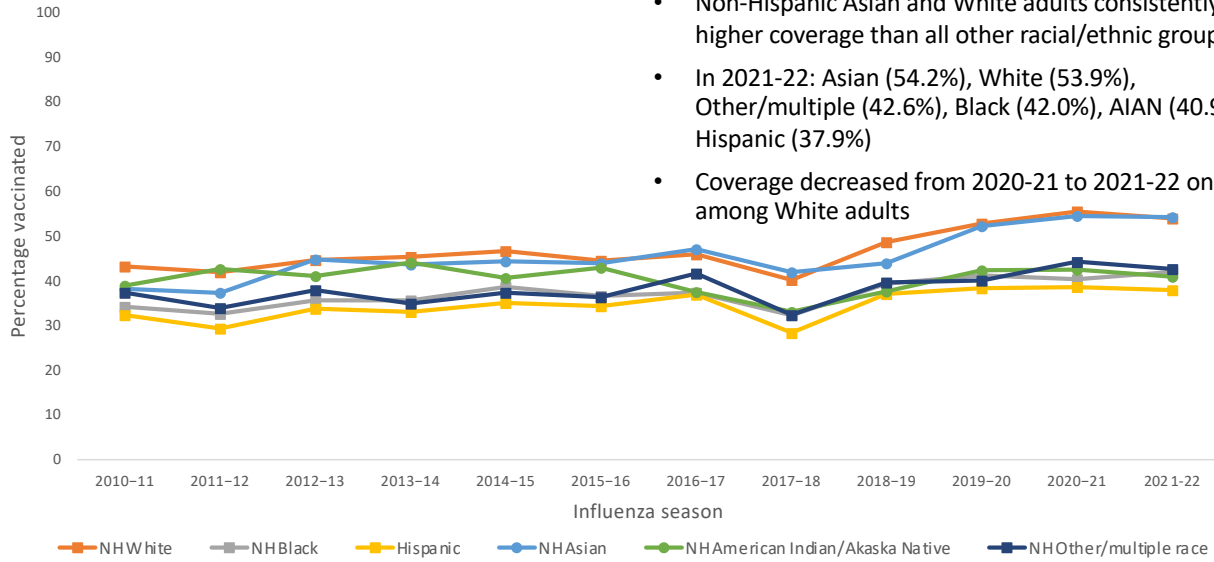


Data Source: Behavioral Risk Factor Surveillance System (BRFSS) Influenza Season

- Overall 49.4% in 2021-22
- Decreased 0.8 percentage points since 2020-21
- Still higher than pre-pandemic season (48.4% in 2019-20)
- Only 18-49 yr age group lower in 2021-22 (37.1%) compared to pre-pandemic

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Influenza Vaccination Coverage by Race/Ethnicity, Adults ≥18 years, United States, 2010–2022

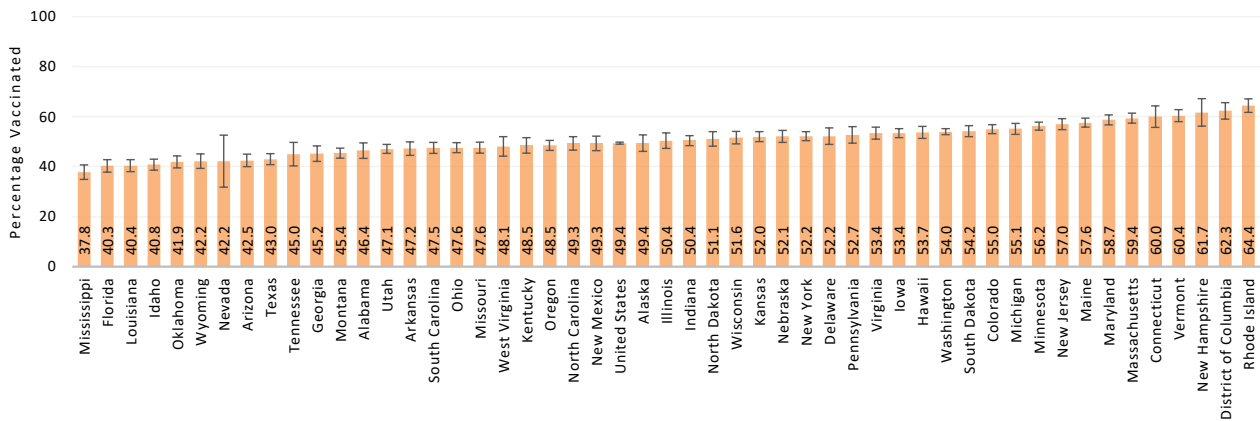


- Non-Hispanic Asian and White adults consistently have higher coverage than all other racial/ethnic groups
- In 2021-22: Asian (54.2%), White (53.9%), Other/multiple (42.6%), Black (42.0%), AIAN (40.9%), Hispanic (37.9%)
- Coverage decreased from 2020-21 to 2021-22 only among White adults

Data source: Behavioral Risk Factor Surveillance System

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Influenza Vaccination Coverage by State, Adults ≥18 years, United States, 2021–2022 Season



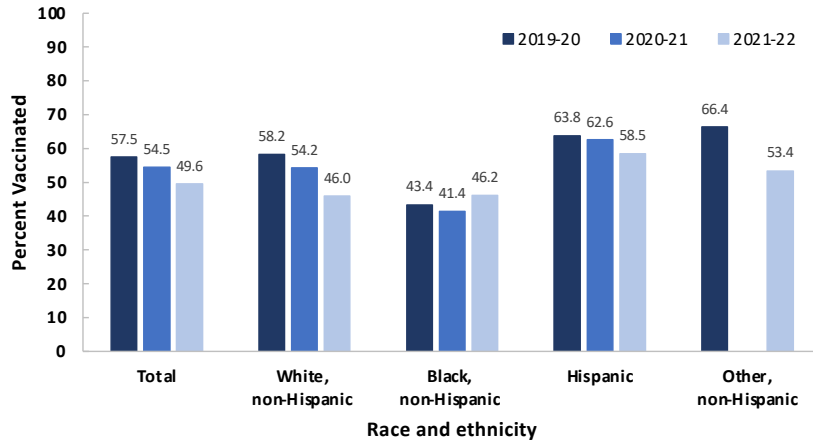
Data Source: Behavioral Risk Factor Surveillance System (BRFSS)

Error bars represent 95% confidence intervals around the estimates.

California estimate was 40.5% but excluded from the figure because this estimate represents vaccinations only through November 2021. For the 2020-21 season among adults 18+ years in California, coverage increased from 35.7% by end-November to 47.0% by end-May.

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Influenza Vaccination Coverage among Pregnant Women, by Race/Ethnicity, United States, 2019–2022



- Overall coverage 49.6% in 2021-22
- Decreased 4.9 percentage points since 2020-21 and 7.9 percentage points since 2019-20
- Significant decreases seen only among White women

Data source: Internet Panel Survey

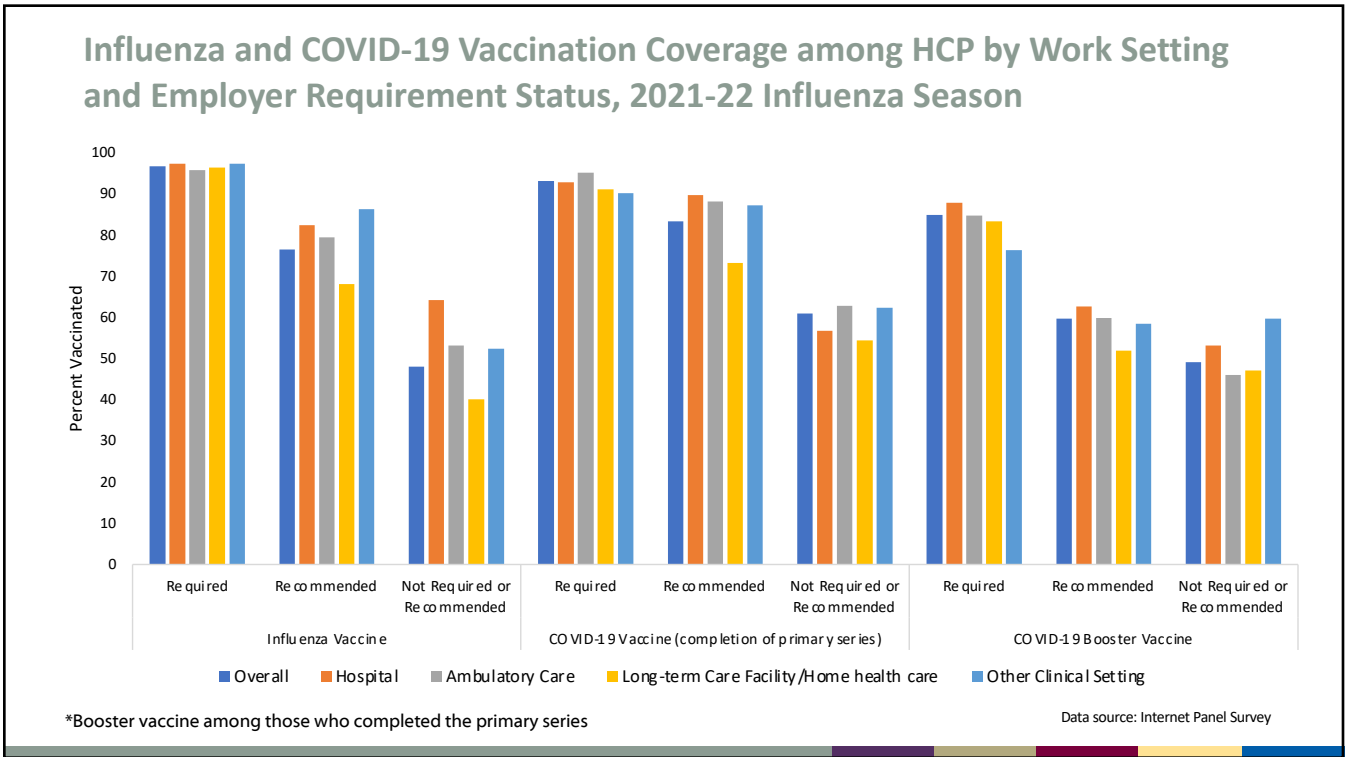
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Influenza Vaccination Coverage among Healthcare Personnel, by Occupation and Work Setting, Internet Panel Survey, United States, 2020-21 and 2021-22 Seasons

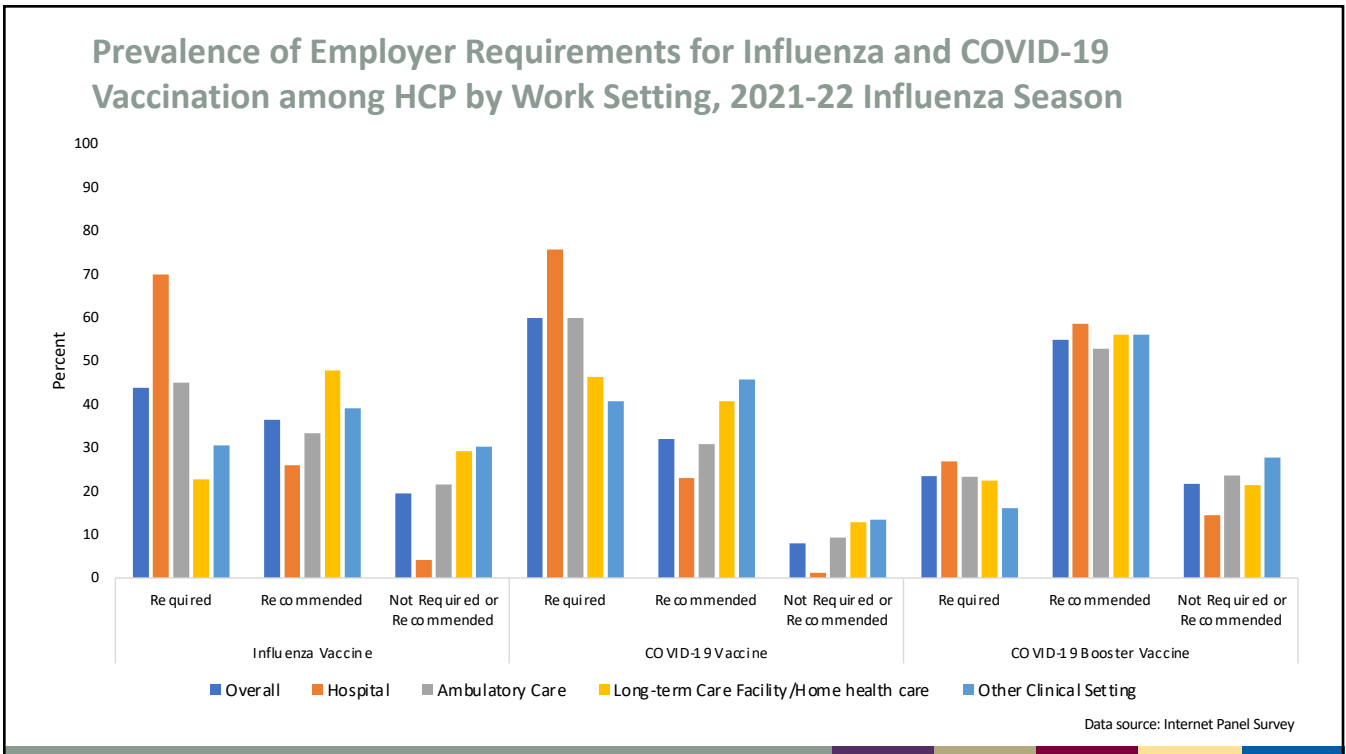
Characteristics	2020-21 Influenza season		2021-22 Influenza season		Percentage point change in weighted % vaccinated from 2020-21 to 2021-22 (95% CI)
	Number (weighted %)	Weighted % Vaccinated (95% CI)	Number (weighted %)	Weighted % Vaccinated (95% CI)	
Total/Overall	2,391	75.9 (71.3, 80.1)	3,618	79.9 (76.6, 82.9)	4.0 (-1.4, 9.4)
Occupation					
Physician (ref)	283 (3.4)	91.3 (85.2, 95.5)	591 (3.6)	96.8 (94.9–98.1)	5.5 (0.1, 10.9)
Nurse practitioner/ Physician assistant	147 (1.4)	88.9 (56.0, 99.5) [§]	333 (1.7)	92.4 (88.7–95.1)	3.5 (-18.5, 25.5)
Nurse	179 (18.4)	90.3 (82.2, 95.5)	362 (18.7)	87.8 (82.7–91.8)	-2.5 (-10.6, 5.6)
Pharmacist	309 (1.3)	90.3 (86.4, 93.4)	509 (1.5)	94.6 (92.2–96.4)	4.3 (0.2, 8.4)
Other clinical personnel	561 (18.8)	83.0 (75.5, 89.0)	916 (18.8)	87.8 (85.2–90.1)	4.8 (-2.4, 12.0)
Assistant/aide	577 (24.2)	64.8 (60.4, 68.9)	540 (24.8)	68.8 (64.4–73.0)	4.0 (-2.0, 10.0)
Non-clinical personnel	306 (32.5)	69.0 (55.8, 80.2)	333 (30.9)	75.7 (65.9–83.9)	6.7 (-8.5, 21.9)
Work setting*					
Hospital	914 (38.8)	91.6 (87.8, 94.5)	1,488 (40.3)	92.0 (89.6–94.1)	0.4 (-3.6, 4.4)
Ambulatory care	734 (22.8)	77.3 (63.9, 87.6)	1,335 (31.2)	81.2 (77.2–84.7)	3.9 (-8.5, 16.3)
Long-term care facility/home health care	576 (41.6)	66.0 (57.6, 73.6)	646 (29.3)	66.4 (57.5–74.4)	0.4 (-11.0, 12.0)
Other clinical setting	629 (10.9)	66.8 (54.6, 77.5)	754 (9.5)	79.4 (72.4–85.3)	12.6 (-0.5, 25.7)

[§] 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).

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2022-23 Influenza Season Preliminary Estimates

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Preliminary 2022–23 influenza vaccination coverage estimates

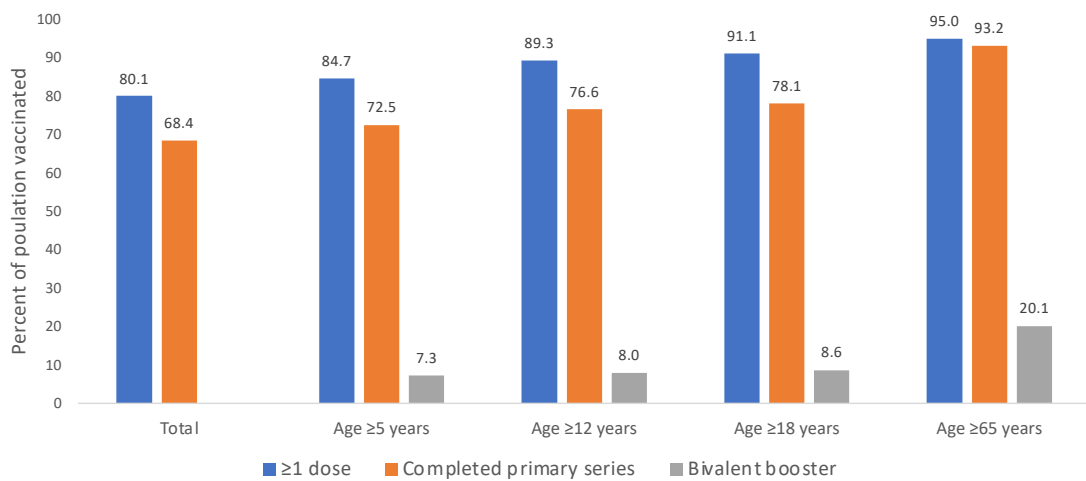
- Updated weekly on [Weekly Flu Vaccination Dashboard | FluVaxView | Seasonal Influenza \(Flu\) | CDC](#)
- An estimated 22.7 million flu vaccinations were administered in pharmacies and physician medical offices as of week ending October 8, 2022, compared with an estimated 27.3 million at the same time in October 2021.
- Vaccination coverage for all children as of week ending October 15, 2022, is similar to estimate at same time October 2021 (22.1% compared to 21.7%).
- Coverage among pregnant persons at the end of September 2022 was 5.4 percentage points lower compared with the end of September 2021 (21.0% compared with 26.4%).
- Based on an IPSOS Omnibus survey conducted October 7-9, 2002, coverage among adults was 21.2%, similar to the estimate from a comparable survey conducted this same time last year.

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COVID-19 Vaccination Coverage

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COVID-19 vaccination primary series and bivalent booster dose coverage as of October 27, 2022, United States



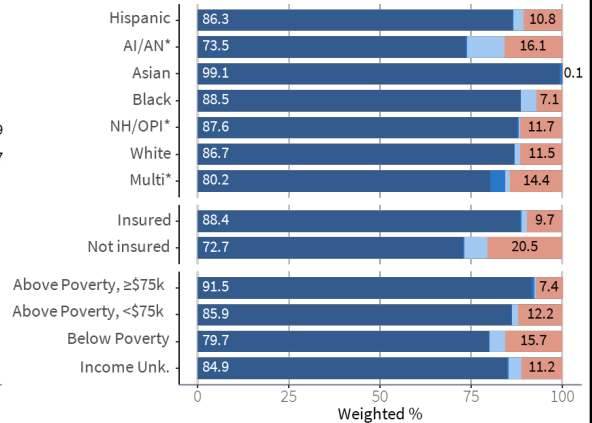
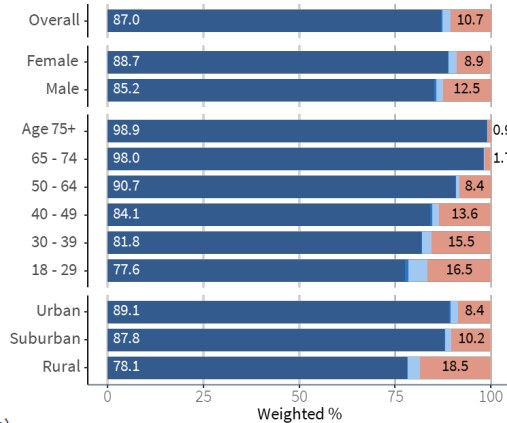
Source: Vaccine administration data reported to CDC by jurisdictions, COVID Data Tracker

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Vaccine Status and Intent by Demographics, National Immunization Survey- Adult COVID Module, October 16–22, 2022

(N = 11,520)

87.0% Endorsers, vaccinated
0.4% Endorsers, definitely will get vaccinated
2.0% Reachable
10.7% Reluctant



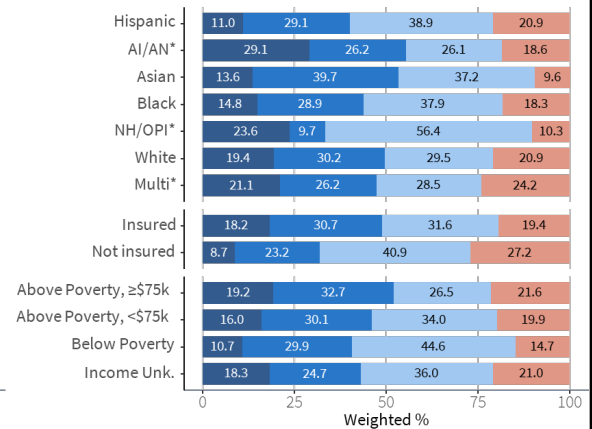
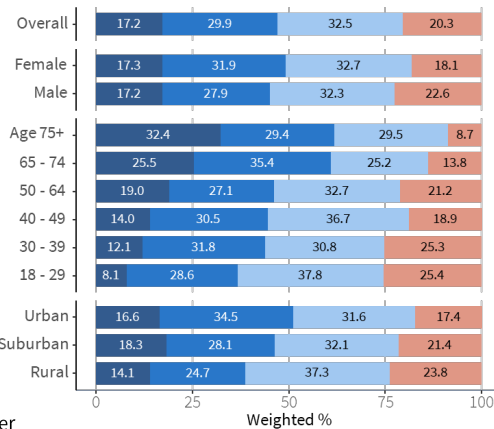
*Due to small sample size results should be interpreted with caution. AI/AN: American Indian/Alaska Native; NH/OPI: Native Hawaiian/Other Pacific Islander.

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Bivalent Booster Status and Intent Among Adults Who Have Completed the COVID-19 Primary Series by Demographics, National Immunization Survey- Adult COVID Module, October 16–22, 2022

(N = 9,540)

17.2% Endorsers, received bivalent booster
29.9% Endorsers, definitely will get booster
32.5% Reachable
20.3% Reluctant



*Due to small sample size results should be interpreted with caution. AI/AN: American Indian/Alaska Native; NH/OPI: Native Hawaiian/Other Pacific Islander.

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Influenza and COVID-19 Vaccine Coadministration

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Coadministration of influenza and COVID-19 vaccine

- **From the NIS-ACM (surveys conducted October 16-22, 2022):**
 - Among adults who received a COVID vaccine since July 1, **28.6%** received a flu vaccine at the same time
 - Among adults who received a flu vaccine since July 1, **24.0%** received a COVID vaccine at the same time
- **From the Vaccine Safety Datalink (data through October 15, 2022):**
 - Among ~610,000 people age 5+ who received a COVID bivalent booster, **42.6%** received a flu vaccine at the same time
 - Among ~2,000,000 people age 5+ who received a flu vaccine, **14.0%** received a COVID vaccine at the same time

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Limitations

- **Vaccination coverage data from surveys 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 included volunteers who self-selected entry into the panel and participation in the survey, and excluded those with no Internet access or who chose not to join the Internet panel.

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Limitations

- **Estimates of number of vaccinations administered in pharmacies and physician offices are based on claims.**
 - Numbers do not include vaccinations given in workplace settings and other instances where a claim for reimbursement was not filed.
 - Estimates from current influenza season have less follow-up time for claims to be filed and counted than estimates in previous seasons.
- **Estimates from the Vaccine Safety Datalink are based on patients at nine integrated healthcare organizations and might not be representative of the general population.**
- **COVID-19 vaccine administration data reported to CDC might contain duplicate persons, leading to overcounting first vaccine doses and undercounting subsequent doses.**

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Summary

- Among all persons ≥ 6 months, influenza vaccination coverage was 51.4% in 2021-22
 - 52.1% in 2020-21
- Among adults 18+, coverage was 49.4%
 - Lower than 2020-21 (50.2%) but still higher than pre-pandemic coverage (48.4% in 2019-20)
- Among children 6 months–17 years, coverage was 57.8%
 - Decrease of ~ 1 percentage point since 2020-21 but ~ 6 percentage points since 2019-20
- Among pregnant women, coverage was 49.6%
 - Decreased 4.9 percentage points since 2020-21 and 7.9 percentage points since 2019-20
- In all populations, decreases primarily seen among White persons
- Racial/ethnic disparities in influenza vaccination coverage persist
 - While disparities in primary series COVID-19 vaccination have lessened, disparities in booster dose coverage are apparent

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Thank you!

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For more information, contact CDC
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