

## Geographic variation in bivalent COVID-19 vaccinations among older adults with Alzheimer's disease and related dementias

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**OBJECTIVE:** To measure the uptake of bivalent COVID-19 vaccines in a national sample of older adults with ADRD and assess for variation in uptake by geography and frailty level.



### STUDY DESIGN, DATA SOURCE, AND PARTICIPANTS:

- Cohort study between August 28, 2022 (study index date) to March 31, 2023
- COVVAXAGE linked cohort (75% of Medicare beneficiaries ≥ 65 years of age)
- Community-dwelling Medicare fee-for-service (FFS) beneficiaries with ADRD
  - ADRD was defined using the 1-year Bynum algorithm based on Medicare claims



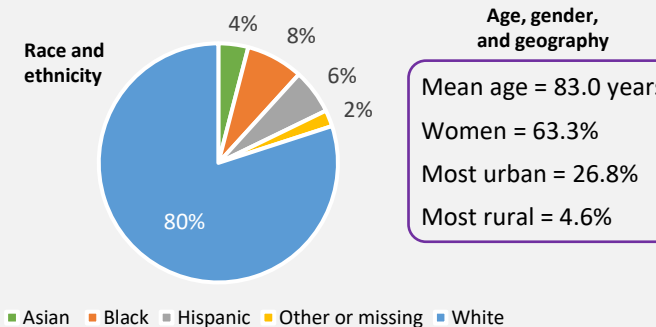
### MEASURES AND ANALYSIS:

- **Outcome:** Bivalent COVID-19 vaccinations were identified using Medicare Part B
- **Censoring criteria:** Death, long-term care/hospice admission, or administrative end of follow-up (March 31, 2023)
- **Subgroups:**
  - National Center for Health Statistics' classification for rural/urban counties
  - Kim claim's-based frailty index (non-frail [CFI < 0.15]; pre-frail [0.15 ≤ CFI < 0.25]; frail [≥ 0.25])
- **Statistical analysis:** Kaplan-Meier estimates of absolute vaccination uptake; Cox proportional hazards models for relative uptake rates by frailty and urbanicity

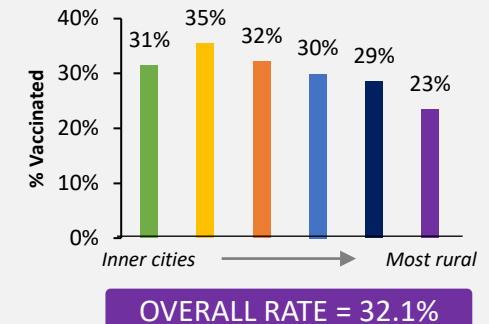


### RESULTS:

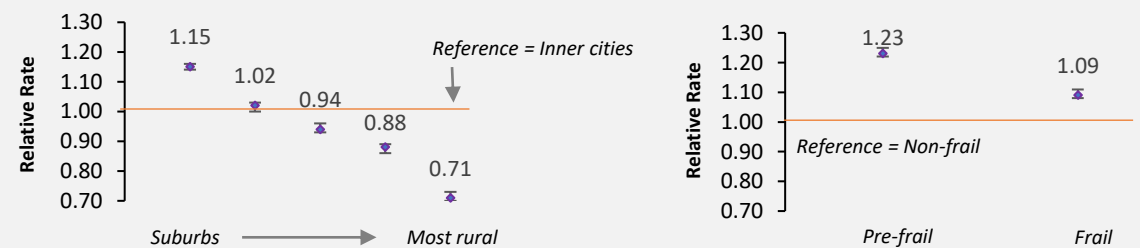
#### Population characteristics (N=893,060)



#### Absolute vaccination rates



#### Relative vaccination rates



**RELEVANCE:** We observed low uptake of the bivalent COVID-19 vaccine among persons with ADRD, especially those living in rural areas.