Table S1 comparison of the excluded participants with the included participants respect to age, sex and race.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Overall | Included | excluded | P value |
| Number | 45817 | 40959 | 4858 |  |
| Age, years |  48.09 (19.63) |  47.23 (19.16) |  55.35 (21.89) | <0.001 |
| Gender-female, n (%) |  22995 (50.2)  |  20431 (49.9)  |  2564 (52.8)  | <0.001 |
| Race, n (%) |   |   |   | <0.001 |
| Mexican American |  8539 (18.6)  |  7767 (19.0)  |  772 (15.9)  |  |
| Other Hispanic |  3373 (7.4)  |  3042 (7.4)  |  331 (6.8)  |  |
| Non-Hispanic White |  20813 (45.4)  |  18483 (45.1)  |  2330 (48.0)  |  |
| Non-Hispanic Black |  9796 (21.4)  |  8749 (21.4)  |  1047 (21.6)  |  |
| Other  |  3296 (7.2)  |  2918 (7.1)  |  378 (7.8)  |  |

Values are mean with SD or number with percent.

Table S2 Subgroups analysis for two-piecewise linear regression model for BRI and all-cause mortality and cardiovascular mortality

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | All-cause mortalityHR (95% CI) P-value | P for interaction | Cardiovascular mortalityHR (95% CI) P-value | P for interaction |
| Cutoff value | <4.99 | ≥4.99 |  | <3.60 | ≥3.60 |  |
| Age |  |  | 0.0947 |  |  | 0.5583 |
| >=65 | 0.66 (0.58, 0.76) <0.001 | 1.11 (1.04, 1.19) 0.0011 |  | 0.27 (0.14, 0.53) <0.001 | 1.10 (0.99, 1.23) 0.0733 |  |
| <65 | 0.75 (0.63, 0.90) 0.0019 | 1.14 (1.05, 1.23) 0.0011 |  | 0.58 (0.20, 1.69) 0.3155 | 1.09 (0.93, 1.28) 0.267 |  |
| Gender |  |  | 0.8139 |  |  | 0.2445 |
| Male | 0.57 (0.49, 0.66) <0.001 | 1.22 (1.14, 1.31) <0.001 |  | 0.18 (0.09, 0.36) <0.001 | 1.20 (1.07, 1.35) 0.0026 |  |
| Female | 0.84 (0.72, 0.99) 0.0374 | 0.99 (0.92, 1.07) 0.8188 |  | 0.80 (0.31, 2.05) 0.6355 | 0.95 (0.83, 1.09) 0.485 |  |
| Smoking |  |  | 0.1992 |  |  | 0.5930 |
| Yes | 0.62 (0.54, 0.71) <0.001 | 1.16 (1.08, 1.23) <0.001 |  | 0.26 (0.13, 0.52) <0.001 | 1.10 (0.98, 1.24) 0.1002 |  |
| No | 0.77 (0.65, 0.93) 0.0053 | 1.04 (0.96, 1.12) 0.3918 |  | 0.43 (0.16, 1.21) 0.1114 | 1.07 (0.92, 1.23) 0.3778 |  |

Data was showed by HR, 95% CI, and P-value.

The two-piecewise linear regression model were adjusted for age, gender, race, smoking, SBP, DBP, eGFR, HDL, TC, CVD, hypertension, diabetes, lipid-lowering drugs, antihypertensive drugs, hypoglycemic agents, antiplatelet drugs