



## INFLUENZA VACCINATION COVERAGE: PRELIMINARY ESTIMATES FOR THE 2018-19 SEASON

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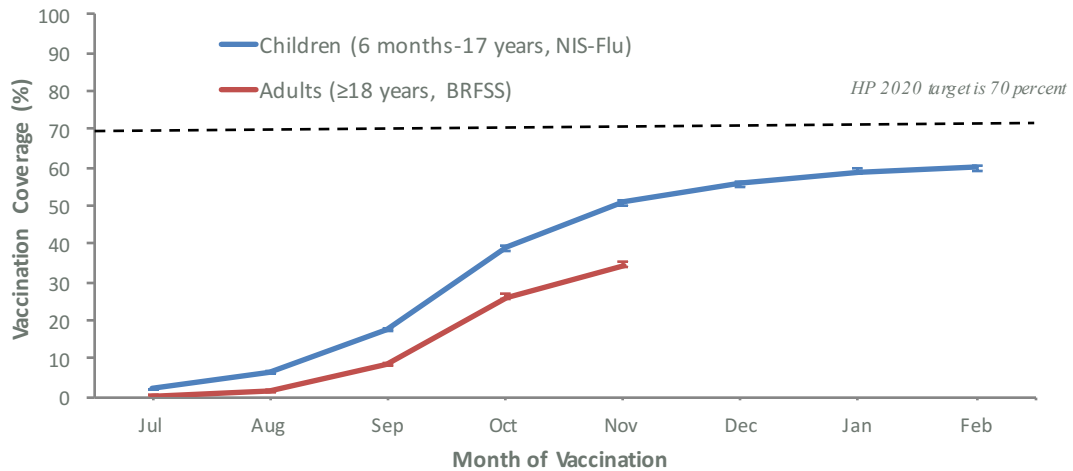
National Adult and Influenza Immunization Summit

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### Outline

- **Preliminary estimates for the 2018-19 season**
  - Children
    - $\geq 1$  dose, 6 months through 17 years (NIS-Flu)
  - Adults
    - $\geq 18$  years general population (BRFSS)
    - U.S. nursing home residents (CMS Minimum Data Set)
    - Pregnant women (Internet Panel Survey)
    - Health care personnel (Internet Panel Survey)
- **Limitations**
- **Conclusions**

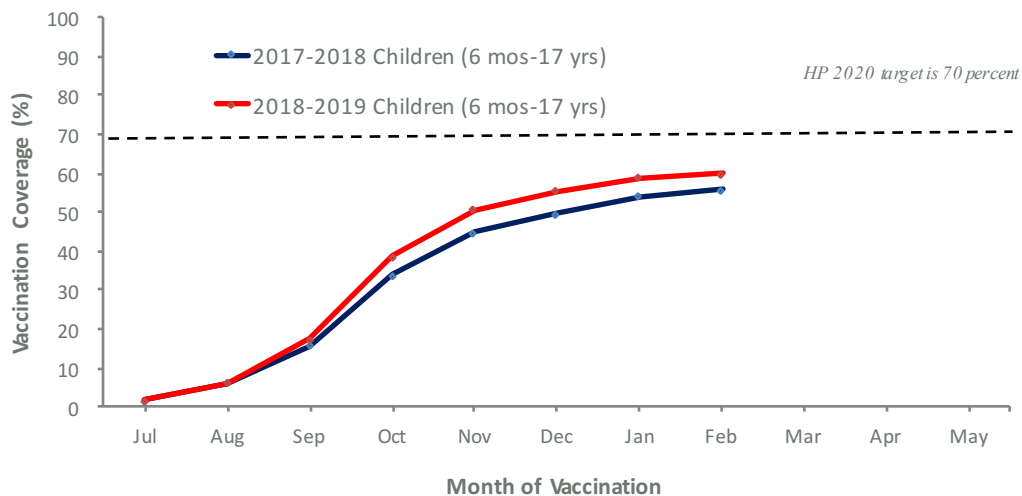
## Preliminary Influenza Vaccination Coverage, Adults and Children, United States, 2018-2019 Season\*



\*Preliminary child results from NIS-Flu interviews conducted October 2018 through March 2019.  
Preliminary adult results from BRFSS interviews conducted October through December 2018.

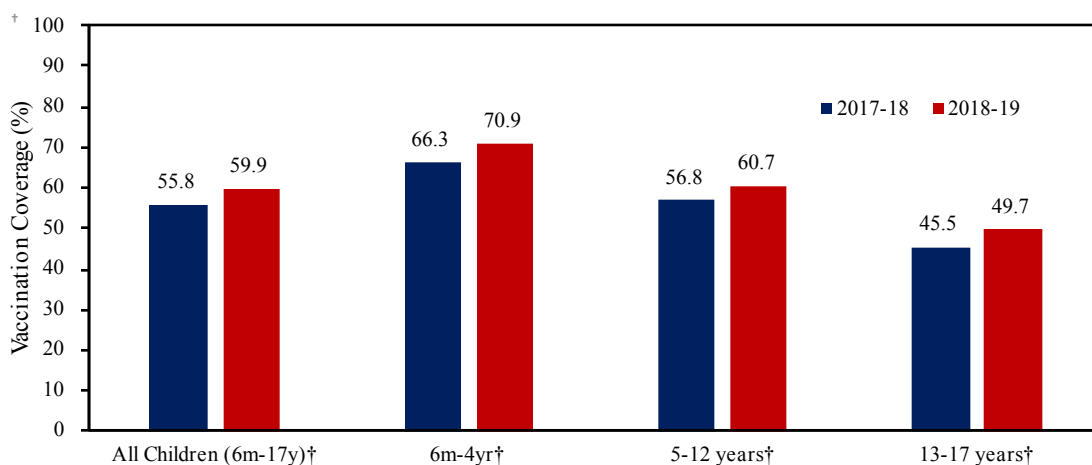
Children

## Preliminary Influenza Vaccination Coverage for the 2018-19 Season Compared with Preliminary 2017-18 Season Estimates, Children, NIS-Flu, United States\*



\* Preliminary child results from NIS-Flu interviews conducted October through March of each season.

## Preliminary Influenza Vaccination Coverage for the 2018-19 Season Compared with Preliminary 2017-18 Season Estimates by Age Group, Children, NIS-Flu, United States\*

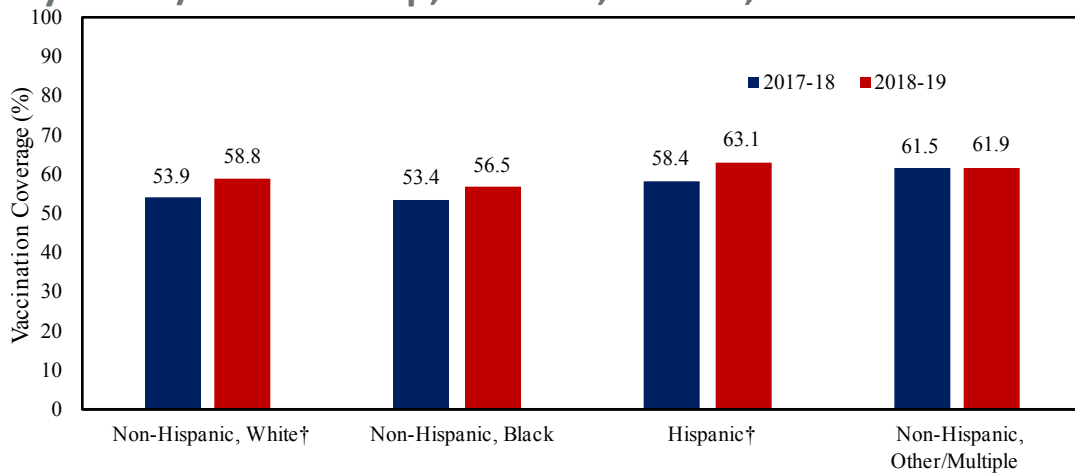


\* Preliminary child results from NIS-Flu interviews conducted October through March of each season.

† - Kaplan-Meier coverage estimate

† Statistically significant increase in preliminary 2018-19 coverage compared to preliminary 2017-18 coverage.

## Preliminary Influenza Vaccination Coverage for the 2018-19 Season Compared with Preliminary 2017-18 Season Estimates, by Racial/Ethnic Group, Children, NIS-Flu, United States\*



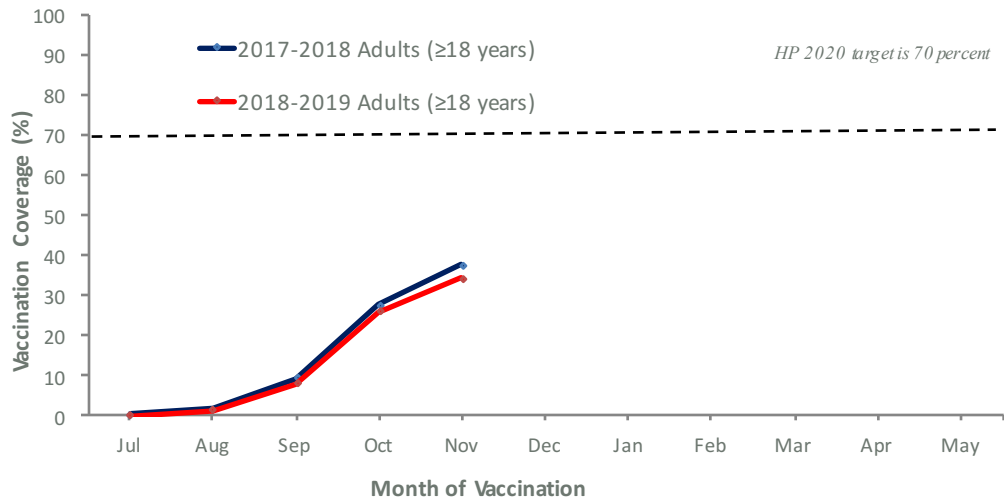
\* Preliminary child results from NIS-Flu interviews conducted October through March of each season.

% - Kaplan-Meier coverage estimate

† Statistically significant increase in preliminary 2018-19 coverage compared to preliminary 2017-18 coverage.

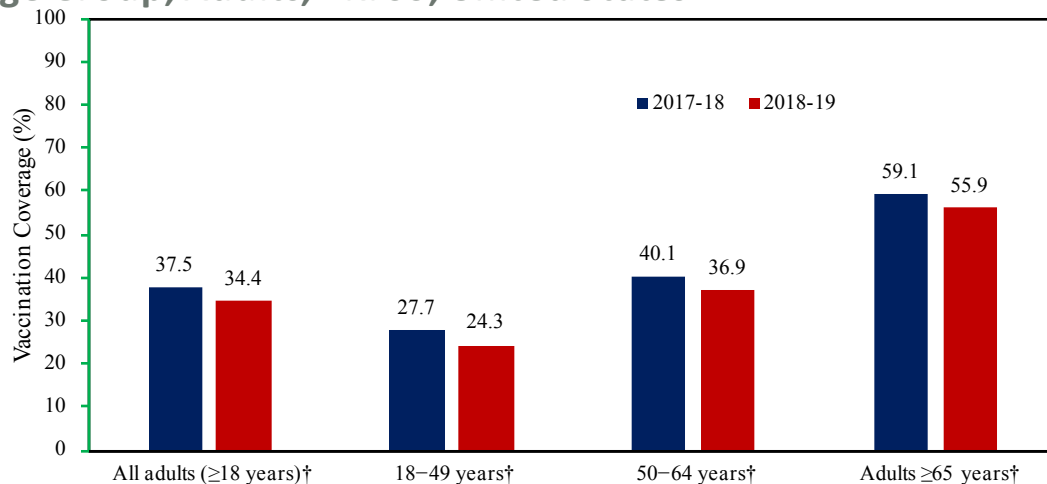
# Adults

## Preliminary Influenza Vaccination Coverage for the 2018-19 Season Compared to Preliminary 2017-18 Season Estimates, Adults, BRFSS, United States\*



\*Preliminary adult results from BRFSS interviews conducted October through December of each season. Data from New Jersey and the District of Columbia were not reported in 2018-19 and so were excluded from 2017-18.

## Preliminary Influenza Vaccination Coverage for the 2018-19 Season Compared to Preliminary 2017-18 Season Estimates by Age Group, Adults, BRFSS, United States\*

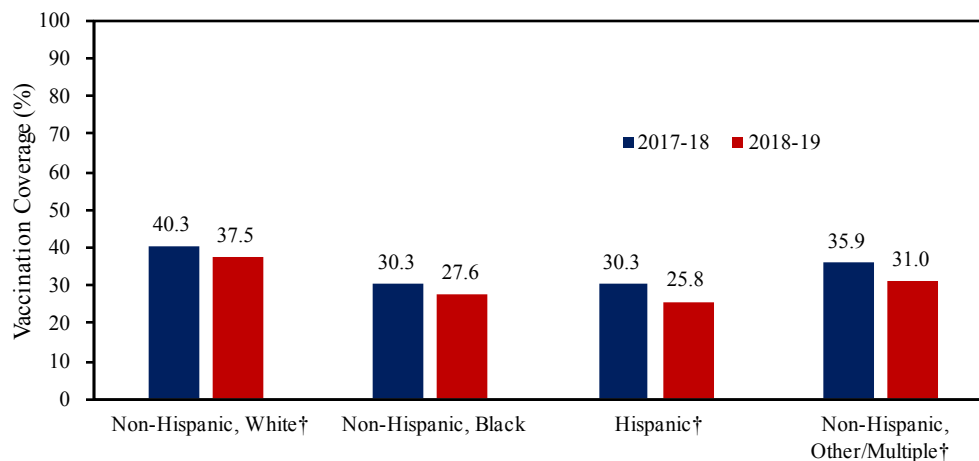


\*Preliminary adult results from BRFSS interviews conducted October through December 2018.

% - Kaplan-Meier coverage estimate

† Statistically significant decrease in preliminary 2018-19 coverage compared to preliminary 2017-18 coverage.

## Preliminary Influenza Vaccination Coverage for the 2018-19 Season Compared to Preliminary 2017-18 Season Estimates by Racial/Ethnic Group, Adults, BRFSS, United States\*



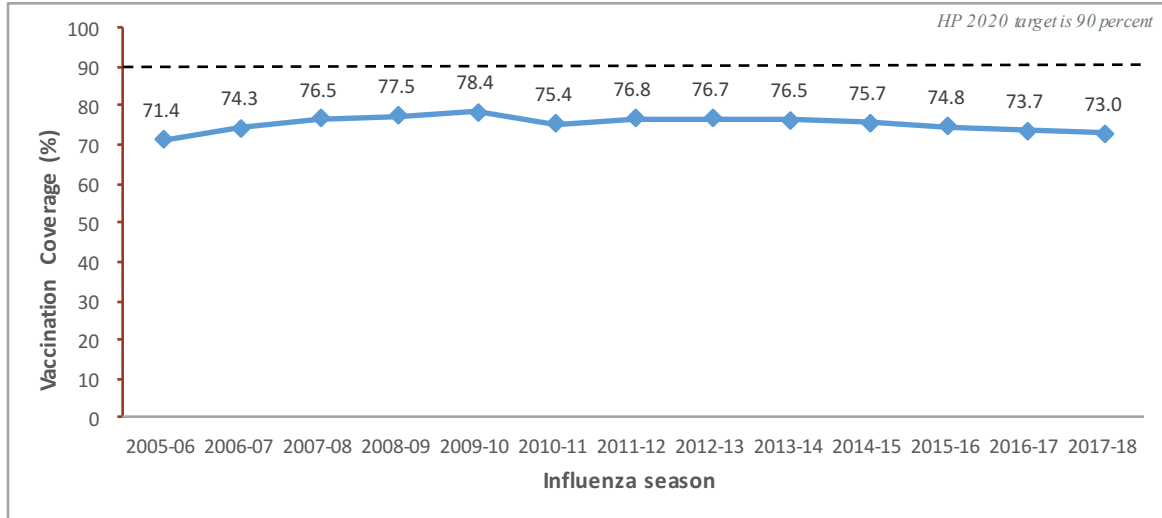
\* Preliminary adult results from BRFSS interviews conducted October through December 2018.

† - Kaplan-Meier coverage estimate

‡ Statistically significant decrease in preliminary 2018-19 coverage compared to preliminary 2017-18 coverage.

## Nursing Home Residents

## Influenza Vaccination Coverage Among U.S. Nursing Home Residents, 2005-06 through 2017-18 Influenza Seasons\*

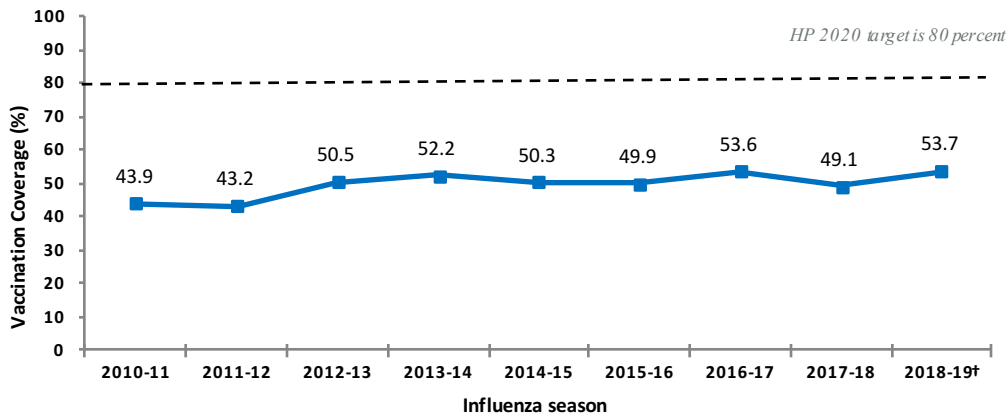


\*Source: Minimum Data Set, Centers for Medicare & Medicaid Services.

## Pregnant Women

## Influenza Vaccination Coverage Among Pregnant Women, 2010-11 through 2018-19 Influenza Seasons

Influenza vaccination coverage\* before and during pregnancy among women pregnant during October-January of each influenza season, Internet panel survey, United States

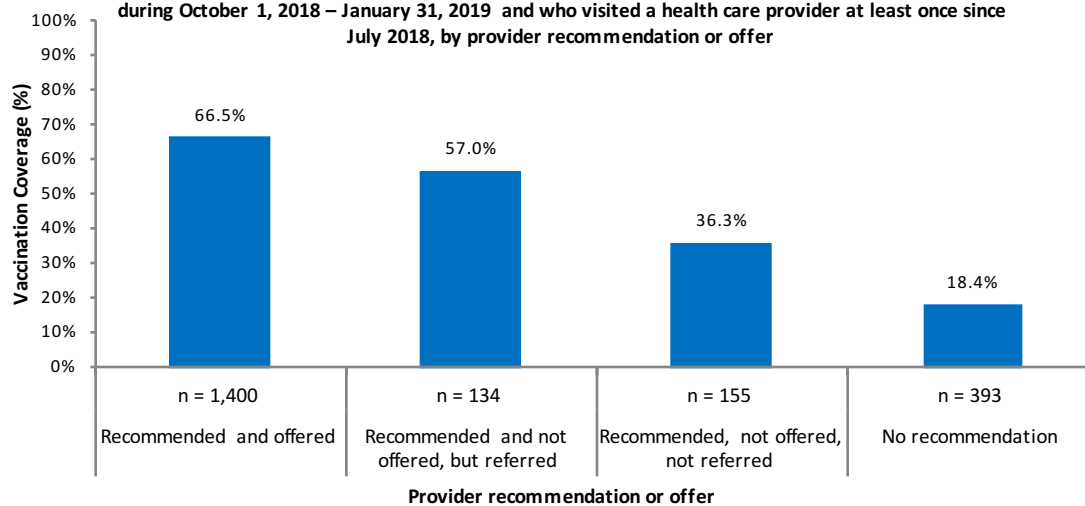


\* Beginning in the 2012-13 season, women vaccinated since July 1 were counted as vaccinated. In prior seasons, only women vaccinated since August 1 were counted as vaccinated.

† 2018-19 estimate is preliminary.

## Preliminary Influenza Vaccination Among Pregnant Women by Provider Recommendation or Offer of Vaccination, 2018-19 Season, Internet Panel Survey, United States

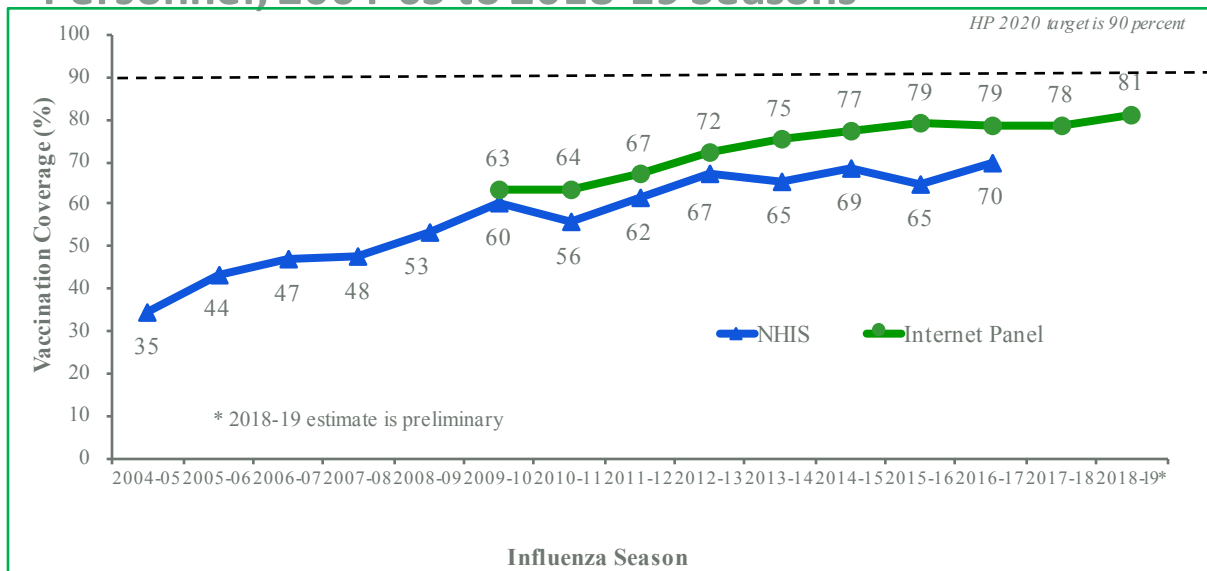
Influenza vaccination coverage before and during pregnancy among women pregnant any time during October 1, 2018 – January 31, 2019 and who visited a health care provider at least once since July 2018, by provider recommendation or offer





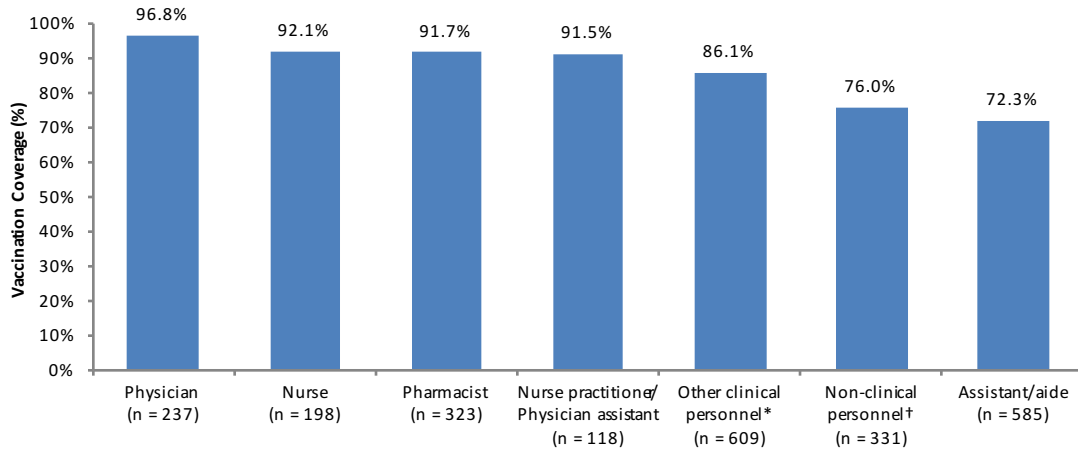
# Health Care Personnel

## Estimated Influenza Vaccination Coverage, Healthcare Personnel, 2004-05 to 2018-19 Seasons



## Preliminary Influenza Vaccination Coverage Among HCP by Occupation<sup>‡</sup>, 2018-19 Season

Influenza vaccination coverage among health care personnel as of early April, by occupation – Internet panel survey, United States, 2018-19 influenza season (n = 2,401)



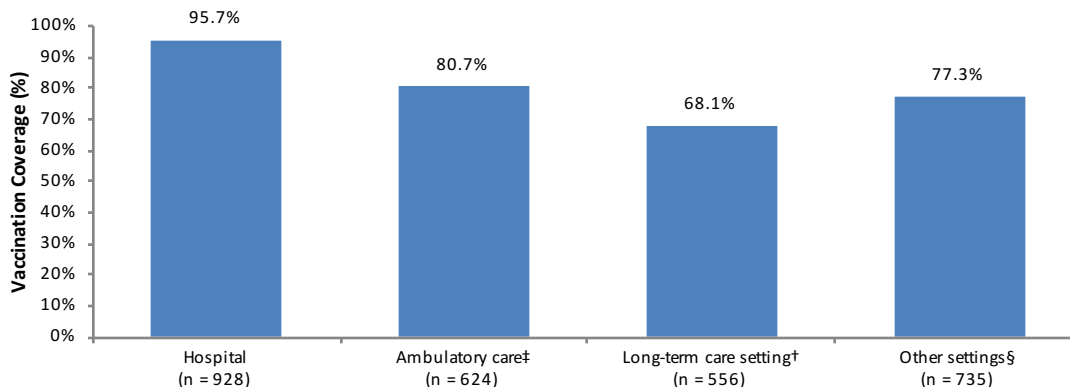
<sup>‡</sup> Note that n = 30 students are excluded from the numerator and denominator of the occupation percentages.

\* Dentists, allied health professionals, technicians and technologists, EMTs, and paramedics.

<sup>†</sup> Administrative support staff and managers and non-clinical support staff.

## Preliminary Influenza Vaccination Coverage Among HCP by Work Setting, 2018-19 Season

Influenza vaccination coverage among health care personnel as of early April, by work setting\* – Internet panel survey, United States, 2018-19 influenza season (n = 2,431)



\* Respondents may select more than one work setting.

<sup>‡</sup> Physician's office or other non-hospital setting, such as any medical clinic or any other outpatient or ambulatory care settings.

<sup>†</sup> Nursing home, assisted living facility, other long-term care facility, home health agency or home health care.

<sup>§</sup> Settings other than hospitals, ambulatory care setting, or long-term care facilities; includes dentist office or dental clinic, pharmacy, EMS, and other settings where clinical care or related services was provided to patients.

## Limitations

- **The 2018-19 influenza vaccination coverage estimates reported here are preliminary and will not be the same as the final end-of-season estimates.**
- **Most of these 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.

## Limitations (2)

- **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.

## Conclusions

- **Conclusions regarding differences between the 2018-19 season and previous seasons will be made with end-of-season estimates.**
  - These preliminary data suggest some change
  - Final estimates available end of September, 2019
- **Influenza vaccination coverage appears to still be well below HP2020 targets.**
  - 70% for all adults and all children  $\geq 6$  months of age
  - 90% for health care personnel and nursing home residents
- **Approximately half of pregnant women are unvaccinated.**

## Recommendations

- **Increased effort is needed to improve influenza vaccination coverage.**
- **Work with partners to implement Community Guide strategies proven to increase influenza vaccination coverage:**
  - Enhance access to vaccination services
  - Increase community demand for vaccines
  - Increase use of provider and system-based interventions
- **Encourage all healthcare providers to give strong recommendations for influenza vaccination.**
- **Encourage all healthcare providers to stock and offer influenza vaccine or refer patients to a provider that does.**

## Take-away points

- We need to be vigilant about efforts to improve low coverage among the most vulnerable age groups.
- We should use multiple data sources to fully understand the patterns and trends in influenza vaccination coverage.

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