**GRAM Paper 1: Comparing different use scenarios of the BHA**

**METHODS**

**Overview**

We built a microsimulation that follows a closed cohort of 50-year-old cognitively healthy adults in the United States until age 100 or death.

**Cohort Characteristics**

The virtual cohort consisted of a person-weighted random sample of 10,000 individuals drawn from public use microdata from the 2023 American Community Survey (Table 1). This resulted in a representative sample of 50-year-old non-institutionalized adults in the U.S. in terms of sex, race and ethnicity, years of education completed, and level of annual household income. Medical burden was defined as the count of health conditions out of 15 pre-selected conditions. Those with more years of education were less likely to have multi-morbid conditions. APOE4 carrier status was randomly assigned reflecting the distribution in the U.S. general population.

**Table 1. Simulated cohort characteristics**

|  |  |  |
| --- | --- | --- |
|  |  | Overall |
| N |  | 10000 |
| Age (mean (SD)) |  | 50.00 (0.00) |
| Sex (%) | Male | 4991 (49.9) |
|  | Female | 5009 (50.1) |
| Race/Ethnicity (%) | Non-Hispanic White | 6263 (62.6) |
|  | Non-Hispanic Black | 1361 (13.6) |
|  | Hispanic | 2376 (23.8) |
| Years of education (mean (SD)) |  | 13.66 (3.55) |
| Annual household income (%) | <$9,000 | 283 (2.8) |
|  | $9,000 - $36,000 | 1065 (10.7) |
|  | >$36,000 | 8652 (86.5) |
| Medical burden (mean (SD)) |  | 2.56 (1.95) |
| APOE4 carrier status (%) | Not Carrier | 7471 (74.7) |
|  | Carrier | 2529 (25.3) |

Model Structure

Data (break down into subsections by type of input)

Outcome Measures

Model Calibration and Validation

RESULTS