

Pneumococcal Vaccine Trends Among Older Adults in the United States from 2008 to 2022

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Background

- In the United States, **older adults, ≥ 65 years are recommended to receive a pneumococcal vaccine (PNV)** to reduce the burden of pneumococcal disease¹
- PNV uptake failed to meet the Healthy People 2020 goal** with disproportionately **lower rates among minority races and ethnicities**²
- PNV uptake has historically differed by race/ethnicity, with **Black and Hispanic** having **lower coverage** compared to White adults³
- While influenza and herpes zoster vaccine uptake for adults have increased, **PNV uptake has remained the same since 2017**³

Objective

The objective of the study was to examine the real-world trends and gaps in PNV uptake among older adults in self-reported racial groups in the United States.

Methods

Centers for Disease Control and Prevention (CDC)
AdultVaxView data which collects information through Behavioral Risk Factor Surveillance System (BRFSS)⁴



BRFSS data covers United States civilian noninstitutionalized population ages 18 years and older residing in households



Identified trends in PNV uptake among older adults from 2008 to 2022



Evaluated by self-reported race/ethnicity (Hispanic, Black/Non-Hispanic, White/Non-Hispanic, Other/Multiple Races/Non-Hispanic)



Estimated rates per 100 persons with 95% confidence intervals (CI) reported; weighting and complex sampling procedures were applied

Figures and Results

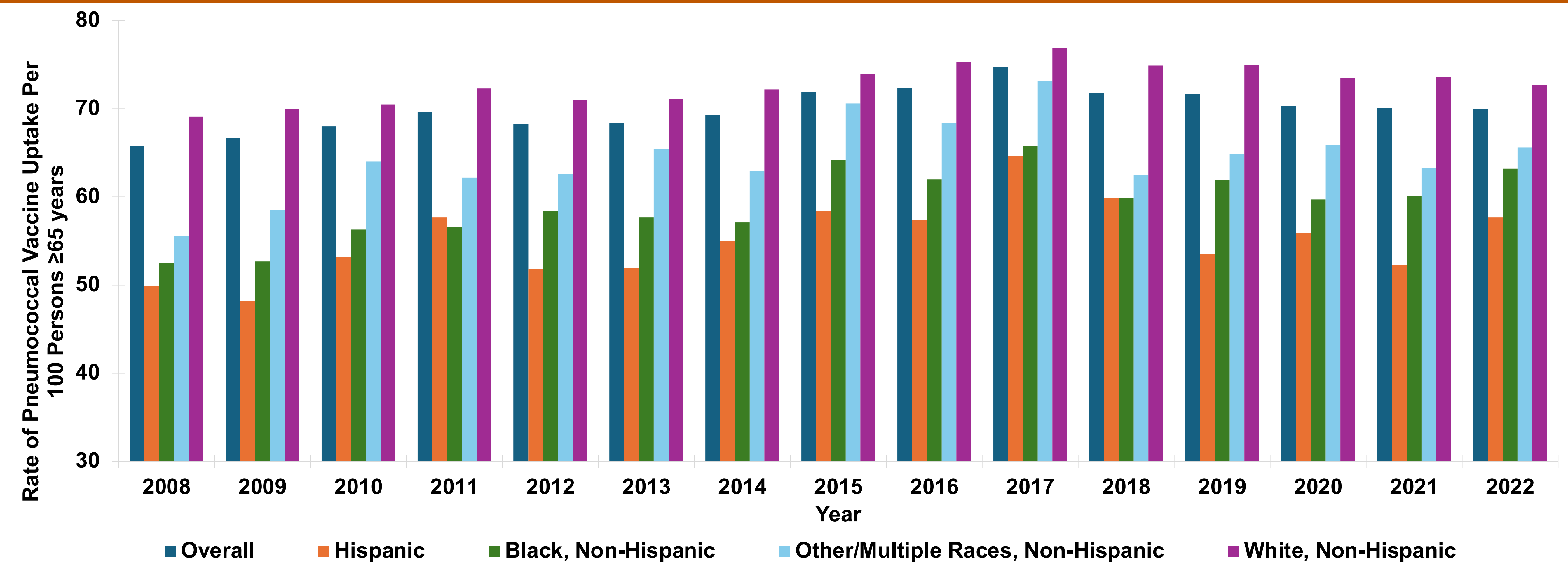


Figure 1: Rate of pneumococcal vaccine uptake among adults 65 years and older in the United States stratified by self-reported race/ethnicity

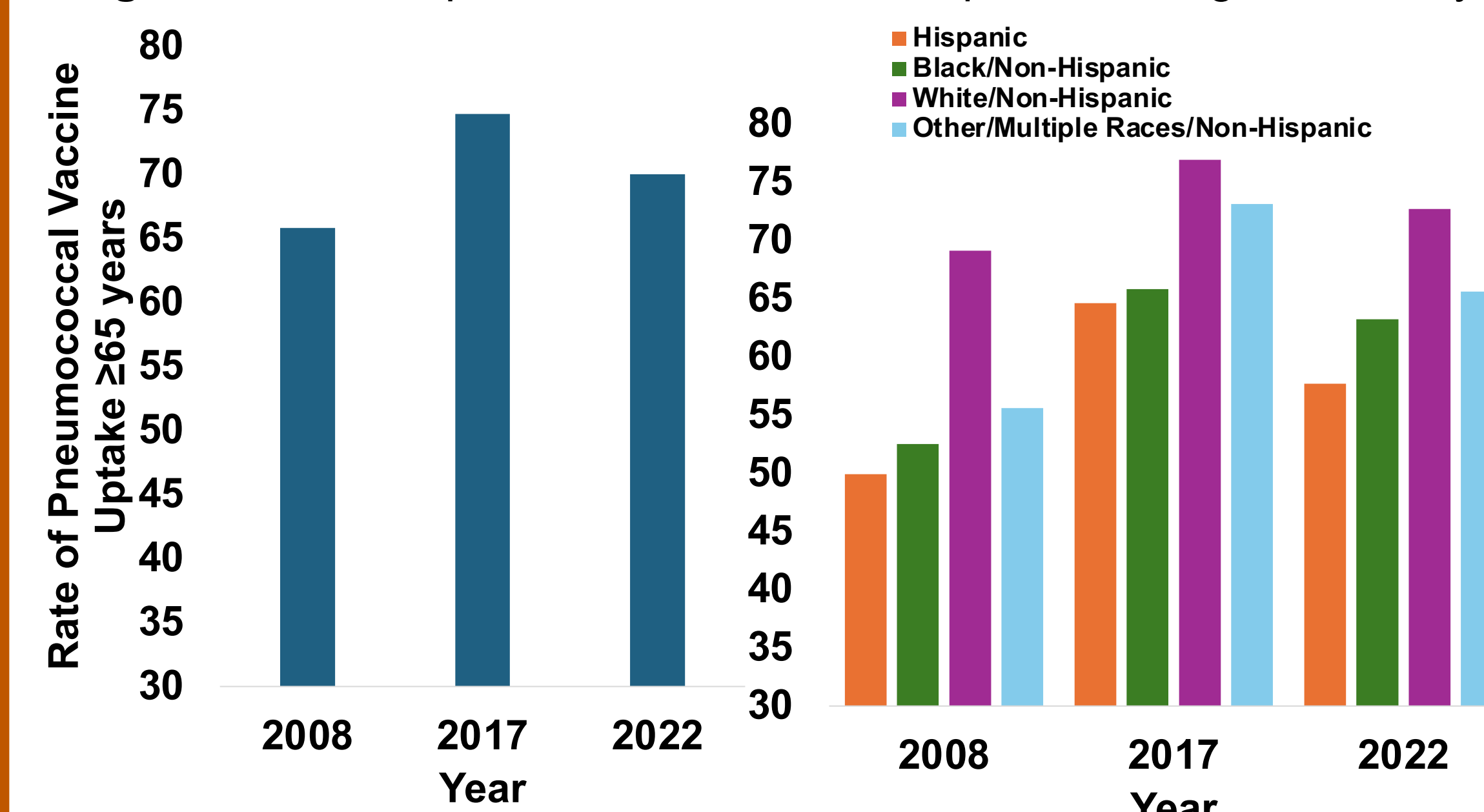


Figure 2: Rate of overall pneumococcal vaccine uptake at the beginning, end, and peak of the study period.

Figure 3: Rate of overall pneumococcal vaccine uptake at the beginning, end, and peak of the study period stratified by self-reported race/ethnicity.

- Over two million responses were collected between 2008 and 2022 (**Fig. 1**).
- PNV uptake rate increased in the study period from 65.8 per 100 persons (CI 65.3-66.3) in 2008 to 70.0 per 100 persons (69.4-70.5) in 2022, peaking at 74.7 per 100 in 2017 (**Fig 2**).
- When stratified by race, this peak in 2017 was mainly driven by a 25% higher uptake among Black/Non-Hispanics, 24% Other/Multiple Races and 23% Hispanic vs. 10% White/Non-Hispanics older adults (**Fig. 3**).
- Currently (2022), Hispanics, Black/Non-Hispanics, and Others had 26%, 15% and 11% lower PNV rates, respectively vs. White/Non-Hispanics (**Fig. 1**).

Limitations

- Data in this study relied on self-reported vaccine status via telephone, therefore, not validated through electronic medical records.
- This study was subject to non-response bias, where those who did not respond may have different vaccine behaviors than those that responded.

Conclusion

While the rate of PNV uptake increased since 2008 among those 65 years and older, rates have plateaued in recent years. Racial and ethnic disparities in PNV uptake persisted throughout the study period, highlighting the need to further investigate these differences.

References

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