

Supplementary Table 4: Association results for all individual trait genetic risk scores analyzed in a single model, with additional adjustment for age and sex. Relationships were examined using marginal models with generalized estimating equations. Associations are reported for a one unit increase in each genetic risk score, adjusting for covariates and all other individual genetic risk scores. Abbreviations: CAC, coronary artery calcification; CAD, coronary artery disease; CI, confidence interval; CRP, C-reactive protein; eGFR, estimated glomerular filtration rate; MI, myocardial infarction.

| Risk Score | All-Cause Mortality | | | CVD Mortality | | | Self-reported History of MI | | | Self-reported History of CVD | | | Coronary Artery Calcification | | | | | | | |
|--------------------------|---------------------|--------|---------|---------------|--------|---------|-----------------------------|--------|---------|------------------------------|--------|---------|-------------------------------|--------|---------|-------|--------|--------|-------|-------|
| | Hazard Ratio | 95% CI | p-value | Hazard Ratio | 95% CI | p-value | Odds Ratio | 95% CI | p-value | Odds Ratio | 95% CI | p-value | Beta Estimate | 95% CI | p-value | | | | | |
| Blood pressure traits | 1.01 | 0.97 | 1.05 | 0.678 | 0.99 | 0.94 | 1.05 | 0.745 | 0.98 | 0.92 | 1.04 | 0.451 | 0.99 | 0.94 | 1.03 | 0.607 | -0.039 | -0.089 | 0.012 | 0.132 |
| BMI | 1.01 | 0.97 | 1.05 | 0.628 | 1.00 | 0.94 | 1.06 | 0.991 | 1.04 | 0.99 | 1.09 | 0.133 | 1.02 | 0.98 | 1.06 | 0.265 | 0.011 | -0.035 | 0.056 | 0.649 |
| CAC | 1.03 | 0.91 | 1.16 | 0.699 | 1.01 | 0.85 | 1.19 | 0.943 | 1.06 | 0.90 | 1.25 | 0.479 | 1.16 | 1.01 | 1.33 | 0.038 | 0.130 | -0.012 | 0.272 | 0.074 |
| CAD | 1.04 | 1.00 | 1.08 | 0.046 | 1.08 | 1.02 | 1.15 | 0.011 | 1.10 | 1.05 | 1.16 | 0.0003 | 1.02 | 0.97 | 1.07 | 0.400 | 0.077 | 0.032 | 0.122 | 0.001 |
| CRP | 1.05 | 0.99 | 1.10 | 0.087 | 1.00 | 0.93 | 1.09 | 0.922 | 1.00 | 0.93 | 1.07 | 0.974 | 1.00 | 0.95 | 1.06 | 0.894 | 0.024 | -0.037 | 0.084 | 0.448 |
| Electrocardiogram traits | 1.03 | 0.99 | 1.07 | 0.193 | 1.06 | 1.00 | 1.12 | 0.036 | 1.01 | 0.95 | 1.06 | 0.826 | 0.99 | 0.94 | 1.03 | 0.547 | 0.046 | 0.002 | 0.091 | 0.042 |
| Fasting glucose | 0.99 | 0.95 | 1.04 | 0.678 | 0.99 | 0.93 | 1.06 | 0.855 | 0.98 | 0.91 | 1.05 | 0.564 | 1.00 | 0.94 | 1.05 | 0.860 | -0.002 | -0.059 | 0.055 | 0.952 |
| eGFR | 1.00 | 0.96 | 1.03 | 0.832 | 1.00 | 0.95 | 1.05 | 0.863 | 1.05 | 1.00 | 1.11 | 0.045 | 1.02 | 0.98 | 1.07 | 0.355 | 0.018 | -0.031 | 0.068 | 0.466 |
| HDL cholesterol | 0.98 | 0.95 | 1.02 | 0.281 | 0.98 | 0.93 | 1.03 | 0.378 | 0.99 | 0.94 | 1.04 | 0.613 | 1.01 | 0.98 | 1.05 | 0.484 | 0.010 | -0.030 | 0.049 | 0.640 |
| LDL cholesterol | 1.00 | 0.97 | 1.04 | 0.820 | 1.03 | 0.98 | 1.09 | 0.284 | 1.01 | 0.96 | 1.07 | 0.724 | 1.01 | 0.96 | 1.06 | 0.683 | 0.015 | -0.030 | 0.060 | 0.512 |
| Stroke | 1.05 | 0.95 | 1.16 | 0.376 | 1.15 | 1.00 | 1.32 | 0.050 | 0.83 | 0.72 | 0.96 | 0.012 | 0.93 | 0.83 | 1.04 | 0.225 | 0.001 | -0.110 | 0.111 | 0.992 |
| Type 2 Diabetes | 0.98 | 0.95 | 1.01 | 0.125 | 0.95 | 0.91 | 0.98 | 0.004 | 1.01 | 0.97 | 1.05 | 0.679 | 1.00 | 0.96 | 1.03 | 0.864 | -0.003 | -0.039 | 0.032 | 0.863 |
| Total Cholesterol | 0.98 | 0.95 | 1.02 | 0.400 | 0.94 | 0.89 | 0.99 | 0.030 | 0.99 | 0.94 | 1.04 | 0.672 | 1.01 | 0.96 | 1.05 | 0.748 | 0.019 | -0.026 | 0.063 | 0.408 |
| Triglycerides | 1.00 | 0.97 | 1.04 | 0.861 | 1.01 | 0.96 | 1.07 | 0.605 | 1.00 | 0.95 | 1.05 | 0.963 | 0.97 | 0.93 | 1.01 | 0.124 | 0.050 | 0.002 | 0.097 | 0.040 |