**Supplementary Material**

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| **Supplementary Table 1. Summary of full names and abbreviations** |
| **Trait category** | **Abbreviation** | **Full name** | **Unit** |
|  | Fer | Ferritin | ng/ml |
| Liver function | ALT | Alanine aminotransferase | U/L |
| AST | Aspartate aminotransferase | U/L |
| Cr | Creatinine | µmol/L |
| GGT | Gamma-glutamyltranspeptidase | U/L |
| ALP | Alkaline phosphatase | U/L |
| GLOB | Globulin | g/L |
| A/G | Albumin/Globulin |  |
| Glycometabolism | Glu | Glucose | mmol/L |
| Lipid metabolism | HDL-C | High density lipoprotein cholesterol | mmol/L |
| LDL-C | Low density lipoprotein cholesterol | mmol/L |
| sd LDL-C | Small and dense low density cholesterol | mmol/L |
| Lpa | Lipoprotein a | mg/L |
| APOA1 | Apolipoprotein A1 | g/L |
| Myocardial function | LDH | Lactate dehydrogenase | U/L |
| LDH-1 | Lactate dehydrogenase isoenzyme | U/L |
| CK | Creatine kinase | U/L |
| CK-MB | Creatine kinase-MB isoenzyme activity | ng/ml |
| α-HBDH | Alpha hydroxybutyrate dehydrogenase | U/L |
| NT-pro BNP | N-terminal -B type natriuretic peptide precursor | pg/ml |
| TnT | Troponin T | µg/L |
| Mb | Myohemoglobin | ng/mL |
| Thyroid function | TSH | Thyroid stimulating hormone | mU/L |
| FT3 | Free triiodothyronine | pg/ml |
| T3 | Triiodothyronine | ng/ml |
| FT4 | Free thyroxine | pmol/L |
| Inflammatory factor | IL-6 | Interleukin-6 | pg/ml |

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| **Supplementary Table 2. Normality test for continuous variables** |
| **Variables** | **N** | **Mean** | **Standard deviation** | **Skewness** | **Kurtosis** | **Kolmogorov-Smirnov test** | **Shapiro-Wilk test** |
| **Statistic D value** | **p-value** | **Statistic W value** | **p-value** |
| Age | 2960 | 53.959  | 12.185  | 1.171  | 1.029  | 0.126  | p<0.001 | 0.893  | p<0.001 |
| Fer | 2960 | 288.162  | 99.894  | 2.464  | 32.782  | 0.424  | p<0.001 | 0.478  | p<0.001 |
| ALT | 2960 | 22.262  | 16.081  | 3.751  | 23.515  | 0.221  | p<0.001 | 0.696  | p<0.001 |
| AST | 2960 | 22.375  | 13.315  | 22.487  | 851.676  | 0.241  | p<0.001 | 0.399  | p<0.001 |
| ALP | 2960 | 73.943  | 25.553  | 17.373  | 618.049  | 0.288  | p<0.001 | 0.487  | p<0.001 |
| Cr | 2960 | 68.404  | 22.250  | 5.671  | 54.686  | 0.180  | p<0.001 | 0.630  | p<0.001 |
| GGT | 2960 | 30.733  | 28.747  | 4.905  | 38.736  | 0.225  | p<0.001 | 0.594  | p<0.001 |
| GLOB | 2960 | 26.969  | 3.153  | 0.245  | 1.895  | 0.228  | p<0.001 | 0.893  | p<0.001 |
| A/G | 2960 | 1.575  | 0.195  | 0.421  | 2.447  | 0.236  | p<0.001 | 0.881  | p<0.001 |
| Glu | 2960 | 5.321  | 0.732  | 1.781  | 7.202  | 0.178  | p<0.001 | 0.868  | p<0.001 |
| LDL-C | 2960 | 2.892  | 0.410  | 0.108  | 3.783  | 0.329  | p<0.001 | 0.750  | p<0.001 |
| HDL-C | 2960 | 1.233  | 0.166  | 0.302  | 3.692  | 0.339  | p<0.001 | 0.744  | p<0.001 |
| sd LDL-C | 2960 | 0.848  | 0.284  | 2.175  | 25.015  | 0.224  | p<0.001 | 0.862  | p<0.001 |
| Lpa | 2960 | 205.518  | 117.043  | 1.380  | 4.386  | 0.292  | p<0.001 | 0.797  | p<0.001 |
| APOA1 | 2960 | 1.319  | 0.194  | 0.286  | 3.174  | 0.279  | p<0.001 | 0.835  | p<0.001 |
| LDH | 2960 | 234.456  | 41.973  | -0.698  | 4.692  | 0.434  | p<0.001 | 0.620  | p<0.001 |
| LDH-1 | 2960 | 40.484  | 6.914  | -0.956  | 4.493  | 0.431  | p<0.001 | 0.619  | p<0.001 |
| CK | 2960 | 112.398  | 38.566  | 3.246  | 33.283  | 0.372  | p<0.001 | 0.545  | p<0.001 |
| CK-MB | 2960 | 15.736  | 4.454  | 0.950  | 19.046  | 0.416  | p<0.001 | 0.591  | p<0.001 |
| α-HBDH | 2960 | 168.106  | 25.968  | -0.244  | 9.172  | 0.418  | p<0.001 | 0.615  | p<0.001 |
| NT-pro BNP | 2960 | 1157.057  | 532.537  | 2.619  | 42.281  | 0.465  | p<0.001 | 0.409  | p<0.001 |
| TnT | 2960 | 0.045  | 0.031  | 32.818  | 1507.630  | 0.425  | p<0.001 | 0.175  | p<0.001 |
| Mb | 2960 | 91.523  | 57.111  | 22.611  | 762.387  | 0.425  | p<0.001 | 0.206  | p<0.001 |
| TSH | 2960 | 2.647  | 0.753  | 2.211  | 29.817  | 0.382  | p<0.001 | 0.565  | p<0.001 |
| FT3 | 2960 | 4.301  | 0.385  | 0.253  | 10.318  | 0.400  | p<0.001 | 0.581  | p<0.001 |
| T3 | 2960 | 1.510  | 0.158  | 0.713  | 9.330  | 0.408  | p<0.001 | 0.587  | p<0.001 |
| FT4 | 2960 | 15.849  | 1.101  | 0.160  | 8.003  | 0.382  | p<0.001 | 0.611  | p<0.001 |
| IL-6 | 2960 | 76.228  | 20.823  | -1.508  | 16.586  | 0.516  | p<0.001 | 0.335  | p<0.001 |

Note: N, number; Fer, ferritin; ALT, alanine aminotransferase; AST, aspartate aminotransferase; Cr, creatinine; GGT, gamma-glutamyltranspeptidase; ALP, alkaline phosphatase; GLOB, globulin; A/G, albumin/hlobulin; Glu, glucose; HDL-C, high density lipoprotein cholesterol; LDL-C, low density lipoprotein cholesterol; sd LDL-C, small and dense low density cholesterol; Lpa, lipoprotein a; APOA1, apolipoprotein A1; LDH, lactate dehydrogenase; LDH-1, lactate dehydrogenase isoenzyme; CK, creatine kinase; CK-MB , creatine kinase-MB isoenzyme activity; α-HBDH, alpha hydroxybutyrate dehydrogenase; NT-pro BNP, N-terminal -B type natriuretic peptide precursor; TnT, troponin T; Mb, Myohemoglobin; TSH, thyroid stimulating hormone; FT3, free triiodothyronine; T3, triiodothyronine; FT4, free thyroxine; IL-6, interleukin-6.