**Supplementary Online Content**

eTable 1: PRS construction and selection details

eTable 2: Comparisons between participants with complete and incomplete data

eTable 3: Crude associations between depression symptoms at baseline and health conditions at follow-up

eTable 4. Longitudinal associations between depression symptoms at baseline and health conditions at follow-up (N=1195)

eTable 5. Full sample characteristics (N=1195)

**eTable 1: PRS construction and selection details**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Cardiometabolic condition** | Atrial fibrillation | Diabetes | Erectile dysfunction | Hypercholesterolemia | Hypertension (SBP) | Myocardial infarction (CAD) | Sleep apnea | Stroke |
| **GWAS reference** | 31, 32 | 33 | 36 | 34 | 35 | 37 | 38 | 39 |
| **Selected threshold** | *P*<.0001 | *P*<.0001 | *P*<.4 | *P*<.0001 | *P*<.01 | *P*<.001 | *P*<.001 | *P*<.001 |
| **No. of variants used in PRS construction** | 1,213 | 220 | 288,613 | 794 | 32,669 | 1,844 | 1,639 | 2,313 |
| **PRS correlation with condition** | .178\*\* | .168\*\* | .044 | .242\*\* | .189\*\* | .130\*\* | -.056 | .090\* |

PRS = polygenic risk score; GWAS = genome-wide association study; CAD = coronary artery disease; SBP = systolic blood pressure

\*Significant at *P*<0.05; \*\*significant at *P*<0.0001

**eTable 2: Comparisons between participants with complete and incomplete data**

|  |  |
| --- | --- |
|  | **Mann-Whitney *U* Test** |
|  | Standardized Test Statistic | Sig. (2-sided) |
| Age (follow-up) | 0.039 | .969 |
| Depression symptoms (baseline) | -0.791 | .429 |
| Depression symptoms (follow-up) | -1.618 | .106 |
| Atrial Fibrillation | -0.117 | .907 |
| Diabetes | -0.102 | .918 |
| Erectile Dysfunction | 0.956 | .339 |
| Hypercholesterolemia | -1.004 | .315 |
| Hypertension | 0.554 | .579 |
| Myocardial Infarction | -2.205 | .027 |
| Sleep Apnea | 0.041 | .968 |
| Stroke | -0.298 | .765 |

**eTable 3. Crude associations between depression symptoms at baseline and health conditions at follow-up**

|  |  |
| --- | --- |
|  | Exponentiated Odds Ratio [95% CI] |
|  | Atrial Fibrillation | Diabetes | Erectile Dysfunction | Hyperchol-esterolemia | Hypertension | Myocardial Infarction | Sleep Apnea | Stroke |
| Baseline depression symptoms | 1.28[0.96, 1.57] (*p*=.098) | 1.26^[1.08, 1.48](*p*=.004) | 1.29^[1.10, 1.52](*p*=.002) | 1.29^[1.11, 1.51] (*p*=.001) | 1.14[0.99, 1.31](*p*=.075) | 1.31^[1.06, 1.63] (*p*=.014) | 1.33^[1.13, 1.57](*p*=.001) | 1.20[0.88, 1.64](*p*=.241) |

CI = confidence interval

^ = Association remained significant after correcting for multiple comparisons.

**eTable 4. Longitudinal associations between depression symptoms at baseline and health conditions at follow-up (N=1195)**

|  |  |
| --- | --- |
|  | Exponentiated Odds Ratio [95% CI] |
|  | Atrial Fibrillation | Diabetes | Erectile Dysfunction | Hyperchol-esterolemia | Hypertension | Myocardial Infarction | Sleep Apnea | Stroke |
| Baseline depression symptoms | 1.02[0.79, 1.31](*p*=.893) | 1.20^[1.03, 1.38](*p*=.016) | 1.14[0.99, 1.32](*p*=.070) | 1.24^[1.07, 1.44](*p*=.004) | 1.10[0.95, 1.27](*p*=.219) | 1.18[0.95, 1.46](*p*=.143) | 1.32^[1.12, 1.56](*p*=.001) | 1.08[0.81, 1.43](*p*=.616) |
| Age at follow-up | 1.74^[1.32, 2.31](*p*<.001) | 0.94[0.80, 1.11](*p*=.478) | 1.10[0.93, 1.31](*p*=.264) | 1.05[0.91, 1.21](*p*=.503) | 1.14[0.99, 1.32](*p*=.080) | 1.01[0.78, 1.31](*p*=.921) | 1.19[0.99, 1.42](*p*=.065) | 1.05[0.77, 1.44](*p*=.755) |
| Drinks per day at baseline | 0.94[0.70, 1.27](*p*=.703) | 1.09[0.91, 1.30](*p*=.341) | 1.01[0.84, 1.21](*p*=.941) | 0.98[0.83, 1.15](*p*=.805) | 1.29^[1.07, 1.56](*p*=.009) | 0.86[0.59, 1.24](*p*=.413) | 0.71^[0.56, 0.90](*p*=.004) | 0.91[0.62, 1.33](*p*=.624) |
| Cigarettes per day at baseline | 1.03[0.82, 1.29](*p*=.827) | 0.99[0.86, 1.14](*p*=.881) | 1.00[0.86, 1.16](*p*=.955) | 1.17[1.01, 1.36](*p*=.037) | 1.10[0.94, 1.28](*p*=.247) | 1.24[1.00, 1.53](*p*=.052) | 1.01[0.86, 1.19](*p*=.921) | 1.41[1.10, 1.82](*p*=.007) |
| BMI at follow-up | 1.51^[1.20, 1.89](*p*<.001) | 1.68^[1.42, 1.98](*p*<.001) | 1.22^[1.05, 1.42](*p*=.008) | 1.46^[1.23, 1.74](*p*<.001) | 1.85^[1.52, 2.25](*p*<.001) | 1.05[0.79, 1.38](*p*=.748) | 2.41^[1.98, 2.92](*p*<.001) | 1.14[0.90, 1.44](*p*=.290) |
| CRP at follow-up | 0.95[0.78, 1.15](*p*=.594) | 1.05[0.89, 1.24](*p*=.543) | 0.97[0.82, 1.15](*p*=.702) | 0.79^[0.67, 0.92](*p*=.002) | 1.10[0.93, 1.31](*p*=.259) | 1.21[1.03, 1.41](*p*=.019) | 1.10[0.92, 1.31](*p*=.317) | 1.31^[1.08, 1.58](*p*=.007) |

CI = confidence interval; BMI = body mass index; CRP = C-reactive protein

^ = Association remained significant after correcting for multiple comparisons

**eTable 5. Full sample characteristics (N=1195)**

|  |  |
| --- | --- |
|  | Mean (SD) or N (%) |
| Age at baseline (years) | 41.27 (2.36) |
| Age at follow-up (years) | 67.57 (2.53) |
| *Race* |
| Native American | 5 (0.4%) |
| Black / African American | 72 (6.0%) |
| White | 1100 (92.1%) |
| More than one race | 16 (1.3%) |
| Declined to answer | 2 (0.2%) |
| # drinks/day at baseline | 2.16 (2.06) |
| # cigarettes/day at baseline | 18.00 (18.66) |
| # drinks/day at follow-up | 0.89 (1.70) |
| # cigarettes/day at follow-up | 2.07 (6.59) |
| BMI at follow-up | 30.07 (5.37) |
| CRP (mg/L) at follow-up | 3.44 (6.36) |
| # depression symptoms at baseline | 2.01 (2.32) |
| CES-D total score at follow-up | 7.09 (7.56) |

BMI = body mass index; CRP = C-reactive protein; CES-D = Center for Epidemiologic Studies Depression Scale