**Table S5:** Coefficient estimates (β±SE) for associations between California Verbal Learning Test (CVLT)^^ performance and hAlzScore by time and each diet quality component (HEI-2010, DASH and MAR), for HANDLS participants >50y of age

|  |  |  |
| --- | --- | --- |
|  | All | Women |
| **HEI-2010** |  |  |
| *California Verbal Learning Test CVLT, List Ab1, d2* | N=223; k=1.8 | N=122; k=1.8 |
| Time | -0.82\*±0.43 | -2.22±1.52 |
| hAlzScore | -0.39\*\*±0.20 | -0.40±0.24 |
| hAlzScore × Time | 0.05±0.05 | 0.14\*±0.07 |
| Change in HEI | 0.23\*±0.14 | 0.13±0.18 |
| Change in HEI × Time | -0.03±0.04 | -0.09±0.06 |
| hAlzScore × Change in HEI | -0.05±0.09 | -0.04±0.11 |
| hAlzScore × Change in HEI × Time | **0.06\*\*±0.02** | **0.10\*\*\*±0.03** |
| HEI-2010 | 0.01±0.03 | 0.02±0.04 |
| HEI-2010 × Time | -0.01±0.01 | -0.01±0.01 |
| hAlzScore × HEI-2010 | 0.01±0.02 | -0.02±0.03 |
| hAlzScore × HEI-2010 ×Time | **0.01\*\*±0.01** | **0.02\*\*\*±0.007** |
| **DASH** |  |  |
| *California Verbal Learning Test CVLT, List Ab1, d2* | N=223; k=1.8 | N=122; k=1.8 |
| Time | -0.78\*±0.43 | -2.23±1.47 |
| hAlzScore | -0.36\*±0.19 | -0.48\*\*±0.24 |
| hAlzScore × Time | 0.06±0.05 | 0.17\*\*±0.07 |
| Change in DASH | -1.51±1.17 | -1.23±1.30 |
| Change in DASH × Time | 0.03±0.32 | -0.58±0.40 |
| hAlzScore × Change in DASH | -0.40±0.75 | -0.30±0.96 |
| hAlzScore × Change in DASH × Time | **0.45\*\*±0.20** | **0.84\*\*\*±0.28** |
| DASH | -0.44±0.31 | -0.51±0.36 |
| DASH × Time | 0.03±0.08 | -0.03±0.10 |
| hAlzScore × DASH | -0.29\*±0.16 | -0.41\*\*±0.20 |
| hAlzScore × DASH ×Time | **0.15\*\*\*±0.04** | **0.24\*\*\*±0.06** |
| **MAR** |  |  |
| *California Verbal Learning Test CVLT, List Ab1, d2* | N=223; k=1.8 | N=122; k=1.8 |
| Time | -0.62±0.44 | -2.47±1.61 |
| hAlzScore | -0.34\*±0.20 | -0.44\*±0.26 |
| hAlzScore × Time | 0.04±0.05 | 0.13±0.08 |
| Change in MAR | 0.14±0.11 | 0.06±0.13 |
| Change in MAR × Time | 0.01±0.03 | 0.04±0.04 |
| hAlzScore × Change in MAR | -0.05±0.06 | -0.11±0.07 |
| hAlzScore × Change in MAR × Time | 0.01±0.02 | 0.03±0.02 |
| MAR | 0.01±0.03 | 0.005±0.03 |
| MAR × Time | -0.005±0.01 | -0.001±0.01 |
| hAlzScore × MAR | 0.003±0.01 | -0.01±0.01 |
| hAlzScore × MAR ×Time | -0.001±0.004 | 0.003±0.005 |
| **HEI-2010** |  |  |
| *California Verbal Learning Test CVLT, Free Recall Long Delay FRLD* | N=219; k=1.7 | N=121; k=1.8 |
| Time | -0.39\*\*±0.19 | -1.04\*±0.63 |
| hAlzScore | -0.22\*\*±0.10 | 0.03±0.13 |
| hAlzScore × Time | 0.03±0.02 | 0.01±0.03 |
| Change in HEI | 0.06±0.07 | -0.06±0.10 |
| Change in HEI × Time | -0.004±0.02 | 0.02±0.02 |
| hAlzScore × Change in HEI | 0.01±0.01 | 0.10±0.06 |
| hAlzScore × Change in HEI × Time | 0.03±0.02 | 0.19±0.14 |
| HEI-2010 | 0.00±0.02 | -0.01±0.02 |
| HEI-2010 × Time | -0.005±0.004 | 0.007±0.005 |
| hAlzScore × HEI-2010 | 0.02±0.01 | 0.02±0.01 |
| hAlzScore × HEI-2010 ×Time | 0.002±0.002 | 0.003±0.003 |
| **DASH** |  |  |
| *California Verbal Learning Test CVLT, Free Recall Long Delay FRLD* | N=219; k=1.74 | N=121; k=1.78 |
| Time | -0.42\*\*±0.19 | -0.96±0.61 |
| hAlzScore | -0.19\*\*±0.10 | 0.03±0.13 |
| hAlzScore × Time | 0.02±0.02 | 0.02±0.03 |
| Change in DASH | -1.56\*\*\*±0.58 | -1.45\*\*±0.74 |
| Change in DASH × Time | 0.15±0.14 | 0.16±0.17 |
| hAlzScore × Change in DASH | 0.29±0.37 | 0.07±0.54 |
| hAlzScore × Change in DASH × Time | 0.14±0.09 | 0.16±0.12 |
| DASH | -0.16±0.16 | -0.19±0.21 |
| DASH × Time | -0.01±0.04 | 0.02±0.04 |
| hAlzScore × DASH | -0.004±0.08 | -0.03±0.11 |
| hAlzScore × DASH ×Time | **0.05\*\*±0.02** | **0.06\*\*±0.02** |
| **MAR** |  |  |
| *California Verbal Learning Test CVLT, Free Recall Long Delay FRLD* | N=219; k=1.74 | N=121; k=1.78 |
| Time | -0.40\*\*±0.19 | -1.11\*±0.65 |
| hAlzScore | -0.23\*\*±0.10 | 0.02±0.15 |
| hAlzScore × Time | 0.03±0.02 | 0.03±0.03 |
| Change in MAR | 0.08±0.05 | 0.03±0.07 |
| Change in MAR × Time | 0.007±0.01 | 0.01±0.02 |
| hAlzScore × Change in MAR | -0.001±0.03 | 0.02±0.04 |
| hAlzScore × Change in MAR × Time | 0.0003±0.006 | 0.003±0.01 |
| MAR | 0.000±0.02 | -0.10±0.02 |
| MAR × Time | 0.003±0.003 | 0.003±0.005 |
| hAlzScore × MAR | -0.007±0.008 | -0.002±0.10 |
| hAlzScore × MAR ×Time | 0.002±0.02 | -0.02±0.02 |

Abbreviations: HANDLS= Healthy Aging in Neighborhoods of Diversity Across the Lifespan; hAlzScore= HANDLS Alzheimer’s Risk Score; MMSE= Mini-Mental State Examination; CVLT-List A= California Verbal Learning test- List A; CVLT-DFR= California Verbal Learning Test-Long-Delayed Free Recall; BVRT= Benton Visual Retention Test; Attention= Brief Test of Attention; Trails A= Trailmaking Test A; Trails B= Trailmaking Test B; Digit Span Forward= Digits Span Forward Test; Digit Span Backward= Digits Span Backward Test; Clock Command= Clock Command Test; Identical Pictures= Identical Pictures Test; Card Rotation= Card rotation Test; Animal Fluency= Animal Fluency Test.

#Represents change in diet quality over time (~5 years from baseline)

^ Represents diet quality at baseline (Time 0)

a× Continuous covariates were mean-centered.

k= the total number of observations/total number of groups per test

\*\*\* p<0.01, \*\* p<0.05, \* p<0.10; a1 indicates significant interaction between se× and hAlzScore at the p<0.05 level; a2 indicates significant interaction between se× and hAlzScore at the p<0.10 level; b1 indicates significant interaction between se× and hAlzScore and time at the p<0.05 level; b2 indicates significant interaction between se× and hAlzScore and time at the p<0.10 level; c1 indicates significant interaction between se× and diet (change) at the p<0.05 level; c2 indicates significant interaction between se× and diet (change) at the p<0.10 level; d1 indicates significant interaction between se× and diet (change) and time at the p<0.05 level; d2 indicates significant interaction between se× and diet (change) and time at the p<0.10 level; e1 indicates significant interaction between se× and diet (change) and hAlzScore at the p<0.05 level; e2 indicates significant interaction between se× and diet (change) and hAlzScore at the p<0.10 level;  f1 indicates significant interaction between se× and diet (change) and hAlzScore and time at the p<0.05 level; f2 indicates significant interaction between se× and diet (change) and hAlzScore and time at the p<0.10 level; g1 indicates significant interaction between se× and diet and time at the p<0.05 level; g2 indicates significant interaction between se× and diet and time at the p<0.10 level; h1 indicates significant interaction between se× and diet and hAlzScore at the p<0.05 level; h2 indicates significant interaction between se× and diet and hAlzScore at the p<0.10 level;

^^ All results are presented based on the primary PCA analysis.