

## Supplementary Online Content

Meier SM, Tronetti K, Purves KL, et al. Genetic variants associated with anxiety and stress-related disorders: a genome-wide association study and mouse-model study. *JAMA Psychiatry*. Published online May 22, 2019. doi:10.1001/jamapsychiatry.2019.1119

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This supplementary material has been provided by the authors to give readers additional information about their work.

## eMethods

### Quality control, GWAS and gene-based analysis

Quality control, imputation and primary association analyses were done using the bioinformatics pipeline Ricopili (available at <https://github.com/Nealelab/ricopili>), developed by the Psychiatric Genomics Consortium (PGC)<sup>1</sup>. In order to avoid potential study effects of the 23 genotyping batches within the iPSYCH cohort, each batch was processed separately. Standard procedures for stringent quality control included filters for call rate, Hardy-Weinberg equilibrium, and heterozygosity rates. Each cohort was then phased and imputed using the 1000 Genomes Project phase 3 imputation reference panel<sup>2</sup> using SHAPEIT<sup>3</sup> and IMPUTE2<sup>4</sup>, respectively. Cryptic relatedness and population structure was assessed on high-quality single nucleotide polymorphisms (SNPs) with low linkage disequilibrium (LD) passing filters. Genetic relatedness was estimated in order to identify first and second-degree relatives and one individual was excluded from each related pair. Genetic outliers were identified for exclusion based on principal component analyses using EIGENSOFT<sup>5, 6</sup>, contemporarily making use of register-based information on parents' and grandparents' country of origin. The primary analysis in this study is the GWAS, which analyses each SNP for association with phenotype.

GWASs for the 23 genotyping batches in iPSYCH were performed using logistic regression model with the imputed marker dosages (the expected count of one of the alleles) including the first four principal components in order to control for remaining population stratification<sup>5</sup>. Subsequently the results were meta-analysed using an inverse-variance weighted fixed effects model, implemented in METAL (version 2011-03-25)<sup>7</sup>. The international standard for statistical significance is a P-value of  $5.0 \times 10^{-8}$ , which corrects for the approximately one million independent statistical tests conducted. Variants were filtered and included for imputation quality (INFO score)  $> 0.8$  and MAF  $> 0.01$ . After filtering, the meta-analysis included results for 8933939 markers. To explore effects of phenotype definitions on genetic association results, we repeated the analyses separating anxiety disorders and stress-related disorders; and excluding unspecific and other subtypes of these disorders. We then performed 1000 analyses in samples for which we randomly removed the same number of individuals (that had specific subtype) from the case group. The p-value for rs7528604 was assessed as  $r/n$  with  $r$  being the number of samples with a P-value more or equally significant compared to our analysis removing different subtypes and  $n$  being the number of resamples (1000).

Gene-based associations were calculated with MAGMA<sup>8</sup> using the summary statistics from the main GWAS analyses. Association was tested using the SNP-wise mean model, in which the sum of  $-\log(\text{SNP P-value})$  for SNPs located within the transcribed region was used as test statistic. MAGMA<sup>8</sup> controls for gene-size, number of SNPs in a gene and LD between markers; LD correction was based on LD estimates from the 1000 Genomes Project phase 3. The gene-based associations were used to analyze sets of genes to test for enrichment of association signals in genes belonging to specific biological pathways or processes (as per MAGMA procedures). We used the MSigDB Canonical Pathways as this list covers a wide variety of gene sets, drawn from different gene-set databases, thus providing results that are not overly dependent on the choice of a narrow set of gene sets. The statistical significance for a gene was defined as a P-value  $2.60 \times 10^{-6}$  ( $0.05/19222$  genes tested), for a pathway  $2.93 \times 10^{-6}$  ( $0.05/17081$  pathways tested).

### Adjusting for mental comorbidity

As the majority of cases in the iPSYCH cohort with anxiety and stress-related disorders by design have another mental disorder (Table 1), we aimed to adjust for mental comorbidity. Models that correct for mental comorbidity therefore supplemented our analyses. In a first model cases with anxiety and stress-related disorders were randomly selected from both iPSYCH cases and controls (N=12665) matching the comorbidity patterns observed in population-based samples (60% mood disorders, 20% ADHD, 5% SCZ, and 5% anorexia<sup>9-13</sup>, resulting in 10311 cases. This approach follows the idea of a "weighted design" where differences in population size and sampling fraction between the different strata used in the design are considered. A second model included all genotyped individuals of the iPSYCH study (N cases=12096; N controls=42215) and design phenotypes were employed as covariates (schizophrenia, ADHD, anorexia

nervosa, and affective disorders)<sup>14</sup>. In our most stringent sensitivity analyses we further employed a propensity-score-matched design, matching cases and controls on mental comorbidity status, principal components, genotyping batches, and age using the R 3.1.0 package ‘MatchIt’ (using the ‘nearest neighbor’ algorithm). After matching a total of 11599 individuals with a comorbid anxiety or stress-related disorder and 11599 without comorbid disorders remained for analysis using a Cochran-Mantel-Haenszel test. Inherent to the design this analysis was least powered to find genetic variants for anxiety and stress-related disorders across all genome-wide designs used in our study. All these sensitivity analyses resulted in a reduction of the number of cases, albeit with varying impact on power. We also performed a second set of sensitivity analyses targeted at identifying a significant impact of comorbid depression or schizophrenia cases on our association results for *PDE4B*. For these analyses, we first performed a standard association test for rs7528604 (see above) but removing individuals with comorbid depression or schizophrenia from the case group (see eFigure 10). We then performed 1000 analyses in samples for which we randomly removed the same number of individuals (that had comorbid depression or schizophrenia) from the case group. The p-value for rs7528604 was assessed as  $r/n$  with  $r$  being the number of samples with a P-value more or equally significant compared to our analysis removing the comorbid depression or schizophrenia cases and  $n$  being the number of resamples (1000). Finally, analyses were supplemented by including obsessive-compulsive disorders (OCD) among the anxiety and stress-related disorders.

### SNP heritability and genetic correlation with other traits

LD score regression was used to dissect the relative contribution of polygenic effects and confounding factors, such as cryptic relatedness, sample overlap and population stratification, to deviation from the null in the genome-wide distribution of GWAS  $\chi^2$  statistics. Analysis was performed using pre-computed LD scores based on 378 European-ancestry individuals from the 1000 Genomes Project phase 3 (available on <https://github.com/bulik/ldsc>) and summary statistics for the European-ancestry GWAS to ensure matching of population LD structure. The influence of confounding factors was tested by comparing the estimated intercept of the LD score regression to the expected value under the null hypothesis of no confounding from e.g. population stratification. We also calculated the heritability on the liability scale in our main GWASs. Prevalence was specified as 20% for the combination of anxiety and stress-related disorders<sup>15, 16</sup>, 12% for anxiety disorders alone and 15% for stress-related disorder alone. Using LD score regression SNP heritability was partitioned by functional category and tissue association<sup>17, 18</sup>. Partitioning was performed for 53 overlapping functional categories, as well as 220 cell-type-specific annotations grouped into 10 cell-type categories<sup>19</sup>. Enrichment in the heritability of a functional category was defined as the proportion of SNP heritability explained divided by the proportion of SNPs<sup>19</sup>. Test for enrichment in the heritability of SNPs located in cell-type-specific regulatory elements was evaluated in two ways. One by using the 220 cell-type-specific annotations that have been grouped into 10 cell-type groups as previously described<sup>19</sup>. These annotations are based on cell-specific histone markers, related to H3K4me1<sup>20</sup>, H3K4me3<sup>20</sup>, H3K9ac<sup>20</sup> and H3K27ac<sup>21</sup>. In these analyses, we tested if the cell-group specific annotations contributed significantly to the SNP heritability when controlling for the annotations in the full baseline model. Further, we expanded the cell-type specific heritability analysis by including an annotation based on information about H3K4Me1 imputed gapped peaks excluding the broad MHC-region (chr6: 25-35MB), generated by the Roadmap Epigenomics Mapping Consortium<sup>21, 22</sup>. This mark has previously been used with success in identifying significant enrichments in tissues/cells and often in a biologically plausible manner<sup>21</sup>.

Genetic correlations ( $r_g$ ) correlations were tested for 228 phenotypes with publicly available GWAS summary statistics using LD Hub<sup>23</sup>. For these analyses, statistical significance was set using the Bonferroni correction, which is conservative given non-independence of the traits. A P-value of  $2.19 \times 10^{-4}$  ( $0.05/228$  traits tested) was considered significant. For a given pair of traits, LD score regression estimates the expected population correlation between the best possible linear SNP-based predictor for each trait, restricting to common SNPs. Such correlation of genetic risk may reflect a combination of co-localization, pleiotropy, shared biological mechanisms, and causal relationships between traits. Please see eTables 4 (naïve design), 6 (prevalence design), 8 (covariates design), 10 (propensity design). for a full list of results.

Genetic correlations ( $r_G$ ) were also tested for 596 traits from the UK Biobank study (UKBB), made publicly available at <https://sites.google.com/broadinstitute.org/ukbbgwasresults>. Details on how the GWASs in UKBB have been conducted are available here: <http://www.nealelab.is/blog/2017/9/11/details-and-considerations-of-the-uk-biobank-gwas>. We restricted our analyses to those traits that showed z-scores  $> 2$  in their heritability analyses. We would like to note that (as mentioned on the blog referenced above) the

UKBB GWAS results are still preliminary in their nature and we therefore would like to advise readers to take the results of our analyses with a grain of salt. Nonetheless, we still believe that they allow for some interesting insights and together with the results from LD Hub and our other analyses can shed more light on the impact of comorbid traits and phenotypes on anxiety and stress related disorders. A P-value of  $8.39 \times 10^{-5}$  ( $0.05/596$  traits tested) was considered significant. For all traits that show a significant correlation after Bonferroni correction for multiple testing results can be found in eTables 5 (naïve design), 7 (prevalence design), 9 (covariates design), 11 (propensity design).

### **Polygenic risk score**

Polygenic risk score (PRS)<sup>24</sup> were constructed in our sample in order to explore polygenic heterogeneity across diagnostic subtypes and comorbidities. PRS were calculated by multiplying the natural log of the odds ratio of each variant by the allele-dosage (imputation probability) and whole-genome PRS were obtained by summing values over variants for each individual<sup>24</sup>. After scoring, PRS were normalized and used as continuous markers. We regressed the normalized scores on anxiety and stress-related subgroups while including covariates for batches and principal components in a multivariate regression<sup>25</sup>. We focused on unique phenotypes showing strong genetic correlation ( $P < 5.0 \times 10^{-7}$ ) with anxiety and stress-related disorders in our LD Hub analyses (schizophrenia<sup>1</sup>, depression<sup>26</sup>, subjective well-being<sup>27</sup>, and neuroticism<sup>27</sup>), excluding the iPSYCH samples from the schizophrenia and depression dataset.

### **Mouse model of chronic psychosocial stress**

To establish the effect of chronic psychosocial stress on the brain gene expression levels of Pde4b, we employed the chronic social defeat stress (CSDS) model<sup>28</sup>. We obtained 5-week old male mice from two inbred strains: C57/BL6NCrI (B6, innately non-anxious strain) and DBA/2NCrI (D2, innately anxious strain; Charles River, Sulzfeld, Germany) and let them acclimatize for one week. Mice were exposed to a resident aggressor mouse (Clr-CD1 strain) for max. 10 min followed by housing in adjacent compartments for 24 h, repeated once per day for 10 days with a novel resident aggressor. Control mice were housed adjacent to another mouse, switching cage-mates daily but without physical exposure<sup>28</sup>.

Twenty-four hours after the last CSDS session we tested all mice for social aversion using two trials. For the first trial the mice were placed for 150 s into an arena containing a perforated Plexiglass cylinder. For the second trial the empty cylinder was replaced by one containing a novel Clr-CD1 mouse. The ratio of time the mouse spent in the area around the cylinder in the trial containing the mouse compared to the trial without a social target was used to determine whether each defeated mouse was resilient or susceptible to CSDS. We defined a susceptible mouse as one which showed a marked reduction in this ratio compared to the same-strain control mice collected from several cohorts (1 standard deviation below the control mean). The remaining mice with scores above this threshold were classified as resilient as their behavior remained similar to the same-strain controls. After this test the mice were housed in single-cages.

One week after the end of CSDS we dissected the medial prefrontal cortex (mPFC) and ventral hippocampus (vHPC) for RNA sequencing (RNA-Seq). All animal procedures were approved by the Regional State Administration Agency for Southern Finland (license numbers ESAVI-3801-041003-2011 and ESAVI/2766/04.10.07/2014) and carried according to directive 2010/63/EU of the European Parliament and of the Council, and the Finnish Act on the Protection of Animals Used for Science or Educational Purposes (497/2013). For more details on these experiments see Laine et al.<sup>29</sup>.

### **Gene expression profiling**

Total RNA was extracted using TriReagent. For RNA-seq we carried out rRNA depletion using Ribo-Zero (Illumina, San Diego, CA, USA) followed by fragmentation with an S2 ultrasonicator (Covaris Inc., Woburn, MA, USA). mRNA sequencing libraries were prepared with Nextera (Illumina, vHPC samples) or ScriptSeq v2 (Epicentre, Madison, WI, USA, mPFC samples) kits. The vHPC samples were sequenced by the Finnish Institute of Molecular Medicine (FIMM) and the mPFC samples by the Institute of Biotechnology at the University of Helsinki, using Illumina High-Seq 2000 and NextSeq 500, respectively.

Following quality control, we aligned the mRNA reads with STAR 2.5.0c<sup>30</sup> to the mouse genome GRCm38. Data normalization and differential expression analysis were carried out with ComBat<sup>31</sup> and limma v3.32.5<sup>32</sup>.

Whole transcriptome level multiple testing correction was done with the Benjamini-Hochberg method<sup>33</sup>, after which the expression levels of *Pde4b* was extracted from the dataset.

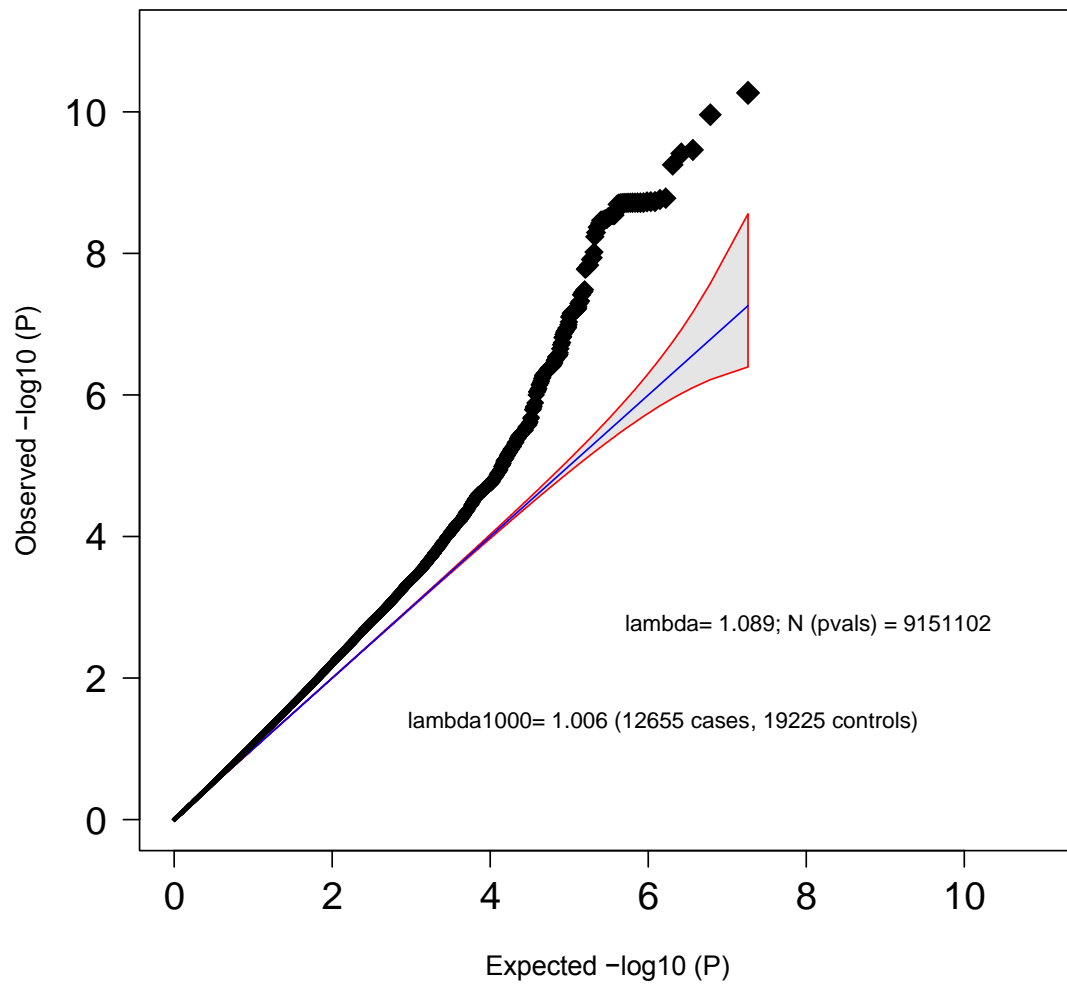
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**eFigure 1.** Q-Q plot of GWAS analysis

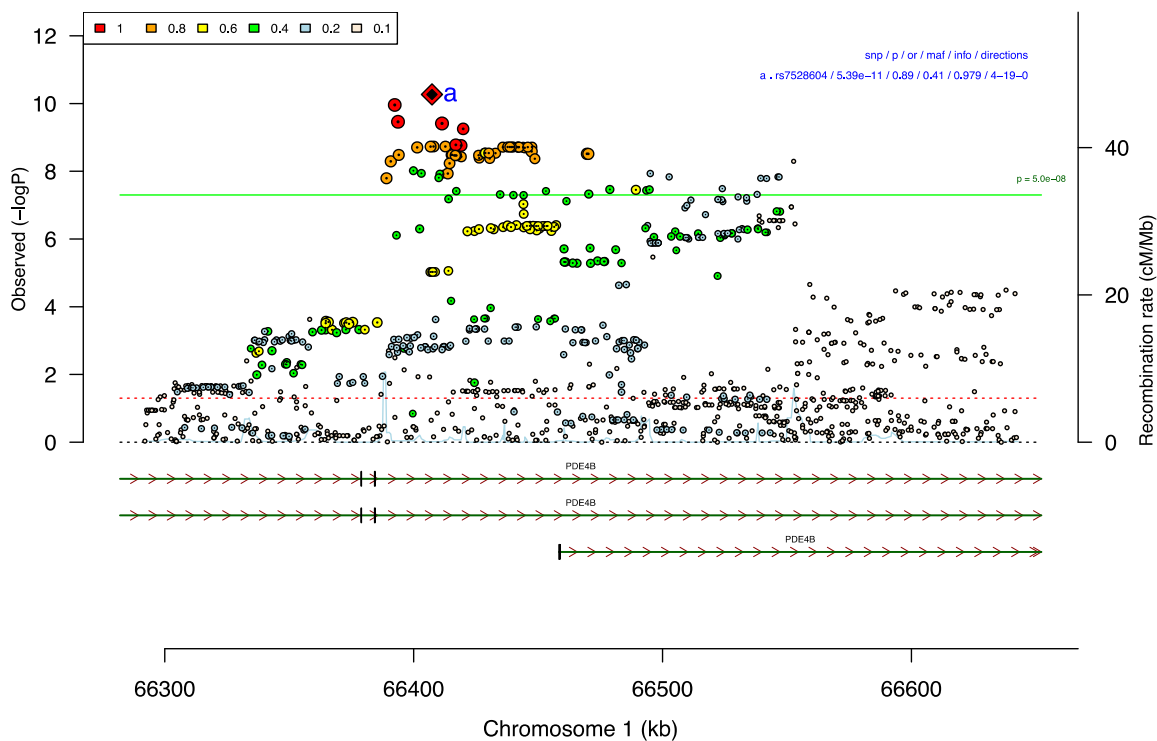
Lambda is the genomic inflation factor for the sample under study. Lambda1000 is an assumed genomic inflation factor for a target sample size of 1000 cases and 1000 controls given the actual lambda observed in the study. The latter is sometimes used to compare studies of different sample sizes.





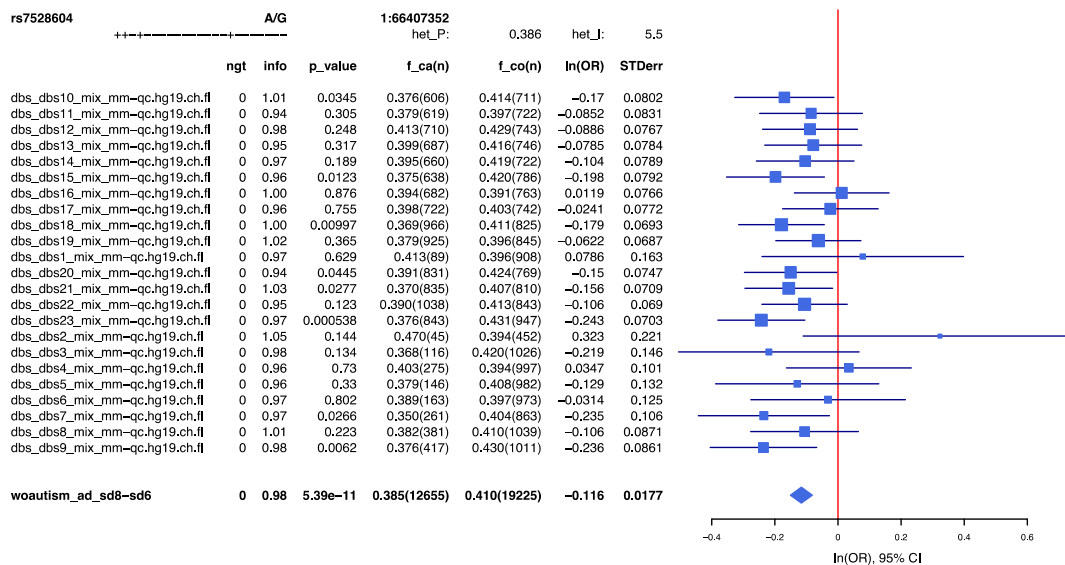
## eFigure 2. Regional association plots for index SNPs in PDE4B

Regional association plot of the local association results. The plot includes information about the significant locus, the location and orientation of the genes in the region, LD estimates of surrounding SNPs with the index SNP is indicated by colour (colour bar in upper left corner indicates  $r^2$  values), if multiple index SNPs then different colour scheme for each index SNP. Additionally, the local estimates of recombination rate. Detailed SNP info in upper right corner (blue letters): SNP, P, OR, MAF, imputation INFO score, directions in the analysed samples/waves (left - right - missing).



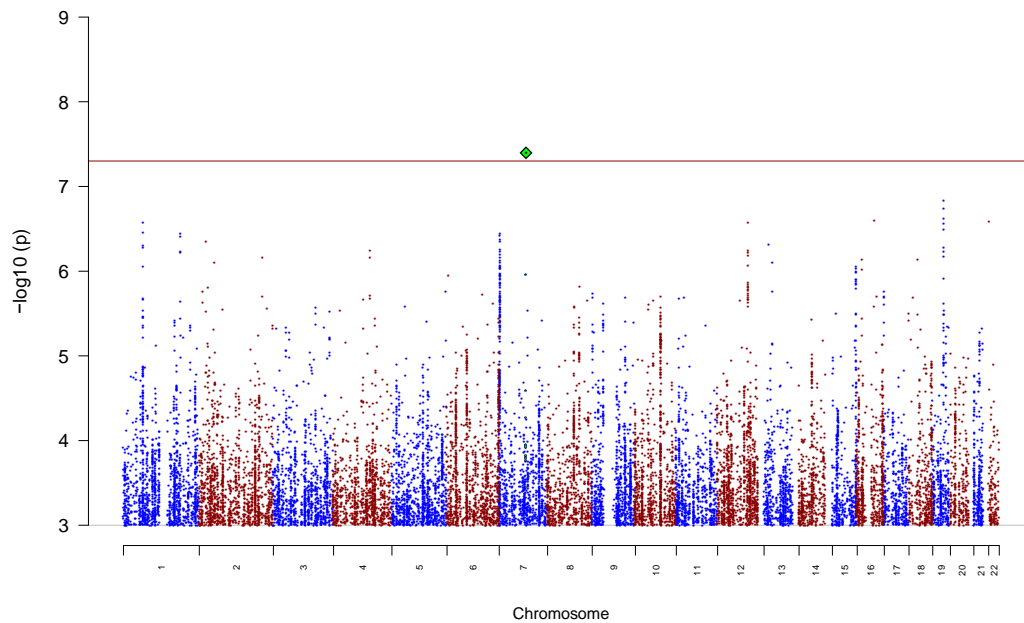
**eFigure 3.** Forest plots for the genome-wide significant index SNP in PDE4B

The plot provides a visualization of the effect size estimates for each wave in our sample, in addition the 95% confidence intervals are included for the estimates.



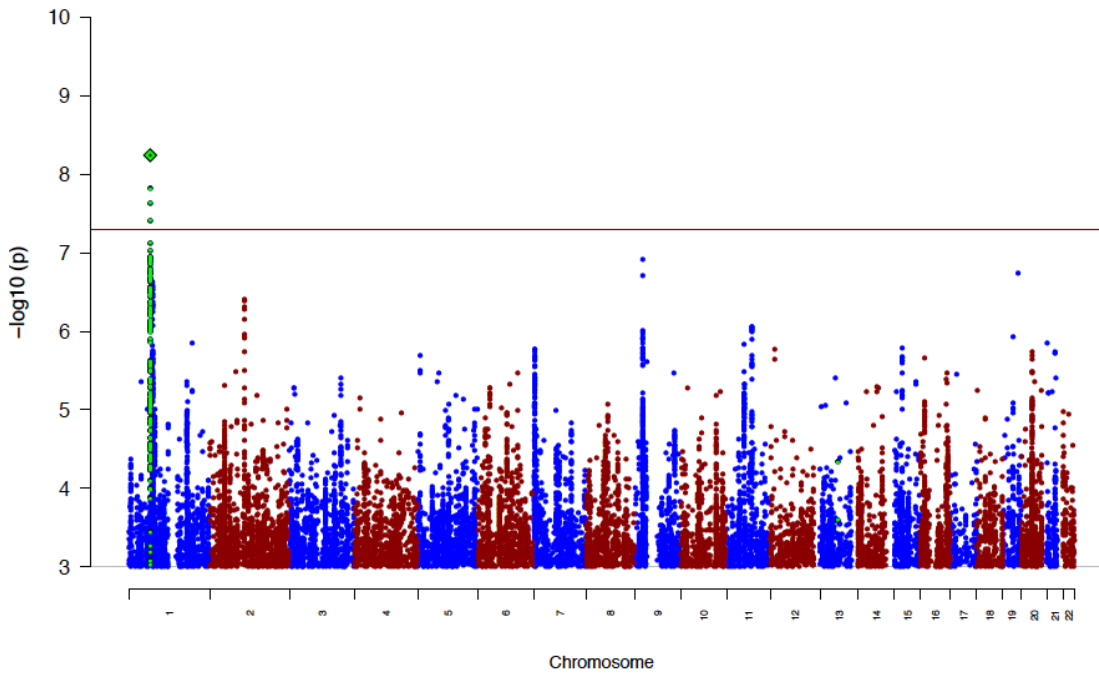
**eFigure 4.** Manhattan plot of the results from the GWAS of anxiety disorders

ICD-10; (F40.0-F41.9); 4584 cases and 19225 controls. The index variants in the most significant loci are highlighted as a diamond. Index variants located with a distance less than 400kb are considered as one locus. The full summary statistics of the data presented in this figure can be downloaded at our website. Please see the data availability section in the main manuscript for more details.



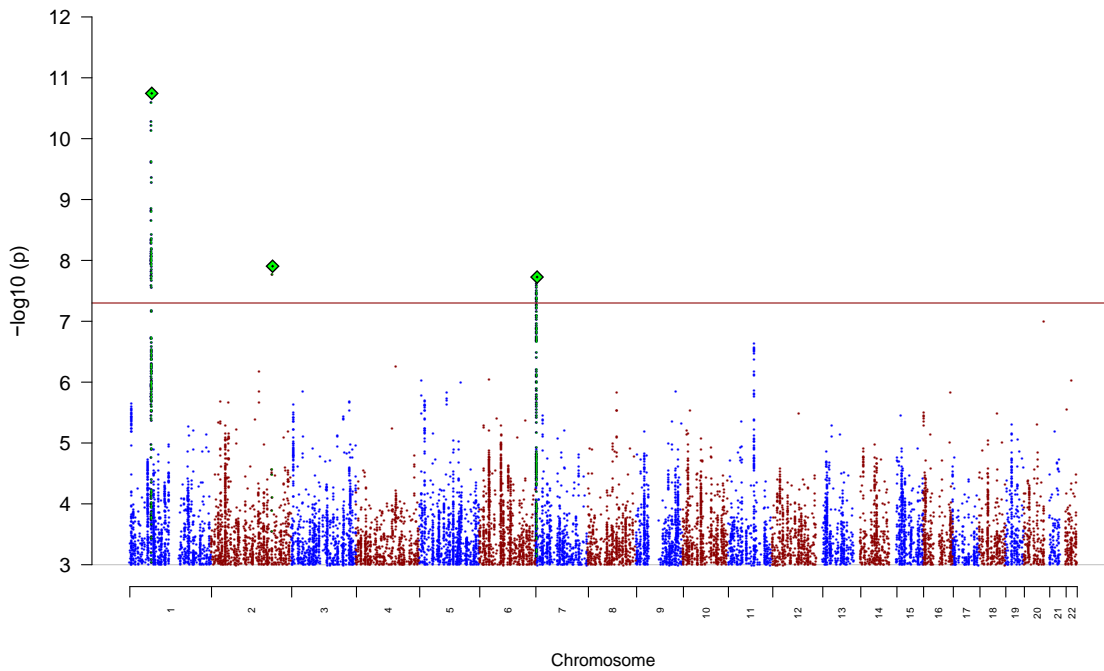
**eFigure 5.** Manhattan plot of the results from the GWAS of stress-related disorders

ICD-10; (F43.0-F43.9); 9831 cases and 19225 controls. The index variants in the most significant loci are highlighted as a diamond. Index variants located with a distance less than 400kb are considered as one locus. The full summary statistics of the data presented in this figure can be downloaded at our website. Please see the data availability section in the main manuscript for more details.



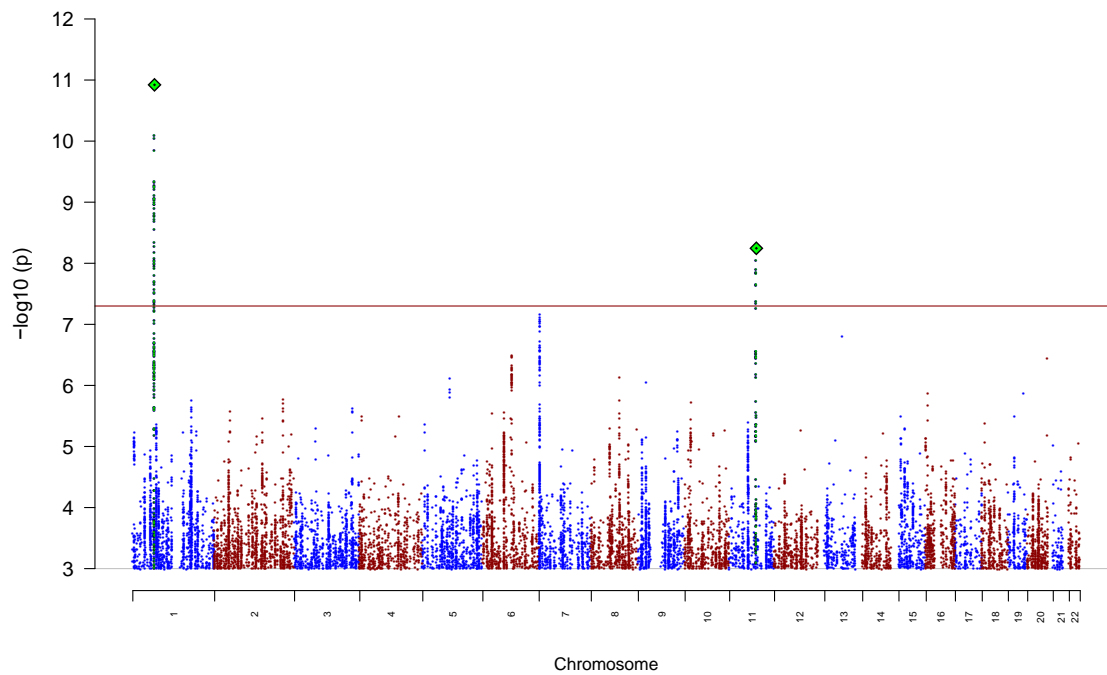
**eFigure 6.** Manhattan plot of the results from the GWAS excluding adjustment disorders

This GWAS includes 8517 cases and 19225 controls. The index variants in the most significant loci are highlighted as a diamond. Index variants located with a distance less than 400kb are considered as one locus. The full summary statistics of the data presented in this figure can be downloaded at our website. Please see the data availability section in the main manuscript for more details.



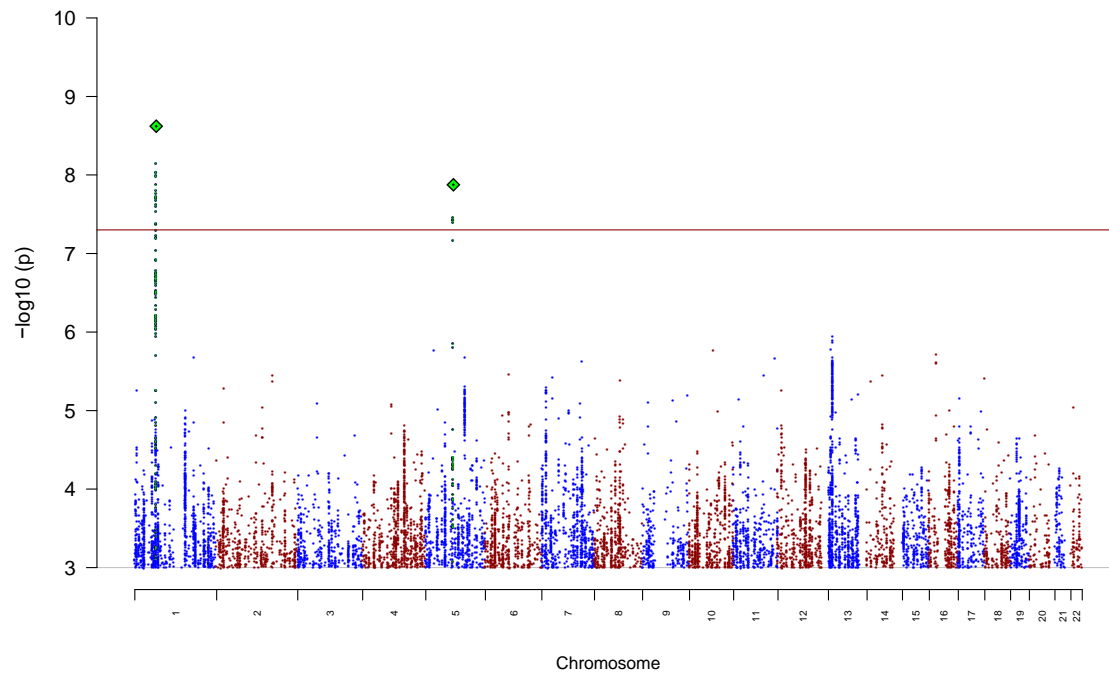
**eFigure 7.** Manhattan plot of the results from the GWAS for “population” Design

This GWAS mimics population-based comorbidity patterns (10311 cases and 19225 controls). The index variants in the most significant loci are highlighted as a diamond. Index variants located with a distance less than 400kb are considered as one locus. The full summary statistics of the data presented in this figure can be downloaded at our website. Please see the data availability section in the main manuscript for more details.



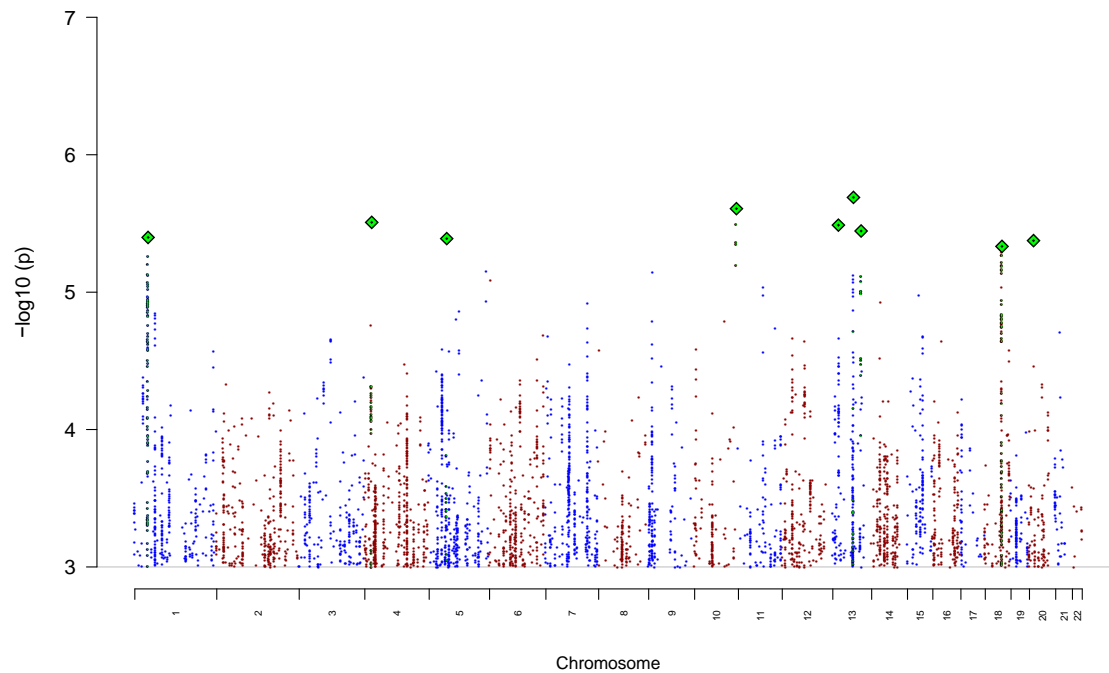
**eFigure 8.** Manhattan plot of the results from the GWAS for the “covariate” Design

This GWAS includes covariates of mental comorbidity (12096 cases and 42215 controls). The index variants in the most significant loci are highlighted as a diamond. Index variants located with a distance less than 400kb are considered as one locus. The full summary statistics of the data presented in this figure can be downloaded at our website. Please see the data availability section in the main manuscript for more details.



**eFigure 9.** Manhattan plot of the results from the GWAS for “propensity” Design

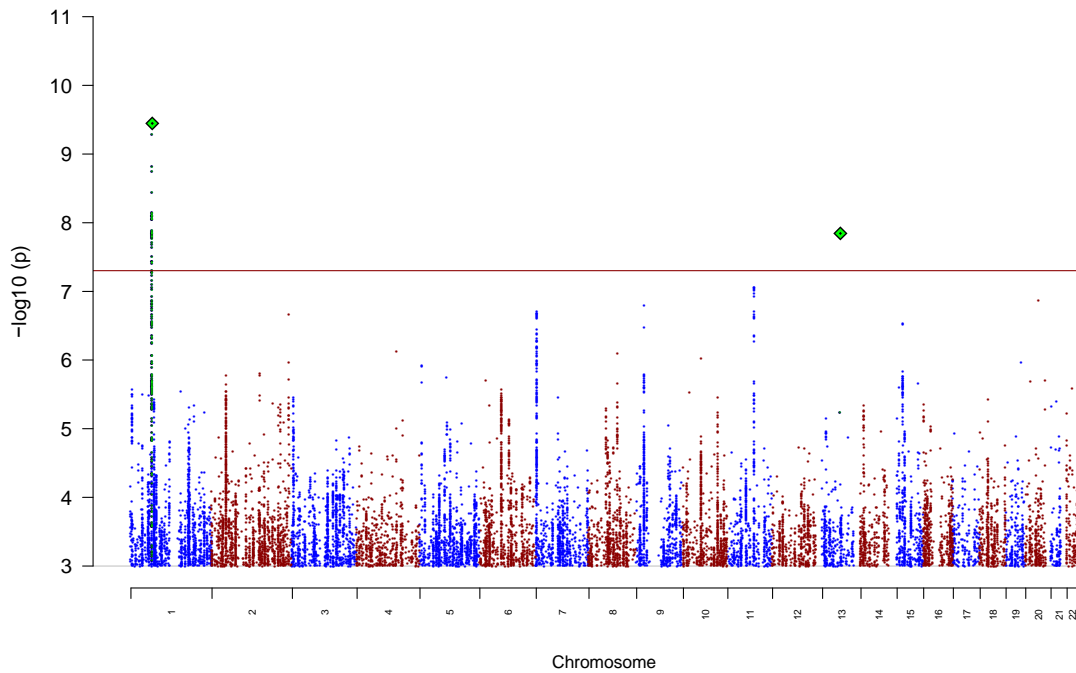
This GWAS uses a sample derived from propensity-score-matching (11599 cases and 11599 controls). The index variants in the most significant loci are highlighted as a diamond. Index variants located with a distance less than 400kb are considered as one locus. The full summary statistics of the data presented in this figure can be downloaded at our website. Please see the data availability section in the main manuscript for more details.





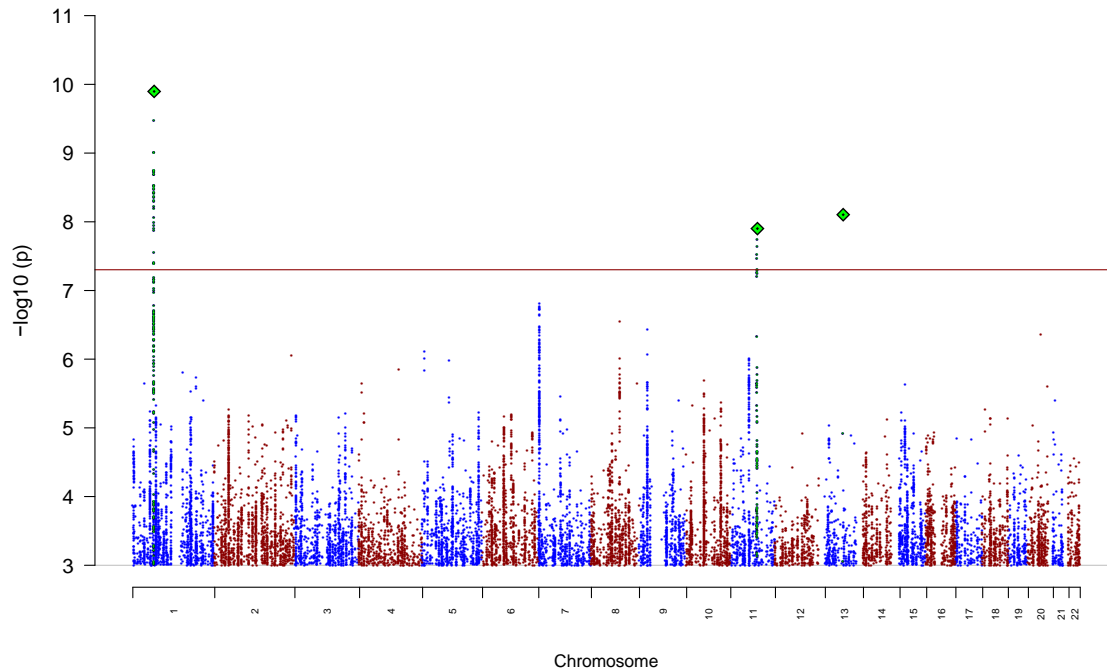
**eFigure 10.** Manhattan plot of the results from the GWAS excluding schizophrenia

This GWAS includes 11560 cases and 19225 controls. The index variants in the most significant loci are highlighted as a diamond. Index variants located with a distance less than 400kb are considered as one locus. The full summary statistics of the data presented in this figure can be downloaded at our website. Please see the data availability section in the main manuscript for more details.



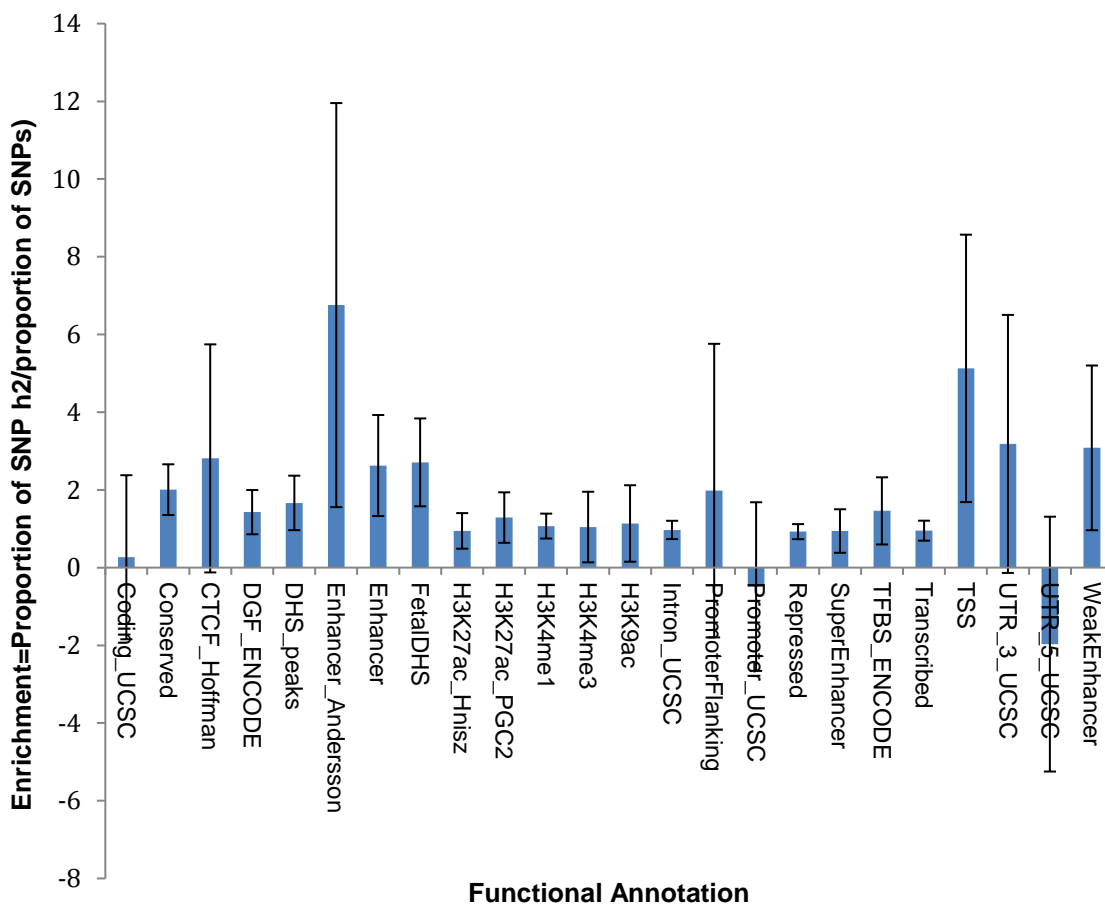
**eFigure 11.** Manhattan plot of the results from the GWAS including OCD

This GWAS includes 13533 cases and 19225 controls. The index variants in the most significant loci are highlighted as a diamond. Index variants located with a distance less than 400kb are considered as one locus. The full summary statistics of the data presented in this figure can be downloaded at our website. Please see the data availability section in the main manuscript for more details.



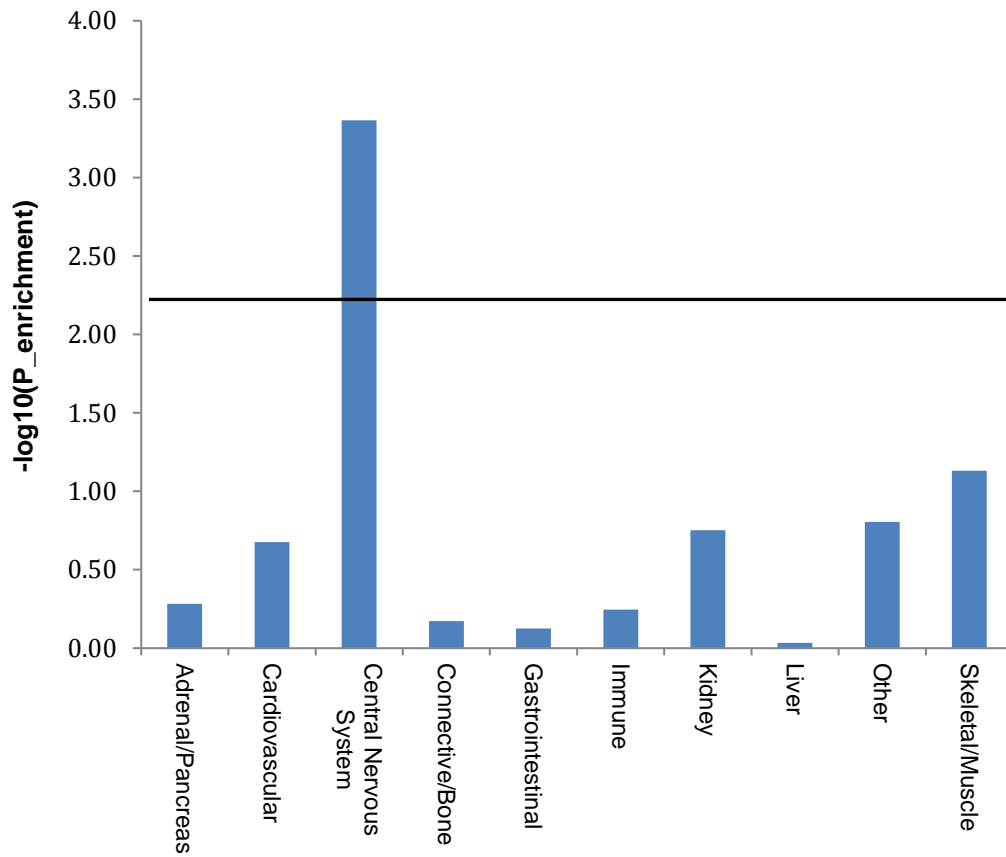
**eFigure 12.** Partitioning of heritability by functional annotations

Enrichment of heritability per SNP in 24 functional annotations defined by Finucane et al.<sup>19</sup> Error bars represent 95% confidence intervals. P-values for annotation categories with nominal significant enrichment are shown. CTCF= CCCTC binding factor, DGF= digital genomic footprint, DHS= DNase I hypersensitive site, TFBS=transcription factor binding site, TSS= transcription start site.



**eFigure 13.** Partitioning of heritability by tissue-group annotations

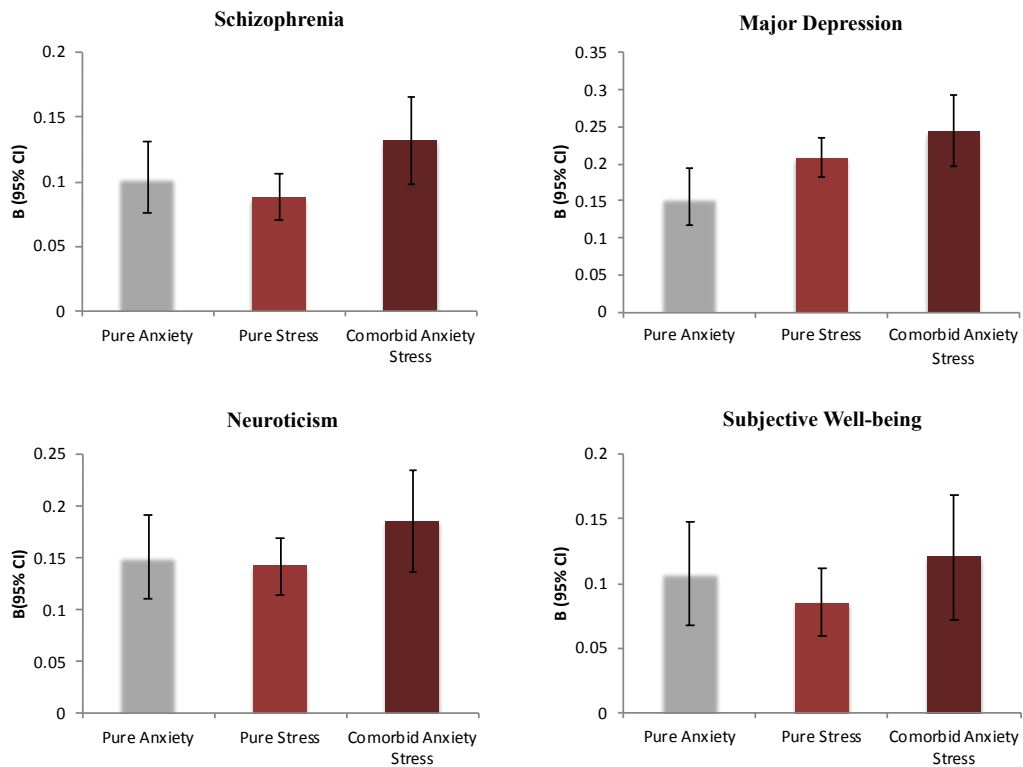
Results from partitioning heritability by SNPs located in cell-group specific regulatory elements. The line indicates significance after Bonferroni correction ( $P = 0.005$ ).





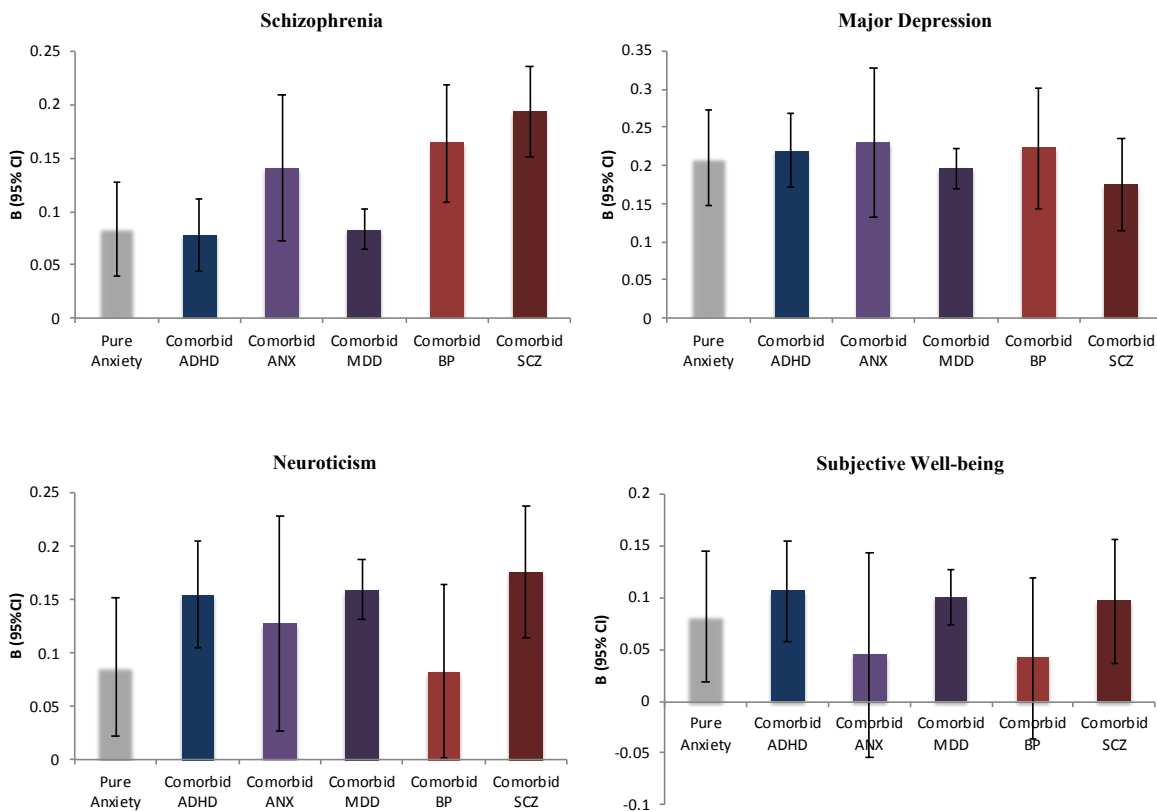
**eFigure 15.** Multivariate regression of normalized polygenic risk scores on diagnostic subtypes

In this analysis controls are the reference group and the regression is adjusted for waves and relevant principal components, whiskers indicate 95%-Confidence Interval (CI). The phenotypes are schizophrenia, major depression (both with the Danish samples removed), subjective well-being, and neuroticism.



**eFigure 16.** Multivariate regression of normalized polygenic risk scores on comorbid subgroups

In this analysis the controls are the reference group and the regression is adjusted for waves and relevant principal components, whiskers indicate 95%-Confidence Interval (CI). The phenotypes are schizophrenia, major depression (both with the Danish samples removed), subjective well-being, and neuroticism. ADHD= Attention-deficit/hyperactivity disorder, ANX= Anorexia Nervosa, MDD= Major depression, SCZ= Schizophrenia, BP= Bipolar disorder.



**eTable 1.** Summary of results for PDE4B

N cases= number of cases in the analysis; N controls= number of controls in the analysis; SNP= index SNP located within *PDE4B* for which the strongest association was observed; P-value= P-value for observed association; OCD= obsessive-compulsive disorder.

Analysis		N cases	N controls	SNP	P-value
Naïve Analysis		12665	19225	rs7528604	5.39*10 <sup>-11</sup>
Anxiety disorders		4584	19225	rs7528604	2.62*10 <sup>-7</sup>
Stress disorders		9831	19225	rs7528604	5.71*10 <sup>-9</sup>
Prevalence		10311	19225	rs7528604	1.20*10 <sup>-11</sup>
Covariates		12096	42215	rs7528604	2.32*10 <sup>-8</sup>
Propensity		11599	11599	rs17128482	1.43*10 <sup>-5</sup>
Exc. Adjustment disorders		8517	19225	rs7528604	1.80*10 <sup>-11</sup>
Exc. Schizophrenia		11560	19225	rs7528604	3.58*10 <sup>-10</sup>
Incl. OCD		13533	19225	rs7528604	1.27*10 <sup>-10</sup>



**eTable 2.** Gene-based test results

The top twenty genes from gene-based analysis, using MAGMA, are provided. CHR= Chromosome.

<b>Gene</b>	<b>CHR</b>	<b>Start</b>	<b>Stop</b>	<b>P-value</b>
<i>PDE4B</i>	1	66223193	66850262	4.74*10 <sup>-15</sup>
<i>GCHFR</i>	15	41021285	41069911	3..30*10 <sup>-7</sup>
<i>SDK1</i>	7	3306080	4318632	5.79*10 <sup>-7</sup>
<i>RMDN3</i>	15	41018085	41082458	9.36*10 <sup>-7</sup>
<i>C15orf62</i>	15	41027159	41074647	1.76*10 <sup>-6</sup>
<i>RAD51</i>	15	40952327	41034356	2.58*10 <sup>-6</sup>
<i>SORCS3</i>	10	106365859	107034993	3.01*10 <sup>-6</sup>
<i>PCDH15</i>	10	55552531	56596051	7.14*10 <sup>-6</sup>
<i>PREPL</i>	2	44534746	44624001	1.35*10 <sup>-5</sup>
<i>AMMECRIL</i>	2	128609204	128678635	1.47*10 <sup>-5</sup>
<i>CAMKMT</i>	2	44554043	45009731	1.51*10 <sup>-5</sup>
<i>USP24</i>	1	55522032	55716039	1.59*10 <sup>-5</sup>
<i>F2RL2</i>	5	75901307	75954259	1.92*10 <sup>-5</sup>
<i>DUSP6</i>	12	89731837	89781296	2.43*10 <sup>-5</sup>
<i>ITGB6</i>	2	160946182	161145349	2.59*10 <sup>-5</sup>
<i>MED19</i>	11	57461182	57514804	2.72*10 <sup>-5</sup>
<i>TMX2</i>	11	57444995	57518445	3.08*10 <sup>-5</sup>
<i>CTNND1</i>	11	57485756	57596652	3.20*10 <sup>-5</sup>
<i>CUBN</i>	10	16855965	17206816	3.33*10 <sup>-5</sup>

**eTable 3.** Pathway analysis results

The top twenty pathways from pathway analysis, using MAGMA, are provided.

Pathway Name	NGenes	P-value
GO_TRANSCRIPTIONAL_REPRESSOR_ACTIVITY_RNA_POLYMERASE_II_ACTIVATING_TRANSCRIPTION_FACTOR_BINDING	50	4.79*10 <sup>-6</sup>
NKX3A_01	210	1.05*10 <sup>-5</sup>
GO_TRANSCRIPTION_FACTOR_ACTIVITY_RNA_POLYMERASE_II_TRANSCRIPTION_FACTOR_BINDING	127	1.69*10 <sup>-5</sup>
HUNSBERGER_EXERCISE_REGULATED_GENES	28	4.31*10 <sup>-5</sup>
GSE12198_CTRL_VS_HIGH_IL2_STIM_NK_CELL_UP	193	5.31*10 <sup>-5</sup>
GO_TRANSCRIPTIONAL_REPRESSOR_ACTIVITY_RNA_POLYMERASE_II_TRANSCRIPTION_FACTOR_BINDING	81	6.80*10 <sup>-5</sup>
GGGNNTTCC_NFKB_Q6_01	229	1.09*10 <sup>-4</sup>
JEPSEN_SMRT_TARGETS	28	1.14*10 <sup>-4</sup>
GTTTGTT_MIR495	237	1.15*10 <sup>-4</sup>
GSE16385_ROSIGLITAZONE_IL4_VS_IL4_ALONE_STIM_MACROPHAGE_12H_DN	189	1.16*10 <sup>-4</sup>
GO_BEHAVIORAL_RESPONSE_TO_COCAINE	12	2.23*10 <sup>-4</sup>
GO_COPI_COATED_VESICLE_MEMBRANE	17	2.27*10 <sup>-4</sup>
ASGHARZADEH_NEUROBLASTOMA_POOR_SURVIVAL_DN	42	3.25*10 <sup>-4</sup>
TGFB_UP.V1_UP	181	3.43*10 <sup>-4</sup>
GO_N_ACETYLGUCOSAMINE_METABOLIC_PROCESS	14	3.75*10 <sup>-4</sup>
AACTTT_UNKNOWN	135	3.77*10 <sup>-4</sup>
GO_COPI_COATED_VESICLE	22	4.40*10 <sup>-4</sup>
GSE14415_INDUCED_TREG_VS_TCONV_DN	147	4.62*10 <sup>-4</sup>
GSE15659_CD45RA_NEG_CD4_TCELL_VS_RESTING_TREG_UPNA	173	4.75*10 <sup>-4</sup>

**eTable 4.** Genetic correlations for “naïve” Design

All results from LDhub analyses. Trait= trait against which genetic correlation was calculated. PMID= PMID for publication that belongs to tested summary statistics. rG= genetic correlation. SE= standard error for genetic correlation. Z= Z-score. p= P-value for genetic correlation analysis. ethnicity= sample ethnicity for sample referenced in “Trait” column. h2\_obs= Heritability on the observed scale for sample referenced in “Trait”. se= standard errors for variable reported in the cell to the left (i.e. h2\_obs, ht\_int, gcov\_int). h2\_int= LD score intercept for sample referenced in “Trait”. gcov\_int= cross-trait LD Score regression intercept.

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Age of first birth	27798627	reproductive	-0.5164	0.0516	-10.0000	1.52E-23	European	0.0625	0.0036	0.9535	0.0083	-0.0034	0.0063
Years of schooling 2016	27225129	education	-0.3553	0.0379	-9.3739	6.99E-21	European	0.1247	0.0046	0.9379	0.0107	-0.0084	0.0066
Depressive symptoms	27089181	psychiatric	0.7329	0.0805	9.1100	8.24E-20	European	0.0468	0.0040	1.0026	0.0076	-0.0034	0.0060
Schizophrenia	25056061	psychiatric	0.3043	0.0431	7.0684	1.57E-12	Mixed	0.4529	0.0198	1.0609	0.0133	0.0061	0.0075
College completion	23722424	education	-0.3605	0.0529	-6.8076	9.93E-12	European	0.0786	0.0057	1.0229	0.0087	0.0015	0.0060
Intelligence	28530673	cognitive	-0.2756	0.0411	-6.7059	2.00E-11	European	0.1881	0.0106	1.0106	0.0088	0.0037	0.0049
PGC cross-disorder analysis	23453885	psychiatric	0.4000	0.0616	6.4963	8.23E-11	European	0.1717	0.0130	1.0153	0.0116	0.0051	0.0072
Subjective well being	27089181	psychiatric	-0.4554	0.0726	-6.2734	3.53E-10	European	0.0249	0.0020	1.0028	0.0073	0.0039	0.0059
Years of schooling (proxy cognitive performance)	25201988	education	-0.3261	0.0534	-6.1020	1.05E-09	European	0.1060	0.0076	1.0285	0.0093	-0.0074	0.0063
Insomnia	28604731	sleeping	0.4290	0.0715	6.0025	1.94E-09	European	0.0477	0.0051	1.0027	0.0070	-0.0013	0.0049
Years of schooling 2013	23722424	education	-0.3296	0.0550	-5.9927	2.06E-09	European	0.0837	0.0062	1.0205	0.0091	-0.0057	0.0063
Major depressive disorder	22472876	psychiatric	0.5756	0.0995	5.7863	7.20E-09	European	0.1511	0.0263	1.0136	0.0065	0.0020	0.0056
Number of children ever born	27798627	reproductive	0.3378	0.0626	5.3962	6.81E-08	European	0.0254	0.0019	0.9716	0.0072	-0.0130	0.0057
Neuroticism	27089181	personality	0.4924	0.0941	5.2346	1.65E-07	European	0.0897	0.0082	0.9885	0.0133	-0.0006	0.0078
Ever vs never smoked	20418890	smoking behaviour	0.3182	0.0670	4.7468	2.07E-06	European	0.0727	0.0066	1.0004	0.0062	0.0036	0.0049
Mothers age at death	27015805	aging	-0.4822	0.1043	-4.6207	3.82E-06	European	0.0374	0.0071	1.0103	0.0072	0.0046	0.0053
Coronary artery disease	26343387	cardiometabolic	0.1933	0.0420	4.6060	4.10E-06	Mixed	0.0781	0.0057	1.0487	0.0096	0.0083	0.0055
Insomnia	27992416	sleeping	0.3410	0.0743	4.5881	4.47E-06	European	0.1344	0.0118	1.0015	0.0082	0.0013	0.0058
Body mass index	20935630	anthropometric	0.1661	0.0374	4.4435	8.85E-06	European	0.1905	0.0095	1.0090	0.0106	0.0005	0.0064
Overweight	23563607	anthropometric	0.2055	0.0465	4.4203	9.85E-06	European	0.1096	0.0067	1.0243	0.0098	-0.0072	0.0060
Waist-to-hip ratio	25673412	anthropometric	0.1866	0.0423	4.4063	1.05E-05	European	0.1141	0.0073	0.9179	0.0095	0.0032	0.0055

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Obesity class 1	23563607	anthropometric	0.1921	0.0440	4.3666	1.26E-05	European	0.2171	0.0122	1.0187	0.0108	0.0049	0.0067
Cigarettes smoked per day	20418890	smoking behaviour	0.4493	0.1032	4.3537	1.34E-05	European	0.0573	0.0155	1.0066	0.0068	-0.0013	0.0047
Lung cancer (all)	24880342	cancer	0.4017	0.0950	4.2296	2.34E-05	European	0.1272	0.0307	1.0080	0.0082	-0.0041	0.0053
Lung cancer	27488534	cancer	0.3634	0.0862	4.2175	2.47E-05	European	0.3210	0.0674	1.0131	0.0082	-0.0047	0.0055
Childhood IQ	23358156	education	-0.3724	0.0888	-4.1926	2.76E-05	European	0.2721	0.0453	1.0025	0.0094	-0.0030	0.0061
Neuroticism	24828478	personality	0.5052	0.1227	4.1179	3.82E-05	European	0.0131	0.0033	1.0141	0.0070	0.0016	0.0049
Age at Menarche	25231870	reproductive	-0.1684	0.0417	-4.0384	5.38E-05	European	0.2061	0.0106	0.9448	0.0120	0.0001	0.0066
Body fat	26833246	anthropometric	0.2289	0.0583	3.9237	8.72E-05	Mixed	0.1074	0.0083	0.9042	0.0069	-0.0067	0.0057
Excessive daytime sleepiness	27992416	sleeping	0.2459	0.0637	3.8582	1.00E-04	European	0.0536	0.0049	1.0039	0.0071	-0.0028	0.0054
Obesity class 2	23563607	anthropometric	0.2044	0.0535	3.8188	1.00E-04	European	0.1836	0.0134	1.0032	0.0102	0.0053	0.0075
Squamous cell lung cancer	27488534	cancer	0.4934	0.1405	3.5130	4.00E-04	European	0.0372	0.0122	1.0121	0.0065	-0.0081	0.0052
Obesity class 3	23563607	anthropometric	0.2412	0.0697	3.4598	5.00E-04	European	0.1221	0.0150	0.9796	0.0095	0.0029	0.0068
Waist circumference	25673412	anthropometric	0.1281	0.0375	3.4129	6.00E-04	European	0.1215	0.0051	0.8444	0.0085	0.0053	0.0054
Lung cancer (squamous cell)	24880342	cancer	0.5750	0.1705	3.3729	7.00E-04	European	0.0490	0.0199	1.0076	0.0070	-0.0095	0.0053
Bipolar disorder	21926972	psychiatric	0.2086	0.0645	3.2336	1.20E-03	European	0.4171	0.0390	1.0283	0.0084	-0.0002	0.0053
Attention deficit hyperactivity disorder (GC)	27663945	psychiatric	0.4827	0.1513	3.1912	1.40E-03	European	0.0791	0.0292	0.9906	0.0076	0.0070	0.0053
Attention deficit hyperactivity disorder (No GC)	27663945	psychiatric	0.4807	0.1505	3.1941	1.40E-03	European	0.0802	0.0295	1.0052	0.0077	0.0072	0.0054
Fathers age at death	27015805	aging	-0.2829	0.0913	-3.0969	2.00E-03	European	0.0397	0.0067	1.0185	0.0069	-0.0042	0.0053
Parents age at death	27015805	aging	-0.3276	0.1058	-3.0959	2.00E-03	European	0.0302	0.0070	1.0142	0.0067	0.0047	0.0047
Height_2010	20881960	anthropometric	-0.1067	0.0351	-3.0435	2.30E-03	European	0.2874	0.0165	1.0145	0.0192	-0.0081	0.0068
Extreme BMI	23563607	anthropometric	0.1657	0.0558	2.9713	3.00E-03	European	0.6894	0.0557	1.0308	0.0122	-0.0033	0.0075
Childhood obesity	22484627	anthropometric	0.1730	0.0590	2.9319	3.40E-03	European	0.4223	0.0440	0.9241	0.0076	-0.0014	0.0049
Attention deficit hyperactivity disorder	20732625	psychiatric	0.4089	0.1524	2.6822	7.30E-03	European	0.2251	0.0945	1.0089	0.0067	-0.0041	0.0047
Glycoprotein acetyls; mainly a1-acid glycoprotein	27005778	metabolites	0.2819	0.1078	2.6154	8.90E-03	European	0.1056	0.0296	0.9836	0.0067	-0.0002	0.0048
Extreme waist-to-hip ratio	23563607	anthropometric	0.2324	0.0917	2.5353	1.12E-02	European	0.3565	0.0594	0.9779	0.0084	-0.0089	0.0068
Asthma	17611496	autoimmune	0.2265	0.0904	2.5060	1.22E-02	European	0.1234	0.0296	1.0073	0.0094	0.0010	0.0058
Age at Menopause	26414677	reproductive	-0.1363	0.0556	-2.4515	1.42E-02	European	0.1349	0.0158	0.9916	0.0141	0.0008	0.0055
Extreme height	23563607	anthropometric	-0.1168	0.0485	-2.4094	1.60E-02	European	1.2498	0.1063	1.0305	0.0181	0.0004	0.0078

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Mean platelet volume	22139419	haematological	0.1550	0.0656	2.3615	1.82E-02	European	0.3193	0.0505	0.9816	0.0101	-0.0109	0.0057
Former vs Current smoker	20418890	smoking behaviour	-0.2284	0.1005	-2.2731	2.30E-02	European	0.0584	0.0109	1.0048	0.0069	-0.0079	0.0052
Total lipids in small HDL	27005778	metabolites	0.3269	0.1450	2.2541	2.42E-02	European	0.0509	0.0272	1.0038	0.0078	-0.0015	0.0046
Lung adenocarcinoma	27488534	cancer	0.3025	0.1359	2.2250	2.61E-02	European	0.0310	0.0121	1.0195	0.0069	-0.0027	0.0049
Multiple sclerosis	21833088	autoimmune	0.3851	0.1815	2.1220	3.38E-02	European	0.0581	0.0280	1.0583	0.0089	-0.0081	0.0059
Anorexia Nervosa	24514567	psychiatric	0.1107	0.0528	2.0950	3.62E-02	European	0.5258	0.0299	0.9087	0.0071	0.0053	0.0055
Forced expiratory volume in 1 second (FEV1)	26635082	lung function	-0.1215	0.0599	-2.0271	4.27E-02	European	0.1431	0.0158	0.9898	0.0070	-0.0016	0.0049
HDL cholesterol	20686565	lipids	-0.0961	0.0497	-1.9313	5.34E-02	European	0.1256	0.0246	1.0620	0.0526	-0.0036	0.0058
Triglycerides	20686565	lipids	0.1088	0.0568	1.9134	5.57E-02	European	0.1691	0.0300	0.9674	0.0172	0.0066	0.0066
Free cholesterol in very large HDL	27005778	metabolites	-0.2949	0.1569	-1.8790	6.02E-02	European	0.0472	0.0245	1.0151	0.0148	0.0041	0.0049
Average number of methylene groups per a double bond	27005778	metabolites	0.1597	0.0867	1.8418	6.55E-02	European	0.2049	0.0750	0.9946	0.0087	-0.0021	0.0046
Mean diameter for HDL particles	27005778	metabolites	-0.1844	0.1055	-1.7479	8.05E-02	European	0.1149	0.0292	1.0102	0.0208	0.0030	0.0048
Total cholesterol in very large HDL	27005778	metabolites	-0.3252	0.1868	-1.7403	8.18E-02	European	0.0365	0.0224	1.0120	0.0122	0.0060	0.0048
Amyotrophic lateral sclerosis	27455348	neurological	0.2033	0.1171	1.7367	8.24E-02	European	0.0488	0.0130	0.9950	0.0067	-0.0003	0.0050
Leptin_not_adjBMI	26833098	hormone	0.1528	0.0881	1.7343	8.29E-02	European	0.0946	0.0164	0.9972	0.0068	0.0003	0.0050
Child birth weight	23202124	anthropometric	-0.1339	0.0775	-1.7272	8.41E-02	European	0.1139	0.0179	1.0037	0.0057	-0.0002	0.0045
Ratio of bisallylic groups to total fatty acids	27005778	metabolites	-0.1326	0.0782	-1.6964	8.98E-02	European	0.2811	0.0921	0.9839	0.0089	-0.0005	0.0048
Tyrosine	27005778	metabolites	0.1858	0.1123	1.6548	9.80E-02	European	0.0749	0.0280	0.9991	0.0074	-0.0103	0.0048
Phospholipids in chylomicrons and largest VLDL particles	27005778	metabolites	0.1440	0.0874	1.6474	9.95E-02	European	0.1074	0.0264	0.9804	0.0065	0.0007	0.0050
Description of average fatty acid chain length; not actual carbon number	27005778	metabolites	-0.1957	0.1207	-1.6209	1.05E-01	European	0.1134	0.0378	0.9794	0.0076	0.0048	0.0052
Glucose	27005778	metabolites	0.1492	0.0951	1.5701	1.16E-01	European	0.0881	0.0224	0.9946	0.0068	-0.0067	0.0048
Total lipids in very large HDL	27005778	metabolites	-0.2342	0.1518	-1.5432	1.23E-01	European	0.0589	0.0275	1.0168	0.0160	0.0038	0.0052
Phospholipids in very large HDL	27005778	metabolites	-0.1789	0.1171	-1.5282	1.27E-01	European	0.0865	0.0293	1.0099	0.0184	0.0009	0.0049
Neo-openness to experience	21173776	personality	0.1651	0.1084	1.5227	1.28E-01	European	0.1037	0.0273	0.9927	0.0070	-0.0065	0.0053

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Primary sclerosing cholangitis	27992413	autoimmune	-0.0892	0.0592	-1.5062	1.32E-01	Mixed	0.3961	0.1621	0.9944	0.0164	-0.0049	0.0057
Concentration of large VLDL particles	27005778	metabolites	0.1234	0.0836	1.4751	1.40E-01	European	0.1401	0.0337	0.9708	0.0073	0.0012	0.0047
Sleep duration	27494321	sleeping	-0.1143	0.0775	-1.4734	1.41E-01	European	0.0546	0.0052	1.0223	0.0080	-0.0045	0.0058
Neo-conscientiousness	21173776	personality	-0.2333	0.1638	-1.4245	1.54E-01	European	0.0686	0.0302	1.0020	0.0069	0.0041	0.0053
Total cholesterol in large HDL	27005778	metabolites	-0.1441	0.1022	-1.4090	1.59E-01	European	0.1041	0.0260	1.0069	0.0152	-0.0002	0.0047
Citrate	27005778	metabolites	-0.1768	0.1257	-1.4063	1.60E-01	European	0.0662	0.0226	1.0144	0.0077	-0.0008	0.0049
Concentration of medium VLDL particles	27005778	metabolites	0.1083	0.0806	1.3433	1.79E-01	European	0.1506	0.0349	0.9802	0.0076	0.0043	0.0046
Forced Vital capacity (FVC)	28166213	lung function	-0.0687	0.0517	-1.3305	1.83E-01	European	0.2587	0.0158	0.9783	0.0080	0.0005	0.0055
Acetoacetate	27005778	metabolites	0.1380	0.1068	1.2927	1.96E-01	European	0.0817	0.0296	0.9768	0.0073	0.0042	0.0050
Free cholesterol in large HDL	27005778	metabolites	-0.1283	0.1005	-1.2762	2.02E-01	European	0.1061	0.0268	1.0083	0.0151	-0.0011	0.0048
Urinary albumin-to-creatinine ratio (non-diabetes)	26631737	kidney	0.1082	0.0879	1.2303	2.19E-01	European	0.0532	0.0106	0.9950	0.0073	-0.0037	0.0050
Phospholipids in medium LDL	27005778	metabolites	0.1385	0.1130	1.2262	2.20E-01	European	0.0713	0.0394	1.0092	0.0176	0.0025	0.0048
Concentration of very large VLDL particles	27005778	metabolites	0.1124	0.0928	1.2108	2.26E-01	European	0.1338	0.0304	0.9801	0.0075	0.0006	0.0049
Ratio of bisallylic groups to double bonds	27005778	metabolites	-0.0863	0.0719	-1.2008	2.30E-01	European	0.3008	0.1001	0.9760	0.0101	-0.0037	0.0048
Forced expiratory volume in 1 second (FEV1)	28166213	lung function	-0.0659	0.0550	-1.1982	2.31E-01	European	0.2640	0.0171	0.9722	0.0077	-0.0010	0.0058
Total lipids in large VLDL	27005778	metabolites	0.0986	0.0827	1.1929	2.33E-01	European	0.1455	0.0298	0.9829	0.0068	0.0018	0.0048
Omega-9 and saturated fatty acids	27005778	metabolites	0.1564	0.1317	1.1879	2.35E-01	European	0.0958	0.0447	0.9934	0.0083	0.0039	0.0048
LDL cholesterol	20686565	lipids	0.0661	0.0556	1.1876	2.35E-01	European	0.1025	0.0295	1.0541	0.0513	0.0026	0.0054
Triglycerides in large VLDL	27005778	metabolites	0.0987	0.0837	1.1802	2.38E-01	European	0.1184	0.0287	0.9860	0.0069	0.0042	0.0050
22: 6 docosahexaenoic acid	27005778	metabolites	-0.1128	0.0959	-1.1757	2.40E-01	European	0.1379	0.0382	0.9938	0.0079	0.0017	0.0050
Phospholipids in small VLDL	27005778	metabolites	0.1028	0.0896	1.1475	2.51E-01	European	0.1111	0.0353	1.0006	0.0088	0.0068	0.0047
Phospholipids in very large VLDL	27005778	metabolites	0.0955	0.0834	1.1456	2.52E-01	European	0.1143	0.0281	0.9822	0.0067	0.0026	0.0047
Forced Vital capacity (FVC)	26635082	lung function	-0.0768	0.0677	-1.1345	2.57E-01	European	0.1452	0.0157	0.9865	0.0070	-0.0011	0.0053
Hip circumference	25673412	anthropometric	0.0438	0.0388	1.1304	2.58E-01	European	0.1272	0.0059	0.8609	0.0085	0.0042	0.0054
Heart rate	23583979	haematological	0.0673	0.0596	1.1285	2.59E-01	Mixed	0.0845	0.0098	1.0124	0.0091	0.0030	0.0052

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Concentration of very large HDL particles	27005778	metabolites	-0.1513	0.1341	-1.1280	2.59E-01	European	0.0604	0.0262	1.0040	0.0165	0.0002	0.0048
Mean diameter for VLDL particles	27005778	metabolites	0.0979	0.0875	1.1189	2.63E-01	European	0.1369	0.0337	0.9893	0.0088	0.0001	0.0049
Urinary albumin-to-creatinine ratio	26631737	kidney	0.0963	0.0860	1.1187	2.63E-01	European	0.0463	0.0091	0.9954	0.0074	-0.0003	0.0053
Mono-unsaturated fatty acids	27005778	metabolites	0.1363	0.1219	1.1176	2.64E-01	European	0.1136	0.0444	0.9856	0.0082	0.0052	0.0050
Total Cholesterol	20686565	lipids	0.0517	0.0472	1.0946	2.74E-01	European	0.1339	0.0247	1.0216	0.0370	0.0047	0.0055
Triglycerides in medium VLDL	27005778	metabolites	0.1004	0.0924	1.0861	2.77E-01	European	0.1009	0.0296	0.9972	0.0068	0.0062	0.0050
Forearm Bone mineral density	26367794	bone	0.1623	0.1497	1.0840	2.78E-01	Mixed	0.0797	0.0440	1.0131	0.0071	-0.0092	0.0048
Phenylalanine	27005778	metabolites	0.1470	0.1362	1.0795	2.80E-01	European	0.0564	0.0226	1.0033	0.0072	0.0025	0.0051
Acetate	27005778	metabolites	-0.1369	0.1269	-1.0789	2.81E-01	European	0.0514	0.0185	1.0035	0.0071	0.0068	0.0050
Free cholesterol in medium VLDL	27005778	metabolites	0.0918	0.0854	1.0751	2.82E-01	European	0.1155	0.0334	0.9939	0.0073	0.0061	0.0049
Serum creatinine (non-diabetes)	26831199	kidney	0.0545	0.0508	1.0723	2.84E-01	Mixed	0.1147	0.0111	0.9791	0.0146	0.0017	0.0063
Triglycerides in small HDL	27005778	metabolites	0.1357	0.1275	1.0639	2.87E-01	European	0.0639	0.0275	0.9998	0.0090	0.0085	0.0049
Total lipids in medium VLDL	27005778	metabolites	0.0883	0.0835	1.0571	2.91E-01	European	0.1445	0.0346	0.9841	0.0073	0.0049	0.0049
Urate	23263486	other	0.0481	0.0457	1.0534	2.92E-01	European	0.1784	0.0611	0.9489	0.0545	-0.0015	0.0057
Phospholipids in large VLDL	27005778	metabolites	0.0904	0.0866	1.0447	2.96E-01	European	0.1207	0.0313	0.9877	0.0069	0.0050	0.0049
Rheumatoid Arthritis	24390342	autoimmune	0.0521	0.0502	1.0368	3.00E-01	European	0.1564	0.0301	1.0277	0.0183	0.0153	0.0050
Cholesterol esters in large HDL	27005778	metabolites	-0.1025	0.0999	-1.0265	3.05E-01	European	0.1211	0.0290	1.0016	0.0150	-0.0011	0.0048
Platelet count	22139419	haematological	-0.0526	0.0516	-1.0196	3.08E-01	European	0.1196	0.0115	0.9857	0.0093	0.0089	0.0046
HbA1C	20858683	glycemic	0.0836	0.0822	1.0174	3.09E-01	European	0.0639	0.0119	1.0004	0.0073	-0.0057	0.0050
Average number of double bonds in a fatty acid chain	27005778	metabolites	-0.0922	0.0912	-1.0108	3.12E-01	European	0.1768	0.0528	0.9999	0.0083	-0.0003	0.0050
Concentration of small VLDL particles	27005778	metabolites	0.0837	0.0829	1.0103	3.12E-01	European	0.1512	0.0376	0.9897	0.0084	0.0069	0.0048
Albumin	27005778	metabolites	0.1320	0.1312	1.0065	3.14E-01	European	0.0639	0.0256	0.9883	0.0072	0.0047	0.0048
Serum creatinine	26831199	kidney	0.0492	0.0497	0.9889	3.23E-01	Mixed	0.1069	0.0097	0.9770	0.0149	0.0028	0.0064
Triglycerides in very small VLDL	27005778	metabolites	0.0857	0.0870	0.9857	3.24E-01	European	0.1380	0.0373	0.9981	0.0102	0.0089	0.0047
Cholesterol esters in large VLDL	27005778	metabolites	0.0752	0.0769	0.9777	3.28E-01	European	0.1710	0.0346	0.9751	0.0070	0.0024	0.0047
Triglycerides in small VLDL	27005778	metabolites	0.0869	0.0889	0.9772	3.29E-01	European	0.1219	0.0356	0.9931	0.0078	0.0089	0.0050
Free cholesterol in small VLDL	27005778	metabolites	0.0914	0.0940	0.9729	3.31E-01	European	0.1085	0.0336	1.0011	0.0087	0.0082	0.0049
Total cholesterol in HDL	27005778	metabolites	-0.1027	0.1056	-0.9724	3.31E-01	European	0.0965	0.0257	1.0053	0.0124	0.0016	0.0049

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Triglycerides in very large VLDL	27005778	metabolites	0.0765	0.0790	0.9685	3.33E-01	European	0.1310	0.0294	0.9760	0.0068	0.0040	0.0047
Serum cystatin c	26831199	kidney	-0.0639	0.0669	-0.9546	3.40E-01	Mixed	0.1699	0.0678	0.9612	0.0148	-0.0005	0.0057
Alanine	27005778	metabolites	0.0934	0.0987	0.9465	3.44E-01	European	0.0976	0.0275	1.0057	0.0074	-0.0048	0.0052
Isoleucine	27005778	metabolites	0.1163	0.1243	0.9360	3.49E-01	European	0.0685	0.0240	0.9958	0.0072	-0.0037	0.0055
Total lipids in chylomicrons and largest VLDL particles	27005778	metabolites	0.0830	0.0887	0.9356	3.50E-01	European	0.1323	0.0279	0.9852	0.0068	0.0005	0.0049
Phospholipids in medium VLDL	27005778	metabolites	0.0817	0.0878	0.9304	3.52E-01	European	0.1132	0.0332	0.9958	0.0073	0.0079	0.0050
Serum total triglycerides	27005778	metabolites	0.0760	0.0819	0.9280	3.53E-01	European	0.1296	0.0360	0.9899	0.0078	0.0094	0.0050
Total lipids in small VLDL	27005778	metabolites	0.0794	0.0856	0.9279	3.54E-01	European	0.1444	0.0385	0.9917	0.0084	0.0065	0.0048
Adiponectin	22479202	cardiometabolic	0.0741	0.0804	0.9216	3.57E-01	Mixed	0.1224	0.0264	1.0212	0.0134	-0.0077	0.0048
Leucine	27005778	metabolites	0.1336	0.1495	0.8933	3.72E-01	European	0.0467	0.0215	1.0084	0.0070	-0.0039	0.0053
Total lipids in large HDL	27005778	metabolites	-0.0862	0.0966	-0.8921	3.72E-01	European	0.1295	0.0296	1.0010	0.0160	-0.0004	0.0048
Forced expiratory volume in 1 second (FEV1)/ Forced Vital capacity (FVC)	21946350	lung function	-0.0572	0.0643	-0.8892	3.74E-01	European	0.1242	0.0137	0.9281	0.0081	0.0054	0.0053
Total lipids in very large VLDL	27005778	metabolites	0.0720	0.0810	0.8888	3.74E-01	European	0.1491	0.0301	0.9735	0.0069	0.0024	0.0046
Birth weight	27680694	anthropometric	-0.0420	0.0473	-0.8887	3.74E-01	European	0.1007	0.0072	1.0459	0.0105	0.0007	0.0056
Ferritin	25352340	metal	-0.0912	0.1043	-0.8747	3.82E-01	European	0.0923	0.0266	1.0272	0.0095	0.0066	0.0062
Total cholesterol in medium LDL	27005778	metabolites	0.1008	0.1160	0.8687	3.85E-01	European	0.0670	0.0430	1.0138	0.0201	0.0028	0.0048
Autism spectrum disorder	0	psychiatric	0.0808	0.0932	0.8666	3.86E-01	European	0.3879	0.0534	0.9800	0.0074	0.0044	0.0055
Age of smoking initiation	20418890	smoking behaviour	-0.1115	0.1297	-0.8594	3.90E-01	European	0.0652	0.0186	0.9981	0.0062	-0.0077	0.0051
Ulcerative colitis	26192919	autoimmune	-0.0533	0.0622	-0.8580	3.91E-01	European	0.2499	0.0336	1.0521	0.0112	0.0092	0.0055
Total cholesterol in small VLDL	27005778	metabolites	0.0905	0.1058	0.8556	3.92E-01	European	0.0867	0.0324	1.0071	0.0098	0.0059	0.0048
Eczema	26482879	autoimmune	-0.0775	0.0909	-0.8531	3.94E-01	Mixed	0.0674	0.0153	1.0240	0.0075	0.0184	0.0050
Valine	27005778	metabolites	0.1005	0.1194	0.8418	4.00E-01	European	0.0651	0.0205	1.0128	0.0077	-0.0041	0.0053
Infant head circumference	22504419	anthropometric	-0.0798	0.0948	-0.8411	4.00E-01	European	0.2202	0.0439	0.9926	0.0069	-0.0100	0.0047
Fasting insulin main effect	22581228	glycemic	0.0653	0.0790	0.8274	4.08E-01	European	0.0702	0.0102	1.0152	0.0076	0.0022	0.0052
Serum urate overweight	25811787	uric_acid	0.0616	0.0751	0.8206	4.12E-01	European	0.5227	0.2251	0.9695	0.0210	-0.0031	0.0049
Cholesterol esters in medium HDL	27005778	metabolites	0.1230	0.1501	0.8193	4.13E-01	European	0.0544	0.0280	1.0004	0.0088	-0.0036	0.0049
Forced expiratory volume in 1 second (FEV1)	21946350	lung function	-0.0641	0.0783	-0.8179	4.13E-01	European	0.1747	0.0226	0.8790	0.0125	-0.0095	0.0089



Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Forced expiratory volume in 1 second (FEV1)/ Forced Vital capacity (FVC)	26635082	lung function	-0.0584	0.0715	-0.8175	4.14E-01	European	0.1166	0.0150	0.9791	0.0068	-0.0020	0.0051
Concentration of medium LDL particles	27005778	metabolites	0.0889	0.1088	0.8174	4.14E-01	European	0.0775	0.0455	1.0125	0.0184	0.0053	0.0048
2hr glucose adjusted for BMI	20081857	glycemic	0.0954	0.1171	0.8141	4.16E-01	European	0.0986	0.0347	0.9948	0.0071	-0.0041	0.0056
Inflammatory Bowel Disease (Euro)	26192919	autoimmune	-0.0401	0.0495	-0.8085	4.19E-01	European	0.3300	0.0346	1.0565	0.0114	0.0112	0.0056
Concentration of large HDL particles	27005778	metabolites	-0.0771	0.0957	-0.8050	4.21E-01	European	0.1321	0.0297	0.9996	0.0164	0.0000	0.0048
Crohn's disease	26192919	autoimmune	-0.0442	0.0549	-0.8046	4.21E-01	European	0.4944	0.0571	1.0263	0.0113	0.0133	0.0053
Concentration of medium HDL particles	27005778	metabolites	0.1007	0.1252	0.8042	4.21E-01	European	0.0672	0.0253	0.9937	0.0078	0.0017	0.0047
Lumbar spine bone mineral density	22504420	bone	0.0438	0.0548	0.8005	4.23E-01	Mixed	0.2669	0.0257	1.0154	0.0093	-0.0061	0.0050
Mean diameter for LDL particles	27005778	metabolites	-0.1000	0.1257	-0.7953	4.27E-01	European	0.0543	0.0252	0.9977	0.0120	-0.0008	0.0046
Total lipids in medium HDL	27005778	metabolites	0.1033	0.1329	0.7777	4.37E-01	European	0.0626	0.0255	0.9955	0.0081	0.0005	0.0048
Apolipoprotein A-I	27005778	metabolites	-0.0928	0.1209	-0.7675	4.43E-01	European	0.0803	0.0269	1.0026	0.0110	0.0074	0.0049
Height; Females at age 10 and males at age 12	23449627	anthropometric	-0.0438	0.0576	-0.7607	4.47E-01	European	0.4241	0.0473	0.9545	0.0080	0.0015	0.0053
Phospholipids in large LDL	27005778	metabolites	0.0922	0.1229	0.7504	4.53E-01	European	0.0580	0.0410	1.0195	0.0196	0.0056	0.0047
Free cholesterol in large VLDL	27005778	metabolites	0.0585	0.0781	0.7492	4.54E-01	European	0.1317	0.0299	0.9850	0.0068	0.0046	0.0048
Alzheimer's disease	24162737	neurological	-0.0737	0.0988	-0.7467	4.55E-01	European	0.0406	0.0234	1.0707	0.0332	0.0083	0.0051
Triglycerides in IDL	27005778	metabolites	0.0739	0.0989	0.7468	4.55E-01	European	0.1035	0.0345	1.0116	0.0156	0.0092	0.0045
Concentration of chylomicrons and largest VLDL particles	27005778	metabolites	0.0692	0.0936	0.7393	4.60E-01	European	0.1217	0.0281	0.9863	0.0071	0.0051	0.0048
Total cholesterol in medium VLDL	27005778	metabolites	0.0617	0.0842	0.7324	4.64E-01	European	0.1258	0.0354	0.9917	0.0081	0.0068	0.0049
Total lipids in small LDL	27005778	metabolites	0.0732	0.1007	0.7264	4.68E-01	European	0.0854	0.0423	1.0086	0.0158	0.0064	0.0048
Triglycerides in chylomicrons and largest VLDL particles	27005778	metabolites	0.0643	0.0907	0.7089	4.78E-01	European	0.1017	0.0274	0.9860	0.0071	0.0064	0.0049
Total lipids in medium LDL	27005778	metabolites	0.0750	0.1072	0.6998	4.84E-01	European	0.0789	0.0462	1.0109	0.0189	0.0056	0.0048
Transferrin	25352340	metal	0.0545	0.0798	0.6836	4.94E-01	European	0.1635	0.0759	1.0614	0.0243	-0.0059	0.0063
Phospholipids in large HDL	27005778	metabolites	-0.0657	0.0964	-0.6813	4.96E-01	European	0.1282	0.0300	0.9978	0.0152	-0.0003	0.0049

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Concentration of small LDL particles	27005778	metabolites	0.0661	0.0972	0.6798	4.97E-01	European	0.0937	0.0412	1.0072	0.0145	0.0072	0.0048
Total cholesterol in LDL	27005778	metabolites	0.0790	0.1166	0.6771	4.98E-01	European	0.0663	0.0464	1.0148	0.0215	0.0045	0.0049
Femoral neck bone mineral density	22504420	bone	0.0336	0.0500	0.6733	5.01E-01	Mixed	0.3037	0.0255	0.9800	0.0085	-0.0003	0.0052
Difference in height between childhood and adulthood; age 8	23449627	anthropometric	-0.0617	0.0929	-0.6644	5.06E-01	European	0.3377	0.0501	0.9712	0.0077	-0.0059	0.0064
Fasting proinsulin	20081858	glycemic	0.0625	0.0965	0.6478	5.17E-01	European	0.2013	0.0898	0.9783	0.0105	-0.0035	0.0053
Concentration of large LDL particles	27005778	metabolites	0.0722	0.1145	0.6309	5.28E-01	European	0.0719	0.0467	1.0173	0.0196	0.0053	0.0047
Cholesterol esters in medium LDL	27005778	metabolites	0.0684	0.1091	0.6270	5.31E-01	European	0.0779	0.0464	1.0111	0.0192	0.0052	0.0048
Omega-3 fatty acids	27005778	metabolites	-0.0609	0.1004	-0.6061	5.44E-01	European	0.1519	0.0435	0.9920	0.0081	-0.0002	0.0054
Parkinson's disease	19915575	neurological	-0.0403	0.0667	-0.6040	5.46E-01	European	0.3707	0.1211	1.1278	0.0093	0.0030	0.0044
Phospholipids in very small VLDL	27005778	metabolites	0.0653	0.1092	0.5985	5.50E-01	European	0.0814	0.0376	1.0159	0.0157	0.0051	0.0045
Total lipids in large LDL	27005778	metabolites	0.0677	0.1147	0.5904	5.55E-01	European	0.0716	0.0479	1.0159	0.0202	0.0049	0.0047
18: 2 linoleic acid (LA)	27005778	metabolites	-0.0555	0.0965	-0.5749	5.65E-01	European	0.1293	0.0501	1.0026	0.0098	0.0088	0.0048
Cholesterol esters in large LDL	27005778	metabolites	0.0647	0.1143	0.5659	5.71E-01	European	0.0733	0.0478	1.0135	0.0202	0.0043	0.0048
Free cholesterol	27005778	metabolites	-0.0783	0.1387	-0.5644	5.73E-01	European	0.0714	0.0417	1.0225	0.0109	0.0083	0.0049
Total cholesterol in large LDL	27005778	metabolites	0.0665	0.1188	0.5598	5.76E-01	European	0.0614	0.0432	1.0167	0.0208	0.0050	0.0049
Concentration of very small VLDL particles	27005778	metabolites	0.0529	0.0946	0.5585	5.77E-01	European	0.1130	0.0366	1.0060	0.0127	0.0082	0.0044
Apolipoprotein B	27005778	metabolites	0.0560	0.1023	0.5469	5.85E-01	European	0.0855	0.0387	1.0074	0.0140	0.0085	0.0049
Glutamine	27005778	metabolites	-0.0581	0.1086	-0.5344	5.93E-01	European	0.0639	0.0216	1.0174	0.0080	-0.0037	0.0046
Difference in height between adolescence and adulthood; age 14	23449627	anthropometric	-0.0570	0.1142	-0.4992	6.18E-01	European	0.4419	0.1066	0.9819	0.0070	0.0000	0.0052
Concentration of IDL particles	27005778	metabolites	0.0568	0.1161	0.4891	6.25E-01	European	0.0718	0.0405	1.0193	0.0170	0.0057	0.0046
Chronotype	27494321	sleeping	-0.0242	0.0499	-0.4854	6.27E-01	European	0.0992	0.0062	1.0196	0.0089	-0.0009	0.0053
Lumbar Spine bone mineral density	26367794	bone	0.0296	0.0621	0.4765	6.34E-01	Mixed	0.1277	0.0163	0.9804	0.0086	-0.0049	0.0051
Phospholipids in IDL	27005778	metabolites	0.0589	0.1275	0.4621	6.44E-01	European	0.0567	0.0389	1.0228	0.0180	0.0070	0.0047
Cholesterol esters in medium VLDL	27005778	metabolites	0.0372	0.0863	0.4306	6.67E-01	European	0.1540	0.0377	0.9851	0.0084	0.0063	0.0049
Fasting glucose main effect	22581228	glycemic	0.0286	0.0682	0.4195	6.75E-01	European	0.0978	0.0192	0.9990	0.0102	0.0035	0.0051
Total lipids in IDL	27005778	metabolites	0.0443	0.1172	0.3785	7.05E-01	European	0.0703	0.0421	1.0202	0.0177	0.0054	0.0046

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Type 2 Diabetes	22885922	glycemic	0.0225	0.0623	0.3619	7.17E-01	European	0.0884	0.0097	1.0076	0.0078	0.0172	0.0052
Total lipids in very small VLDL	27005778	metabolites	0.0355	0.0981	0.3618	7.18E-01	European	0.1037	0.0363	1.0104	0.0130	0.0072	0.0044
Femoral Neck bone mineral density	26367794	bone	-0.0241	0.0678	-0.3562	7.22E-01	Mixed	0.1242	0.0150	0.9773	0.0083	-0.0008	0.0056
Serum total cholesterol	27005778	metabolites	0.0431	0.1218	0.3540	7.23E-01	European	0.0622	0.0373	1.0230	0.0143	0.0071	0.0051
HOMA-B	20081858	glycemic	-0.0338	0.0977	-0.3462	7.29E-01	European	0.0868	0.0139	0.9919	0.0068	0.0053	0.0055
Chronic Kidney Disease	26831199	kidney	-0.0353	0.1059	-0.3338	7.39E-01	Mixed	0.0185	0.0057	1.0157	0.0097	0.0151	0.0059
Free cholesterol in large LDL	27005778	metabolites	0.0393	0.1180	0.3332	7.39E-01	European	0.0598	0.0445	1.0190	0.0216	0.0052	0.0049
Triglycerides in very large HDL	27005778	metabolites	-0.0383	0.1192	-0.3216	7.48E-01	European	0.0807	0.0272	1.0163	0.0302	0.0074	0.0048
HOMA-IR	20081858	glycemic	0.0297	0.1005	0.2956	7.68E-01	European	0.0690	0.0125	1.0027	0.0067	0.0073	0.0052
Primary biliary cirrhosis	26394269	autoimmune	-0.0197	0.0767	-0.2561	7.98E-01	European	0.3794	0.0647	1.0030	0.0100	0.0158	0.0061
Total cholesterol in large VLDL	27005778	metabolites	0.0206	0.0808	0.2554	7.98E-01	European	0.1253	0.0289	0.9879	0.0066	0.0055	0.0047
Total cholesterol in IDL	27005778	metabolites	0.0289	0.1198	0.2412	8.09E-01	European	0.0678	0.0440	1.0200	0.0187	0.0045	0.0048
Sitting height ratio	25865494	anthropometric	-0.0152	0.0732	-0.2081	8.35E-01	European	0.2254	0.0280	0.9784	0.0075	0.0002	0.0060
Free cholesterol in IDL	27005778	metabolites	0.0226	0.1165	0.1938	8.46E-01	European	0.0673	0.0384	1.0215	0.0183	0.0061	0.0048
Free cholesterol in medium HDL	27005778	metabolites	0.0226	0.1226	0.1845	8.54E-01	European	0.0692	0.0233	0.9966	0.0084	0.0024	0.0048
Total cholesterol in medium HDL	27005778	metabolites	0.0256	0.1391	0.1843	8.54E-01	European	0.0553	0.0252	0.9984	0.0091	0.0002	0.0048
Leptin_adjBMI	26833098	hormone	-0.0143	0.0915	-0.1563	8.76E-01	European	0.0928	0.0182	1.0049	0.0075	-0.0004	0.0056
Systemic lupus erythematosus	26502338	autoimmune	0.0083	0.0942	0.0879	9.30E-01	European	0.3904	0.0682	1.1060	0.0106	0.0054	0.0069
Phospholipids in medium HDL	27005778	metabolites	0.0102	0.1167	0.0872	9.31E-01	European	0.0702	0.0229	0.9936	0.0081	0.0048	0.0046
Celiac disease	20190752	autoimmune	0.0053	0.0727	0.0728	9.42E-01	European	0.2913	0.0512	1.0706	0.0115	0.0028	0.0067
Creatinine	27005778	metabolites	-0.0039	0.0842	-0.0461	9.63E-01	European	0.1122	0.0258	1.0134	0.0080	-0.0055	0.0047
Total cholesterol in small LDL	27005778	metabolites	0.0047	0.1054	0.0449	9.64E-01	European	0.0690	0.0417	1.0166	0.0174	0.0076	0.0048
Forced expiratory volume in 1 second (FEV1)/Forced Vital capacity (FVC)	28166213	lung function	-0.0019	0.0566	-0.0337	9.73E-01	European	0.2576	0.0210	0.9741	0.0096	-0.0095	0.0058
Free cholesterol to esterified cholesterol ratio	27005778	metabolites	0.0044	0.1358	0.0321	9.74E-01	European	0.0627	0.0499	1.0121	0.0115	0.0048	0.0045
Child birth length	25281659	anthropometric	0.0009	0.0812	0.0105	9.92E-01	European	0.1640	0.0235	0.9952	0.0072	-0.0064	0.0059

**eTable 5.** Genetic correlations for “naïve” Design (UKBB traits)

All results from LDhub analyses. Trait= trait against which genetic correlation was calculated. ethnicity= sample ethnicity for sample referenced in “Trait” column. rG= genetic correlation. SE= standard error for genetic correlation. z= Z-score. p= P-value for genetic correlation analysis. h2\_obs= Heritability on the observed scale for sample referenced in “Trait”. se= standard errors for variable reported in the cell to the left (i.e. h2\_obs, ht\_int, gcov\_int). h2\_int= LD score intercept for sample referenced in “Trait”. gcov\_int= cross-trait LD Score regression intercept.

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Overall health rating	European	0.5715	0.0392	14.5879	3.35E-48	0.0999	0.0032	1.0615	0.0111	0.0019	0.0068
Seen a psychiatrist for nerves anxiety tension or depression	European	0.7916	0.0580	13.6518	1.97E-42	0.0304	0.0021	1.0094	0.0084	0.0005	0.0060
Seen doctor (GP) for nerves anxiety tension or depression	European	0.6983	0.0520	13.4382	3.61E-41	0.0612	0.0029	1.0149	0.0102	0.0056	0.0070
Age at first live birth	European	-0.6181	0.0461	-13.3952	6.45E-41	0.1651	0.0076	1.0496	0.0097	-0.0034	0.0065
Frequency of tiredness / lethargy in last 2 weeks	European	0.6130	0.0464	13.2153	7.16E-40	0.0589	0.0030	1.0313	0.0097	0.0017	0.0063
Long-standing illness disability or infirmity	European	0.5350	0.0422	12.6743	8.20E-37	0.0500	0.0025	1.0275	0.0089	0.0058	0.0060
Frequency of tenseness / restlessness in last 2 weeks	European	0.6587	0.0553	11.9084	1.07E-32	0.0433	0.0028	1.0174	0.0094	0.0005	0.0058
Illness injury bereavement stress in last 2 years: Financial difficulties	European	0.6168	0.0523	11.7992	3.94E-32	0.0328	0.0023	1.0310	0.0082	-0.0058	0.0059
Number of treatments/medications taken	European	0.4648	0.0394	11.7937	4.21E-32	0.0606	0.0026	1.0320	0.0095	0.0037	0.0060
Age completed full time education	European	-0.4965	0.0424	-11.6968	1.32E-31	0.0847	0.0045	1.0625	0.0098	0.0011	0.0064
Taking other prescription medications	European	0.4961	0.0433	11.4565	2.18E-30	0.0432	0.0024	1.0174	0.0088	0.0099	0.0058
Number of self-reported non-cancer illnesses	European	0.4360	0.0383	11.3765	5.48E-30	0.0614	0.0027	1.0262	0.0102	0.0053	0.0059
Pain type(s) experienced in last month: None of the above	European	-0.4899	0.0433	-11.3075	1.20E-29	0.0553	0.0027	1.0362	0.0086	-0.0081	0.0060
Chest pain or discomfort	European	0.5969	0.0541	11.0281	2.80E-28	0.0328	0.0022	1.0193	0.0078	0.0000	0.0058
Current tobacco smoking	European	0.5113	0.0475	10.7731	4.61E-27	0.0554	0.0029	1.0122	0.0097	-0.0041	0.0063
Past tobacco smoking	European	-0.4469	0.0423	-10.5697	4.12E-26	0.0902	0.0041	1.0266	0.0109	0.0086	0.0065
Health satisfaction	European	0.5549	0.0525	10.5659	4.29E-26	0.0822	0.0055	1.0079	0.0076	0.0016	0.0059
Smoking status: Current	European	0.5110	0.0490	10.4376	1.67E-25	0.0521	0.0029	1.0129	0.0096	-0.0057	0.0062
Frequency of unenthusiasm / disinterest in last 2 weeks	European	0.6407	0.0615	10.4157	2.10E-25	0.0388	0.0029	1.0180	0.0100	0.0024	0.0062
Frequency of depressed mood in last 2 weeks	European	0.6726	0.0649	10.3626	3.67E-25	0.0419	0.0029	1.0148	0.0088	0.0015	0.0060
Current employment status: Unable to work because of sickness or disability	European	0.7187	0.0694	10.3485	4.25E-25	0.0243	0.0018	1.0194	0.0073	0.0037	0.0055
Pain type(s) experienced in last month: Neck or shoulder pain	European	0.4975	0.0483	10.3039	6.77E-25	0.0325	0.0020	1.0282	0.0085	0.0020	0.0054
Loneliness isolation	European	0.5385	0.0527	10.2277	1.49E-24	0.0373	0.0024	1.0271	0.0080	0.0049	0.0060
Ever unenthusiastic/disinterested for a whole week	European	0.6452	0.0633	10.1991	2.00E-24	0.0573	0.0064	1.0009	0.0080	0.0012	0.0048

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Townsend deprivation index at recruitment	European	0.5677	0.0564	10.0671	7.72E-24	0.0338	0.0020	1.0345	0.0077	0.0055	0.0057
Falls in the last year	European	0.5215	0.0522	9.9853	1.77E-23	0.0328	0.0020	1.0027	0.0079	-0.0057	0.0054
Pack years adult smoking as proportion of life span exposed to smoking PREVIEW ONLY	European	0.4832	0.0484	9.9774	1.91E-23	0.1278	0.0111	1.0139	0.0101	-0.0001	0.0057
Qualifications: A levels/AS levels or equivalent	European	-0.4043	0.0408	-9.9125	3.67E-23	0.0958	0.0035	1.0583	0.0114	0.0056	0.0070
Mood swings	European	0.5431	0.0550	9.8773	5.22E-23	0.0707	0.0035	1.0196	0.0107	0.0062	0.0062
Medication for pain relief constipation heartburn: None of the above	European	-0.4160	0.0426	-9.7642	1.60E-22	0.0538	0.0027	1.0326	0.0097	-0.0091	0.0051
Qualifications: College or University degree	European	-0.3350	0.0345	-9.7012	2.98E-22	0.1675	0.0055	1.1217	0.0149	-0.0081	0.0075
Illness injury bereavement stress in last 2 years: None of the above	European	-0.5655	0.0586	-9.6538	4.74E-22	0.0233	0.0017	1.0110	0.0067	0.0016	0.0052
Usual walking pace	European	-0.4013	0.0417	-9.6140	6.98E-22	0.0761	0.0030	1.0392	0.0108	0.0095	0.0061
Ever smoked	European	0.4089	0.0428	9.5485	1.32E-21	0.0744	0.0034	1.0271	0.0108	-0.0133	0.0062
Age at last live birth	European	-0.5299	0.0556	-9.5258	1.64E-21	0.0863	0.0062	1.0220	0.0093	-0.0034	0.0060
Pack years of smoking PREVIEW ONLY	European	0.4737	0.0501	9.4459	3.52E-21	0.1102	0.0100	1.0145	0.0097	-0.0009	0.0054
Qualifications: None of the above	European	0.3793	0.0405	9.3542	8.42E-21	0.0975	0.0039	1.0676	0.0117	0.0009	0.0071
Number of operations self-reported	European	0.4473	0.0479	9.3297	1.06E-20	0.0379	0.0023	1.0387	0.0080	-0.0003	0.0059
Age started oral contraceptive pill	European	-0.6132	0.0662	-9.2591	2.06E-20	0.0472	0.0044	1.0191	0.0079	0.0041	0.0056
Maternal smoking around birth	European	0.4367	0.0496	8.8033	1.33E-18	0.0495	0.0029	1.0377	0.0094	0.0045	0.0060
Types of physical activity in last 4 weeks: None of the above	European	0.5568	0.0636	8.7597	1.96E-18	0.0237	0.0018	1.0195	0.0077	0.0013	0.0055
Exposure to tobacco smoke outside home	European	0.4787	0.0558	8.5827	9.27E-18	0.0319	0.0025	1.0189	0.0087	-0.0087	0.0056
Shortness of breath walking on level ground	European	0.6408	0.0749	8.5590	1.14E-17	0.0488	0.0052	1.0084	0.0069	-0.0058	0.0053
Non-cancer illness code self-reported: depression	European	0.6649	0.0779	8.5318	1.44E-17	0.0179	0.0018	1.0046	0.0076	0.0046	0.0061
Diagnoses - main ICD10: R07 Pain in throat and chest	European	0.5837	0.0688	8.4845	2.17E-17	0.0162	0.0018	1.0061	0.0076	0.0024	0.0052
Smoking status: Previous	European	0.3861	0.0458	8.4259	3.58E-17	0.0515	0.0030	1.0229	0.0100	-0.0041	0.0060
Other serious medical condition/disability diagnosed by doctor	European	0.4795	0.0573	8.3671	5.91E-17	0.0257	0.0018	1.0095	0.0073	0.0000	0.0052
Pain type(s) experienced in last month: Back pain	European	0.4119	0.0495	8.3282	8.21E-17	0.0395	0.0024	1.0233	0.0090	0.0056	0.0058
Medication for pain relief constipation heartburn: Omeprazole (e.g. Zanprol)	European	0.5101	0.0617	8.2696	1.34E-16	0.0180	0.0016	1.0208	0.0073	0.0001	0.0051
Ever depressed for a whole week	European	0.5449	0.0666	8.1789	2.86E-16	0.0627	0.0057	0.9947	0.0077	-0.0011	0.0054
Wheeze or whistling in the chest in last year	European	0.3793	0.0466	8.1472	3.73E-16	0.0599	0.0032	1.0325	0.0109	0.0142	0.0064
Miserableness	European	0.5184	0.0639	8.1155	4.84E-16	0.0640	0.0038	1.0199	0.0114	0.0086	0.0068
Leg pain on walking	European	0.5111	0.0631	8.0976	5.61E-16	0.0578	0.0055	1.0080	0.0078	0.0027	0.0055
Fed-up feelings	European	0.4566	0.0565	8.0768	6.65E-16	0.0719	0.0034	1.0247	0.0104	0.0102	0.0072
Job involves heavy manual or physical work	European	0.3786	0.0473	8.0015	1.23E-15	0.0861	0.0046	1.0394	0.0094	0.0001	0.0059
Mouth/teeth dental problems: None of the above	European	-0.4354	0.0546	-7.9709	1.58E-15	0.0379	0.0021	1.0158	0.0083	0.0078	0.0061
Ever used hormone-replacement therapy (HRT)	European	0.4301	0.0541	7.9575	1.75E-15	0.0408	0.0033	0.9993	0.0075	0.0049	0.0051

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Ever highly irritable/argumentative for 2 days	European	0.5353	0.0688	7.7865	6.89E-15	0.0526	0.0056	0.9970	0.0075	0.0065	0.0051
Leg fat percentage (right)	European	0.2692	0.0347	7.7677	7.99E-15	0.2082	0.0065	1.0815	0.0173	0.0065	0.0078
Medication for pain relief constipation heartburn: Paracetamol	European	0.3840	0.0498	7.7051	1.31E-14	0.0428	0.0025	1.0281	0.0086	0.0023	0.0052
Pain type(s) experienced in last month: Hip pain	European	0.4450	0.0579	7.6881	1.49E-14	0.0235	0.0020	1.0194	0.0077	-0.0073	0.0054
Leg fat percentage (left)	European	0.2693	0.0351	7.6781	1.62E-14	0.2078	0.0066	1.0864	0.0175	0.0059	0.0078
Pain type(s) experienced in last month: Knee pain	European	0.3970	0.0518	7.6587	1.88E-14	0.0406	0.0024	1.0152	0.0088	-0.0037	0.0064
Types of physical activity in last 4 weeks: Other exercises (eg: swimming cycling keep fit bowling)	European	-0.3704	0.0489	-7.5795	3.47E-14	0.0470	0.0022	1.0108	0.0088	-0.0050	0.0058
Alcohol usually taken with meals	European	-0.3745	0.0503	-7.4434	9.81E-14	0.1085	0.0051	1.0643	0.0097	-0.0072	0.0066
Mouth/teeth dental problems: Dentures	European	0.3685	0.0497	7.4128	1.24E-13	0.0482	0.0028	1.0355	0.0101	-0.0056	0.0059
Tense / highly strung	European	0.5015	0.0679	7.3861	1.51E-13	0.0571	0.0034	0.9962	0.0108	-0.0039	0.0073
Sleeplessness / insomnia	European	0.3672	0.0497	7.3841	1.53E-13	0.0629	0.0028	1.0153	0.0097	0.0012	0.0064
Neuroticism score	European	0.4662	0.0631	7.3839	1.54E-13	0.1183	0.0065	1.0182	0.0146	0.0055	0.0077
Alcohol drinker status: Previous	European	0.6096	0.0828	7.3616	1.82E-13	0.0130	0.0016	1.0083	0.0074	-0.0028	0.0050
Illnesses of siblings: None of the above (group 1)	European	-0.3904	0.0531	-7.3550	1.91E-13	0.0361	0.0026	1.0148	0.0077	-0.0038	0.0050
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: Emphysema/chronic bronchitis	European	0.5874	0.0801	7.3365	2.19E-13	0.0126	0.0017	0.9856	0.0078	-0.0044	0.0057
Diagnoses - main ICD10: R10 Abdominal and pelvic pain	European	0.5679	0.0776	7.3149	2.58E-13	0.0127	0.0016	0.9917	0.0072	-0.0037	0.0054
Pain type(s) experienced in last month: Pain all over the body	European	0.6529	0.0897	7.2782	3.38E-13	0.0100	0.0016	1.0057	0.0072	0.0028	0.0053
Vascular/heart problems diagnosed by doctor: Angina	European	0.4154	0.0573	7.2492	4.19E-13	0.0218	0.0021	1.0275	0.0079	-0.0014	0.0050
Non-cancer illness code self-reported: emphysema/chronic bronchitis	European	0.6171	0.0854	7.2254	5.00E-13	0.0099	0.0016	0.9870	0.0074	-0.0039	0.0056
Qualifications: O levels/GCSEs or equivalent	European	-0.3599	0.0509	-7.0725	1.52E-12	0.0490	0.0024	1.0138	0.0096	0.0063	0.0062
Illness injury bereavement stress in last 2 years: Serious illness injury or assault to yourself	European	0.5646	0.0802	7.0364	1.97E-12	0.0144	0.0016	1.0099	0.0070	-0.0058	0.0051
Non-cancer illness code self-reported: angina	European	0.4068	0.0585	6.9590	3.43E-12	0.0224	0.0021	1.0243	0.0079	-0.0008	0.0051
Financial situation satisfaction	European	0.4438	0.0648	6.8522	7.27E-12	0.0579	0.0060	1.0045	0.0080	0.0039	0.0055
Body mass index (BMI)	European	0.2445	0.0358	6.8388	7.99E-12	0.2478	0.0092	1.0733	0.0206	0.0042	0.0080
Noisy workplace	European	0.4667	0.0685	6.8152	9.41E-12	0.0617	0.0060	1.0283	0.0079	-0.0033	0.0057
Types of physical activity in last 4 weeks: Walking for pleasure (not as a means of transport)	European	-0.3406	0.0510	-6.6803	2.38E-11	0.0367	0.0023	1.0445	0.0087	-0.0053	0.0060
Sensitivity / hurt feelings	European	0.3644	0.0546	6.6779	2.42E-11	0.0635	0.0032	1.0163	0.0098	0.0009	0.0068
Non-cancer illness code self-reported: osteoarthritis	European	0.4742	0.0711	6.6670	2.61E-11	0.0189	0.0018	1.0282	0.0082	-0.0058	0.0055
Illnesses of father: Chronic bronchitis/emphysema	European	0.5169	0.0784	6.5963	4.21E-11	0.0151	0.0020	1.0220	0.0073	-0.0016	0.0055
Number of full sisters	European	0.4714	0.0716	6.5843	4.57E-11	0.0185	0.0018	1.0408	0.0071	0.0026	0.0054
Ever had stillbirth spontaneous miscarriage or termination	European	0.5862	0.0894	6.5559	5.53E-11	0.0200	0.0033	0.9954	0.0080	-0.0079	0.0056

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Pain type(s) experienced in last month: Stomach or abdominal pain	European	0.4736	0.0723	6.5507	5.73E-11	0.0213	0.0017	1.0087	0.0074	0.0052	0.0056
Fluid intelligence score	European	-0.2533	0.0394	-6.4371	1.22E-10	0.2377	0.0109	1.0426	0.0106	0.0045	0.0063
Leg fat mass (right)	European	0.2271	0.0354	6.4161	1.40E-10	0.2310	0.0084	1.0697	0.0192	0.0088	0.0078
Arm fat percentage (right)	European	0.2284	0.0359	6.3587	2.03E-10	0.2152	0.0078	1.0831	0.0192	0.0053	0.0074
Guilty feelings	European	0.3831	0.0605	6.3362	2.36E-10	0.0519	0.0027	1.0037	0.0088	0.0027	0.0066
Leg fat mass (left)	European	0.2245	0.0355	6.3236	2.56E-10	0.2317	0.0085	1.0719	0.0194	0.0084	0.0078
Job involves shift work	European	0.3870	0.0614	6.2999	2.98E-10	0.0310	0.0029	1.0007	0.0067	-0.0046	0.0049
Exposure to tobacco smoke at home	European	0.5169	0.0826	6.2597	3.86E-10	0.0119	0.0017	0.9979	0.0064	-0.0009	0.0053
Medication for cholesterol blood pressure diabetes or take exogenous hormones: None of the above	European	-0.3335	0.0534	-6.2424	4.31E-10	0.0664	0.0047	1.0173	0.0099	0.0070	0.0058
Illnesses of siblings: Severe depression	European	0.4861	0.0781	6.2220	4.91E-10	0.0143	0.0019	1.0034	0.0070	0.0007	0.0046
Forced vital capacity (FVC) Best measure	European	-0.2088	0.0336	-6.2148	5.14E-10	0.1898	0.0088	1.0777	0.0174	0.0065	0.0068
Pain type(s) experienced in last month: Headache	European	0.3362	0.0543	6.1895	6.04E-10	0.0445	0.0027	1.0071	0.0094	0.0051	0.0062
Body fat percentage	European	0.2182	0.0353	6.1872	6.13E-10	0.2159	0.0075	1.0876	0.0192	0.0062	0.0077
Diabetes diagnosed by doctor	European	0.2965	0.0480	6.1749	6.62E-10	0.0433	0.0027	1.0428	0.0113	-0.0030	0.0061
Tobacco smoking: Ex-smoker	European	0.4675	0.0758	6.1697	6.84E-10	0.0769	0.0083	1.0084	0.0083	0.0032	0.0058
Number of full brothers	European	0.4125	0.0669	6.1610	7.23E-10	0.0191	0.0019	1.0262	0.0073	0.0055	0.0056
Arm fat percentage (left)	European	0.2228	0.0362	6.1569	7.42E-10	0.2188	0.0080	1.0773	0.0193	0.0035	0.0076
Types of physical activity in last 4 weeks: Heavy DIY (eg: weeding lawn mowing carpentry digging)	European	-0.3265	0.0534	-6.1140	9.71E-10	0.0340	0.0020	1.0080	0.0076	-0.0040	0.0060
Qualifications: NVQ or HND or HNC or equivalent	European	0.4287	0.0708	6.0554	1.40E-09	0.0150	0.0017	1.0107	0.0072	-0.0108	0.0052
Mothers age at death	European	-0.4897	0.0814	-6.0134	1.82E-09	0.0249	0.0030	1.0260	0.0077	-0.0035	0.0062
Had other major operations	European	0.3937	0.0661	5.9539	2.62E-09	0.0296	0.0031	1.0127	0.0071	0.0060	0.0052
Standing height	European	-0.1613	0.0272	-5.9357	2.93E-09	0.4485	0.0236	1.2615	0.0576	0.0105	0.0084
Qualifications: Other professional qualifications eg: nursing teaching	European	-0.2603	0.0444	-5.8681	4.41E-09	0.0471	0.0024	1.0272	0.0090	-0.0135	0.0057
Waist circumference	European	0.2124	0.0364	5.8413	5.18E-09	0.2003	0.0081	1.0630	0.0191	0.0091	0.0074
Forced expiratory volume in 1-second (FEV1) Best measure	European	-0.2112	0.0368	-5.7327	9.88E-09	0.1635	0.0076	1.0546	0.0144	0.0032	0.0069
Medication for pain relief constipation heartburn: Laxatives (e.g. Dulcolax Senokot)	European	0.4241	0.0740	5.7286	1.01E-08	0.0115	0.0016	1.0095	0.0071	-0.0010	0.0053
Mouth/teeth dental problems: Loose teeth	European	0.4242	0.0745	5.6918	1.26E-08	0.0146	0.0017	1.0100	0.0071	-0.0035	0.0055
Job involves mainly walking or standing	European	0.2758	0.0485	5.6879	1.29E-08	0.0799	0.0046	1.0314	0.0096	0.0016	0.0058
Illnesses of siblings: None of the above (group 2)	European	-0.5756	0.1014	-5.6763	1.38E-08	0.0089	0.0018	1.0032	0.0070	-0.0013	0.0044
Alcohol intake frequency.	European	0.2407	0.0424	5.6748	1.39E-08	0.0827	0.0043	1.0495	0.0119	0.0147	0.0068
Medication for cholesterol blood pressure diabetes or take exogenous hormones: Cholesterol lowering medication	European	0.3334	0.0591	5.6431	1.67E-08	0.0513	0.0060	1.0235	0.0150	-0.0026	0.0056

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Smoking/smokers in household	European	0.5683	0.1009	5.6307	1.80E-08	0.0095	0.0020	1.0143	0.0077	0.0027	0.0054
Forced vital capacity (FVC)	European	-0.1878	0.0336	-5.5950	2.21E-08	0.1717	0.0077	1.0887	0.0181	0.0065	0.0069
Forced expiratory volume in 1-second (FEV1)	European	-0.2044	0.0365	-5.5947	2.21E-08	0.1486	0.0065	1.0614	0.0146	0.0050	0.0069
Number of live births	European	0.2688	0.0482	5.5741	2.49E-08	0.0612	0.0042	1.0093	0.0086	-0.0052	0.0053
Vascular/heart problems diagnosed by doctor: None of the above	European	-0.2192	0.0393	-5.5714	2.53E-08	0.1144	0.0048	1.0553	0.0157	0.0014	0.0072
Arm fat mass (right)	European	0.2008	0.0361	5.5554	2.77E-08	0.2312	0.0090	1.0715	0.0200	0.0077	0.0076
Illnesses of mother: Chronic bronchitis/emphysema	European	0.4129	0.0756	5.4615	4.72E-08	0.0124	0.0019	1.0063	0.0068	0.0077	0.0051
Arm fat mass (left)	European	0.1972	0.0361	5.4600	4.76E-08	0.2318	0.0090	1.0687	0.0200	0.0067	0.0076
Number of cigarettes previously smoked daily	European	0.3552	0.0653	5.4428	5.25E-08	0.0986	0.0141	1.0044	0.0096	-0.0009	0.0054
Frequency of stair climbing in last 4 weeks	European	-0.2745	0.0505	-5.4305	5.62E-08	0.0348	0.0022	1.0184	0.0077	0.0116	0.0058
Other eye problems	European	0.5067	0.0936	5.4135	6.18E-08	0.0094	0.0015	1.0231	0.0074	0.0003	0.0050
Non-cancer illness code self-reported: diabetes	European	0.2945	0.0545	5.4060	6.45E-08	0.0354	0.0025	1.0406	0.0109	-0.0030	0.0063
Ever manic/hyper for 2 days	European	0.6350	0.1178	5.3906	7.02E-08	0.0193	0.0049	0.9928	0.0070	-0.0077	0.0048
Medication for pain relief constipation heartburn: Aspirin	European	0.3511	0.0653	5.3740	7.70E-08	0.0210	0.0020	1.0141	0.0075	-0.0020	0.0055
Whole body fat mass	European	0.1877	0.0351	5.3480	8.89E-08	0.2345	0.0087	1.0755	0.0202	0.0092	0.0076
Hearing difficulty/problems with background noise	European	0.2441	0.0460	5.3095	1.10E-07	0.0516	0.0026	1.0201	0.0089	0.0002	0.0056
Diagnoses - main ICD10: M54 Dorsalgia	European	0.4632	0.0884	5.2372	1.63E-07	0.0104	0.0015	1.0018	0.0069	0.0008	0.0056
Trunk fat percentage	European	0.1812	0.0355	5.1034	3.34E-07	0.2057	0.0076	1.0897	0.0193	0.0074	0.0075
Fathers age at death	European	-0.3184	0.0624	-5.1012	3.37E-07	0.0345	0.0032	1.0213	0.0079	-0.0050	0.0055
Risk taking	European	0.2399	0.0473	5.0760	3.85E-07	0.0554	0.0029	1.0067	0.0098	0.0050	0.0060
Diagnoses - main ICD10: K21 Gastro-oesophageal reflux disease	European	0.6244	0.1244	5.0207	5.15E-07	0.0063	0.0013	1.0030	0.0064	-0.0084	0.0052
Irritability	European	0.3557	0.0712	4.9944	5.90E-07	0.0679	0.0042	0.9930	0.0118	-0.0048	0.0078
Time spent watching television (TV)	European	0.2022	0.0407	4.9711	6.66E-07	0.1001	0.0040	1.0532	0.0109	0.0072	0.0066
Illnesses of siblings: High blood pressure	European	0.2504	0.0507	4.9377	7.91E-07	0.0369	0.0027	1.0056	0.0077	0.0055	0.0048
Frequency of walking for pleasure in last 4 weeks	European	0.2914	0.0593	4.9111	9.06E-07	0.0341	0.0026	1.0090	0.0079	0.0032	0.0055
Hearing difficulty/problems: Yes	European	0.2284	0.0465	4.9106	9.08E-07	0.0421	0.0026	1.0110	0.0096	0.0005	0.0059
Vascular/heart problems diagnosed by doctor: Heart attack	European	0.2902	0.0593	4.8962	9.77E-07	0.0185	0.0019	1.0151	0.0082	0.0000	0.0053
Hand grip strength (right)	European	-0.1749	0.0359	-4.8796	1.06E-06	0.1040	0.0042	1.0613	0.0137	0.0045	0.0062
Reason for glasses/contact lenses: For short-sightedness i.e. only or mainly for distance viewing such as driving cinema etc (called myopia)	European	-0.3199	0.0657	-4.8706	1.11E-06	0.0248	0.0021	1.1198	0.0090	0.0043	0.0058
Diagnoses - main ICD10: N92 Excessive frequent and irregular menstruation	European	0.5087	0.1047	4.8574	1.19E-06	0.0071	0.0018	1.0006	0.0078	-0.0036	0.0055
Non-cancer illness code self-reported: heart attack/myocardial infarction	European	0.2790	0.0577	4.8384	1.31E-06	0.0190	0.0019	1.0128	0.0081	0.0008	0.0052
Suffer from nerves	European	0.3229	0.0670	4.8233	1.41E-06	0.0458	0.0034	0.9984	0.0106	0.0064	0.0066



Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Types of transport used (excluding work): Car/motor vehicle	European	-0.2897	0.0603	-4.8037	1.56E-06	0.0247	0.0018	1.0072	0.0077	0.0017	0.0060
Former alcohol drinker	European	0.4929	0.1028	4.7950	1.63E-06	0.1234	0.0215	0.9963	0.0066	-0.0085	0.0048
Non-cancer illness code self-reported: chronic obstructive airways disease/copd	European	0.5553	0.1161	4.7849	1.71E-06	0.0061	0.0015	0.9913	0.0071	-0.0112	0.0053
Peak expiratory flow (PEF)	European	-0.2166	0.0454	-4.7703	1.84E-06	0.0896	0.0048	1.0579	0.0130	0.0128	0.0071
Trunk fat mass	European	0.1637	0.0348	4.7043	2.55E-06	0.2307	0.0086	1.0827	0.0207	0.0086	0.0076
Number of unsuccessful stop-smoking attempts	European	0.3831	0.0820	4.6705	3.00E-06	0.0500	0.0072	1.0066	0.0070	-0.0026	0.0056
Average weekly champagne plus white wine intake	European	-0.2978	0.0647	-4.6061	4.10E-06	0.0299	0.0028	1.0441	0.0084	-0.0027	0.0056
Hand grip strength (left)	European	-0.1653	0.0361	-4.5819	4.61E-06	0.1044	0.0042	1.0541	0.0122	0.0045	0.0062
Types of physical activity in last 4 weeks: Light DIY (eg: pruning watering the lawn)	European	-0.2477	0.0542	-4.5706	4.86E-06	0.0397	0.0023	1.0009	0.0091	-0.0070	0.0059
Mouth/teeth dental problems: Painful gums	European	0.5431	0.1188	4.5696	4.89E-06	0.0070	0.0015	1.0037	0.0069	-0.0062	0.0048
Difficulty not smoking for 1 day	European	0.4337	0.0950	4.5644	5.01E-06	0.1192	0.0225	0.9854	0.0066	-0.0108	0.0052
Diagnoses - main ICD10: K29 Gastritis and duodenitis	European	0.4582	0.1004	4.5638	5.02E-06	0.0074	0.0015	1.0043	0.0065	0.0048	0.0055
Back pain for 3+ months	European	0.4040	0.0893	4.5265	6.00E-06	0.0405	0.0058	0.9914	0.0070	0.0007	0.0057
Illnesses of siblings: Heart disease	European	0.3393	0.0750	4.5236	6.08E-06	0.0167	0.0022	1.0143	0.0071	0.0056	0.0051
Family relationship satisfaction	European	0.2779	0.0620	4.4848	7.30E-06	0.0576	0.0049	1.0046	0.0074	-0.0033	0.0052
Impedance of arm (left)	European	-0.1583	0.0353	-4.4836	7.34E-06	0.2327	0.0089	1.1015	0.0239	-0.0013	0.0082
Loud music exposure frequency	European	0.3716	0.0830	4.4752	7.63E-06	0.0286	0.0045	1.0141	0.0072	0.0007	0.0049
Average weekly red wine intake	European	-0.2361	0.0531	-4.4491	8.62E-06	0.0561	0.0034	1.0150	0.0087	-0.0082	0.0060
Forced expiratory volume in 1-second (FEV1) predicted	European	-0.1851	0.0417	-4.4371	9.12E-06	0.1721	0.0130	1.0390	0.0126	0.0110	0.0061
Ever had hysterectomy (womb removed)	European	0.4067	0.0921	4.4138	1.02E-05	0.0217	0.0035	1.0053	0.0082	0.0070	0.0059
Non-cancer illness code self-reported: hypertension	European	0.1812	0.0412	4.4018	1.07E-05	0.1162	0.0051	1.0494	0.0169	-0.0007	0.0071
Time from waking to first cigarette	European	-0.4885	0.1111	-4.3972	1.10E-05	0.0905	0.0258	1.0132	0.0078	-0.0005	0.0052
Illnesses of siblings: Diabetes	European	0.2979	0.0678	4.3968	1.10E-05	0.0205	0.0022	1.0100	0.0069	0.0065	0.0055
Vascular/heart problems diagnosed by doctor: High blood pressure	European	0.1824	0.0415	4.3943	1.11E-05	0.1177	0.0051	1.0554	0.0168	-0.0002	0.0074
Alcohol intake versus 10 years previously	European	0.2485	0.0571	4.3518	1.35E-05	0.0349	0.0026	1.0290	0.0090	0.0048	0.0059
Happiness	European	0.2573	0.0593	4.3363	1.45E-05	0.0599	0.0050	1.0086	0.0076	0.0066	0.0050
Average weekly beer plus cider intake	European	0.2747	0.0644	4.2685	1.97E-05	0.0515	0.0035	1.0627	0.0097	-0.0067	0.0061
Illness injury bereavement stress in last 2 years: Marital separation/divorce	European	0.6192	0.1453	4.2629	2.02E-05	0.0044	0.0015	1.0082	0.0074	-0.0034	0.0053
Number of cigarettes currently smoked daily (current cigarette smokers)	European	0.4444	0.1048	4.2381	2.25E-05	0.1039	0.0264	0.9999	0.0077	-0.0047	0.0056
Medication for cholesterol blood pressure diabetes or take exogenous hormones: Hormone replacement therapy	European	0.3863	0.0914	4.2287	2.35E-05	0.0158	0.0027	1.0004	0.0067	-0.0014	0.0051
Current employment status: Doing unpaid or voluntary work	European	-0.3908	0.0925	-4.2236	2.40E-05	0.0089	0.0015	1.0105	0.0073	0.0050	0.0050

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Qualifications: CSEs or equivalent	European	0.2665	0.0634	4.2014	2.65E-05	0.0210	0.0020	1.0587	0.0079	0.0048	0.0052
Current employment status: In paid employment or self-employed	European	-0.3902	0.0930	-4.1960	2.72E-05	0.0082	0.0015	1.0181	0.0067	0.0052	0.0051
Bilateral oophorectomy (both ovaries removed)	European	0.3371	0.0808	4.1724	3.01E-05	0.0211	0.0032	1.0113	0.0076	0.0068	0.0055
Forced expiratory volume in 1-second (FEV1) predicted percentage	European	-0.1883	0.0453	-4.1540	3.27E-05	0.2024	0.0102	1.0330	0.0102	-0.0033	0.0063
Adopted as a child	European	0.4967	0.1196	4.1534	3.28E-05	0.0056	0.0014	1.0032	0.0067	0.0047	0.0056
Duration walking for pleasure	European	-0.2589	0.0627	-4.1309	3.61E-05	0.0248	0.0025	1.0139	0.0073	0.0008	0.0048
Why stopped smoking: Doctors advice	European	0.7202	0.1745	4.1274	3.67E-05	0.0158	0.0050	1.0016	0.0061	-0.0046	0.0052
Chest pain or discomfort walking normally	European	0.3525	0.0858	4.1057	4.03E-05	0.0768	0.0092	1.0065	0.0075	0.0074	0.0058
Medication for cholesterol blood pressure diabetes or take exogenous hormones: Blood pressure medication	European	0.2103	0.0514	4.0931	4.26E-05	0.1057	0.0067	1.0306	0.0126	-0.0082	0.0068
Sitting height	European	-0.1168	0.0286	-4.0771	4.56E-05	0.3199	0.0187	1.1451	0.0437	0.0090	0.0077
Breastfed as a baby	European	-0.2657	0.0654	-4.0661	4.78E-05	0.0258	0.0024	1.0221	0.0078	-0.0071	0.0060
Average weekly fortified wine intake	European	-0.3632	0.0896	-4.0549	5.02E-05	0.0127	0.0022	1.0177	0.0073	0.0047	0.0054
Non-cancer illness code self-reported: pulmonary embolism +/- dvt	European	0.5340	0.1328	4.0210	5.80E-05	0.0052	0.0015	1.0105	0.0074	-0.0129	0.0052
Had major operations	European	0.2974	0.0740	4.0187	5.85E-05	0.0252	0.0037	1.0047	0.0075	0.0037	0.0052
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: Asthma	European	0.1703	0.0424	4.0150	5.94E-05	0.0576	0.0059	1.0249	0.0159	0.0088	0.0058
Impedance of arm (right)	European	-0.1440	0.0360	-3.9948	6.48E-05	0.2363	0.0089	1.0845	0.0234	0.0006	0.0082
Diagnoses - main ICD10: J44 Other chronic obstructive pulmonary disease	European	0.5099	0.1277	3.9931	6.52E-05	0.0047	0.0014	0.9959	0.0069	0.0000	0.0051
Pain type(s) experienced in last month: Facial pain	European	0.5395	0.1354	3.9846	6.76E-05	0.0069	0.0016	0.9966	0.0069	-0.0034	0.0054
Getting up in morning	European	-0.1757	0.0441	-3.9817	6.84E-05	0.0673	0.0032	1.0468	0.0115	0.0034	0.0060
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: Blood clot in the lung	European	0.4968	0.1254	3.9610	7.46E-05	0.0055	0.0015	1.0109	0.0076	-0.0126	0.0052
Types of transport used (excluding work): Cycle	European	-0.2223	0.0564	-3.9435	8.03E-05	0.0252	0.0018	1.0230	0.0072	-0.0112	0.0056
Prospective memory result	European	0.2500	0.0638	3.9174	8.95E-05	0.0581	0.0051	1.0113	0.0079	-0.0013	0.0058
Hip circumference	European	0.1374	0.0356	3.8638	1.00E-04	0.2173	0.0093	1.0827	0.0206	0.0058	0.0077
Weight	European	0.1278	0.0337	3.7976	1.00E-04	0.2656	0.0107	1.0852	0.0243	0.0098	0.0076
Non-cancer illness code self-reported: asthma	European	0.1690	0.0437	3.8691	1.00E-04	0.0582	0.0060	1.0263	0.0158	0.0086	0.0060
Non-cancer illness code self-reported: gastro-oesophageal reflux (gord) / gastric reflux	European	0.3186	0.0832	3.8295	1.00E-04	0.0114	0.0017	1.0138	0.0074	-0.0010	0.0059
Illnesses of mother: Heart disease	European	0.2584	0.0671	3.8485	1.00E-04	0.0157	0.0019	1.0107	0.0073	0.0020	0.0052
Diagnoses - main ICD10: K44 Diaphragmatic hernia	European	0.4439	0.1142	3.8860	1.00E-04	0.0047	0.0013	1.0085	0.0066	0.0000	0.0050
Diagnoses - main ICD10: K52 Other non-infective gastro-enteritis and colitis	European	0.4931	0.1296	3.8038	1.00E-04	0.0050	0.0013	1.0028	0.0062	0.0000	0.0057
Work/job satisfaction	European	0.2998	0.0793	3.7789	2.00E-04	0.0475	0.0070	0.9964	0.0068	-0.0091	0.0051

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Non-cancer illness code self-reported: diverticular disease/ diverticulitis	European	0.2749	0.0732	3.7581	2.00E-04	0.0128	0.0017	0.9930	0.0073	-0.0029	0.0050
Non-cancer illness code self-reported: high cholesterol	European	0.1928	0.0509	3.7852	2.00E-04	0.0399	0.0058	1.0596	0.0297	0.0016	0.0060
Illnesses of mother: Diabetes	European	0.2329	0.0630	3.6957	2.00E-04	0.0199	0.0020	1.0212	0.0094	-0.0028	0.0056
Transport type for commuting to job workplace: Cycle	European	-0.2424	0.0645	-3.7591	2.00E-04	0.0310	0.0033	1.0177	0.0071	-0.0042	0.0054
Mouth/teeth dental problems: Toothache	European	0.3702	0.0988	3.7469	2.00E-04	0.0084	0.0016	1.0047	0.0077	-0.0025	0.0055
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: Blood clot in the leg (DVT)	European	0.3400	0.0917	3.7089	2.00E-04	0.0103	0.0018	1.0130	0.0099	-0.0045	0.0054
Types of physical activity in last 4 weeks: Strenuous sports	European	-0.2102	0.0572	-3.6746	2.00E-04	0.0219	0.0018	1.0122	0.0071	-0.0109	0.0056
Diagnoses - main ICD10: M17 Gonarthrosis [arthrosis of knee]	European	0.2827	0.0764	3.6994	2.00E-04	0.0141	0.0018	1.0059	0.0079	-0.0002	0.0057
Nervous feelings	European	0.2457	0.0678	3.6220	3.00E-04	0.0670	0.0044	1.0100	0.0133	0.0017	0.0073
Neck/shoulder pain for 3+ months	European	0.5552	0.1547	3.5887	3.00E-04	0.0199	0.0064	1.0102	0.0073	-0.0004	0.0051
Impedance of whole body	European	-0.1266	0.0351	-3.6010	3.00E-04	0.2591	0.0103	1.0865	0.0243	0.0009	0.0085
Non-cancer illness code self-reported: anxiety/ panic attacks	European	0.3731	0.1040	3.5858	3.00E-04	0.0061	0.0012	0.9997	0.0058	0.0102	0.0051
Tinnitus: Yes but not now but have in the past	European	0.4340	0.1203	3.6082	3.00E-04	0.0181	0.0042	0.9920	0.0067	-0.0021	0.0051
Illness injury bereavement stress in last 2 years: Death of a close relative	European	0.3882	0.1069	3.6307	3.00E-04	0.0064	0.0016	1.0039	0.0070	-0.0021	0.0050
Comparative height size at age 10	European	-0.1079	0.0305	-3.5383	4.00E-04	0.2403	0.0126	1.1179	0.0346	0.0191	0.0070
Worry too long after embarrassment	European	0.1916	0.0541	3.5417	4.00E-04	0.0644	0.0036	1.0213	0.0114	-0.0024	0.0069
Non-cancer illness code self-reported: deep venous thrombosis (dvt)	European	0.3177	0.0904	3.5125	4.00E-04	0.0108	0.0018	1.0105	0.0098	-0.0031	0.0054
Diagnoses - main ICD10: I20 Angina pectoris	European	0.3644	0.1029	3.5413	4.00E-04	0.0087	0.0016	1.0064	0.0073	0.0059	0.0052
Diagnoses - main ICD10: G56 Mononeuropathies of upper limb	European	0.2675	0.0770	3.4718	5.00E-04	0.0140	0.0019	1.0077	0.0078	-0.0002	0.0050
Non-cancer illness code self-reported: back problem	European	0.3530	0.1032	3.4202	6.00E-04	0.0052	0.0013	1.0043	0.0065	-0.0017	0.0055
Illnesses of father: None of the above (group 1)	European	-0.2728	0.0795	-3.4303	6.00E-04	0.0145	0.0018	1.0249	0.0073	-0.0011	0.0054
Mouth/teeth dental problems: Bleeding gums	European	0.2301	0.0672	3.4246	6.00E-04	0.0227	0.0018	1.0093	0.0076	-0.0068	0.0058
Medication for cholesterol blood pressure or diabetes: Cholesterol lowering medication	European	0.1659	0.0481	3.4517	6.00E-04	0.0671	0.0068	1.0372	0.0151	0.0056	0.0054
Wears glasses or contact lenses	European	-0.2272	0.0673	-3.3738	7.00E-04	0.0158	0.0016	1.0031	0.0076	0.0127	0.0053
Diagnoses - main ICD10: M23 Internal derangement of knee	European	0.3031	0.0894	3.3923	7.00E-04	0.0082	0.0020	1.0039	0.0080	-0.0033	0.0055
Transport type for commuting to job workplace: Public transport	European	-0.2388	0.0715	-3.3419	8.00E-04	0.0318	0.0035	1.0242	0.0077	0.0069	0.0057
Medication for pain relief constipation heartburn: Ibuprofen (e.g. Nurofen)	European	0.2255	0.0671	3.3619	8.00E-04	0.0226	0.0017	0.9974	0.0067	0.0050	0.0054
Diagnoses - main ICD10: K57 Diverticular disease of intestine	European	0.2416	0.0718	3.3661	8.00E-04	0.0130	0.0015	1.0037	0.0068	0.0008	0.0054
Non-cancer illness code self-reported: hiatus hernia	European	0.3034	0.0920	3.2981	1.00E-03	0.0082	0.0014	1.0334	0.0064	0.0113	0.0053
Weight change compared with 1 year ago	European	0.2964	0.0905	3.2745	1.10E-03	0.0085	0.0014	1.0233	0.0067	-0.0001	0.0049
Fractured/broken bones in last 5 years	European	0.2103	0.0644	3.2633	1.10E-03	0.0183	0.0022	1.0108	0.0080	0.0024	0.0052
Maximum workload during fitness test	European	-0.3491	0.1066	-3.2743	1.10E-03	0.0412	0.0105	1.0088	0.0075	-0.0026	0.0049

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Illnesses of siblings: Stroke	European	0.5296	0.1623	3.2628	1.10E-03	0.0046	0.0019	1.0060	0.0066	-0.0050	0.0053
Drive faster than motorway speed limit	European	-0.1684	0.0525	-3.2065	1.30E-03	0.0567	0.0027	1.0291	0.0090	-0.0045	0.0061
Diagnoses - main ICD10: K62 Other diseases of anus and rectum	European	0.3893	0.1212	3.2112	1.30E-03	0.0051	0.0014	1.0016	0.0067	0.0032	0.0052
Why reduced smoking: Illness or ill health	European	0.5471	0.1709	3.2004	1.40E-03	0.1131	0.0428	0.9974	0.0063	-0.0036	0.0055
Number of self-reported cancers	European	0.3208	0.1016	3.1564	1.60E-03	0.0068	0.0016	1.0111	0.0069	-0.0096	0.0053
Worrier / anxious feelings	European	0.2117	0.0669	3.1641	1.60E-03	0.0792	0.0052	1.0024	0.0135	0.0062	0.0078
Duration of walks	European	0.1597	0.0508	3.1433	1.70E-03	0.0463	0.0029	1.0086	0.0091	0.0063	0.0059
Duration of light DIY	European	0.1911	0.0610	3.1326	1.70E-03	0.0355	0.0035	1.0021	0.0080	-0.0030	0.0051
Fractured bone site(s): Other bones	European	0.2932	0.0935	3.1350	1.70E-03	0.0084	0.0016	1.0050	0.0069	0.0024	0.0049
Duration of heavy DIY	European	0.2397	0.0774	3.0977	2.00E-03	0.0336	0.0039	1.0075	0.0074	-0.0031	0.0056
Frequency of travelling from home to job workplace	European	0.2279	0.0740	3.0786	2.10E-03	0.0215	0.0028	1.0186	0.0068	-0.0031	0.0052
Daytime dozing / sleeping (narcolepsy)	European	0.1477	0.0483	3.0550	2.30E-03	0.0483	0.0028	1.0125	0.0092	0.0017	0.0061
Illnesses of father: Lung cancer	European	0.2456	0.0811	3.0299	2.40E-03	0.0148	0.0020	0.9933	0.0076	0.0076	0.0059
Light smokers at least 100 smokes in lifetime	European	0.1716	0.0567	3.0262	2.50E-03	0.0778	0.0075	1.0041	0.0076	0.0048	0.0056
Types of transport used (excluding work): Walk	European	-0.1665	0.0552	-3.0187	2.50E-03	0.0329	0.0023	1.0364	0.0093	-0.0096	0.0059
Medication for cholesterol blood pressure or diabetes: None of the above	European	-0.1610	0.0532	-3.0256	2.50E-03	0.0874	0.0052	1.0370	0.0109	-0.0047	0.0064
Bring up phlegm/sputum/mucus on most days	European	0.2943	0.0982	2.9978	2.70E-03	0.0259	0.0061	1.0090	0.0077	0.0061	0.0053
Current employment status: Looking after home and/or family	European	-0.3167	0.1054	-3.0043	2.70E-03	0.0060	0.0014	1.0019	0.0067	0.0064	0.0054
Diagnoses - main ICD10: K22 Other diseases of oesophagus	European	0.4558	0.1530	2.9789	2.90E-03	0.0041	0.0017	1.0048	0.0076	-0.0029	0.0061
Home area population density - urban or rural: Scotland - Large Urban Area	European	-0.3575	0.1205	-2.9662	3.00E-03	0.0115	0.0031	2.1330	0.0150	-0.0083	0.0074
Knee pain for 3+ months	European	0.3538	0.1198	2.9524	3.20E-03	0.0244	0.0069	1.0036	0.0070	0.0070	0.0053
Number of trend entries	European	-0.3739	0.1267	-2.9510	3.20E-03	0.0302	0.0101	1.0070	0.0074	-0.0024	0.0049
Number of incorrect matches in round	European	0.1259	0.0428	2.9399	3.30E-03	0.0543	0.0028	1.0061	0.0098	0.0005	0.0057
Illnesses of father: None of the above (group 2)	European	-0.2618	0.0898	-2.9143	3.60E-03	0.0094	0.0017	1.0015	0.0075	-0.0016	0.0051
Diagnoses - main ICD10: R55 Syncope and collapse	European	0.3004	0.1062	2.8276	4.70E-03	0.0056	0.0014	1.0067	0.0068	0.0028	0.0053
Diagnoses - main ICD10: N81 Female genital prolapse	European	0.2740	0.0974	2.8120	4.90E-03	0.0067	0.0015	1.0271	0.0068	-0.0008	0.0054
Sodium in urine	European	0.1219	0.0435	2.8031	5.10E-03	0.0722	0.0028	1.0244	0.0094	0.0061	0.0064
Pulse rate automated reading	European	0.0963	0.0345	2.7937	5.20E-03	0.1536	0.0122	1.0504	0.0326	0.0106	0.0071
Vitamin and mineral supplements: Vitamin B	European	0.2896	0.1037	2.7943	5.20E-03	0.0070	0.0016	1.0033	0.0072	0.0008	0.0053
Duration of moderate activity	European	0.1757	0.0646	2.7188	6.60E-03	0.0313	0.0024	1.0121	0.0084	0.0046	0.0053
Ever stopped smoking for 6+ months	European	0.3041	0.1149	2.6461	8.10E-03	0.0195	0.0060	1.0013	0.0073	0.0071	0.0046
Cancer diagnosed by doctor	European	0.2743	0.1047	2.6206	8.80E-03	0.0071	0.0016	1.0068	0.0068	-0.0105	0.0053
Illnesses of mother: None of the above (group 1)	European	-0.1625	0.0625	-2.5990	9.30E-03	0.0166	0.0018	1.0146	0.0075	-0.0021	0.0053

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Nap during day	European	0.1013	0.0390	2.5948	9.50E-03	0.0805	0.0036	1.0249	0.0104	0.0145	0.0065
Diagnoses - main ICD10: I25 Chronic ischaemic heart disease	European	0.1599	0.0617	2.5921	9.50E-03	0.0202	0.0023	1.0190	0.0084	0.0089	0.0057
Mineral and other dietary supplements: Selenium	European	0.2804	0.1084	2.5879	9.70E-03	0.0065	0.0015	0.9993	0.0075	-0.0055	0.0055
Non-cancer illness code self-reported: hayfever/allergic rhinitis	European	-0.1615	0.0626	-2.5811	9.80E-03	0.0233	0.0025	1.0163	0.0091	0.0038	0.0060
Age when periods started (menarche)	European	-0.0846	0.0332	-2.5505	1.08E-02	0.2074	0.0103	1.0098	0.0132	-0.0077	0.0057
Non-cancer illness code self-reported: hypothyroidism/ myxoedema	European	0.1637	0.0643	2.5471	1.09E-02	0.0510	0.0060	1.0321	0.0165	0.0006	0.0065
Diagnoses - main ICD10: I84 Haemorrhoids	European	0.1985	0.0789	2.5145	1.19E-02	0.0096	0.0017	1.0002	0.0074	0.0025	0.0049
Diagnoses - main ICD10: M20 Acquired deformities of fingers and toes	European	0.1979	0.0801	2.4699	1.35E-02	0.0095	0.0016	1.0005	0.0070	0.0044	0.0052
Diagnoses - main ICD10: K60 Fissure and fistula of anal and rectal regions	European	0.2451	0.0995	2.4640	1.37E-02	0.0052	0.0014	0.9839	0.0065	-0.0012	0.0049
Non-cancer illness code self-reported: rheumatoid arthritis	European	0.3255	0.1340	2.4288	1.51E-02	0.0046	0.0014	1.0060	0.0068	-0.0048	0.0054
Non-cancer illness code self-reported: migraine	European	0.1688	0.0698	2.4164	1.57E-02	0.0159	0.0019	1.0168	0.0083	0.0006	0.0050
Diagnoses - main ICD10: N20 Calculus of kidney and ureter	European	0.2448	0.1013	2.4157	1.57E-02	0.0077	0.0015	1.0109	0.0071	0.0004	0.0053
Why stopped smoking: Health precaution	European	-0.1716	0.0716	-2.3971	1.65E-02	0.0537	0.0069	1.0006	0.0074	0.0019	0.0051
Illnesses of father: High blood pressure	European	0.1516	0.0633	2.3943	1.67E-02	0.0192	0.0019	1.0146	0.0074	-0.0047	0.0053
Diagnoses - main ICD10: G47 Sleep disorders	European	0.2547	0.1076	2.3679	1.79E-02	0.0065	0.0014	0.9926	0.0068	-0.0039	0.0057
Diagnoses - main ICD10: H26 Other cataract	European	0.2146	0.0906	2.3680	1.79E-02	0.0096	0.0016	0.9919	0.0075	-0.0075	0.0058
Diagnoses - main ICD10: I83 Varicose veins of lower extremities	European	0.1683	0.0713	2.3597	1.83E-02	0.0190	0.0022	1.0356	0.0101	0.0001	0.0055
Non-cancer illness code self-reported: kidney stone/ureter stone/bladder stone	European	0.2382	0.1010	2.3574	1.84E-02	0.0090	0.0017	1.0032	0.0080	-0.0082	0.0054
Diagnoses - main ICD10: J34 Other disorders of nose and nasal sinuses	European	0.4584	0.1959	2.3398	1.93E-02	0.0025	0.0014	1.0070	0.0070	-0.0003	0.0048
Illnesses of mother: None of the above (group 2)	European	-0.2168	0.0927	-2.3385	1.94E-02	0.0093	0.0017	1.0007	0.0069	-0.0091	0.0050
Diagnoses - main ICD10: K20 Oesophagitis	European	0.6803	0.2942	2.3126	2.07E-02	0.0018	0.0013	1.0093	0.0067	0.0031	0.0046
Diagnoses - main ICD10: R04 Haemorrhage from respiratory passages	European	0.4524	0.1965	2.3024	2.13E-02	0.0028	0.0015	0.9962	0.0070	-0.0014	0.0055
No-wear time bias adjusted acceleration standard deviation	European	-0.1396	0.0607	-2.3012	2.14E-02	0.0874	0.0082	1.0043	0.0078	-0.0093	0.0049
Impedance of leg (right)	European	-0.0821	0.0358	-2.2967	2.16E-02	0.2423	0.0103	1.0831	0.0235	0.0059	0.0080
Diagnoses - main ICD10: S09 Other and unspecified injuries of head	European	0.2739	0.1198	2.2865	2.22E-02	0.0041	0.0015	0.9926	0.0068	-0.0044	0.0050
Diagnoses - main ICD10: K30 Dyspepsia	European	0.3761	0.1646	2.2845	2.23E-02	0.0029	0.0014	1.0059	0.0068	-0.0002	0.0055
Tinnitus: Yes now some of the time	European	0.3976	0.1764	2.2532	2.42E-02	0.0076	0.0040	1.0016	0.0062	-0.0077	0.0052
Pulse wave peak to peak time	European	-0.1755	0.0779	-2.2531	2.43E-02	0.0391	0.0049	1.0110	0.0073	-0.0060	0.0055
Impedance of leg (left)	European	-0.0804	0.0360	-2.2366	2.53E-02	0.2432	0.0103	1.0734	0.0233	0.0056	0.0083
Diagnoses - main ICD10: R69 Unknown and unspecified causes of morbidity	European	0.2762	0.1249	2.2111	2.70E-02	0.0053	0.0013	0.9983	0.0069	0.0099	0.0055
Diastolic blood pressure automated reading	European	0.0884	0.0401	2.2059	2.74E-02	0.1354	0.0061	1.0697	0.0169	0.0001	0.0073
Mineral and other dietary supplements: Glucosamine	European	-0.1304	0.0592	-2.2030	2.76E-02	0.0243	0.0020	1.0090	0.0075	-0.0003	0.0056

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Friendships satisfaction	European	0.1299	0.0590	2.2019	2.77E-02	0.0615	0.0053	0.9995	0.0077	-0.0016	0.0049
Illnesses of mother: High blood pressure	European	0.1148	0.0525	2.1878	2.87E-02	0.0290	0.0022	1.0209	0.0088	0.0003	0.0058
Non-cancer illness code self-reported: muscle or soft tissue injuries	European	0.4007	0.1845	2.1720	2.99E-02	0.0030	0.0015	0.9956	0.0076	-0.0065	0.0055
Medication for cholesterol blood pressure or diabetes: Blood pressure medication	European	0.1198	0.0553	2.1657	3.03E-02	0.1044	0.0058	1.0326	0.0105	0.0015	0.0067
Diagnoses - main ICD10: N32 Other disorders of bladder	European	0.2838	0.1310	2.1665	3.03E-02	0.0040	0.0012	0.9898	0.0060	-0.0061	0.0048
Diagnoses - main ICD10: R35 Polyuria	European	0.4434	0.2048	2.1649	3.04E-02	0.0030	0.0015	0.9976	0.0071	-0.0039	0.0052
Arm fat-free mass (left)	European	0.0693	0.0323	2.1479	3.17E-02	0.2658	0.0116	1.1084	0.0284	0.0113	0.0075
Sleep duration	European	-0.1176	0.0548	-2.1471	3.18E-02	0.0704	0.0035	1.0293	0.0106	-0.0185	0.0068
Diagnoses - main ICD10: R31 Unspecified haematuria	European	0.3540	0.1652	2.1427	3.21E-02	0.0028	0.0016	1.0109	0.0071	0.0011	0.0052
Diagnoses - main ICD10: M67 Other disorders of synovium and tendon	European	0.5232	0.2449	2.1366	3.26E-02	0.0020	0.0014	1.0003	0.0069	-0.0019	0.0047
Diagnoses - main ICD10: M24 Other specific joint derangements	European	0.3154	0.1484	2.1249	3.36E-02	0.0039	0.0014	0.9852	0.0069	-0.0065	0.0054
Arm predicted mass (left)	European	0.0683	0.0323	2.1110	3.48E-02	0.2649	0.0116	1.1106	0.0286	0.0118	0.0076
Diagnoses - main ICD10: J22 Unspecified acute lower respiratory infection	European	0.3385	0.1605	2.1085	3.50E-02	0.0031	0.0015	0.9966	0.0075	0.0071	0.0052
Frequency of heavy DIY in last 4 weeks	European	0.2175	0.1033	2.1055	3.53E-02	0.0200	0.0037	1.0102	0.0068	0.0021	0.0055
Duration of vigorous activity	European	0.1524	0.0726	2.1004	3.57E-02	0.0362	0.0033	0.9910	0.0076	0.0091	0.0058
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: Hayfever allergic rhinitis or eczema	European	-0.0818	0.0391	-2.0941	3.62E-02	0.0730	0.0060	1.0404	0.0173	0.0098	0.0057
Number of depression episodes	European	0.3756	0.1799	2.0884	3.68E-02	0.0319	0.0123	1.0051	0.0064	0.0020	0.0060
Mineral and other dietary supplements: Zinc	European	0.1597	0.0767	2.0805	3.75E-02	0.0109	0.0015	0.9899	0.0063	0.0043	0.0051
Eye problems/disorders: Diabetes related eye disease	European	0.2158	0.1038	2.0796	3.76E-02	0.0195	0.0043	1.0079	0.0062	0.0070	0.0051
Diagnoses - main ICD10: I21 Acute myocardial infarction	European	0.1732	0.0838	2.0663	3.88E-02	0.0102	0.0016	1.0066	0.0077	0.0033	0.0048
Illnesses of father: Diabetes	European	0.1579	0.0764	2.0656	3.89E-02	0.0181	0.0024	1.0293	0.0079	0.0042	0.0056
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: None of the above	European	-0.0781	0.0380	-2.0552	3.99E-02	0.0767	0.0070	1.0380	0.0186	-0.0080	0.0060
Diagnoses - main ICD10: K43 Ventral hernia	European	0.2176	0.1074	2.0266	4.27E-02	0.0054	0.0014	0.9927	0.0072	0.0004	0.0048
Non-cancer illness code self-reported: type 2 diabetes	European	0.2178	0.1075	2.0256	4.28E-02	0.0063	0.0014	1.0115	0.0069	0.0014	0.0050
Maximum heart rate during fitness test	European	-0.2234	0.1112	-2.0094	4.45E-02	0.0697	0.0130	1.0151	0.0086	0.0086	0.0066
Creatinine (enzymatic) in urine	European	0.0852	0.0426	2.0016	4.53E-02	0.0658	0.0031	1.0203	0.0097	0.0013	0.0058
Diagnoses - main ICD10: I10 Essential (primary) hypertension	European	0.3986	0.2006	1.9868	4.69E-02	0.0023	0.0013	0.9992	0.0059	-0.0067	0.0053
Non-cancer illness code self-reported: nasal polyps	European	-0.2131	0.1082	-1.9703	4.88E-02	0.0050	0.0016	1.0073	0.0069	0.0032	0.0051
Time spent driving	European	-0.1152	0.0600	-1.9198	5.49E-02	0.0421	0.0030	1.0030	0.0076	-0.0027	0.0058
Diagnoses - main ICD10: K80 Cholelithiasis	European	0.1707	0.0891	1.9159	5.54E-02	0.0096	0.0018	1.0232	0.0090	0.0083	0.0059
Non-cancer illness code self-reported: cholelithiasis/gall stones	European	0.1757	0.0921	1.9084	5.63E-02	0.0087	0.0018	1.0186	0.0086	-0.0018	0.0053

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Birth weight of first child	European	-0.0818	0.0451	-1.8129	6.98E-02	0.1103	0.0070	1.0194	0.0099	-0.0006	0.0057
Ever had prostate specific antigen (PSA) test	European	-0.1343	0.0742	-1.8113	7.01E-02	0.0347	0.0035	1.0017	0.0076	0.0004	0.0055
Frequency of light DIY in last 4 weeks	European	0.1390	0.0769	1.8070	7.08E-02	0.0229	0.0030	1.0018	0.0069	-0.0044	0.0053
Headaches for 3+ months	European	0.1367	0.0758	1.8023	7.15E-02	0.0551	0.0072	1.0080	0.0067	-0.0022	0.0049
Current employment status: Retired	European	-0.1669	0.0938	-1.7796	7.51E-02	0.0084	0.0015	1.0163	0.0070	-0.0052	0.0054
Number of children fathered	European	0.1250	0.0707	1.7672	7.72E-02	0.0324	0.0036	1.0105	0.0073	-0.0060	0.0052
Vitamin and mineral supplements: Vitamin C	European	0.1398	0.0791	1.7672	7.72E-02	0.0133	0.0016	0.9977	0.0072	-0.0060	0.0055
Hair/balding pattern: Pattern 3	European	-0.0867	0.0504	-1.7205	8.53E-02	0.0569	0.0144	1.0176	0.0205	-0.0012	0.0056
Arm fat-free mass (right)	European	0.0555	0.0323	1.7183	8.57E-02	0.2672	0.0117	1.1000	0.0288	0.0081	0.0075
Arm predicted mass (right)	European	0.0548	0.0323	1.6949	9.01E-02	0.2657	0.0117	1.1030	0.0289	0.0093	0.0076
Diagnoses - main ICD10: H25 Senile cataract	European	0.2627	0.1551	1.6939	9.03E-02	0.0029	0.0014	1.0165	0.0071	-0.0059	0.0053
Basal metabolic rate	European	0.0546	0.0323	1.6903	9.10E-02	0.2852	0.0125	1.1143	0.0295	0.0100	0.0077
Fractured bone site(s): Arm	European	-0.2193	0.1302	-1.6849	9.20E-02	0.0052	0.0015	0.9971	0.0075	0.0092	0.0055
Diagnoses - main ICD10: C44 Other malignant neoplasms of skin	European	0.1321	0.0785	1.6830	9.24E-02	0.0104	0.0023	1.0055	0.0090	-0.0074	0.0050
Number of days/week of moderate physical activity 10+ minutes	European	0.1058	0.0629	1.6813	9.27E-02	0.0419	0.0024	1.0127	0.0077	0.0012	0.0061
Number of pregnancy terminations	European	0.1514	0.0903	1.6773	9.35E-02	0.0610	0.0103	1.0066	0.0075	0.0033	0.0054
Mean time to correctly identify matches	European	0.0630	0.0378	1.6688	9.52E-02	0.0721	0.0029	1.0380	0.0097	-0.0056	0.0053
Leg predicted mass (left)	European	0.0554	0.0334	1.6598	9.69E-02	0.2668	0.0117	1.1046	0.0267	0.0065	0.0076
Leg fat-free mass (left)	European	0.0554	0.0334	1.6550	9.79E-02	0.2672	0.0117	1.1046	0.0268	0.0067	0.0076
Reason for glasses/contact lenses: For astigmatism	European	-0.1419	0.0859	-1.6520	9.85E-02	0.0091	0.0016	1.0260	0.0071	0.0011	0.0051
Non-cancer illness code self-reported: sleep apnoea	European	0.2682	0.1625	1.6506	9.88E-02	0.0027	0.0014	1.0081	0.0069	0.0012	0.0053
Diagnoses - main ICD10: Z09 Follow-up examination after treatment for conditions other than malignant neoplasms	European	0.2577	0.1562	1.6499	9.90E-02	0.0027	0.0013	1.0025	0.0066	0.0046	0.0050
Number of older siblings	European	0.5309	0.3223	1.6475	9.95E-02	0.0057	0.0053	1.0074	0.0064	0.0036	0.0045
Diagnoses - main ICD10: M72 Fibroblastic disorders	European	0.1449	0.0888	1.6310	1.03E-01	0.0103	0.0031	1.0190	0.0220	-0.0102	0.0052
Home area population density - urban or rural: England/Wales - Village - less sparse	European	-0.3222	0.2009	-1.6033	1.09E-01	0.0021	0.0013	1.0250	0.0064	-0.0075	0.0052
Diagnoses - main ICD10: Z47 Other orthopaedic follow-up care	European	0.2204	0.1381	1.5958	1.11E-01	0.0032	0.0013	0.9993	0.0069	0.0025	0.0046
Used an inhaler for chest within last hour	European	0.1937	0.1220	1.5875	1.12E-01	0.0044	0.0015	1.0016	0.0064	0.0034	0.0050
Diagnoses - main ICD10: L03 Cellulitis	European	0.2090	0.1334	1.5665	1.17E-01	0.0041	0.0015	1.0017	0.0069	-0.0022	0.0052
Illnesses of father: Heart disease	European	0.0858	0.0548	1.5644	1.18E-01	0.0299	0.0026	1.0044	0.0089	0.0034	0.0053
Cough on most days	European	0.1355	0.0874	1.5512	1.21E-01	0.0486	0.0065	0.9977	0.0079	0.0069	0.0055
Reason for reducing amount of alcohol drunk: Health precaution	European	-0.0948	0.0620	-1.5290	1.26E-01	0.0461	0.0047	0.9969	0.0070	0.0078	0.0050

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Diagnoses - main ICD10: S66 Injury of muscle and tendon at wrist and hand level	European	0.3821	0.2537	1.5058	1.32E-01	0.0015	0.0012	1.0050	0.0072	-0.0033	0.0049
Relative age voice broke	European	-0.0750	0.0505	-1.4858	1.37E-01	0.0725	0.0055	1.0101	0.0088	-0.0073	0.0055
Illnesses of mother: Alzheimer's disease/dementia	European	-0.2403	0.1622	-1.4813	1.39E-01	0.0037	0.0048	1.0363	0.0360	-0.0052	0.0053
Average weekly intake of other alcoholic drinks	European	0.3037	0.2058	1.4760	1.40E-01	0.0078	0.0062	1.0039	0.0066	-0.0012	0.0044
Non-cancer illness code self-reported: polio / poliomyelitis	European	0.2379	0.1613	1.4745	1.40E-01	0.0025	0.0013	0.9934	0.0067	-0.0130	0.0046
Frequency of other exercises in last 4 weeks	European	0.1157	0.0786	1.4725	1.41E-01	0.0209	0.0033	0.9989	0.0067	-0.0015	0.0052
Cancer code self-reported: breast cancer	European	0.1279	0.0869	1.4714	1.41E-01	0.0098	0.0018	1.0194	0.0085	-0.0083	0.0054
Non-accidental death in close genetic family	European	0.1610	0.1095	1.4709	1.41E-01	0.0190	0.0047	0.9931	0.0066	-0.0057	0.0054
Reason for glasses/contact lenses: For just reading/near work as you are getting older (called presbyopia)	European	-0.2147	0.1462	-1.4691	1.42E-01	0.0040	0.0016	1.1362	0.0085	-0.0001	0.0056
Reason for glasses/contact lenses: For long-sightedness i.e. for distance and near but particularly for near tasks like reading (called hypermetropia)	European	0.1326	0.0904	1.4665	1.43E-01	0.0095	0.0015	1.0667	0.0074	0.0010	0.0052
Comparative body size at age 10	European	0.0534	0.0365	1.4609	1.44E-01	0.1456	0.0097	1.0175	0.0200	-0.0135	0.0063
Hearing aid user	European	0.1217	0.0845	1.4410	1.50E-01	0.0177	0.0027	1.0018	0.0065	0.0001	0.0052
Target heart rate achieved	European	-0.1562	0.1099	-1.4208	1.55E-01	0.0343	0.0109	1.0063	0.0072	0.0026	0.0054
Transport type for commuting to job workplace: Walk	European	-0.1269	0.0905	-1.4013	1.61E-01	0.0172	0.0028	1.0015	0.0071	0.0014	0.0053
Diagnoses - main ICD10: T84 Complications of internal orthopaedic prosthetic devices implants and grafts	European	0.1972	0.1411	1.3980	1.62E-01	0.0049	0.0017	0.9925	0.0075	0.0071	0.0057
Fractured bone site(s): Ankle	European	0.1318	0.0966	1.3652	1.72E-01	0.0063	0.0015	0.9966	0.0066	0.0066	0.0049
Non-cancer illness code self-reported: psoriasis	European	0.1562	0.1150	1.3582	1.74E-01	0.0072	0.0016	1.0177	0.0085	0.0038	0.0056
Non-cancer illness code self-reported: bladder problem (not cancer)	European	0.2291	0.1700	1.3474	1.78E-01	0.0022	0.0013	1.0022	0.0070	-0.0008	0.0052
Type of tobacco previously smoked: Cigars or pipes	European	-0.1845	0.1387	-1.3305	1.83E-01	0.0114	0.0053	1.0016	0.0064	-0.0025	0.0050
Duration of fitness test	European	-0.1938	0.1462	-1.3258	1.85E-01	0.0203	0.0092	1.0044	0.0063	-0.0086	0.0049
Snoring	European	-0.0549	0.0424	-1.2929	1.96E-01	0.0593	0.0030	1.0257	0.0092	0.0016	0.0056
Pulse rate	European	0.0646	0.0500	1.2923	1.96E-01	0.1350	0.0140	1.0260	0.0154	0.0128	0.0059
Leg fat-free mass (right)	European	0.0426	0.0335	1.2727	2.03E-01	0.2653	0.0118	1.1102	0.0275	0.0060	0.0075
Mineral and other dietary supplements: Fish oil (including cod liver oil)	European	-0.0873	0.0688	-1.2678	2.05E-01	0.0265	0.0020	1.0084	0.0077	0.0038	0.0056
Diagnoses - main ICD10: M25 Other joint disorders not elsewhere classified	European	0.8020	0.6339	1.2653	2.06E-01	0.0010	0.0014	1.0155	0.0070	-0.0001	0.0048
Diagnoses - main ICD10: R11 Nausea and vomiting	European	0.4468	0.3565	1.2534	2.10E-01	0.0011	0.0013	0.9951	0.0067	0.0060	0.0054
Leg predicted mass (right)	European	0.0419	0.0336	1.2476	2.12E-01	0.2649	0.0118	1.1103	0.0275	0.0063	0.0075
Length of menstrual cycle	European	0.1122	0.0899	1.2469	2.12E-01	0.0981	0.0204	1.0022	0.0071	-0.0026	0.0051
Pulse wave Arterial Stiffness index	European	0.0969	0.0789	1.2282	2.19E-01	0.0380	0.0051	1.0099	0.0073	0.0079	0.0054
Diagnoses - main ICD10: M10 Gout	European	0.2341	0.1936	1.2090	2.27E-01	0.0023	0.0015	0.9997	0.0071	-0.0024	0.0054



Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Length of working week for main job	European	0.1006	0.0837	1.2027	2.29E-01	0.0187	0.0028	1.0119	0.0067	0.0021	0.0054
Diagnoses - main ICD10: M16 Coxarthrosis [arthrosis of hip]	European	0.1088	0.0922	1.1794	2.38E-01	0.0107	0.0018	1.0097	0.0083	-0.0029	0.0054
Vitamin and mineral supplements: Vitamin A	European	0.1629	0.1399	1.1646	2.44E-01	0.0039	0.0015	1.0015	0.0068	0.0002	0.0055
Fractured bone site(s): Wrist	European	0.1346	0.1163	1.1574	2.47E-01	0.0068	0.0017	1.0062	0.0075	-0.0067	0.0056
Medication for cholesterol blood pressure or diabetes: Insulin	European	0.1418	0.1237	1.1461	2.52E-01	0.0099	0.0034	1.0103	0.0074	0.0115	0.0047
Doctor diagnosed asthma	European	0.0686	0.0604	1.1357	2.56E-01	0.0713	0.0100	0.9961	0.0085	0.0048	0.0053
Started insulin within one year diagnosis of diabetes	European	-0.1279	0.1133	-1.1283	2.59E-01	0.1689	0.0492	1.0053	0.0085	0.0067	0.0057
Transport type for commuting to job workplace: Car/motor vehicle	European	0.0768	0.0690	1.1127	2.66E-01	0.0250	0.0030	1.0223	0.0070	0.0055	0.0047
Mineral and other dietary supplements: None of the above	European	0.0683	0.0630	1.0844	2.78E-01	0.0293	0.0021	1.0143	0.0077	-0.0015	0.0058
Hair/balding pattern: Pattern 4	European	-0.0406	0.0377	-1.0757	2.82E-01	0.1674	0.0203	1.0994	0.0278	0.0010	0.0059
Mouth/teeth dental problems: Mouth ulcers	European	0.0583	0.0550	1.0603	2.89E-01	0.0289	0.0038	1.0330	0.0116	-0.0017	0.0052
Non-cancer illness code self-reported: iron deficiency anaemia	European	0.1397	0.1331	1.0494	2.94E-01	0.0040	0.0013	0.9939	0.0064	0.0004	0.0049
Diagnoses - main ICD10: E04 Other non-toxic goitre	European	0.1128	0.1086	1.0385	2.99E-01	0.0049	0.0014	0.9946	0.0070	-0.0053	0.0051
Number of days/weekwalked 10+ minutes	European	0.0501	0.0483	1.0377	2.99E-01	0.0421	0.0023	1.0110	0.0078	-0.0028	0.0055
Duration of other exercises	European	-0.0918	0.0904	-1.0156	3.10E-01	0.0189	0.0031	1.0085	0.0070	0.0034	0.0054
Average weekly spirits intake	European	0.0609	0.0604	1.0086	3.13E-01	0.0316	0.0028	1.0169	0.0081	0.0100	0.0055
Heel bone mineral density (BMD)T-score automated (right)	European	0.0503	0.0500	1.0044	3.15E-01	0.3033	0.0358	1.0288	0.0237	-0.0105	0.0075
Handedness (chirality/laterality): Use both right and left hands equally	European	0.1206	0.1208	0.9988	3.18E-01	0.0042	0.0014	1.0055	0.0067	0.0039	0.0048
Non-cancer illness code self-reported: pneumothorax	European	-0.1394	0.1405	-0.9926	3.21E-01	0.0031	0.0015	0.9870	0.0070	-0.0004	0.0054
Illnesses of mother: Breast cancer	European	-0.0761	0.0768	-0.9916	3.21E-01	0.0094	0.0020	1.0071	0.0086	-0.0044	0.0046
Heel bone mineral density (BMD)T-score automated	European	0.0411	0.0432	0.9519	3.41E-01	0.2947	0.0335	1.0842	0.0378	-0.0106	0.0082
Non-cancer illness code self-reported: allergy or anaphylactic reaction to drug	European	0.4606	0.4873	0.9452	3.45E-01	0.0009	0.0013	1.0090	0.0065	-0.0052	0.0053
Diagnoses - main ICD10: F43 Reaction to severe stress and adjustment disorders	European	0.5047	0.5390	0.9363	3.49E-01	0.0008	0.0013	1.0026	0.0060	0.0015	0.0049
Eye problems/disorders: Glaucoma	European	0.0708	0.0761	0.9303	3.52E-01	0.0398	0.0055	1.0169	0.0081	-0.0091	0.0057
Vitamin and mineral supplements: Vitamin E	European	0.0872	0.0943	0.9246	3.55E-01	0.0070	0.0014	0.9925	0.0063	0.0077	0.0052
Non-cancer illness code self-reported: retinal detachment	European	-0.1586	0.1748	-0.9070	3.64E-01	0.0031	0.0014	1.0057	0.0066	0.0010	0.0057
Non-cancer illness code self-reported: ulcerative colitis	European	-0.0977	0.1083	-0.9024	3.67E-01	0.0058	0.0017	1.0119	0.0080	0.0082	0.0049
Vitamin and mineral supplements: None of the above	European	-0.0497	0.0552	-0.9010	3.68E-01	0.0301	0.0018	0.9941	0.0070	-0.0042	0.0055
Vitamin and mineral supplements: Vitamin D	European	-0.0948	0.1073	-0.8832	3.77E-01	0.0062	0.0016	0.9967	0.0074	0.0030	0.0053
Ever taken oral contraceptive pill	European	0.0683	0.0778	0.8787	3.80E-01	0.0199	0.0030	1.0101	0.0073	0.0010	0.0051
Non-cancer illness code self-reported: vaginal prolapse/ uterine prolapse	European	0.1210	0.1391	0.8698	3.84E-01	0.0045	0.0016	1.0072	0.0072	0.0050	0.0050
Tinnitus: Yes now most or all of the time	European	0.0657	0.0756	0.8696	3.85E-01	0.0334	0.0049	1.0019	0.0070	0.0020	0.0053

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Diagnoses - main ICD10: Z80 Family history of malignant neoplasm	European	0.2136	0.2457	0.8691	3.85E-01	0.0014	0.0014	0.9902	0.0063	-0.0079	0.0055
Diagnoses - main ICD10: K40 Inguinal hernia	European	-0.0618	0.0720	-0.8577	3.91E-01	0.0184	0.0024	0.9916	0.0079	-0.0012	0.0056
Whole body water mass	European	0.0269	0.0316	0.8517	3.94E-01	0.2901	0.0131	1.1260	0.0314	0.0100	0.0077
Whole body fat-free mass	European	0.0261	0.0316	0.8254	4.09E-01	0.2900	0.0132	1.1273	0.0315	0.0096	0.0077
Diagnoses - main ICD10: K35 Acute appendicitis	European	-0.1338	0.1657	-0.8074	4.20E-01	0.0023	0.0013	1.0040	0.0066	0.0056	0.0051
Systolic blood pressure automated reading	European	0.0333	0.0418	0.7956	4.26E-01	0.1273	0.0060	1.0680	0.0172	-0.0066	0.0066
Non-cancer illness code self-reported: mania/bipolar disorder/manic depression	European	0.0799	0.1014	0.7886	4.30E-01	0.0058	0.0013	0.9992	0.0061	0.0015	0.0054
Non-cancer illness code self-reported: bone disorder	European	-0.1768	0.2285	-0.7735	4.39E-01	0.0013	0.0012	1.0072	0.0065	0.0095	0.0050
Non-cancer illness code self-reported: hypopituitarism	European	-0.1922	0.2489	-0.7721	4.40E-01	0.0013	0.0012	0.9925	0.0064	0.0075	0.0054
Diagnoses - main ICD10: B37 Candidiasis	European	0.5039	0.6531	0.7715	4.40E-01	0.0007	0.0014	1.0007	0.0066	-0.0030	0.0045
Non-cancer illness code self-reported: enlarged prostate	European	0.0732	0.0959	0.7632	4.45E-01	0.0063	0.0016	1.0036	0.0069	-0.0007	0.0050
Morning/evening person (chronotype)	European	0.0299	0.0394	0.7594	4.48E-01	0.1149	0.0044	1.0483	0.0125	0.0000	0.0060
Diagnoses - main ICD10: C50 Malignant neoplasm of breast	European	0.0683	0.0900	0.7594	4.48E-01	0.0085	0.0016	1.0058	0.0081	-0.0058	0.0051
Eye problems/disorders: Cataract	European	0.0740	0.0982	0.7533	4.51E-01	0.0231	0.0044	1.0138	0.0069	0.0004	0.0055
Heel bone mineral density (BMD)T-score automated (left)	European	0.0373	0.0497	0.7494	4.54E-01	0.3011	0.0355	1.0309	0.0231	-0.0071	0.0078
Diagnoses - main ICD10: C61 Malignant neoplasm of prostate	European	0.0838	0.1122	0.7474	4.55E-01	0.0043	0.0015	1.0191	0.0073	-0.0066	0.0050
Non-cancer illness code self-reported: joint disorder	European	0.1276	0.1715	0.7442	4.57E-01	0.0020	0.0013	0.9925	0.0061	-0.0003	0.0047
Non-cancer illness code self-reported: gout	European	0.0431	0.0580	0.7437	4.57E-01	0.0248	0.0069	0.9921	0.0208	-0.0028	0.0049
Cancer code self-reported: squamous cell carcinoma	European	0.1221	0.1647	0.7410	4.59E-01	0.0022	0.0013	0.9991	0.0068	-0.0047	0.0049
Had menopause	European	0.0677	0.0930	0.7276	4.67E-01	0.0201	0.0041	1.0051	0.0071	-0.0022	0.0059
Relative age of first facial hair	European	-0.0291	0.0423	-0.6883	4.91E-01	0.1255	0.0074	1.0407	0.0119	-0.0109	0.0056
Diagnoses - main ICD10: N40 Hyperplasia of prostate	European	0.0651	0.0958	0.6801	4.96E-01	0.0061	0.0015	1.0085	0.0068	-0.0027	0.0048
Diagnoses - main ICD10: K76 Other diseases of liver	European	0.0972	0.1435	0.6770	4.98E-01	0.0035	0.0013	0.9940	0.0068	0.0049	0.0051
Diagnoses - main ICD10: M70 Soft tissue disorders related to use overuse and pressure	European	0.0780	0.1164	0.6699	5.03E-01	0.0041	0.0013	0.9815	0.0067	-0.0023	0.0046
Non-cancer illness code self-reported: vitiligo	European	0.1642	0.2531	0.6488	5.17E-01	0.0011	0.0014	0.9975	0.0071	0.0027	0.0051
Distance between home and job workplace	European	-0.0794	0.1234	-0.6433	5.20E-01	0.0124	0.0032	1.0050	0.0064	-0.0033	0.0054
Non-cancer illness code self-reported: pernicious anaemia	European	0.0862	0.1351	0.6383	5.23E-01	0.0037	0.0013	0.9902	0.0067	0.0029	0.0053
Diagnoses - main ICD10: I30 Acute pericarditis	European	0.1125	0.1791	0.6285	5.30E-01	0.0022	0.0015	0.9951	0.0069	-0.0028	0.0053
Number of days/week of vigorous physical activity 10+ minutes	European	0.0337	0.0541	0.6238	5.33E-01	0.0378	0.0023	1.0166	0.0079	-0.0005	0.0057
Non-cancer illness code self-reported: varicose veins	European	-0.0696	0.1136	-0.6128	5.40E-01	0.0046	0.0014	1.0092	0.0067	0.0011	0.0050
Alcohol drinker status: Never	European	0.0422	0.0726	0.5813	5.61E-01	0.0142	0.0017	1.0173	0.0076	0.0097	0.0052
Duration of strenuous sports	European	0.0793	0.1381	0.5746	5.66E-01	0.0315	0.0137	0.9937	0.0065	0.0028	0.0049

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Fracture resulting from simple fall	European	-0.0606	0.1061	-0.5708	5.68E-01	0.0534	0.0145	0.9914	0.0065	-0.0028	0.0051
Cancer code self-reported: small intestine/small bowel cancer	European	0.1324	0.2407	0.5503	5.82E-01	0.0011	0.0014	0.9992	0.0067	0.0018	0.0052
Why stopped smoking: None of the above	European	-0.0439	0.0799	-0.5494	5.83E-01	0.0403	0.0062	0.9976	0.0068	0.0007	0.0054
Illnesses of father: Prostate cancer	European	-0.0464	0.0897	-0.5172	6.05E-01	0.0084	0.0018	1.0124	0.0085	-0.0021	0.0051
Diagnoses - main ICD10: R14 Flatulence and related conditions	European	0.0679	0.1320	0.5142	6.07E-01	0.0035	0.0012	0.9897	0.0068	0.0028	0.0051
Non-cancer illness code self-reported: arthritis (nos)	European	0.0930	0.1827	0.5087	6.11E-01	0.0019	0.0014	1.0136	0.0065	0.0034	0.0052
Diagnoses - main ICD10: D25 Leiomyoma of uterus	European	0.0578	0.1157	0.4998	6.17E-01	0.0058	0.0014	0.9940	0.0065	0.0017	0.0053
Father still alive	European	-0.0494	0.0996	-0.4955	6.20E-01	0.0065	0.0015	1.0157	0.0070	0.0064	0.0051
Reproducibility of spirometry measurement using ERS/ATS criteria	European	-0.0490	0.0998	-0.4910	6.23E-01	0.0144	0.0023	1.0077	0.0073	0.0102	0.0058
Hair/balding pattern: Pattern 2	European	-0.0281	0.0577	-0.4879	6.26E-01	0.0516	0.0062	1.0348	0.0141	0.0112	0.0055
Non-cancer illness code self-reported: malabsorption/ coeliac disease	European	0.0573	0.1212	0.4725	6.37E-01	0.0171	0.0123	0.9933	0.0226	-0.0009	0.0052
Diagnoses - main ICD10: I80 Phlebitis and thrombophlebitis	European	0.0427	0.0940	0.4540	6.50E-01	0.0083	0.0016	0.9924	0.0085	-0.0011	0.0049
Birth weight	European	-0.0189	0.0417	-0.4528	6.51E-01	0.1089	0.0067	1.0501	0.0139	-0.0033	0.0065
Cancer code self-reported: lung cancer	European	0.7446	1.6579	0.4491	6.53E-01	0.0003	0.0012	0.9935	0.0067	-0.0075	0.0048
Diagnoses - main ICD10: K51 Ulcerative colitis	European	-0.0469	0.1048	-0.4472	6.55E-01	0.0045	0.0016	1.0147	0.0073	0.0071	0.0046
Non-cancer illness code self-reported: hypertrophic cardiomyopathy (hcm / hocm)	European	0.0986	0.2211	0.4462	6.56E-01	0.0013	0.0013	1.0033	0.0068	-0.0042	0.0048
Diagnoses - main ICD10: K50 Crohn's disease [regional enteritis]	European	0.0521	0.1216	0.4283	6.68E-01	0.0042	0.0014	1.0044	0.0069	0.0021	0.0051
Pulse wave reflection index	European	-0.0290	0.0697	-0.4158	6.78E-01	0.0539	0.0055	1.0103	0.0077	-0.0010	0.0053
Cancer code self-reported: prostate cancer	European	0.0389	0.0982	0.3962	6.92E-01	0.0061	0.0016	1.0146	0.0082	-0.0103	0.0056
Vitamin and mineral supplements: Multivitamins +/- minerals	European	0.0202	0.0593	0.3409	7.33E-01	0.0237	0.0017	1.0070	0.0074	0.0067	0.0053
Types of transport used (excluding work): Public transport	European	-0.0221	0.0673	-0.3280	7.43E-01	0.0223	0.0017	1.0252	0.0067	-0.0047	0.0057
Time spent using computer	European	-0.0138	0.0422	-0.3268	7.44E-01	0.0949	0.0043	1.0504	0.0105	-0.0023	0.0066
Handedness (chirality/laterality): Left-handed	European	-0.0287	0.0880	-0.3265	7.44E-01	0.0098	0.0017	1.0055	0.0073	-0.0013	0.0055
Diagnoses - main ICD10: D12 Benign neoplasm of colon rectum anus and anal canal	European	-0.0293	0.0915	-0.3197	7.49E-01	0.0085	0.0015	1.0042	0.0067	0.0091	0.0048
Underlying (primary) cause of death: ICD10: E85.4 Organ-limited amyloidosis	European	-0.0722	0.2802	-0.2575	7.97E-01	0.0429	0.0598	1.0028	0.0073	0.0098	0.0050
Non-cancer illness code self-reported: uterine fibroids	European	-0.0241	0.0961	-0.2506	8.02E-01	0.0069	0.0015	1.0090	0.0068	0.0008	0.0052
Ever had bowel cancer screening	European	0.0190	0.0763	0.2487	8.04E-01	0.0131	0.0016	1.0195	0.0073	0.0072	0.0057
Non-cancer illness code self-reported: glaucoma	European	0.0188	0.0790	0.2381	8.12E-01	0.0116	0.0017	1.0106	0.0079	-0.0049	0.0054
Potassium in urine	European	0.0123	0.0525	0.2334	8.15E-01	0.0431	0.0024	1.0152	0.0091	-0.0023	0.0058
Mineral and other dietary supplements: Calcium	European	-0.0164	0.0705	-0.2325	8.16E-01	0.0122	0.0016	0.9995	0.0070	-0.0004	0.0046
Non-cancer illness code self-reported: hyperthyroidism/ thyrotoxicosis	European	0.0214	0.0996	0.2153	8.30E-01	0.0087	0.0026	1.0062	0.0084	0.0002	0.0053

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Diagnoses - main ICD10: O75 Other complications of labour and delivery not elsewhere classified	European	-0.0307	0.1436	-0.2134	8.31E-01	0.0026	0.0012	0.9911	0.0056	-0.0009	0.0047
Non-cancer illness code self-reported: eczema/dermatitis	European	-0.0212	0.1015	-0.2094	8.34E-01	0.0083	0.0021	1.0154	0.0073	0.0052	0.0057
Doctor diagnosed hayfever or allergic rhinitis	European	-0.0109	0.0607	-0.1803	8.57E-01	0.0804	0.0092	1.0055	0.0084	0.0035	0.0051
Non-cancer illness code self-reported: osteoporosis	European	0.0153	0.0890	0.1717	8.64E-01	0.0147	0.0020	1.0019	0.0083	0.0061	0.0058
Non-cancer illness code self-reported: ankylosing spondylitis	European	0.0255	0.2001	0.1273	8.99E-01	0.0016	0.0015	1.0034	0.0070	0.0105	0.0051
Illness injury bereavement stress in last 2 years: Serious illness injury or assault of a close relative	European	0.0116	0.0957	0.1207	9.04E-01	0.0112	0.0017	1.0104	0.0073	0.0055	0.0058
Underlying (primary) cause of death: ICD10: J84.1 Other interstitial pulmonary diseases with fibrosis	European	0.0172	0.1515	0.1134	9.10E-01	0.1133	0.0611	0.9914	0.0064	-0.0040	0.0050
Cancer code self-reported: basal cell carcinoma	European	0.0084	0.0795	0.1056	9.16E-01	0.0103	0.0019	0.9981	0.0077	-0.0014	0.0053
Diagnoses - main ICD10: J33 Nasal polyp	European	-0.0108	0.1309	-0.0827	9.34E-01	0.0035	0.0015	1.0057	0.0075	0.0022	0.0051
Diagnoses - main ICD10: N19 Unspecified renal failure	European	-0.0121	0.1565	-0.0775	9.38E-01	0.0031	0.0013	0.9988	0.0068	-0.0004	0.0053
Non-cancer illness code self-reported: crohn's disease	European	0.0068	0.1258	0.0540	9.57E-01	0.0049	0.0015	1.0076	0.0068	0.0029	0.0056
Diagnoses - main ICD10: F31 Bipolar affective disorder	European	0.0052	0.1029	0.0506	9.60E-01	0.0051	0.0015	0.9860	0.0072	0.0025	0.0051
Diagnoses - main ICD10: S52 Fracture of forearm	European	0.0056	0.1303	0.0430	9.66E-01	0.0065	0.0018	0.9989	0.0074	-0.0044	0.0058
Trunk fat-free mass	European	0.0010	0.0305	0.0315	9.75E-01	0.2876	0.0136	1.1352	0.0331	0.0109	0.0077
Diagnoses - main ICD10: I48 Atrial fibrillation and flutter	European	0.0021	0.0778	0.0271	9.78E-01	0.0130	0.0020	1.0099	0.0080	0.0053	0.0050
Cancer code self-reported: malignant melanoma	European	0.0030	0.1151	0.0262	9.79E-01	0.0051	0.0017	0.9930	0.0066	-0.0063	0.0050
Trunk predicted mass	European	0.0008	0.0305	0.0250	9.80E-01	0.2860	0.0135	1.1346	0.0329	0.0108	0.0077
Diagnoses - main ICD10: S76 Injury of muscle and tendon at hip and thigh level	European	0.0027	0.1992	0.0137	9.89E-01	0.0013	0.0012	0.9993	0.0066	-0.0009	0.0048
Most recent bowel cancer screening	European	0.0004	0.1395	0.0026	9.98E-01	0.0116	0.0064	1.0119	0.0066	0.0037	0.0045

**eTable 6.** Genetic correlations for “prevalence” Design

All results from LDhub analyses. Trait= trait against which genetic correlation was calculated. PMID= PMID for publication that belongs to tested summary statistics. rG= genetic correlation. SE= standard error for genetic correlation. Z= Z-score. p= P-value for genetic correlation analysis. ethnicity= sample ethnicity for sample referenced in “Trait” column. h2\_obs= Heritability on the observed scale for sample referenced in “Trait”. se= standard errors for variable reported in the cell to the left (i.e. h2\_obs, ht\_int, gcov\_int). h2\_int= LD score intercept for sample referenced in “Trait”. gcov\_int= cross-trait LD Score regression intercept.

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Age of first birth	27798627	reproductive	-0.5374	0.0542	-9.9126	3.67E-23	European	0.0624	0.0036	0.9535	0.0083	-0.0020	0.0061
Depressive symptoms	27089181	psychiatric	0.7589	0.0838	9.0541	1.38E-19	European	0.0468	0.0040	1.0025	0.0076	-0.0026	0.0060
Years of schooling 2016	27225129	education	-0.3694	0.0409	-9.0409	1.55E-19	European	0.1247	0.0046	0.9381	0.0108	-0.0076	0.0064
Schizophrenia	25056061	psychiatric	0.3282	0.0452	7.2671	3.67E-13	Mixed	0.4529	0.0198	1.0610	0.0133	0.0073	0.0072
Intelligence	28530673	cognitive	-0.3014	0.0436	-6.9187	4.56E-12	European	0.1882	0.0106	1.0104	0.0088	0.0024	0.0049
PGC cross-disorder analysis	23453885	psychiatric	0.4379	0.0663	6.6056	3.96E-11	European	0.1715	0.0130	1.0156	0.0117	0.0038	0.0073
College completion	23722424	education	-0.3624	0.0588	-6.1629	7.14E-10	European	0.0785	0.0057	1.0230	0.0087	0.0022	0.0060
Insomnia	28604731	sleeping	0.4609	0.0771	5.9795	2.24E-09	European	0.0475	0.0051	1.0031	0.0070	-0.0017	0.0051
Subjective well being	27089181	psychiatric	-0.4389	0.0744	-5.8980	3.68E-09	European	0.0248	0.0020	1.0031	0.0073	0.0005	0.0058
Years of schooling (proxy cognitive performance)	25201988	education	-0.3390	0.0577	-5.8696	4.37E-09	European	0.1059	0.0076	1.0287	0.0093	-0.0069	0.0061
Major depressive disorder	22472876	psychiatric	0.6075	0.1047	5.8016	6.57E-09	European	0.1508	0.0263	1.0137	0.0065	0.0035	0.0055
Years of schooling 2013	23722424	education	-0.3461	0.0598	-5.7874	7.15E-09	European	0.0836	0.0062	1.0207	0.0091	-0.0047	0.0063
Neuroticism	27089181	personality	0.4972	0.0940	5.2889	1.23E-07	European	0.0896	0.0082	0.9886	0.0134	0.0004	0.0075
Number of children ever born	27798627	reproductive	0.3328	0.0653	5.0994	3.41E-07	European	0.0254	0.0019	0.9718	0.0072	-0.0124	0.0053
Insomnia	27992416	sleeping	0.3858	0.0777	4.9630	6.94E-07	European	0.1341	0.0118	1.0019	0.0081	-0.0001	0.0057
Ever vs never smoked	20418890	smoking behaviour	0.3246	0.0721	4.5053	6.63E-06	European	0.0726	0.0067	1.0005	0.0062	0.0019	0.0049
Cigarettes smoked per day	20418890	smoking behaviour	0.4714	0.1066	4.4239	9.69E-06	European	0.0576	0.0155	1.0063	0.0068	-0.0031	0.0047
Mothers age at death	27015805	aging	-0.4738	0.1116	-4.2455	2.18E-05	European	0.0375	0.0071	1.0100	0.0072	0.0022	0.0054
Childhood IQ	23358156	education	-0.3863	0.0943	-4.0953	4.22E-05	European	0.2722	0.0453	1.0025	0.0093	-0.0047	0.0061
Age at Menarche	25231870	reproductive	-0.1860	0.0456	-4.0786	4.53E-05	European	0.2057	0.0105	0.9457	0.0120	0.0016	0.0068
Neuroticism	24828478	personality	0.5151	0.1288	3.9998	6.34E-05	European	0.0131	0.0033	1.0142	0.0070	0.0010	0.0048

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Coronary artery disease	26343387	cardiometabolic	0.1772	0.0448	3.9567	7.60E-05	Mixed	0.0782	0.0057	1.0484	0.0096	0.0108	0.0054
Overweight	23563607	anthropometric	0.1998	0.0506	3.9453	7.97E-05	European	0.1097	0.0067	1.0242	0.0098	-0.0067	0.0061
Lung cancer	27488534	cancer	0.3578	0.0935	3.8254	1.00E-04	European	0.3204	0.0675	1.0132	0.0082	-0.0054	0.0054
Lung cancer (all)	24880342	cancer	0.3811	0.0996	3.8270	1.00E-04	European	0.1273	0.0307	1.0079	0.0082	-0.0031	0.0051
Body fat	26833246	anthropometric	0.2268	0.0609	3.7216	2.00E-04	Mixed	0.1075	0.0083	0.9040	0.0069	-0.0050	0.0056
Body mass index	20935630	anthropometric	0.1507	0.0403	3.7419	2.00E-04	European	0.1904	0.0095	1.0091	0.0106	0.0050	0.0064
Obesity class 3	23563607	anthropometric	0.2765	0.0744	3.7146	2.00E-04	European	0.1219	0.0150	0.9798	0.0095	0.0003	0.0066
Excessive daytime sleepiness	27992416	sleeping	0.2462	0.0694	3.5463	4.00E-04	European	0.0536	0.0049	1.0039	0.0072	-0.0020	0.0055
Obesity class 1	23563607	anthropometric	0.1660	0.0465	3.5689	4.00E-04	European	0.2171	0.0123	1.0186	0.0108	0.0075	0.0068
Obesity class 2	23563607	anthropometric	0.1966	0.0555	3.5431	4.00E-04	European	0.1835	0.0134	1.0033	0.0102	0.0055	0.0072
Bipolar disorder	21926972	psychiatric	0.2403	0.0692	3.4742	5.00E-04	European	0.4177	0.0390	1.0281	0.0084	-0.0001	0.0051
Waist-to-hip ratio	25673412	anthropometric	0.1565	0.0449	3.4884	5.00E-04	European	0.1140	0.0073	0.9183	0.0095	0.0083	0.0055
Parents age at death	27015805	aging	-0.3660	0.1115	-3.2835	1.00E-03	European	0.0303	0.0070	1.0140	0.0067	0.0038	0.0048
Fathers age at death	27015805	aging	-0.3199	0.1000	-3.1984	1.40E-03	European	0.0394	0.0067	1.0188	0.0069	-0.0036	0.0054
Attention deficit hyperactivity disorder (GC)	27663945	psychiatric	0.5288	0.1678	3.1508	1.60E-03	European	0.0790	0.0292	0.9906	0.0076	0.0063	0.0055
Attention deficit hyperactivity disorder (No GC)	27663945	psychiatric	0.5267	0.1670	3.1539	1.60E-03	European	0.0800	0.0295	1.0053	0.0077	0.0064	0.0055
Squamous cell lung cancer	27488534	cancer	0.4491	0.1462	3.0725	2.10E-03	European	0.0376	0.0123	1.0118	0.0066	-0.0078	0.0050
Lung cancer (squamous cell)	24880342	cancer	0.5341	0.1749	3.0531	2.30E-03	European	0.0495	0.0199	1.0073	0.0070	-0.0093	0.0051
Extreme BMI	23563607	anthropometric	0.1725	0.0568	3.0380	2.40E-03	European	0.6887	0.0557	1.0310	0.0122	-0.0043	0.0072
Childhood obesity	22484627	anthropometric	0.1819	0.0608	2.9920	2.80E-03	European	0.4231	0.0440	0.9240	0.0076	-0.0001	0.0049
Attention deficit hyperactivity disorder	20732625	psychiatric	0.4651	0.1672	2.7822	5.40E-03	European	0.2231	0.0951	1.0091	0.0068	-0.0082	0.0046
Age at Menopause	26414677	reproductive	-0.1574	0.0579	-2.7180	6.60E-03	European	0.1350	0.0158	0.9913	0.0141	0.0036	0.0055
Height_2010	20881960	anthropometric	-0.1019	0.0377	-2.7068	6.80E-03	European	0.2874	0.0165	1.0145	0.0192	-0.0126	0.0070
Waist circumference	25673412	anthropometric	0.1025	0.0407	2.5166	1.18E-02	European	0.1214	0.0051	0.8447	0.0085	0.0095	0.0053
Asthma	17611496	autoimmune	0.2259	0.0943	2.3966	1.65E-02	European	0.1243	0.0296	1.0069	0.0094	0.0028	0.0056
Total lipids in small HDL	27005778	metabolites	0.3427	0.1498	2.2872	2.22E-02	European	0.0515	0.0271	1.0036	0.0078	-0.0018	0.0045
Extreme height	23563607	anthropometric	-0.1143	0.0515	-2.2203	2.64E-02	European	1.2504	0.1062	1.0303	0.0181	-0.0018	0.0080
Anorexia Nervosa	24514567	psychiatric	0.1212	0.0552	2.1978	2.80E-02	European	0.5255	0.0299	0.9088	0.0071	0.0089	0.0054
Child birth weight	23202124	anthropometric	-0.1720	0.0810	-2.1223	3.38E-02	European	0.1138	0.0179	1.0037	0.0057	0.0003	0.0043
Extreme waist-to-hip ratio	23563607	anthropometric	0.1976	0.0958	2.0615	3.93E-02	European	0.3569	0.0595	0.9778	0.0085	-0.0063	0.0067

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Multiple sclerosis	21833088	autoimmune	0.3455	0.1769	1.9537	5.07E-02	European	0.0583	0.0279	1.0582	0.0089	-0.0039	0.0058
Glycoprotein acetyls; mainly a1-acid glycoprotein	27005778	metabolites	0.2190	0.1130	1.9385	5.26E-02	European	0.1060	0.0295	0.9834	0.0067	0.0018	0.0048
Mean platelet volume	22139419	haematological	0.1267	0.0676	1.8730	6.11E-02	European	0.3185	0.0505	0.9819	0.0102	-0.0083	0.0054
Lung adenocarcinoma	27488534	cancer	0.2578	0.1399	1.8426	6.54E-02	European	0.0313	0.0121	1.0192	0.0069	-0.0006	0.0050
Neo-openness to experience	21173776	personality	0.2110	0.1179	1.7895	7.35E-02	European	0.1040	0.0273	0.9926	0.0070	-0.0100	0.0054
Former vs Current smoker	20418890	smoking behaviour	-0.1901	0.1070	-1.7760	7.57E-02	European	0.0585	0.0109	1.0047	0.0069	-0.0091	0.0052
Eczema	26482879	autoimmune	-0.1737	0.0983	-1.7669	7.72E-02	Mixed	0.0680	0.0153	1.0236	0.0075	0.0234	0.0050
Forced expiratory volume in 1 second (FEV1)	26635082	lung function	-0.1145	0.0660	-1.7343	8.29E-02	European	0.1430	0.0158	0.9900	0.0070	-0.0021	0.0050
Acetoacetate	27005778	metabolites	0.1965	0.1171	1.6782	9.33E-02	European	0.0818	0.0296	0.9767	0.0073	0.0032	0.0047
Amyotrophic lateral sclerosis	27455348	neurological	0.2097	0.1258	1.6666	9.56E-02	European	0.0486	0.0129	0.9952	0.0067	0.0008	0.0050
Primary sclerosing cholangitis	27992413	autoimmune	-0.1071	0.0646	-1.6587	9.72E-02	Mixed	0.3953	0.1622	0.9947	0.0164	-0.0052	0.0058
Total cholesterol in very large HDL	27005778	metabolites	-0.2971	0.1815	-1.6369	1.02E-01	European	0.0363	0.0224	1.0121	0.0122	0.0052	0.0047
Neo-conscientiousness	21173776	personality	-0.2735	0.1691	-1.6175	1.06E-01	European	0.0685	0.0302	1.0021	0.0070	0.0063	0.0051
Triglycerides	20686565	lipids	0.0938	0.0591	1.5885	1.12E-01	European	0.1692	0.0300	0.9671	0.0172	0.0088	0.0065
Free cholesterol in very large HDL	27005778	metabolites	-0.2427	0.1529	-1.5868	1.13E-01	European	0.0473	0.0246	1.0151	0.0148	0.0030	0.0047
Mean diameter for HDL particles	27005778	metabolites	-0.1665	0.1086	-1.5327	1.25E-01	European	0.1146	0.0292	1.0103	0.0208	0.0029	0.0046
Total lipids in very large HDL	27005778	metabolites	-0.2227	0.1498	-1.4870	1.37E-01	European	0.0587	0.0274	1.0169	0.0160	0.0039	0.0049
Leptin_not_adjBMI	26833098	hormone	0.1459	0.0989	1.4760	1.40E-01	European	0.0951	0.0163	0.9969	0.0068	-0.0008	0.0053
18: 2 linoleic acid (LA)	27005778	metabolites	-0.1531	0.1086	-1.4097	1.59E-01	European	0.1301	0.0501	1.0024	0.0098	0.0114	0.0046
22: 6 docosahexaenoic acid	27005778	metabolites	-0.1475	0.1054	-1.3999	1.62E-01	European	0.1383	0.0382	0.9937	0.0079	0.0044	0.0047
Glucose	27005778	metabolites	0.1342	0.0980	1.3689	1.71E-01	European	0.0881	0.0225	0.9946	0.0068	-0.0048	0.0047
Phospholipids in medium LDL	27005778	metabolites	0.1667	0.1227	1.3579	1.75E-01	European	0.0713	0.0394	1.0093	0.0176	0.0012	0.0047
Description of average fatty acid chain length; not actual carbon number	27005778	metabolites	-0.1679	0.1272	-1.3205	1.87E-01	European	0.1128	0.0378	0.9796	0.0076	0.0056	0.0051
Sleep duration	27494321	sleeping	-0.1009	0.0776	-1.3007	1.93E-01	European	0.0547	0.0052	1.0221	0.0081	-0.0067	0.0056
Tyrosine	27005778	metabolites	0.1483	0.1162	1.2761	2.02E-01	European	0.0745	0.0280	0.9993	0.0074	-0.0070	0.0047

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Serum creatinine (non-diabetes)	26831199	kidney	0.0672	0.0527	1.2758	2.02E-01	Mixed	0.1148	0.0111	0.9789	0.0146	0.0015	0.0062
HDL cholesterol	20686565	lipids	-0.0665	0.0529	-1.2583	2.08E-01	European	0.1256	0.0246	1.0621	0.0527	-0.0054	0.0056
Phospholipids in chylomicrons and largest VLDL particles	27005778	metabolites	0.1189	0.0946	1.2570	2.09E-01	European	0.1080	0.0264	0.9801	0.0065	0.0018	0.0052
Phospholipids in very large HDL	27005778	metabolites	-0.1457	0.1182	-1.2323	2.18E-01	European	0.0864	0.0293	1.0100	0.0185	0.0005	0.0047
Average number of methylene groups per a double bond	27005778	metabolites	0.1077	0.0876	1.2304	2.19E-01	European	0.2049	0.0750	0.9946	0.0087	-0.0002	0.0045
Heart rate	23583979	haematological	0.0783	0.0641	1.2200	2.23E-01	Mixed	0.0844	0.0098	1.0126	0.0091	0.0021	0.0052
Ratio of bisallylic groups to total fatty acids	27005778	metabolites	-0.0973	0.0800	-1.2168	2.24E-01	European	0.2809	0.0921	0.9840	0.0089	-0.0016	0.0048
Citrate	27005778	metabolites	-0.1625	0.1365	-1.1906	2.34E-01	European	0.0651	0.0226	1.0150	0.0076	-0.0017	0.0048
Lumbar spine bone mineral density	22504420	bone	0.0677	0.0577	1.1725	2.41E-01	Mixed	0.2670	0.0257	1.0154	0.0094	-0.0058	0.0049
Forced Vital capacity (FVC)	28166213	lung function	-0.0646	0.0553	-1.1672	2.43E-01	European	0.2586	0.0158	0.9785	0.0080	0.0004	0.0054
Autism spectrum disorder	0	psychiatric	0.1115	0.0973	1.1449	2.52E-01	European	0.3875	0.0534	0.9800	0.0074	0.0037	0.0053
Serum creatinine	26831199	kidney	0.0582	0.0513	1.1339	2.57E-01	Mixed	0.1070	0.0097	0.9769	0.0149	0.0037	0.0062
2hr glucose adjusted for BMI	20081857	glycemic	0.1425	0.1266	1.1252	2.61E-01	European	0.0980	0.0348	0.9950	0.0071	-0.0054	0.0054
Height; Females at age 10 and males at age 12	23449627	anthropometric	-0.0708	0.0630	-1.1245	2.61E-01	European	0.4244	0.0473	0.9544	0.0080	0.0043	0.0054
Total cholesterol in large HDL	27005778	metabolites	-0.1159	0.1046	-1.1078	2.68E-01	European	0.1041	0.0260	1.0069	0.0152	-0.0005	0.0045
Ulcerative colitis	26192919	autoimmune	-0.0734	0.0667	-1.1010	2.71E-01	European	0.2503	0.0336	1.0519	0.0112	0.0112	0.0055
Crohn's disease	26192919	autoimmune	-0.0619	0.0576	-1.0745	2.83E-01	European	0.4949	0.0571	1.0261	0.0113	0.0155	0.0052
Phospholipids in large LDL	27005778	metabolites	0.1465	0.1369	1.0699	2.85E-01	European	0.0580	0.0410	1.0195	0.0196	0.0042	0.0048
Total cholesterol in medium LDL	27005778	metabolites	0.1374	0.1285	1.0691	2.85E-01	European	0.0670	0.0430	1.0138	0.0201	0.0013	0.0048
Inflammatory Bowel Disease (Euro)	26192919	autoimmune	-0.0560	0.0532	-1.0522	2.93E-01	European	0.3302	0.0346	1.0564	0.0113	0.0127	0.0055
Fasting proinsulin	20081858	glycemic	0.1047	0.1022	1.0252	3.05E-01	European	0.2008	0.0899	0.9784	0.0105	-0.0046	0.0052
Urate	23263486	other	0.0557	0.0548	1.0171	3.09E-01	European	0.1787	0.0610	0.9482	0.0545	-0.0021	0.0059
Forced Vital capacity (FVC)	26635082	lung function	-0.0722	0.0725	-0.9951	3.20E-01	European	0.1450	0.0157	0.9869	0.0070	-0.0020	0.0054
Forced expiratory volume in 1 second (FEV1)	28166213	lung function	-0.0581	0.0588	-0.9871	3.24E-01	European	0.2639	0.0171	0.9723	0.0077	-0.0018	0.0057
Triglycerides in small HDL	27005778	metabolites	0.1307	0.1328	0.9839	3.25E-01	European	0.0638	0.0275	0.9999	0.0089	0.0085	0.0047



Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Albumin	27005778	metabolites	0.1415	0.1439	0.9833	3.26E-01	European	0.0636	0.0256	0.9884	0.0073	0.0042	0.0047
Concentration of medium LDL particles	27005778	metabolites	0.1172	0.1199	0.9774	3.28E-01	European	0.0773	0.0455	1.0126	0.0184	0.0045	0.0047
Concentration of medium HDL particles	27005778	metabolites	0.1286	0.1319	0.9746	3.30E-01	European	0.0676	0.0253	0.9934	0.0078	0.0012	0.0046
HbA1C	20858683	glycemic	0.0856	0.0903	0.9478	3.43E-01	European	0.0637	0.0119	1.0005	0.0073	-0.0034	0.0051
Age of smoking initiation	20418890	smoking behaviour	-0.1250	0.1337	-0.9348	3.50E-01	European	0.0649	0.0187	0.9983	0.0062	-0.0096	0.0049
Total lipids in medium HDL	27005778	metabolites	0.1310	0.1403	0.9342	3.50E-01	European	0.0630	0.0255	0.9953	0.0081	0.0002	0.0046
Total Cholesterol	20686565	lipids	0.0492	0.0531	0.9269	3.54E-01	European	0.1339	0.0247	1.0216	0.0371	0.0055	0.0059
Total cholesterol in LDL	27005778	metabolites	0.1188	0.1296	0.9166	3.59E-01	European	0.0663	0.0463	1.0148	0.0215	0.0030	0.0050
Alzheimer's disease	24162737	neurological	-0.0966	0.1071	-0.9022	3.67E-01	European	0.0406	0.0232	1.0706	0.0330	0.0107	0.0051
Concentration of large VLDL particles	27005778	metabolites	0.0821	0.0913	0.8993	3.69E-01	European	0.1395	0.0339	0.9711	0.0073	0.0029	0.0048
Cholesterol esters in medium HDL	27005778	metabolites	0.1420	0.1584	0.8965	3.70E-01	European	0.0546	0.0280	1.0003	0.0088	-0.0034	0.0047
Concentration of large LDL particles	27005778	metabolites	0.1115	0.1255	0.8886	3.74E-01	European	0.0718	0.0470	1.0173	0.0197	0.0042	0.0047
Total lipids in medium LDL	27005778	metabolites	0.1051	0.1184	0.8872	3.75E-01	European	0.0787	0.0462	1.0110	0.0189	0.0047	0.0048
Total cholesterol in large LDL	27005778	metabolites	0.1172	0.1325	0.8845	3.76E-01	European	0.0614	0.0432	1.0168	0.0208	0.0036	0.0050
Concentration of very large HDL particles	27005778	metabolites	-0.1193	0.1355	-0.8804	3.79E-01	European	0.0605	0.0263	1.0040	0.0165	-0.0003	0.0046
Rheumatoid Arthritis	24390342	autoimmune	0.0454	0.0527	0.8626	3.88E-01	European	0.1564	0.0301	1.0278	0.0183	0.0183	0.0050
Total lipids in large LDL	27005778	metabolites	0.1074	0.1260	0.8522	3.94E-01	European	0.0716	0.0482	1.0159	0.0203	0.0038	0.0048
Free cholesterol in large HDL	27005778	metabolites	-0.0860	0.1027	-0.8379	4.02E-01	European	0.1061	0.0268	1.0083	0.0152	-0.0019	0.0046
Cholesterol esters in medium LDL	27005778	metabolites	0.1010	0.1207	0.8373	4.02E-01	European	0.0777	0.0466	1.0112	0.0193	0.0044	0.0048
Phospholipids in very small VLDL	27005778	metabolites	0.0954	0.1141	0.8367	4.03E-01	European	0.0819	0.0375	1.0157	0.0156	0.0041	0.0044
LDL cholesterol	20686565	lipids	0.0518	0.0626	0.8268	4.08E-01	European	0.1023	0.0295	1.0544	0.0514	0.0043	0.0058
Cholesterol esters in large LDL	27005778	metabolites	0.1035	0.1256	0.8244	4.10E-01	European	0.0732	0.0480	1.0136	0.0203	0.0034	0.0048
Serumurate overweight	25811787	uric_acid	0.0697	0.0849	0.8218	4.11E-01	European	0.5210	0.2265	0.9697	0.0211	-0.0018	0.0050
Triglycerides in very small VLDL	27005778	metabolites	0.0749	0.0920	0.8133	4.16E-01	European	0.1383	0.0373	0.9980	0.0102	0.0090	0.0046

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Total lipids in small LDL	27005778	metabolites	0.0888	0.1098	0.8088	4.19E-01	European	0.0852	0.0423	1.0087	0.0159	0.0059	0.0048
Omega-3 fatty acids	27005778	metabolites	-0.0862	0.1070	-0.8062	4.20E-01	European	0.1524	0.0436	0.9918	0.0081	0.0025	0.0052
Phospholipids in small VLDL	27005778	metabolites	0.0763	0.0949	0.8045	4.21E-01	European	0.1111	0.0354	1.0006	0.0088	0.0077	0.0046
Free cholesterol	27005778	metabolites	-0.1233	0.1547	-0.7973	4.25E-01	European	0.0712	0.0417	1.0225	0.0109	0.0111	0.0048
Triglycerides in IDL	27005778	metabolites	0.0830	0.1048	0.7921	4.28E-01	European	0.1037	0.0345	1.0115	0.0157	0.0088	0.0044
Serum cystatin c	26831199	kidney	-0.0565	0.0717	-0.7881	4.31E-01	Mixed	0.1698	0.0678	0.9612	0.0148	-0.0019	0.0056
HOMA-B	20081858	glycemic	-0.0813	0.1035	-0.7854	4.32E-01	European	0.0870	0.0139	0.9918	0.0068	0.0078	0.0056
Concentration of IDL particles	27005778	metabolites	0.0942	0.1236	0.7623	4.46E-01	European	0.0721	0.0407	1.0192	0.0171	0.0046	0.0046
Free cholesterol in small VLDL	27005778	metabolites	0.0764	0.1003	0.7616	4.46E-01	European	0.1085	0.0336	1.0011	0.0088	0.0086	0.0048
Concentration of small LDL particles	27005778	metabolites	0.0795	0.1050	0.7576	4.49E-01	European	0.0934	0.0412	1.0074	0.0146	0.0067	0.0047
Cholesterol esters in large HDL	27005778	metabolites	-0.0781	0.1033	-0.7562	4.50E-01	European	0.1210	0.0290	1.0016	0.0150	-0.0013	0.0046
Phospholipids in very large VLDL	27005778	metabolites	0.0675	0.0894	0.7550	4.50E-01	European	0.1144	0.0281	0.9822	0.0068	0.0040	0.0048
Free cholesterol in large LDL	27005778	metabolites	0.0987	0.1308	0.7543	4.51E-01	European	0.0598	0.0445	1.0190	0.0216	0.0035	0.0050
Phospholipids in IDL	27005778	metabolites	0.1052	0.1399	0.7523	4.52E-01	European	0.0569	0.0389	1.0226	0.0180	0.0060	0.0047
Difference in height between childhood and adulthood; age 8	23449627	anthropometric	-0.0754	0.1005	-0.7506	4.53E-01	European	0.3367	0.0503	0.9714	0.0077	-0.0043	0.0063
Ratio of bisallylic groups to double bonds	27005778	metabolites	-0.0561	0.0750	-0.7481	4.54E-01	European	0.3009	0.1003	0.9760	0.0101	-0.0046	0.0047
Type 2 Diabetes	22885922	glycemic	-0.0490	0.0655	-0.7480	4.54E-01	European	0.0891	0.0097	1.0066	0.0077	0.0236	0.0050
Forearm Bone mineral density	26367794	bone	0.1130	0.1558	0.7253	4.68E-01	Mixed	0.0809	0.0441	1.0128	0.0071	-0.0082	0.0049
Apolipoprotein B	27005778	metabolites	0.0783	0.1099	0.7122	4.76E-01	European	0.0854	0.0388	1.0074	0.0140	0.0077	0.0048
Concentration of medium VLDL particles	27005778	metabolites	0.0621	0.0873	0.7113	4.77E-01	European	0.1501	0.0350	0.9804	0.0076	0.0055	0.0046
Phenylalanine	27005778	metabolites	0.0994	0.1410	0.7048	4.81E-01	European	0.0567	0.0226	1.0032	0.0072	0.0056	0.0050
Chronic Kidney Disease	26831199	kidney	-0.0770	0.1106	-0.6962	4.86E-01	Mixed	0.0186	0.0057	1.0154	0.0096	0.0184	0.0056
Femoral neck bone mineral density	22504420	bone	0.0377	0.0543	0.6945	4.87E-01	Mixed	0.3038	0.0254	0.9800	0.0085	0.0004	0.0054
Serum total cholesterol	27005778	metabolites	0.0911	0.1329	0.6854	4.93E-01	European	0.0622	0.0376	1.0230	0.0144	0.0063	0.0049
Ferritin	25352340	metal	-0.0761	0.1124	-0.6770	4.98E-01	European	0.0921	0.0266	1.0273	0.0095	0.0045	0.0061
Total lipids in IDL	27005778	metabolites	0.0844	0.1247	0.6767	4.99E-01	European	0.0705	0.0423	1.0201	0.0178	0.0042	0.0046

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Serum total triglycerides	27005778	metabolites	0.0579	0.0873	0.6632	5.07E-01	European	0.1298	0.0361	0.9899	0.0078	0.0103	0.0049
Platelet count	22139419	haematological	-0.0348	0.0527	-0.6613	5.08E-01	European	0.1196	0.0115	0.9856	0.0094	0.0060	0.0045
Valine	27005778	metabolites	0.0840	0.1287	0.6525	5.14E-01	European	0.0646	0.0205	1.0130	0.0076	-0.0032	0.0054
Total cholesterol in small VLDL	27005778	metabolites	0.0728	0.1119	0.6505	5.15E-01	European	0.0867	0.0324	1.0071	0.0097	0.0069	0.0047
Forced expiratory volume in 1 second (FEV1)/ Forced Vital capacity (FVC)	26635082	lung function	-0.0508	0.0782	-0.6492	5.16E-01	European	0.1165	0.0150	0.9793	0.0069	-0.0012	0.0048
Concentration of small VLDL particles	27005778	metabolites	0.0567	0.0878	0.6452	5.19E-01	European	0.1512	0.0377	0.9896	0.0084	0.0077	0.0047
Total lipids in chylomicrons and largest VLDL particles	27005778	metabolites	0.0616	0.0971	0.6342	5.26E-01	European	0.1329	0.0280	0.9849	0.0068	0.0012	0.0051
Concentration of very large VLDL particles	27005778	metabolites	0.0629	0.0994	0.6331	5.27E-01	European	0.1335	0.0305	0.9802	0.0075	0.0027	0.0051
Triglycerides in small VLDL	27005778	metabolites	0.0600	0.0950	0.6321	5.27E-01	European	0.1221	0.0356	0.9930	0.0078	0.0097	0.0049
Omega-9 and saturated fatty acids	27005778	metabolites	0.0856	0.1369	0.6254	5.32E-01	European	0.0962	0.0448	0.9932	0.0082	0.0072	0.0048
Alanine	27005778	metabolites	0.0634	0.1022	0.6206	5.35E-01	European	0.0973	0.0275	1.0058	0.0075	-0.0024	0.0051
Triglycerides in large VLDL	27005778	metabolites	0.0550	0.0901	0.6098	5.42E-01	European	0.1180	0.0288	0.9862	0.0069	0.0067	0.0050
Adiponectin	22479202	cardiometabolic	0.0519	0.0853	0.6088	5.43E-01	Mixed	0.1222	0.0264	1.0213	0.0135	-0.0069	0.0050
Free cholesterol in IDL	27005778	metabolites	0.0773	0.1277	0.6057	5.45E-01	European	0.0676	0.0384	1.0214	0.0183	0.0048	0.0048
Total lipids in large VLDL	27005778	metabolites	0.0527	0.0896	0.5883	5.56E-01	European	0.1449	0.0299	0.9832	0.0068	0.0043	0.0049
Total lipids in small VLDL	27005778	metabolites	0.0533	0.0908	0.5866	5.58E-01	European	0.1444	0.0385	0.9917	0.0084	0.0074	0.0047
Total cholesterol in IDL	27005778	metabolites	0.0745	0.1280	0.5819	5.61E-01	European	0.0679	0.0443	1.0200	0.0188	0.0034	0.0048
Total cholesterol in HDL	27005778	metabolites	-0.0612	0.1066	-0.5745	5.66E-01	European	0.0967	0.0257	1.0051	0.0124	0.0006	0.0046
Phospholipids in large VLDL	27005778	metabolites	0.0525	0.0914	0.5744	5.66E-01	European	0.1203	0.0314	0.9879	0.0069	0.0073	0.0049
Hip circumference	25673412	anthropometric	0.0239	0.0419	0.5700	5.69E-01	European	0.1272	0.0059	0.8609	0.0085	0.0074	0.0053
Forced expiratory volume in 1 second (FEV1)/ Forced Vital capacity (FVC)	21946350	lung function	-0.0400	0.0704	-0.5684	5.70E-01	European	0.1242	0.0137	0.9281	0.0081	0.0045	0.0053
Acetate	27005778	metabolites	-0.0749	0.1327	-0.5643	5.73E-01	European	0.0512	0.0185	1.0036	0.0071	0.0030	0.0049
Free cholesterol in medium VLDL	27005778	metabolites	0.0508	0.0910	0.5579	5.77E-01	European	0.1155	0.0336	0.9939	0.0073	0.0080	0.0049
Sitting height ratio	25865494	anthropometric	-0.0428	0.0780	-0.5489	5.83E-01	European	0.2253	0.0280	0.9784	0.0075	0.0018	0.0058

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Total lipids in medium VLDL	27005778	metabolites	0.0487	0.0887	0.5487	5.83E-01	European	0.1444	0.0347	0.9841	0.0073	0.0062	0.0049
Mono-unsaturated fatty acids	27005778	metabolites	0.0703	0.1284	0.5474	5.84E-01	European	0.1137	0.0444	0.9855	0.0082	0.0083	0.0050
Femoral Neck bone mineral density	26367794	bone	-0.0390	0.0726	-0.5379	5.91E-01	Mixed	0.1241	0.0149	0.9774	0.0083	0.0003	0.0055
Total lipids in large HDL	27005778	metabolites	-0.0520	0.1003	-0.5181	6.04E-01	European	0.1294	0.0297	1.0010	0.0160	-0.0010	0.0046
Lumbar Spine bone mineral density	26367794	bone	0.0355	0.0688	0.5160	6.06E-01	Mixed	0.1274	0.0163	0.9806	0.0086	-0.0047	0.0052
Triglycerides in medium VLDL	27005778	metabolites	0.0493	0.0977	0.5044	6.14E-01	European	0.1007	0.0298	0.9973	0.0068	0.0081	0.0050
Concentration of very small VLDL particles	27005778	metabolites	0.0503	0.1007	0.4990	6.18E-01	European	0.1135	0.0366	1.0058	0.0127	0.0080	0.0044
Birth weight	27680694	anthropometric	-0.0244	0.0489	-0.4986	6.18E-01	European	0.1009	0.0072	1.0455	0.0104	-0.0011	0.0056
Forced expiratory volume in 1 second (FEV1)	21946350	lung function	-0.0407	0.0836	-0.4864	6.27E-01	European	0.1745	0.0226	0.8791	0.0125	-0.0157	0.0086
Phospholipids in medium VLDL	27005778	metabolites	0.0431	0.0924	0.4664	6.41E-01	European	0.1132	0.0334	0.9958	0.0073	0.0095	0.0049
Isoleucine	27005778	metabolites	0.0589	0.1264	0.4662	6.41E-01	European	0.0681	0.0241	0.9960	0.0072	-0.0011	0.0055
Average number of double bonds in a fatty acid chain	27005778	metabolites	-0.0418	0.0935	-0.4471	6.55E-01	European	0.1764	0.0527	1.0001	0.0083	-0.0011	0.0049
Fasting glucose main effect	22581228	glycemic	0.0330	0.0747	0.4413	6.59E-01	European	0.0978	0.0192	0.9989	0.0102	0.0034	0.0050
Leucine	27005778	metabolites	0.0650	0.1502	0.4325	6.65E-01	European	0.0463	0.0216	1.0085	0.0070	-0.0015	0.0052
Free cholesterol in medium HDL	27005778	metabolites	0.0542	0.1277	0.4243	6.71E-01	European	0.0694	0.0232	0.9965	0.0084	0.0022	0.0047
Concentration of chylomicrons and largest VLDL particles	27005778	metabolites	0.0422	0.1007	0.4192	6.75E-01	European	0.1218	0.0282	0.9862	0.0072	0.0069	0.0049
Concentration of large HDL particles	27005778	metabolites	-0.0417	0.0996	-0.4188	6.75E-01	European	0.1321	0.0297	0.9995	0.0164	-0.0006	0.0046
Infant head circumference	22504419	anthropometric	-0.0401	0.0999	-0.4017	6.88E-01	European	0.2212	0.0440	0.9924	0.0069	-0.0115	0.0048
Apolipoprotein A-I	27005778	metabolites	-0.0471	0.1231	-0.3828	7.02E-01	European	0.0806	0.0269	1.0025	0.0110	0.0069	0.0047
Total lipids in very small VLDL	27005778	metabolites	0.0371	0.1031	0.3602	7.19E-01	European	0.1042	0.0363	1.0102	0.0130	0.0068	0.0044
Triglycerides in very large VLDL	27005778	metabolites	0.0304	0.0853	0.3570	7.21E-01	European	0.1309	0.0294	0.9761	0.0068	0.0067	0.0048
Mean diameter for VLDL particles	27005778	metabolites	0.0317	0.0932	0.3407	7.33E-01	European	0.1361	0.0338	0.9896	0.0088	0.0022	0.0050
Triglycerides in chylomicrons and largest VLDL particles	27005778	metabolites	0.0327	0.0962	0.3394	7.34E-01	European	0.1020	0.0273	0.9859	0.0070	0.0079	0.0050

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Total cholesterol in medium HDL	27005778	metabolites	0.0487	0.1466	0.3324	7.40E-01	European	0.0554	0.0251	0.9983	0.0091	0.0005	0.0047
Mean diameter for LDL particles	27005778	metabolites	-0.0432	0.1349	-0.3205	7.49E-01	European	0.0543	0.0252	0.9977	0.0120	-0.0022	0.0045
Total cholesterol in medium VLDL	27005778	metabolites	0.0285	0.0890	0.3201	7.49E-01	European	0.1258	0.0355	0.9917	0.0081	0.0083	0.0048
Cholesterol esters in large VLDL	27005778	metabolites	0.0247	0.0832	0.2971	7.66E-01	European	0.1707	0.0345	0.9753	0.0070	0.0043	0.0047
Total lipids in very large VLDL	27005778	metabolites	0.0262	0.0882	0.2970	7.67E-01	European	0.1491	0.0302	0.9735	0.0069	0.0046	0.0047
Primary biliary cirrhosis	26394269	autoimmune	-0.0245	0.0842	-0.2914	7.71E-01	European	0.3789	0.0647	1.0032	0.0100	0.0173	0.0060
Phospholipids in medium HDL	27005778	metabolites	0.0343	0.1218	0.2816	7.78E-01	European	0.0707	0.0229	0.9934	0.0080	0.0046	0.0046
Forced expiratory volume in 1 second (FEV1)/ Forced Vital capacity (FVC)	28166213	lung function	0.0171	0.0607	0.2815	7.78E-01	European	0.2575	0.0211	0.9743	0.0096	-0.0114	0.0057
Total cholesterol in small LDL	27005778	metabolites	0.0304	0.1173	0.2592	7.96E-01	European	0.0688	0.0417	1.0167	0.0174	0.0067	0.0048
Urinary albumin-to-creatinine ratio	26631737	kidney	0.0227	0.0878	0.2583	7.96E-01	European	0.0463	0.0091	0.9953	0.0074	0.0026	0.0052
Phospholipids in large HDL	27005778	metabolites	-0.0259	0.1005	-0.2573	7.97E-01	European	0.1280	0.0300	0.9979	0.0152	-0.0011	0.0047
Urinary albumin-to-creatinine ratio (non-diabetes)	26631737	kidney	0.0228	0.0903	0.2530	8.00E-01	European	0.0529	0.0106	0.9952	0.0073	0.0000	0.0051
HOMA-IR	20081858	glycemic	-0.0266	0.1055	-0.2522	8.01E-01	European	0.0693	0.0125	1.0024	0.0067	0.0097	0.0051
Free cholesterol in large VLDL	27005778	metabolites	0.0201	0.0853	0.2356	8.14E-01	European	0.1313	0.0300	0.9852	0.0069	0.0068	0.0049
Difference in height between adolescence and adulthood; age 14	23449627	anthropometric	-0.0269	0.1162	-0.2319	8.17E-01	European	0.4405	0.1068	0.9820	0.0070	-0.0006	0.0049
Chronotype	27494321	sleeping	-0.0122	0.0527	-0.2316	8.17E-01	European	0.0993	0.0062	1.0195	0.0089	-0.0021	0.0052
Child birth length	25281659	anthropometric	0.0188	0.0834	0.2260	8.21E-01	European	0.1642	0.0235	0.9951	0.0072	-0.0086	0.0056
Total cholesterol in large VLDL	27005778	metabolites	-0.0182	0.0863	-0.2111	8.33E-01	European	0.1249	0.0290	0.9881	0.0066	0.0073	0.0047
Transferrin	25352340	metal	0.0172	0.0885	0.1947	8.46E-01	European	0.1636	0.0759	1.0613	0.0242	-0.0023	0.0062
Fasting insulin main effect	22581228	glycemic	0.0154	0.0832	0.1853	8.53E-01	European	0.0708	0.0102	1.0145	0.0075	0.0034	0.0051
Systemic lupus erythematosus	26502338	autoimmune	-0.0171	0.0988	-0.1729	8.63E-01	European	0.3902	0.0682	1.1061	0.0107	0.0078	0.0067
Celiac disease	20190752	autoimmune	-0.0125	0.0760	-0.1650	8.69E-01	European	0.2920	0.0514	1.0703	0.0116	0.0049	0.0066
Glutamine	27005778	metabolites	-0.0154	0.1193	-0.1291	8.97E-01	European	0.0632	0.0216	1.0177	0.0080	-0.0068	0.0047

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Cholesterol esters in medium VLDL	27005778	metabolites	0.0100	0.0902	0.1105	9.12E-01	European	0.1541	0.0378	0.9851	0.0085	0.0075	0.0049
Creatinine	27005778	metabolites	0.0042	0.0889	0.0474	9.62E-01	European	0.1117	0.0257	1.0136	0.0080	-0.0053	0.0045
Parkinsons disease	19915575	neurological	-0.0025	0.0714	-0.0345	9.73E-01	European	0.3740	0.1214	1.1274	0.0093	-0.0010	0.0045
Leptin_adjBMI	26833098	hormone	0.0032	0.0973	0.0325	9.74E-01	European	0.0929	0.0182	1.0049	0.0075	-0.0024	0.0056
Free cholesterol to esterified cholesterol ratio	27005778	metabolites	0.0038	0.1522	0.0250	9.80E-01	European	0.0634	0.0499	1.0119	0.0115	0.0059	0.0045
Triglycerides in very large HDL	27005778	metabolites	-0.0018	0.1241	-0.0147	9.88E-01	European	0.0805	0.0273	1.0164	0.0303	0.0070	0.0047

**eTable 7.** Genetic correlations for “prevalence” Design (UKBB traits)

All results from LDhub analyses. Trait= trait against which genetic correlation was calculated. ethnicity= sample ethnicity for sample referenced in “Trait” column. rG= genetic correlation. SE= standard error for genetic correlation. z= Z-score. p= P-value for genetic correlation analysis. h2\_obs= Heritability on the observed scale for sample referenced in “Trait”. se= standard errors for variable reported in the cell to the left (i.e. h2\_obs, ht\_int, gcov\_int). h2\_int= LD score intercept for sample referenced in “Trait”. gcov\_int= cross-trait LD Score regression intercept.

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Overall health rating	European	0.5856	0.0427	13.7003	1.01E-42	0.0998	0.0032	1.0619	0.0112	0.0016	0.0068
Age at first live birth	European	-0.6675	0.0495	-13.4902	1.79E-41	0.1652	0.0076	1.0493	0.0096	0.0010	0.0064
Frequency of tiredness / lethargy in last 2 weeks	European	0.6389	0.0493	12.9614	2.02E-38	0.0589	0.0030	1.0312	0.0098	0.0016	0.0061
Seen doctor (GP) for nerves anxiety tension or depression	European	0.7125	0.0557	12.7951	1.75E-37	0.0612	0.0029	1.0150	0.0102	0.0103	0.0067
Seen a psychiatrist for nerves anxiety tension or depression	European	0.7935	0.0634	12.5161	6.09E-36	0.0304	0.0022	1.0094	0.0084	0.0048	0.0059
Long-standing illness disability or infirmity	European	0.5569	0.0460	12.1096	9.40E-34	0.0501	0.0025	1.0270	0.0089	0.0044	0.0059
Age completed full time education	European	-0.5226	0.0451	-11.6003	4.10E-31	0.0846	0.0045	1.0625	0.0097	0.0006	0.0065
Frequency of tenseness / restlessness in last 2 weeks	European	0.6795	0.0594	11.4464	2.45E-30	0.0433	0.0028	1.0172	0.0095	0.0025	0.0058
Taking other prescription medications	European	0.5159	0.0455	11.3268	9.67E-30	0.0432	0.0024	1.0176	0.0089	0.0091	0.0056
Illness injury bereavement stress in last 2 years: Financial difficulties	European	0.6474	0.0573	11.2929	1.42E-29	0.0328	0.0023	1.0311	0.0082	-0.0089	0.0059
Number of treatments/medications taken	European	0.4789	0.0427	11.2167	3.38E-29	0.0606	0.0026	1.0322	0.0095	0.0032	0.0058
Number of self-reported non-cancer illnesses	European	0.4503	0.0404	11.1492	7.22E-29	0.0614	0.0026	1.0262	0.0102	0.0040	0.0056
Pain type(s) experienced in last month: None of the above	European	-0.5077	0.0461	-11.0130	3.31E-28	0.0554	0.0027	1.0358	0.0086	-0.0081	0.0063
Current tobacco smoking	European	0.5394	0.0494	10.9113	1.02E-27	0.0553	0.0029	1.0127	0.0097	-0.0057	0.0061
Smoking status: Current	European	0.5442	0.0502	10.8444	2.12E-27	0.0521	0.0029	1.0131	0.0096	-0.0077	0.0060
Current employment status: Unable to work because of sickness or disability	European	0.7708	0.0734	10.5033	8.34E-26	0.0243	0.0018	1.0192	0.0072	0.0003	0.0056
Pain type(s) experienced in last month: Neck or shoulder pain	European	0.5366	0.0512	10.4765	1.11E-25	0.0325	0.0020	1.0283	0.0085	-0.0007	0.0053
Chest pain or discomfort	European	0.6224	0.0601	10.3513	4.13E-25	0.0328	0.0021	1.0194	0.0078	-0.0006	0.0060
Past tobacco smoking	European	-0.4733	0.0458	-10.3353	4.88E-25	0.0902	0.0041	1.0269	0.0109	0.0086	0.0065
Frequency of unenthusiasm / disinterest in last 2 weeks	European	0.6626	0.0649	10.2095	1.80E-24	0.0388	0.0029	1.0182	0.0100	0.0040	0.0063
Loneliness isolation	European	0.5577	0.0552	10.1067	5.16E-24	0.0373	0.0024	1.0267	0.0080	0.0061	0.0060
Frequency of depressed mood in last 2 weeks	European	0.6895	0.0689	10.0074	1.41E-23	0.0418	0.0029	1.0149	0.0088	0.0039	0.0060
Townsend deprivation index at recruitment	European	0.6057	0.0611	9.9054	3.94E-23	0.0337	0.0020	1.0350	0.0078	0.0040	0.0057
Health satisfaction	European	0.5677	0.0574	9.8976	4.27E-23	0.0822	0.0056	1.0079	0.0077	0.0024	0.0059

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Age at last live birth	European	-0.5724	0.0586	-9.7703	1.51E-22	0.0864	0.0062	1.0218	0.0093	0.0000	0.0060
Usual walking pace	European	-0.4291	0.0439	-9.7689	1.53E-22	0.0762	0.0030	1.0389	0.0108	0.0110	0.0061
Ever unenthusiastic/disinterested for a whole week	European	0.6562	0.0674	9.7310	2.22E-22	0.0572	0.0064	1.0012	0.0080	0.0030	0.0048
Falls in the last year	European	0.5270	0.0551	9.5718	1.05E-21	0.0328	0.0020	1.0028	0.0080	-0.0034	0.0052
Qualifications: A levels/AS levels or equivalent	European	-0.4047	0.0424	-9.5521	1.27E-21	0.0958	0.0035	1.0585	0.0114	0.0052	0.0069
Qualifications: College or University degree	European	-0.3461	0.0368	-9.4117	4.88E-21	0.1675	0.0055	1.1216	0.0149	-0.0079	0.0075
Medication for pain relief constipation heartburn: None of the above	European	-0.4256	0.0455	-9.3548	8.37E-21	0.0538	0.0027	1.0325	0.0097	-0.0085	0.0052
Mood swings	European	0.5382	0.0577	9.3221	1.14E-20	0.0708	0.0035	1.0191	0.0107	0.0110	0.0061
Illness injury bereavement stress in last 2 years: None of the above	European	-0.5844	0.0628	-9.3128	1.25E-20	0.0233	0.0017	1.0112	0.0067	0.0022	0.0050
Ever smoked	European	0.4329	0.0465	9.3094	1.29E-20	0.0744	0.0034	1.0275	0.0108	-0.0128	0.0060
Qualifications: None of the above	European	0.3991	0.0433	9.2260	2.81E-20	0.0974	0.0039	1.0679	0.0117	0.0017	0.0071
Age started oral contraceptive pill	European	-0.6705	0.0728	-9.2123	3.19E-20	0.0472	0.0044	1.0190	0.0079	0.0050	0.0057
Pack years adult smoking as proportion of life span exposed to smoking PREVIEW ONLY	European	0.5015	0.0551	9.1083	8.37E-20	0.1277	0.0111	1.0141	0.0101	-0.0017	0.0058
Pack years of smoking PREVIEW ONLY	European	0.4927	0.0563	8.7446	2.24E-18	0.1102	0.0100	1.0147	0.0097	-0.0022	0.0054
Diagnoses - main ICD10: R07 Pain in throat and chest	European	0.6131	0.0704	8.7096	3.05E-18	0.0162	0.0018	1.0060	0.0076	0.0022	0.0051
Number of operations self-reported	European	0.4652	0.0543	8.5717	1.02E-17	0.0379	0.0023	1.0390	0.0080	-0.0013	0.0058
Types of physical activity in last 4 weeks: None of the above	European	0.5723	0.0668	8.5617	1.11E-17	0.0237	0.0018	1.0195	0.0077	0.0013	0.0055
Exposure to tobacco smoke outside home	European	0.5036	0.0599	8.4061	4.24E-17	0.0320	0.0025	1.0182	0.0086	-0.0088	0.0056
Maternal smoking around birth	European	0.4477	0.0539	8.3006	1.04E-16	0.0495	0.0029	1.0378	0.0094	0.0059	0.0059
Pain type(s) experienced in last month: Back pain	European	0.4328	0.0523	8.2747	1.29E-16	0.0395	0.0024	1.0233	0.0091	0.0044	0.0059
Smoking status: Previous	European	0.4110	0.0499	8.2322	1.84E-16	0.0515	0.0031	1.0229	0.0100	-0.0041	0.0061
Shortness of breath walking on level ground	European	0.6551	0.0800	8.1924	2.56E-16	0.0488	0.0052	1.0086	0.0069	-0.0040	0.0053
Medication for pain relief constipation heartburn: Omeprazole (e.g. Zantrol)	European	0.5442	0.0667	8.1592	3.37E-16	0.0179	0.0016	1.0215	0.0073	-0.0015	0.0049
Non-cancer illness code self-reported: depression	European	0.6667	0.0821	8.1220	4.58E-16	0.0178	0.0018	1.0048	0.0076	0.0073	0.0060
Miserableness	European	0.5310	0.0664	7.9955	1.29E-15	0.0640	0.0038	1.0199	0.0115	0.0117	0.0067
Other serious medical condition/disability diagnosed by doctor	European	0.4943	0.0626	7.8971	2.85E-15	0.0257	0.0018	1.0093	0.0074	-0.0008	0.0051
Wheeze or whistling in the chest in last year	European	0.3875	0.0496	7.8092	5.76E-15	0.0599	0.0032	1.0325	0.0109	0.0133	0.0063
Fed-up feelings	European	0.4557	0.0587	7.7660	8.10E-15	0.0719	0.0034	1.0244	0.0104	0.0139	0.0070
Ever depressed for a whole week	European	0.5635	0.0728	7.7355	1.03E-14	0.0625	0.0057	0.9953	0.0077	0.0003	0.0055
Leg pain on walking	European	0.5054	0.0662	7.6391	2.19E-14	0.0578	0.0055	1.0081	0.0078	0.0049	0.0057
Sleeplessness / insomnia	European	0.3972	0.0520	7.6366	2.23E-14	0.0629	0.0028	1.0157	0.0097	-0.0010	0.0062
Pain type(s) experienced in last month: Knee pain	European	0.4144	0.0547	7.5742	3.61E-14	0.0405	0.0024	1.0156	0.0088	-0.0025	0.0063
Leg fat percentage (right)	European	0.2703	0.0358	7.5585	4.08E-14	0.2082	0.0065	1.0816	0.0173	0.0063	0.0074



Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Medication for pain relief constipation heartburn: Paracetamol	European	0.3993	0.0531	7.5180	5.56E-14	0.0428	0.0025	1.0283	0.0086	0.0014	0.0052
Alcohol drinker status: Previous	European	0.6651	0.0887	7.4953	6.61E-14	0.0130	0.0016	1.0083	0.0074	-0.0054	0.0051
Types of physical activity in last 4 weeks: Other exercises (eg: swimming cycling keep fit bowling)	European	-0.3858	0.0517	-7.4694	8.05E-14	0.0470	0.0022	1.0108	0.0088	-0.0050	0.0058
Job involves heavy manual or physical work	European	0.3820	0.0513	7.4532	9.11E-14	0.0860	0.0046	1.0397	0.0094	-0.0005	0.0061
Pain type(s) experienced in last month: Hip pain	European	0.4567	0.0617	7.4053	1.31E-13	0.0236	0.0020	1.0189	0.0077	-0.0079	0.0052
Leg fat percentage (left)	European	0.2662	0.0360	7.4019	1.34E-13	0.2078	0.0065	1.0864	0.0176	0.0068	0.0074
Ever used hormone-replacement therapy (HRT)	European	0.4356	0.0590	7.3870	1.50E-13	0.0407	0.0033	0.9995	0.0075	0.0068	0.0049
Neuroticism score	European	0.4740	0.0648	7.3108	2.66E-13	0.1184	0.0065	1.0178	0.0146	0.0094	0.0073
Alcohol usually taken with meals	European	-0.3958	0.0543	-7.2870	3.17E-13	0.1086	0.0051	1.0640	0.0097	-0.0081	0.0065
Tense / highly strung	European	0.5069	0.0698	7.2654	3.72E-13	0.0572	0.0034	0.9962	0.0108	-0.0005	0.0068
Mouth/teeth dental problems: None of the above	European	-0.4398	0.0608	-7.2364	4.61E-13	0.0379	0.0021	1.0158	0.0083	0.0076	0.0062
Illnesses of siblings: None of the above (group 1)	European	-0.4020	0.0560	-7.1771	7.12E-13	0.0363	0.0026	1.0141	0.0076	-0.0040	0.0049
Pain type(s) experienced in last month: Pain all over the body	European	0.6924	0.0967	7.1595	8.10E-13	0.0100	0.0016	1.0058	0.0072	0.0014	0.0050
Ever highly irritable/argumentative for 2 days	European	0.5429	0.0758	7.1586	8.15E-13	0.0527	0.0056	0.9968	0.0075	0.0080	0.0053
Vascular/heart problems diagnosed by doctor: Angina	European	0.4350	0.0619	7.0299	2.07E-12	0.0218	0.0021	1.0276	0.0079	-0.0025	0.0050
Financial situation satisfaction	European	0.4904	0.0713	6.8821	5.90E-12	0.0578	0.0060	1.0048	0.0080	0.0023	0.0056
Diagnoses - main ICD10: R10 Abdominal and pelvic pain	European	0.5807	0.0852	6.8186	9.19E-12	0.0127	0.0016	0.9915	0.0072	-0.0043	0.0054
Illness injury bereavement stress in last 2 years: Serious illness injury or assault to yourself	European	0.5750	0.0844	6.8131	9.55E-12	0.0144	0.0016	1.0098	0.0070	-0.0049	0.0050
Non-cancer illness code self-reported: angina	European	0.4248	0.0629	6.7551	1.43E-11	0.0224	0.0021	1.0243	0.0079	-0.0018	0.0050
Qualifications: O levels/GCSEs or equivalent	European	-0.3620	0.0541	-6.6957	2.15E-11	0.0491	0.0024	1.0136	0.0096	0.0039	0.0061
Noisy workplace	European	0.4771	0.0725	6.5839	4.58E-11	0.0617	0.0060	1.0282	0.0079	-0.0006	0.0055
Mouth/teeth dental problems: Dentures	European	0.3550	0.0541	6.5674	5.12E-11	0.0482	0.0028	1.0357	0.0101	-0.0041	0.0060
Sensitivity / hurt feelings	European	0.3678	0.0561	6.5529	5.64E-11	0.0636	0.0032	1.0158	0.0098	0.0033	0.0065
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: Emphysema/chronic bronchitis	European	0.5827	0.0891	6.5367	6.29E-11	0.0126	0.0017	0.9858	0.0078	-0.0014	0.0056
Pain type(s) experienced in last month: Stomach or abdominal pain	European	0.5042	0.0776	6.4994	8.07E-11	0.0213	0.0017	1.0085	0.0074	0.0038	0.0057
Body mass index (BMI)	European	0.2409	0.0371	6.4991	8.08E-11	0.2477	0.0092	1.0736	0.0206	0.0044	0.0076
Non-cancer illness code self-reported: osteoarthritis	European	0.4849	0.0748	6.4789	9.24E-11	0.0190	0.0018	1.0280	0.0081	-0.0028	0.0056
Tobacco smoking: Ex-smoker	European	0.5056	0.0785	6.4419	1.18E-10	0.0771	0.0083	1.0082	0.0083	0.0023	0.0057
Non-cancer illness code self-reported: emphysema/chronic bronchitis	European	0.6026	0.0937	6.4306	1.27E-10	0.0099	0.0016	0.9872	0.0074	-0.0009	0.0055
Number of full sisters	European	0.4685	0.0734	6.3807	1.76E-10	0.0186	0.0018	1.0404	0.0071	0.0029	0.0053
Types of physical activity in last 4 weeks: Walking for pleasure (not as a means of transport)	European	-0.3566	0.0562	-6.3420	2.27E-10	0.0367	0.0023	1.0443	0.0087	-0.0029	0.0061

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Ever had stillbirth spontaneous miscarriage or termination	European	0.6046	0.0964	6.2723	3.56E-10	0.0199	0.0033	0.9957	0.0080	-0.0071	0.0055
Illnesses of father: Chronic bronchitis/emphysema	European	0.5278	0.0843	6.2590	3.87E-10	0.0151	0.0020	1.0224	0.0073	-0.0001	0.0056
Job involves shift work	European	0.4159	0.0670	6.2073	5.39E-10	0.0308	0.0029	1.0012	0.0067	-0.0046	0.0048
Types of physical activity in last 4 weeks: Heavy DIY (eg: weeding lawn mowing carpentry digging)	European	-0.3629	0.0585	-6.2072	5.39E-10	0.0339	0.0020	1.0082	0.0076	-0.0024	0.0061
Guilty feelings	European	0.3740	0.0606	6.1698	6.84E-10	0.0520	0.0027	1.0032	0.0088	0.0071	0.0065
Fluid intelligence score	European	-0.2650	0.0432	-6.1406	8.22E-10	0.2375	0.0109	1.0430	0.0105	0.0022	0.0063
Arm fat percentage (right)	European	0.2266	0.0369	6.1394	8.29E-10	0.2153	0.0078	1.0828	0.0192	0.0062	0.0070
Mothers age at death	European	-0.5318	0.0870	-6.1120	9.84E-10	0.0249	0.0030	1.0262	0.0077	-0.0020	0.0059
Leg fat mass (right)	European	0.2242	0.0368	6.0995	1.06E-09	0.2310	0.0084	1.0699	0.0193	0.0087	0.0074
Body fat percentage	European	0.2187	0.0364	6.0086	1.87E-09	0.2160	0.0075	1.0874	0.0191	0.0064	0.0073
Pain type(s) experienced in last month: Headache	European	0.3472	0.0578	6.0061	1.90E-09	0.0445	0.0027	1.0072	0.0094	0.0051	0.0063
Leg fat mass (left)	European	0.2196	0.0367	5.9861	2.15E-09	0.2317	0.0085	1.0719	0.0194	0.0088	0.0073
Exposure to tobacco smoke at home	European	0.5289	0.0885	5.9786	2.25E-09	0.0118	0.0017	0.9983	0.0064	0.0000	0.0052
Illnesses of siblings: Severe depression	European	0.4821	0.0808	5.9691	2.39E-09	0.0143	0.0019	1.0036	0.0070	0.0020	0.0044
Arm fat percentage (left)	European	0.2213	0.0372	5.9530	2.63E-09	0.2189	0.0080	1.0772	0.0193	0.0042	0.0071
Forced vital capacity (FVC) Best measure	European	-0.2106	0.0358	-5.8789	4.13E-09	0.1899	0.0088	1.0775	0.0174	0.0036	0.0068
Medication for cholesterol blood pressure diabetes or take exogenous hormones: None of the above	European	-0.3422	0.0583	-5.8737	4.26E-09	0.0664	0.0047	1.0174	0.0099	0.0072	0.0060
Qualifications: NVQ or HND or HNC or equivalent	European	0.4336	0.0748	5.7972	6.74E-09	0.0151	0.0017	1.0104	0.0073	-0.0088	0.0051
Had other major operations	European	0.4277	0.0738	5.7968	6.76E-09	0.0295	0.0031	1.0129	0.0071	0.0029	0.0053
Standing height	European	-0.1630	0.0281	-5.7964	6.78E-09	0.4486	0.0236	1.2611	0.0576	0.0085	0.0080
Illnesses of mother: Chronic bronchitis/emphysema	European	0.4704	0.0814	5.7795	7.49E-09	0.0123	0.0019	1.0066	0.0068	0.0056	0.0049
Medication for pain relief constipation heartburn: Laxatives (e.g. Dulcolax Senokot)	European	0.4562	0.0792	5.7620	8.31E-09	0.0115	0.0016	1.0093	0.0071	-0.0029	0.0053
Number of full brothers	European	0.4265	0.0744	5.7313	9.97E-09	0.0190	0.0019	1.0263	0.0072	0.0053	0.0056
Alcohol intake frequency.	European	0.2590	0.0458	5.6514	1.59E-08	0.0826	0.0043	1.0499	0.0119	0.0120	0.0069
Job involves mainly walking or standing	European	0.2882	0.0511	5.6426	1.68E-08	0.0799	0.0046	1.0312	0.0095	0.0002	0.0057
Qualifications: Other professional qualifications eg: nursing teaching	European	-0.2659	0.0474	-5.6060	2.07E-08	0.0470	0.0024	1.0276	0.0090	-0.0116	0.0058
Mouth/teeth dental problems: Loose teeth	European	0.4476	0.0800	5.5939	2.22E-08	0.0147	0.0017	1.0100	0.0071	-0.0030	0.0056
Medication for cholesterol blood pressure diabetes or take exogenous hormones: Cholesterol lowering medication	European	0.3476	0.0628	5.5398	3.03E-08	0.0512	0.0060	1.0238	0.0150	-0.0020	0.0056
Ever manic/hyper for 2 days	European	0.6923	0.1284	5.3927	6.94E-08	0.0192	0.0049	0.9931	0.0070	-0.0083	0.0050
Illnesses of siblings: None of the above (group 2)	European	-0.5777	0.1074	-5.3787	7.50E-08	0.0089	0.0018	1.0030	0.0070	-0.0019	0.0043
Forced expiratory volume in 1-second (FEV1) Best measure	European	-0.2102	0.0396	-5.3052	1.13E-07	0.1636	0.0076	1.0545	0.0144	-0.0005	0.0069

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Waist circumference	European	0.1990	0.0378	5.2685	1.38E-07	0.2002	0.0081	1.0634	0.0191	0.0103	0.0069
Arm fat mass (right)	European	0.1965	0.0374	5.2620	1.42E-07	0.2313	0.0089	1.0714	0.0201	0.0081	0.0071
Smoking/smokers in household	European	0.5640	0.1075	5.2438	1.57E-07	0.0096	0.0020	1.0142	0.0077	0.0029	0.0054
Non-cancer illness code self-reported: chronic obstructive airways disease/copd	European	0.6426	0.1233	5.2120	1.87E-07	0.0061	0.0015	0.9913	0.0070	-0.0140	0.0052
Other eye problems	European	0.5062	0.0973	5.2026	1.97E-07	0.0094	0.0015	1.0230	0.0073	0.0030	0.0048
Diabetes diagnosed by doctor	European	0.2764	0.0531	5.2008	1.98E-07	0.0434	0.0027	1.0426	0.0113	-0.0004	0.0061
Number of live births	European	0.2771	0.0536	5.1664	2.39E-07	0.0612	0.0042	1.0093	0.0086	-0.0033	0.0052
Arm fat mass (left)	European	0.1925	0.0373	5.1592	2.48E-07	0.2319	0.0089	1.0685	0.0200	0.0073	0.0071
Diagnoses - main ICD10: K21 Gastro-oesophageal reflux disease	European	0.6901	0.1341	5.1467	2.65E-07	0.0062	0.0013	1.0033	0.0064	-0.0101	0.0052
Whole body fat mass	European	0.1859	0.0363	5.1259	2.96E-07	0.2345	0.0087	1.0754	0.0202	0.0089	0.0071
Forced expiratory volume in 1-second (FEV1)	European	-0.2033	0.0397	-5.1223	3.02E-07	0.1486	0.0065	1.0614	0.0146	0.0011	0.0069
Number of cigarettes previously smoked daily	European	0.3572	0.0702	5.0874	3.63E-07	0.0984	0.0141	1.0048	0.0096	-0.0004	0.0052
Fathers age at death	European	-0.3414	0.0672	-5.0829	3.72E-07	0.0345	0.0032	1.0213	0.0079	-0.0045	0.0055
Forced vital capacity (FVC)	European	-0.1873	0.0369	-5.0737	3.90E-07	0.1717	0.0077	1.0887	0.0181	0.0032	0.0070
Vascular/heart problems diagnosed by doctor: None of the above	European	-0.2088	0.0413	-5.0575	4.25E-07	0.1143	0.0048	1.0560	0.0157	-0.0009	0.0070
Frequency of stair climbing in last 4 weeks	European	-0.2791	0.0552	-5.0519	4.38E-07	0.0348	0.0022	1.0182	0.0077	0.0105	0.0059
Illnesses of siblings: High blood pressure	European	0.2672	0.0536	4.9889	6.07E-07	0.0369	0.0027	1.0054	0.0077	0.0043	0.0046
Diagnoses - main ICD10: M54 Dorsalgia	European	0.4683	0.0946	4.9503	7.41E-07	0.0104	0.0015	1.0015	0.0069	0.0010	0.0053
Trunk fat percentage	European	0.1818	0.0368	4.9383	7.88E-07	0.2058	0.0076	1.0893	0.0193	0.0075	0.0072
Hearing difficulty/problems with background noise	European	0.2540	0.0515	4.9289	8.27E-07	0.0516	0.0026	1.0200	0.0090	0.0002	0.0056
Medication for pain relief constipation heartburn: Aspirin	European	0.3406	0.0696	4.8962	9.77E-07	0.0210	0.0020	1.0141	0.0075	-0.0011	0.0054
Suffer from nerves	European	0.3389	0.0694	4.8818	1.05E-06	0.0458	0.0034	0.9982	0.0106	0.0069	0.0063
Types of transport used (excluding work): Car/motor vehicle	European	-0.3189	0.0662	-4.8183	1.45E-06	0.0247	0.0018	1.0072	0.0077	0.0000	0.0059
Former alcohol drinker	European	0.5428	0.1131	4.8003	1.58E-06	0.1236	0.0215	0.9962	0.0066	-0.0084	0.0048
Risk taking	European	0.2409	0.0503	4.7883	1.68E-06	0.0554	0.0028	1.0065	0.0098	0.0045	0.0058
Vascular/heart problems diagnosed by doctor: Heart attack	European	0.3100	0.0650	4.7715	1.83E-06	0.0184	0.0019	1.0153	0.0082	-0.0003	0.0051
Time spent watching television (TV)	European	0.2110	0.0446	4.7269	2.28E-06	0.0999	0.0040	1.0539	0.0110	0.0048	0.0065
Alcohol intake versus 10 years previously	European	0.2985	0.0632	4.7238	2.31E-06	0.0349	0.0026	1.0288	0.0090	0.0012	0.0060
Hand grip strength (right)	European	-0.1802	0.0382	-4.7160	2.40E-06	0.1039	0.0042	1.0617	0.0137	0.0042	0.0061
Non-cancer illness code self-reported: heart attack/myocardial infarction	European	0.2975	0.0632	4.7100	2.48E-06	0.0189	0.0019	1.0130	0.0081	0.0006	0.0051
Hearing difficulty/problems: Yes	European	0.2296	0.0490	4.6878	2.76E-06	0.0421	0.0026	1.0112	0.0096	0.0015	0.0059
Diagnoses - main ICD10: N92 Excessive frequent and irregular menstruation	European	0.5146	0.1103	4.6650	3.09E-06	0.0071	0.0018	1.0004	0.0079	-0.0013	0.0053

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Frequency of walking for pleasure in last 4 weeks	European	0.2914	0.0631	4.6215	3.81E-06	0.0340	0.0026	1.0094	0.0079	0.0051	0.0054
Non-cancer illness code self-reported: diabetes	European	0.2788	0.0604	4.6182	3.87E-06	0.0354	0.0025	1.0402	0.0109	-0.0013	0.0063
Average weekly champagne plus white wine intake	European	-0.3143	0.0685	-4.5907	4.42E-06	0.0300	0.0028	1.0440	0.0084	-0.0043	0.0055
Diagnoses - main ICD10: K29 Gastritis and duodenitis	European	0.4949	0.1078	4.5895	4.44E-06	0.0074	0.0015	1.0038	0.0066	0.0039	0.0053
Reason for glasses/contact lenses: For short-sightedness i.e. only or mainly for distance viewing such as driving cinema etc (called myopia)	European	-0.3273	0.0719	-4.5540	5.26E-06	0.0248	0.0021	1.1199	0.0090	0.0027	0.0058
Irritability	European	0.3280	0.0723	4.5386	5.66E-06	0.0680	0.0042	0.9927	0.0119	0.0017	0.0077
Trunk fat mass	European	0.1626	0.0361	4.5070	6.57E-06	0.2307	0.0086	1.0825	0.0207	0.0084	0.0071
Illnesses of siblings: Diabetes	European	0.3152	0.0702	4.4862	7.25E-06	0.0206	0.0022	1.0098	0.0069	0.0059	0.0052
Types of physical activity in last 4 weeks: Light DIY (eg: pruning watering the lawn)	European	-0.2536	0.0569	-4.4581	8.27E-06	0.0397	0.0023	1.0008	0.0091	-0.0085	0.0059
Breastfed as a baby	European	-0.3099	0.0700	-4.4292	9.46E-06	0.0258	0.0024	1.0223	0.0078	-0.0050	0.0060
Peak expiratory flow (PEF)	European	-0.2178	0.0494	-4.4045	1.06E-05	0.0897	0.0048	1.0575	0.0129	0.0083	0.0070
Hand grip strength (left)	European	-0.1728	0.0394	-4.3903	1.13E-05	0.1044	0.0042	1.0541	0.0122	0.0037	0.0062
Number of unsuccessful stop-smoking attempts	European	0.3875	0.0883	4.3891	1.14E-05	0.0501	0.0073	1.0063	0.0070	-0.0032	0.0054
Back pain for 3+ months	European	0.4370	0.0998	4.3778	1.20E-05	0.0405	0.0058	0.9916	0.0070	-0.0014	0.0056
Loud music exposure frequency	European	0.3960	0.0908	4.3634	1.28E-05	0.0287	0.0046	1.0140	0.0072	0.0020	0.0048
Family relationship satisfaction	European	0.2836	0.0656	4.3262	1.52E-05	0.0576	0.0049	1.0046	0.0074	-0.0015	0.0052
Average weekly red wine intake	European	-0.2499	0.0579	-4.3182	1.57E-05	0.0560	0.0034	1.0153	0.0088	-0.0088	0.0061
Ever had hysterectomy (womb removed)	European	0.4203	0.0974	4.3155	1.59E-05	0.0217	0.0035	1.0053	0.0081	0.0089	0.0059
Qualifications: CSEs or equivalent	European	0.2908	0.0675	4.3072	1.65E-05	0.0210	0.0020	1.0587	0.0079	0.0034	0.0052
Chest pain or discomfort walking normally	European	0.4012	0.0938	4.2767	1.90E-05	0.0768	0.0092	1.0065	0.0075	0.0040	0.0059
Illnesses of siblings: Heart disease	European	0.3484	0.0817	4.2658	1.99E-05	0.0167	0.0022	1.0142	0.0071	0.0068	0.0051
Prospective memory result	European	0.2893	0.0679	4.2628	2.02E-05	0.0579	0.0051	1.0115	0.0079	-0.0013	0.0059
Getting up in morning	European	-0.1961	0.0466	-4.2110	2.54E-05	0.0672	0.0032	1.0472	0.0115	0.0054	0.0060
Current employment status: In paid employment or self-employed	European	-0.4148	0.0989	-4.1939	2.74E-05	0.0082	0.0015	1.0181	0.0067	0.0052	0.0049
Happiness	European	0.2635	0.0629	4.1927	2.76E-05	0.0601	0.0051	1.0083	0.0076	0.0080	0.0050
Medication for cholesterol blood pressure diabetes or take exogenous hormones: Hormone replacement therapy	European	0.4108	0.0980	4.1899	2.79E-05	0.0157	0.0027	1.0010	0.0067	-0.0007	0.0051
Non-cancer illness code self-reported: gastro-oesophageal reflux (gord) / gastric reflux	European	0.3659	0.0877	4.1746	2.98E-05	0.0114	0.0017	1.0138	0.0075	-0.0033	0.0057
Impedance of arm (left)	European	-0.1505	0.0361	-4.1705	3.04E-05	0.2328	0.0089	1.1013	0.0238	-0.0004	0.0078
Pain type(s) experienced in last month: Facial pain	European	0.6085	0.1476	4.1216	3.76E-05	0.0069	0.0016	0.9965	0.0069	-0.0048	0.0054
Forced expiratory volume in 1-second (FEV1) predicted	European	-0.1825	0.0446	-4.0947	4.23E-05	0.1723	0.0130	1.0386	0.0126	0.0092	0.0058
Mouth/teeth dental problems: Painful gums	European	0.5326	0.1301	4.0944	4.23E-05	0.0070	0.0015	1.0039	0.0069	-0.0045	0.0049

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Forced expiratory volume in 1-second (FEV1) predicted percentage	European	-0.1927	0.0475	-4.0545	5.02E-05	0.2023	0.0102	1.0332	0.0102	-0.0036	0.0061
Bilateral oophorectomy (both ovaries removed)	European	0.3580	0.0883	4.0543	5.03E-05	0.0212	0.0032	1.0110	0.0076	0.0075	0.0053
Illness injury bereavement stress in last 2 years: Marital separation/divorce	European	0.6151	0.1536	4.0038	6.23E-05	0.0044	0.0015	1.0081	0.0074	0.0008	0.0051
Average weekly beer plus cider intake	European	0.2711	0.0679	3.9932	6.52E-05	0.0515	0.0035	1.0626	0.0096	-0.0032	0.0061
Current employment status: Doing unpaid or voluntary work	European	-0.3868	0.0969	-3.9906	6.59E-05	0.0089	0.0015	1.0105	0.0073	0.0034	0.0049
Adopted as a child	European	0.5097	0.1287	3.9605	7.48E-05	0.0055	0.0014	1.0037	0.0067	0.0060	0.0053
Number of cigarettes currently smoked daily (current cigarette smokers)	European	0.4547	0.1152	3.9482	7.87E-05	0.1042	0.0264	0.9998	0.0077	-0.0071	0.0057
Time from waking to first cigarette	European	-0.4824	0.1225	-3.9393	8.17E-05	0.0913	0.0258	1.0128	0.0078	-0.0001	0.0054
Vascular/heart problems diagnosed by doctor: High blood pressure	European	0.1695	0.0434	3.9017	9.55E-05	0.1176	0.0051	1.0558	0.0168	0.0023	0.0072
Non-cancer illness code self-reported: hypertension	European	0.1684	0.0434	3.8835	1.00E-04	0.1161	0.0051	1.0498	0.0169	0.0020	0.0070
Non-cancer illness code self-reported: pulmonary embolism +/- dvt	European	0.5331	0.1378	3.8675	1.00E-04	0.0052	0.0015	1.0104	0.0074	-0.0123	0.0050
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: Blood clot in the lung	European	0.4960	0.1307	3.7946	1.00E-04	0.0056	0.0015	1.0109	0.0075	-0.0119	0.0050
Medication for cholesterol blood pressure diabetes or take exogenous hormones: Blood pressure medication	European	0.2140	0.0558	3.8390	1.00E-04	0.1056	0.0067	1.0309	0.0126	-0.0099	0.0067
Types of transport used (excluding work): Cycle	European	-0.2370	0.0613	-3.8642	1.00E-04	0.0252	0.0018	1.0231	0.0072	-0.0091	0.0056
Diagnoses - main ICD10: J44 Other chronic obstructive pulmonary disease	European	0.5457	0.1404	3.8863	1.00E-04	0.0046	0.0014	0.9961	0.0069	-0.0019	0.0051
Average weekly fortified wine intake	European	-0.3519	0.0940	-3.7455	2.00E-04	0.0126	0.0022	1.0180	0.0073	0.0023	0.0054
Nervous feelings	European	0.2613	0.0706	3.6991	2.00E-04	0.0670	0.0044	1.0102	0.0134	0.0015	0.0069
Wears glasses or contact lenses	European	-0.2721	0.0727	-3.7453	2.00E-04	0.0157	0.0016	1.0037	0.0076	0.0123	0.0053
Duration of heavy DIY	European	0.3017	0.0813	3.7128	2.00E-04	0.0336	0.0039	1.0075	0.0074	-0.0052	0.0055
Difficulty not smoking for 1 day	European	0.3810	0.1037	3.6723	2.00E-04	0.1194	0.0224	0.9853	0.0066	-0.0071	0.0054
Sitting height	European	-0.1091	0.0296	-3.6806	2.00E-04	0.3197	0.0188	1.1457	0.0438	0.0064	0.0070
Impedance of arm (right)	European	-0.1374	0.0368	-3.7346	2.00E-04	0.2364	0.0089	1.0844	0.0234	0.0019	0.0077
Non-cancer illness code self-reported: high cholesterol	European	0.2059	0.0546	3.7714	2.00E-04	0.0399	0.0058	1.0595	0.0297	0.0012	0.0060
Tinnitus: Yes but not now but have in the past	European	0.4706	0.1262	3.7305	2.00E-04	0.0182	0.0042	0.9916	0.0068	-0.0035	0.0052
Mouth/teeth dental problems: Bleeding gums	European	0.2590	0.0698	3.7119	2.00E-04	0.0226	0.0018	1.0095	0.0076	-0.0085	0.0056
Why stopped smoking: Doctors advice	European	0.6505	0.1751	3.7146	2.00E-04	0.0160	0.0050	1.0014	0.0061	-0.0020	0.0049
Diagnoses - main ICD10: K44 Diaphragmatic hernia	European	0.4847	0.1283	3.7775	2.00E-04	0.0046	0.0013	1.0089	0.0067	-0.0013	0.0050
Non-cancer illness code self-reported: back problem	European	0.4164	0.1162	3.5839	3.00E-04	0.0052	0.0013	1.0043	0.0065	-0.0046	0.0053
Transport type for commuting to job workplace: Cycle	European	-0.2531	0.0694	-3.6495	3.00E-04	0.0309	0.0033	1.0179	0.0071	-0.0039	0.0054
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: Asthma	European	0.1675	0.0459	3.6475	3.00E-04	0.0575	0.0059	1.0253	0.0159	0.0082	0.0059
Diagnoses - main ICD10: M17 Gonarthrosis [arthrosis of knee]	European	0.2930	0.0808	3.6264	3.00E-04	0.0141	0.0018	1.0055	0.0079	-0.0005	0.0057

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Hip circumference	European	0.1323	0.0372	3.5567	4.00E-04	0.2172	0.0093	1.0831	0.0205	0.0063	0.0071
Had major operations	European	0.2847	0.0805	3.5341	4.00E-04	0.0252	0.0037	1.0049	0.0075	0.0050	0.0054
Work/job satisfaction	European	0.3037	0.0860	3.5311	4.00E-04	0.0477	0.0071	0.9961	0.0068	-0.0075	0.0051
Non-cancer illness code self-reported: asthma	European	0.1679	0.0471	3.5631	4.00E-04	0.0581	0.0060	1.0266	0.0158	0.0079	0.0061
Non-cancer illness code self-reported: anxiety/panic attacks	European	0.3954	0.1125	3.5140	4.00E-04	0.0061	0.0012	0.9994	0.0059	0.0085	0.0051
Transport type for commuting to job workplace: Public transport	European	-0.2698	0.0766	-3.5236	4.00E-04	0.0318	0.0035	1.0243	0.0077	0.0070	0.0055
Diagnoses - main ICD10: I20 Angina pectoris	European	0.3933	0.1104	3.5608	4.00E-04	0.0087	0.0016	1.0065	0.0073	0.0038	0.0050
Duration of walks	European	0.1871	0.0537	3.4847	5.00E-04	0.0463	0.0029	1.0085	0.0091	0.0045	0.0058
Neck/shoulder pain for 3+ months	European	0.5926	0.1706	3.4735	5.00E-04	0.0197	0.0064	1.0104	0.0073	-0.0007	0.0048
Weight	European	0.1226	0.0350	3.4993	5.00E-04	0.2655	0.0107	1.0858	0.0244	0.0090	0.0070
Non-cancer illness code self-reported: diverticular disease/diverticulitis	European	0.2732	0.0783	3.4876	5.00E-04	0.0128	0.0017	0.9932	0.0073	-0.0005	0.0050
Illnesses of mother: Diabetes	European	0.2300	0.0664	3.4635	5.00E-04	0.0199	0.0020	1.0211	0.0093	-0.0012	0.0054
Illness injury bereavement stress in last 2 years: Death of a close relative	European	0.3966	0.1134	3.4974	5.00E-04	0.0064	0.0016	1.0036	0.0070	-0.0015	0.0049
Types of transport used (excluding work): Walk	European	-0.2039	0.0584	-3.4947	5.00E-04	0.0328	0.0023	1.0367	0.0092	-0.0047	0.0058
Diagnoses - main ICD10: K52 Other non-infective gastro-enteritis and colitis	European	0.4867	0.1398	3.4824	5.00E-04	0.0050	0.0013	1.0025	0.0062	0.0008	0.0056
Illnesses of mother: Heart disease	European	0.2506	0.0729	3.4366	6.00E-04	0.0157	0.0019	1.0109	0.0073	0.0042	0.0053
Duration walking for pleasure	European	-0.2264	0.0672	-3.3673	8.00E-04	0.0247	0.0025	1.0140	0.0073	-0.0009	0.0047
Worrier / anxious feelings	European	0.2312	0.0692	3.3406	8.00E-04	0.0793	0.0052	1.0021	0.0135	0.0072	0.0074
Light smokers at least 100 smokes in lifetime	European	0.2047	0.0610	3.3570	8.00E-04	0.0778	0.0075	1.0042	0.0076	0.0027	0.0055
Worry too long after embarrassment	European	0.1889	0.0572	3.3008	1.00E-03	0.0644	0.0036	1.0210	0.0114	0.0001	0.0069
Impedance of whole body	European	-0.1181	0.0360	-3.2770	1.00E-03	0.2591	0.0103	1.0868	0.0242	0.0014	0.0080
Drive faster than motorway speed limit	European	-0.1807	0.0552	-3.2707	1.10E-03	0.0567	0.0027	1.0292	0.0090	-0.0055	0.0061
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: Blood clot in the leg (DVT)	European	0.3150	0.0965	3.2628	1.10E-03	0.0104	0.0017	1.0126	0.0099	-0.0030	0.0054
Knee pain for 3+ months	European	0.4207	0.1316	3.1968	1.40E-03	0.0243	0.0069	1.0037	0.0070	0.0052	0.0050
Bring up phlegm/sputum/mucus on most days	European	0.3483	0.1092	3.1889	1.40E-03	0.0260	0.0061	1.0088	0.0077	0.0050	0.0052
Mouth/teeth dental problems: Toothache	European	0.3499	0.1093	3.1999	1.40E-03	0.0084	0.0016	1.0046	0.0077	-0.0026	0.0055
Comparative height size at age 10	European	-0.1024	0.0327	-3.1320	1.70E-03	0.2406	0.0125	1.1165	0.0345	0.0156	0.0071
Diagnoses - main ICD10: K62 Other diseases of anus and rectum	European	0.4245	0.1350	3.1446	1.70E-03	0.0051	0.0014	1.0012	0.0067	0.0029	0.0052
Daytime dozing / sleeping (narcolepsy)	European	0.1621	0.0523	3.0965	2.00E-03	0.0483	0.0028	1.0122	0.0092	0.0006	0.0061
Fractured/broken bones in last 5 years	European	0.2108	0.0682	3.0928	2.00E-03	0.0183	0.0022	1.0107	0.0080	0.0052	0.0051
Non-cancer illness code self-reported: deep venous thrombosis (dvt)	European	0.2962	0.0959	3.0892	2.00E-03	0.0109	0.0018	1.0101	0.0098	-0.0017	0.0055
Illnesses of father: None of the above (group 1)	European	-0.2684	0.0868	-3.0914	2.00E-03	0.0145	0.0018	1.0250	0.0073	-0.0013	0.0054

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Types of physical activity in last 4 weeks: Strenuous sports	European	-0.1926	0.0623	-3.0909	2.00E-03	0.0219	0.0018	1.0123	0.0071	-0.0102	0.0056
Medication for cholesterol blood pressure or diabetes: Cholesterol lowering medication	European	0.1598	0.0519	3.0754	2.10E-03	0.0671	0.0068	1.0372	0.0152	0.0063	0.0054
Frequency of travelling from home to job workplace	European	0.2466	0.0805	3.0638	2.20E-03	0.0214	0.0028	1.0191	0.0068	-0.0022	0.0052
Non-cancer illness code self-reported: hiatus hernia	European	0.3017	0.0987	3.0581	2.20E-03	0.0082	0.0014	1.0332	0.0064	0.0099	0.0052
Medication for pain relief constipation heartburn: Ibuprofen (e.g. Nurofen)	European	0.2180	0.0711	3.0657	2.20E-03	0.0226	0.0017	0.9974	0.0067	0.0065	0.0053
Weight change compared with 1 year ago	European	0.2960	0.0971	3.0470	2.30E-03	0.0084	0.0014	1.0234	0.0067	0.0005	0.0050
Number of incorrect matches in round	European	0.1453	0.0481	3.0204	2.50E-03	0.0544	0.0028	1.0056	0.0097	-0.0010	0.0057
Illnesses of father: Lung cancer	European	0.2645	0.0877	3.0146	2.60E-03	0.0148	0.0020	0.9932	0.0076	0.0074	0.0056
Diagnoses - main ICD10: G56 Mononeuropathies of upper limb	European	0.2511	0.0837	2.9994	2.70E-03	0.0139	0.0019	1.0082	0.0078	0.0018	0.0050
Diagnoses - main ICD10: R55 Syncope and collapse	European	0.3426	0.1143	2.9969	2.70E-03	0.0056	0.0014	1.0068	0.0069	0.0020	0.0053
Sodium in urine	European	0.1353	0.0452	2.9921	2.80E-03	0.0722	0.0028	1.0245	0.0094	0.0041	0.0062
Illnesses of siblings: Stroke	European	0.4852	0.1636	2.9656	3.00E-03	0.0046	0.0019	1.0061	0.0066	-0.0041	0.0051
Current employment status: Looking after home and/or family	European	-0.3276	0.1109	-2.9531	3.10E-03	0.0060	0.0014	1.0017	0.0067	0.0061	0.0051
Why reduced smoking: Illness or ill health	European	0.5236	0.1772	2.9550	3.10E-03	0.1129	0.0428	0.9974	0.0063	-0.0016	0.0052
Duration of light DIY	European	0.2027	0.0688	2.9448	3.20E-03	0.0356	0.0035	1.0018	0.0080	-0.0016	0.0052
Diagnoses - main ICD10: K57 Diverticular disease of intestine	European	0.2142	0.0734	2.9195	3.50E-03	0.0131	0.0015	1.0036	0.0068	0.0022	0.0052
Non-cancer illness code self-reported: hayfever/allergic rhinitis	European	-0.1917	0.0660	-2.9060	3.70E-03	0.0233	0.0025	1.0162	0.0091	0.0034	0.0058
Diagnoses - main ICD10: I83 Varicose veins of lower extremities	European	0.2223	0.0772	2.8799	4.00E-03	0.0190	0.0022	1.0355	0.0101	-0.0022	0.0056
Maximum workload during fitness test	European	-0.3219	0.1129	-2.8521	4.30E-03	0.0412	0.0104	1.0087	0.0075	-0.0036	0.0049
Age when periods started (menarche)	European	-0.1063	0.0378	-2.8141	4.90E-03	0.2074	0.0103	1.0099	0.0132	-0.0035	0.0059
Diagnoses - main ICD10: N81 Female genital prolapse	European	0.2910	0.1043	2.7900	5.30E-03	0.0067	0.0015	1.0274	0.0068	-0.0008	0.0053
Ever stopped smoking for 6+ months	European	0.3511	0.1266	2.7730	5.60E-03	0.0193	0.0060	1.0014	0.0074	0.0065	0.0046
Diagnoses - main ICD10: K22 Other diseases of oesophagus	European	0.4443	0.1604	2.7691	5.60E-03	0.0041	0.0017	1.0047	0.0075	-0.0012	0.0058
Illnesses of father: None of the above (group 2)	European	-0.2678	0.0969	-2.7637	5.70E-03	0.0094	0.0017	1.0016	0.0075	-0.0011	0.0051
Diagnoses - main ICD10: I84 Haemorrhoids	European	0.2452	0.0888	2.7623	5.70E-03	0.0097	0.0017	1.0001	0.0073	0.0004	0.0047
Fractured bone site(s): Other bones	European	0.2729	0.1006	2.7141	6.60E-03	0.0084	0.0016	1.0049	0.0069	0.0060	0.0049
Nap during day	European	0.1164	0.0432	2.6949	7.00E-03	0.0806	0.0036	1.0246	0.0105	0.0132	0.0064
Diagnoses - main ICD10: I25 Chronic ischaemic heart disease	European	0.1776	0.0660	2.6910	7.10E-03	0.0202	0.0023	1.0189	0.0084	0.0081	0.0054
Medication for cholesterol blood pressure or diabetes: None of the above	European	-0.1474	0.0551	-2.6756	7.50E-03	0.0874	0.0052	1.0370	0.0109	-0.0063	0.0061
Diagnoses - main ICD10: M23 Internal derangement of knee	European	0.2550	0.0954	2.6720	7.50E-03	0.0082	0.0020	1.0040	0.0081	0.0015	0.0055
Number of self-reported cancers	European	0.2808	0.1056	2.6602	7.80E-03	0.0068	0.0016	1.0112	0.0069	-0.0069	0.0052
Diagnoses - main ICD10: K30 Dyspepsia	European	0.4908	0.1851	2.6524	8.00E-03	0.0029	0.0014	1.0060	0.0068	-0.0027	0.0054
Pulse rate automated reading	European	0.0958	0.0362	2.6447	8.20E-03	0.1537	0.0122	1.0499	0.0326	0.0098	0.0070

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Number of trend entries	European	-0.3420	0.1300	-2.6311	8.50E-03	0.0301	0.0101	1.0071	0.0074	-0.0031	0.0048
Duration of moderate activity	European	0.1784	0.0683	2.6108	9.00E-03	0.0314	0.0024	1.0119	0.0084	0.0047	0.0052
Vitamin and mineral supplements: Vitamin B	European	0.3051	0.1193	2.5588	1.05E-02	0.0070	0.0016	1.0034	0.0072	0.0000	0.0053
Cancer diagnosed by doctor	European	0.2773	0.1088	2.5479	1.08E-02	0.0071	0.0016	1.0068	0.0068	-0.0094	0.0052
Duration of vigorous activity	European	0.1927	0.0760	2.5367	1.12E-02	0.0363	0.0033	0.9909	0.0076	0.0075	0.0058
Non-cancer illness code self-reported: rheumatoid arthritis	European	0.3679	0.1463	2.5136	1.20E-02	0.0045	0.0014	1.0063	0.0068	-0.0079	0.0054
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: Hayfever allergic rhinitis or eczema	European	-0.0985	0.0397	-2.4813	1.31E-02	0.0731	0.0060	1.0400	0.0173	0.0094	0.0056
Home area population density - urban or rural: Scotland - Large Urban Area	European	-0.3103	0.1258	-2.4674	1.36E-02	0.0116	0.0031	2.1328	0.0150	-0.0111	0.0072
Non-cancer illness code self-reported: hypothyroidism/myxoedema	European	0.1592	0.0663	2.4017	1.63E-02	0.0510	0.0060	1.0322	0.0165	-0.0005	0.0063
Diagnoses - main ICD10: S09 Other and unspecified injuries of head	European	0.3013	0.1294	2.3279	1.99E-02	0.0042	0.0015	0.9924	0.0068	-0.0042	0.0050
Mineral and other dietary supplements: Glucosamine	European	-0.1493	0.0643	-2.3202	2.03E-02	0.0244	0.0020	1.0085	0.0075	0.0009	0.0056
Diagnoses - main ICD10: K60 Fissure and fistula of anal and rectal regions	European	0.2507	0.1108	2.2620	2.37E-02	0.0053	0.0014	0.9838	0.0065	-0.0020	0.0050
Mineral and other dietary supplements: Selenium	European	0.2579	0.1159	2.2244	2.61E-02	0.0065	0.0015	0.9992	0.0075	-0.0040	0.0054
Diagnoses - main ICD10: K43 Ventral hernia	European	0.2620	0.1181	2.2176	2.66E-02	0.0054	0.0014	0.9927	0.0072	-0.0006	0.0049
Non-cancer illness code self-reported: kidney stone/ureter stone/bladder stone	European	0.2403	0.1084	2.2163	2.67E-02	0.0090	0.0017	1.0032	0.0080	-0.0082	0.0053
Diagnoses - main ICD10: R04 Haemorrhage from respiratory passages	European	0.4456	0.2011	2.2155	2.67E-02	0.0027	0.0015	0.9966	0.0070	0.0001	0.0053
Tinnitus: Yes now some of the time	European	0.4031	0.1838	2.1929	2.83E-02	0.0075	0.0040	1.0020	0.0062	-0.0075	0.0050
Diagnoses - main ICD10: N20 Calculus of kidney and ureter	European	0.2384	0.1088	2.1900	2.85E-02	0.0077	0.0015	1.0108	0.0071	0.0017	0.0052
Diagnoses - main ICD10: M67 Other disorders of synovium and tendon	European	0.5843	0.2676	2.1837	2.90E-02	0.0020	0.0014	1.0004	0.0069	-0.0015	0.0048
Non-cancer illness code self-reported: muscle or soft tissue injuries	European	0.4187	0.1925	2.1749	2.96E-02	0.0030	0.0015	0.9956	0.0076	-0.0059	0.0055
Number of depression episodes	European	0.3908	0.1798	2.1738	2.97E-02	0.0319	0.0122	1.0051	0.0063	0.0022	0.0060
Diagnoses - main ICD10: J34 Other disorders of nose and nasal sinuses	European	0.4655	0.2149	2.1664	3.03E-02	0.0025	0.0014	1.0069	0.0070	0.0009	0.0049
Ever had prostate specific antigen (PSA) test	European	-0.1709	0.0792	-2.1578	3.09E-02	0.0346	0.0035	1.0020	0.0076	0.0023	0.0054
Diagnoses - main ICD10: R69 Unknown and unspecified causes of morbidity	European	0.2860	0.1332	2.1469	3.18E-02	0.0053	0.0013	0.9981	0.0069	0.0099	0.0054
Friendships satisfaction	European	0.1401	0.0656	2.1355	3.27E-02	0.0614	0.0053	0.9999	0.0077	-0.0025	0.0050
Diagnoses - main ICD10: H26 Other cataract	European	0.1980	0.0932	2.1247	3.36E-02	0.0096	0.0016	0.9919	0.0074	-0.0046	0.0056
Diagnoses - main ICD10: M24 Other specific joint derangements	European	0.3503	0.1650	2.1226	3.38E-02	0.0039	0.0014	0.9854	0.0070	-0.0079	0.0055
No-wear time bias adjusted acceleration standard deviation	European	-0.1402	0.0664	-2.1102	3.48E-02	0.0872	0.0082	1.0046	0.0078	-0.0079	0.0049
Diagnoses - main ICD10: K20 Oesophagitis	European	0.6014	0.2849	2.1112	3.48E-02	0.0018	0.0013	1.0094	0.0067	0.0041	0.0046
Illnesses of mother: None of the above (group 2)	European	-0.2137	0.1017	-2.1010	3.56E-02	0.0093	0.0017	1.0009	0.0069	-0.0096	0.0050
Reason for glasses/contact lenses: For astigmatism	European	-0.1891	0.0900	-2.1002	3.57E-02	0.0090	0.0016	1.0262	0.0071	0.0019	0.0049



Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Diagnoses - main ICD10: N32 Other disorders of bladder	European	0.2891	0.1381	2.0926	3.64E-02	0.0039	0.0012	0.9900	0.0060	-0.0055	0.0048
Diagnoses - main ICD10: J22 Unspecified acute lower respiratory infection	European	0.3684	0.1761	2.0913	3.65E-02	0.0031	0.0015	0.9965	0.0075	0.0057	0.0051
Pulse wave peak to peak time	European	-0.1686	0.0810	-2.0831	3.72E-02	0.0390	0.0049	1.0113	0.0073	-0.0049	0.0054
Why stopped smoking: Health precaution	European	-0.1522	0.0739	-2.0597	3.94E-02	0.0536	0.0068	1.0008	0.0074	0.0005	0.0051
Diagnoses - main ICD10: R31 Unspecified haematuria	European	0.3665	0.1781	2.0582	3.96E-02	0.0028	0.0016	1.0110	0.0070	0.0014	0.0050
Non-cancer illness code self-reported: migraine	European	0.1508	0.0734	2.0538	4.00E-02	0.0160	0.0019	1.0166	0.0083	0.0021	0.0050
Diagnoses - main ICD10: I21 Acute myocardial infarction	European	0.1896	0.0935	2.0286	4.25E-02	0.0102	0.0016	1.0065	0.0077	0.0039	0.0048
Diagnoses - main ICD10: M20 Acquired deformities of fingers and toes	European	0.1694	0.0839	2.0179	4.36E-02	0.0095	0.0016	1.0005	0.0069	0.0064	0.0051
Diagnoses - main ICD10: R35 Polyuria	European	0.4320	0.2149	2.0102	4.44E-02	0.0030	0.0015	0.9976	0.0071	-0.0032	0.0053
Creatinine (enzymatic) in urine	European	0.0899	0.0452	1.9895	4.66E-02	0.0657	0.0031	1.0206	0.0096	0.0020	0.0056
Mineral and other dietary supplements: Zinc	European	0.1609	0.0811	1.9847	4.72E-02	0.0109	0.0015	0.9900	0.0063	0.0046	0.0049
Diagnoses - main ICD10: K80 Cholelithiasis	European	0.1971	0.0996	1.9785	4.79E-02	0.0096	0.0018	1.0233	0.0090	0.0057	0.0057
Illnesses of father: High blood pressure	European	0.1333	0.0677	1.9695	4.89E-02	0.0192	0.0019	1.0147	0.0074	-0.0038	0.0054
Maximum heart rate during fitness test	European	-0.2256	0.1151	-1.9591	5.01E-02	0.0694	0.0130	1.0153	0.0086	0.0094	0.0063
Sleep duration	European	-0.1101	0.0565	-1.9479	5.14E-02	0.0704	0.0035	1.0293	0.0106	-0.0195	0.0066
Impedance of leg (left)	European	-0.0731	0.0375	-1.9468	5.16E-02	0.2431	0.0103	1.0739	0.0233	0.0056	0.0079
Illnesses of mother: None of the above (group 1)	European	-0.1433	0.0739	-1.9404	5.23E-02	0.0166	0.0018	1.0145	0.0075	-0.0033	0.0055
Diagnoses - main ICD10: G47 Sleep disorders	European	0.2185	0.1136	1.9234	5.44E-02	0.0064	0.0014	0.9931	0.0069	-0.0018	0.0056
Diastolic blood pressure automated reading	European	0.0790	0.0416	1.9006	5.74E-02	0.1354	0.0061	1.0697	0.0170	0.0000	0.0071
Number of pregnancy terminations	European	0.1791	0.0948	1.8898	5.88E-02	0.0606	0.0103	1.0071	0.0076	0.0036	0.0051
Arm fat-free mass (left)	European	0.0627	0.0333	1.8830	5.97E-02	0.2657	0.0115	1.1091	0.0284	0.0096	0.0068
Time spent driving	European	-0.1187	0.0633	-1.8752	6.08E-02	0.0420	0.0030	1.0033	0.0075	-0.0028	0.0056
Mean time to correctly identify matches	European	0.0808	0.0432	1.8718	6.12E-02	0.0721	0.0029	1.0379	0.0096	-0.0070	0.0055
Current employment status: Retired	European	-0.1858	0.0995	-1.8663	6.20E-02	0.0084	0.0015	1.0163	0.0070	-0.0042	0.0053
Diagnoses - main ICD10: I10 Essential (primary) hypertension	European	0.4054	0.2174	1.8650	6.22E-02	0.0023	0.0013	0.9992	0.0059	-0.0063	0.0054
Number of days/week of moderate physical activity 10+ minutes	European	0.1241	0.0669	1.8556	6.35E-02	0.0420	0.0024	1.0126	0.0077	0.0003	0.0061
Impedance of leg (right)	European	-0.0688	0.0372	-1.8505	6.42E-02	0.2422	0.0103	1.0836	0.0234	0.0046	0.0076
Non-cancer illness code self-reported: cholelithiasis/gall stones	European	0.1809	0.0982	1.8413	6.56E-02	0.0087	0.0018	1.0186	0.0085	-0.0018	0.0051
Relative age voice broke	European	-0.1017	0.0559	-1.8200	6.88E-02	0.0725	0.0055	1.0102	0.0088	-0.0049	0.0054
Vitamin and mineral supplements: Vitamin C	European	0.1552	0.0859	1.8060	7.09E-02	0.0133	0.0016	0.9975	0.0072	-0.0083	0.0055
Frequency of heavy DIY in last 4 weeks	European	0.1957	0.1088	1.7982	7.21E-02	0.0201	0.0037	1.0100	0.0067	0.0029	0.0057
Arm predicted mass (left)	European	0.0600	0.0334	1.7952	7.26E-02	0.2648	0.0116	1.1112	0.0287	0.0105	0.0068
Diagnoses - main ICD10: L03 Cellulitis	European	0.2505	0.1408	1.7794	7.52E-02	0.0041	0.0015	1.0016	0.0069	-0.0050	0.0050

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Medication for cholesterol blood pressure or diabetes: Blood pressure medication	European	0.0992	0.0570	1.7406	8.18E-02	0.1045	0.0058	1.0325	0.0105	0.0048	0.0064
Illnesses of mother: High blood pressure	European	0.1028	0.0598	1.7195	8.55E-02	0.0289	0.0022	1.0210	0.0089	0.0018	0.0060
Diagnoses - main ICD10: Z47 Other orthopaedic follow-up care	European	0.2602	0.1519	1.7125	8.68E-02	0.0032	0.0013	0.9996	0.0069	0.0026	0.0047
Fractured bone site(s): Arm	European	-0.2328	0.1371	-1.6989	8.93E-02	0.0053	0.0015	0.9969	0.0075	0.0087	0.0052
Comparative body size at age 10	European	0.0618	0.0366	1.6908	9.09E-02	0.1457	0.0097	1.0172	0.0199	-0.0156	0.0059
Diagnoses - main ICD10: Z09 Follow-up examination after treatment for conditions other than malignant neoplasms	European	0.2839	0.1681	1.6890	9.12E-02	0.0027	0.0013	1.0028	0.0066	0.0045	0.0049
Birth weight of first child	European	-0.0824	0.0489	-1.6865	9.17E-02	0.1100	0.0070	1.0201	0.0099	0.0007	0.0056
Illnesses of father: Diabetes	European	0.1379	0.0820	1.6828	9.24E-02	0.0181	0.0024	1.0290	0.0079	0.0050	0.0056
Cough on most days	European	0.1505	0.0899	1.6739	9.42E-02	0.0486	0.0065	0.9977	0.0078	0.0065	0.0052
Diagnoses - main ICD10: E04 Other non-toxic goitre	European	0.1894	0.1144	1.6554	9.79E-02	0.0049	0.0014	0.9947	0.0070	-0.0091	0.0048
Illnesses of mother: Alzheimer's disease/dementia	European	-0.2867	0.1754	-1.6343	1.02E-01	0.0037	0.0048	1.0364	0.0361	-0.0060	0.0055
Diagnoses - main ICD10: H25 Senile cataract	European	0.2685	0.1651	1.6266	1.04E-01	0.0029	0.0014	1.0162	0.0071	-0.0057	0.0051
Non-cancer illness code self-reported: bladder problem (not cancer)	European	0.2977	0.1849	1.6102	1.07E-01	0.0022	0.0013	1.0023	0.0070	-0.0028	0.0051
Frequency of other exercises in last 4 weeks	European	0.1411	0.0880	1.6028	1.09E-01	0.0210	0.0033	0.9987	0.0067	-0.0036	0.0052
Hair/balding pattern: Pattern 3	European	-0.0853	0.0534	-1.5963	1.10E-01	0.0569	0.0144	1.0174	0.0205	-0.0021	0.0054
Eye problems/disorders: Diabetes related eye disease	European	0.1809	0.1135	1.5946	1.11E-01	0.0196	0.0044	1.0078	0.0062	0.0104	0.0049
Non-cancer illness code self-reported: polio / poliomyelitis	European	0.2821	0.1771	1.5927	1.11E-01	0.0025	0.0013	0.9934	0.0067	-0.0149	0.0047
Non-cancer illness code self-reported: type 2 diabetes	European	0.1878	0.1180	1.5917	1.11E-01	0.0063	0.0014	1.0116	0.0069	0.0034	0.0051
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: None of the above	European	-0.0653	0.0412	-1.5866	1.13E-01	0.0767	0.0070	1.0380	0.0186	-0.0077	0.0060
Home area population density - urban or rural: England/Wales - Village - less sparse	European	-0.3472	0.2219	-1.5648	1.18E-01	0.0020	0.0013	1.0250	0.0064	-0.0083	0.0052
Diagnoses - main ICD10: S66 Injury of muscle and tendon at wrist and hand level	European	0.4379	0.2819	1.5532	1.20E-01	0.0016	0.0012	1.0049	0.0072	-0.0046	0.0050
Diagnoses - main ICD10: C44 Other malignant neoplasms of skin	European	0.1239	0.0799	1.5500	1.21E-01	0.0105	0.0023	1.0054	0.0089	-0.0069	0.0049
Arm fat-free mass (right)	European	0.0509	0.0333	1.5278	1.27E-01	0.2671	0.0117	1.1008	0.0288	0.0053	0.0068
Illnesses of father: Heart disease	European	0.0893	0.0588	1.5173	1.29E-01	0.0299	0.0026	1.0043	0.0088	0.0032	0.0051
Number of older siblings	European	0.5052	0.3339	1.5132	1.30E-01	0.0056	0.0053	1.0076	0.0064	0.0053	0.0046
Non-cancer illness code self-reported: psoriasis	European	0.1824	0.1209	1.5091	1.31E-01	0.0072	0.0016	1.0178	0.0085	0.0025	0.0055
Reason for glasses/contact lenses: For just reading/near work as you are getting older (called presbyopia)	European	-0.2391	0.1605	-1.4901	1.36E-01	0.0039	0.0016	1.1363	0.0085	-0.0013	0.0056
Target heart rate achieved	European	-0.1813	0.1220	-1.4865	1.37E-01	0.0340	0.0109	1.0067	0.0072	0.0024	0.0053
Used an inhaler for chest within last hour	European	0.1991	0.1357	1.4677	1.42E-01	0.0044	0.0015	1.0017	0.0064	0.0034	0.0052
Diagnoses - main ICD10: M10 Gout	European	0.3139	0.2153	1.4579	1.45E-01	0.0023	0.0015	0.9998	0.0072	-0.0042	0.0055

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Non-cancer illness code self-reported: pneumothorax	European	-0.2214	0.1520	-1.4567	1.45E-01	0.0030	0.0015	0.9873	0.0070	0.0009	0.0053
Cancer code self-reported: breast cancer	European	0.1374	0.0953	1.4418	1.49E-01	0.0098	0.0018	1.0195	0.0085	-0.0081	0.0056
Pulse rate	European	0.0763	0.0530	1.4388	1.50E-01	0.1349	0.0140	1.0262	0.0155	0.0130	0.0060
Non-cancer illness code self-reported: sleep apnoea	European	0.2504	0.1751	1.4302	1.53E-01	0.0027	0.0014	1.0083	0.0069	0.0014	0.0053
Arm predicted mass (right)	European	0.0476	0.0334	1.4252	1.54E-01	0.2655	0.0117	1.1040	0.0290	0.0072	0.0068
Basal metabolic rate	European	0.0474	0.0335	1.4140	1.57E-01	0.2851	0.0125	1.1151	0.0295	0.0088	0.0069
Frequency of light DIY in last 4 weeks	European	0.1140	0.0807	1.4124	1.58E-01	0.0229	0.0030	1.0019	0.0069	-0.0008	0.0052
Fractured bone site(s): Ankle	European	0.1436	0.1023	1.4037	1.60E-01	0.0063	0.0015	0.9966	0.0066	0.0062	0.0049
Fractured bone site(s): Wrist	European	0.1753	0.1251	1.4011	1.61E-01	0.0068	0.0017	1.0065	0.0075	-0.0065	0.0054
Leg predicted mass (left)	European	0.0488	0.0349	1.4007	1.61E-01	0.2667	0.0116	1.1052	0.0267	0.0056	0.0069
Headaches for 3+ months	European	0.1181	0.0845	1.3973	1.62E-01	0.0552	0.0072	1.0078	0.0067	-0.0005	0.0049
Leg fat-free mass (left)	European	0.0485	0.0349	1.3892	1.65E-01	0.2671	0.0117	1.1052	0.0269	0.0059	0.0069
Transport type for commuting to job workplace: Walk	European	-0.1342	0.0985	-1.3626	1.73E-01	0.0172	0.0028	1.0016	0.0071	0.0002	0.0052
Mineral and other dietary supplements: Fish oil (including cod liver oil)	European	-0.0950	0.0708	-1.3420	1.80E-01	0.0265	0.0020	1.0085	0.0077	0.0048	0.0055
Diagnoses - main ICD10: M72 Fibroblastic disorders	European	0.1238	0.0925	1.3384	1.81E-01	0.0103	0.0031	1.0189	0.0219	-0.0079	0.0051
Number of children fathered	European	0.1026	0.0768	1.3351	1.82E-01	0.0323	0.0036	1.0107	0.0073	-0.0032	0.0050
Reason for reducing amount of alcohol drunk: Health precaution	European	-0.0888	0.0667	-1.3302	1.83E-01	0.0462	0.0047	0.9968	0.0070	0.0073	0.0050
Length of working week for main job	European	0.1177	0.0888	1.3254	1.85E-01	0.0187	0.0029	1.0117	0.0068	0.0025	0.0053
Non-cancer illness code self-reported: nasal polyps	European	-0.1542	0.1167	-1.3211	1.87E-01	0.0050	0.0016	1.0072	0.0069	0.0013	0.0050
Type of tobacco previously smoked: Cigars or pipes	European	-0.1916	0.1515	-1.2649	2.06E-01	0.0115	0.0053	1.0013	0.0064	-0.0064	0.0049
Mouth/teeth dental problems: Mouth ulcers	European	0.0762	0.0617	1.2344	2.17E-01	0.0289	0.0038	1.0329	0.0116	-0.0038	0.0051
Hair/balding pattern: Pattern 4	European	-0.0458	0.0376	-1.2154	2.24E-01	0.1676	0.0203	1.0991	0.0277	-0.0003	0.0054
Diagnoses - main ICD10: M25 Other joint disorders not elsewhere classified	European	0.6984	0.5789	1.2063	2.28E-01	0.0010	0.0014	1.0157	0.0070	0.0034	0.0049
Length of menstrual cycle	European	0.1149	0.0966	1.1901	2.34E-01	0.0985	0.0204	1.0020	0.0071	-0.0013	0.0050
Diagnoses - main ICD10: R11 Nausea and vomiting	European	0.4065	0.3509	1.1584	2.47E-01	0.0012	0.0013	0.9948	0.0067	0.0054	0.0052
Average weekly intake of other alcoholic drinks	European	0.2344	0.2036	1.1508	2.50E-01	0.0077	0.0062	1.0041	0.0066	-0.0014	0.0044
Mineral and other dietary supplements: None of the above	European	0.0742	0.0647	1.1471	2.51E-01	0.0293	0.0021	1.0143	0.0077	-0.0023	0.0057
Started insulin within one year diagnosis of diabetes	European	-0.1375	0.1207	-1.1394	2.55E-01	0.1695	0.0493	1.0051	0.0086	0.0065	0.0057
Diagnoses - main ICD10: T84 Complications of internal orthopaedic prosthetic devices implants and grafts	European	0.1681	0.1478	1.1370	2.56E-01	0.0049	0.0017	0.9925	0.0075	0.0076	0.0055
Heel bone mineral density (BMD) T-score automated	European	0.0494	0.0445	1.1104	2.67E-01	0.2945	0.0335	1.0849	0.0378	-0.0103	0.0078
Non-cancer illness code self-reported: retinal detachment	European	-0.2128	0.1934	-1.1003	2.71E-01	0.0031	0.0014	1.0057	0.0067	0.0011	0.0059
Diagnoses - main ICD10: D25 Leiomyoma of uterus	European	0.1289	0.1213	1.0632	2.88E-01	0.0058	0.0014	0.9940	0.0065	0.0011	0.0053

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Non-cancer illness code self-reported: ulcerative colitis	European	-0.1207	0.1153	-1.0470	2.95E-01	0.0058	0.0017	1.0116	0.0080	0.0080	0.0047
Reason for glasses/contact lenses: For long-sightedness i.e. for distance and near but particularly for near tasks like reading (called hypermetropia)	European	0.0977	0.0956	1.0222	3.07E-01	0.0095	0.0015	1.0666	0.0074	0.0039	0.0052
Hearing aid user	European	0.0888	0.0872	1.0179	3.09E-01	0.0177	0.0027	1.0018	0.0065	0.0020	0.0050
Pulse wave Arterial Stiffness index	European	0.0838	0.0830	1.0103	3.12E-01	0.0380	0.0051	1.0100	0.0073	0.0068	0.0053
Doctor diagnosed asthma	European	0.0673	0.0669	1.0067	3.14E-01	0.0713	0.0100	0.9960	0.0085	0.0047	0.0051
Transport type for commuting to job workplace: Car/motor vehicle	European	0.0752	0.0753	0.9992	3.18E-01	0.0251	0.0030	1.0219	0.0070	0.0049	0.0049
Diagnoses - main ICD10: R14 Flatulence and related conditions	European	0.1457	0.1460	0.9979	3.18E-01	0.0036	0.0012	0.9896	0.0068	-0.0002	0.0051
Cancer code self-reported: squamous cell carcinoma	European	0.1869	0.1905	0.9811	3.27E-01	0.0022	0.0013	0.9993	0.0068	-0.0073	0.0049
Diagnoses - main ICD10: C50 Malignant neoplasm of breast	European	0.0931	0.0972	0.9577	3.38E-01	0.0085	0.0016	1.0061	0.0080	-0.0068	0.0050
Relative age of first facial hair	European	-0.0449	0.0471	-0.9519	3.41E-01	0.1255	0.0074	1.0408	0.0120	-0.0090	0.0056
Vitamin and mineral supplements: Vitamin A	European	0.1433	0.1512	0.9482	3.43E-01	0.0040	0.0015	1.0014	0.0068	0.0000	0.0057
Diagnoses - main ICD10: Z80 Family history of malignant neoplasm	European	0.2581	0.2723	0.9480	3.43E-01	0.0014	0.0014	0.9900	0.0062	-0.0083	0.0055
Leg fat-free mass (right)	European	0.0329	0.0348	0.9449	3.45E-01	0.2651	0.0117	1.1109	0.0275	0.0058	0.0067
Non-cancer illness code self-reported: allergy or anaphylactic reaction to drug	European	0.4754	0.5065	0.9387	3.48E-01	0.0009	0.0013	1.0091	0.0065	-0.0058	0.0049
Non-cancer illness code self-reported: gout	European	0.0574	0.0616	0.9317	3.52E-01	0.0249	0.0069	0.9919	0.0208	-0.0032	0.0048
Non-cancer illness code self-reported: iron deficiency anaemia	European	0.1292	0.1388	0.9303	3.52E-01	0.0040	0.0013	0.9940	0.0064	0.0006	0.0049
Leg predicted mass (right)	European	0.0325	0.0349	0.9294	3.53E-01	0.2648	0.0117	1.1110	0.0275	0.0060	0.0068
Heel bone mineral density (BMD) T-score automated (right)	European	0.0484	0.0527	0.9174	3.59E-01	0.3032	0.0358	1.0291	0.0237	-0.0085	0.0073
Why stopped smoking: None of the above	European	-0.0787	0.0859	-0.9157	3.60E-01	0.0406	0.0061	0.9971	0.0068	0.0001	0.0055
Diagnoses - main ICD10: M16 Coxarthrosis [arthrosis of hip]	European	0.0870	0.0972	0.8949	3.71E-01	0.0107	0.0018	1.0099	0.0083	-0.0001	0.0053
Average weekly spirits intake	European	0.0543	0.0627	0.8657	3.87E-01	0.0316	0.0028	1.0170	0.0080	0.0112	0.0055
Non-cancer illness code self-reported: vaginal prolapse/uterine prolapse	European	0.1258	0.1464	0.8594	3.90E-01	0.0045	0.0016	1.0074	0.0072	0.0045	0.0050
Medication for cholesterol blood pressure or diabetes: Insulin	European	0.1152	0.1348	0.8553	3.92E-01	0.0099	0.0034	1.0104	0.0074	0.0135	0.0048
Diagnoses - main ICD10: C61 Malignant neoplasm of prostate	European	0.1024	0.1216	0.8418	4.00E-01	0.0043	0.0015	1.0186	0.0073	-0.0067	0.0050
Snoring	European	-0.0396	0.0475	-0.8343	4.04E-01	0.0594	0.0030	1.0252	0.0091	0.0009	0.0057
Non-accidental death in close genetic family	European	0.0987	0.1185	0.8327	4.05E-01	0.0190	0.0047	0.9930	0.0067	-0.0014	0.0054
Distance between home and job workplace	European	-0.1096	0.1318	-0.8316	4.06E-01	0.0123	0.0032	1.0051	0.0064	-0.0025	0.0053
Non-cancer illness code self-reported: bone disorder	European	-0.2036	0.2456	-0.8288	4.07E-01	0.0013	0.0012	1.0070	0.0065	0.0080	0.0050
Handedness (chirality/laterality): Use both right and left hands equally	European	0.1079	0.1309	0.8243	4.10E-01	0.0042	0.0014	1.0053	0.0068	0.0027	0.0047
Diagnoses - main ICD10: F43 Reaction to severe stress and adjustment disorders	European	0.3813	0.4656	0.8188	4.13E-01	0.0008	0.0013	1.0025	0.0059	0.0040	0.0048
Heel bone mineral density (BMD) T-score automated (left)	European	0.0417	0.0524	0.7971	4.25E-01	0.3010	0.0355	1.0310	0.0231	-0.0068	0.0075

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Non-cancer illness code self-reported: joint disorder	European	0.1480	0.1893	0.7819	4.34E-01	0.0020	0.0013	0.9924	0.0061	-0.0006	0.0048
Vitamin and mineral supplements: Vitamin E	European	0.0839	0.1080	0.7764	4.38E-01	0.0070	0.0014	0.9926	0.0063	0.0069	0.0053
Non-cancer illness code self-reported: hypopituitarism	European	-0.2006	0.2584	-0.7760	4.38E-01	0.0014	0.0012	0.9920	0.0064	0.0066	0.0054
Non-cancer illness code self-reported: mania/bipolar disorder/manic depression	European	0.0851	0.1116	0.7626	4.46E-01	0.0058	0.0013	0.9992	0.0061	0.0013	0.0053
Eye problems/disorders: Glaucoma	European	0.0613	0.0806	0.7605	4.47E-01	0.0399	0.0055	1.0166	0.0081	-0.0082	0.0053
Illnesses of father: Prostate cancer	European	-0.0723	0.0960	-0.7533	4.51E-01	0.0084	0.0019	1.0123	0.0085	-0.0013	0.0052
Non-cancer illness code self-reported: crohn's disease	European	-0.1018	0.1362	-0.7471	4.55E-01	0.0049	0.0015	1.0080	0.0069	0.0064	0.0055
Morning/evening person (chronotype)	European	0.0302	0.0409	0.7388	4.60E-01	0.1148	0.0044	1.0486	0.0125	-0.0005	0.0058
Eye problems/disorders: Cataract	European	0.0751	0.1028	0.7300	4.65E-01	0.0232	0.0044	1.0137	0.0069	-0.0019	0.0054
Diagnoses - main ICD10: B37 Candidiasis	European	0.4727	0.6523	0.7246	4.69E-01	0.0007	0.0014	1.0008	0.0066	-0.0017	0.0044
Vitamin and mineral supplements: Vitamin D	European	-0.0845	0.1177	-0.7177	4.73E-01	0.0062	0.0016	0.9966	0.0073	0.0019	0.0053
Had menopause	European	0.0695	0.0982	0.7086	4.79E-01	0.0200	0.0042	1.0053	0.0071	-0.0018	0.0058
Diagnoses - main ICD10: K40 Inguinal hernia	European	-0.0532	0.0758	-0.7018	4.83E-01	0.0184	0.0024	0.9917	0.0079	-0.0017	0.0055
Number of days/week walked 10+ minutes	European	0.0350	0.0501	0.6998	4.84E-01	0.0421	0.0023	1.0113	0.0078	-0.0004	0.0055
Duration of fitness test	European	-0.1062	0.1551	-0.6847	4.94E-01	0.0205	0.0092	1.0042	0.0063	-0.0115	0.0050
Non-cancer illness code self-reported: vitiligo	European	0.1929	0.2825	0.6829	4.95E-01	0.0011	0.0014	0.9976	0.0072	0.0009	0.0049
Diagnoses - main ICD10: K51 Ulcerative colitis	European	-0.0784	0.1161	-0.6754	4.99E-01	0.0046	0.0016	1.0144	0.0073	0.0059	0.0047
Vitamin and mineral supplements: None of the above	European	-0.0391	0.0582	-0.6720	5.02E-01	0.0301	0.0018	0.9942	0.0070	-0.0031	0.0054
Diagnoses - main ICD10: K76 Other diseases of liver	European	0.1062	0.1583	0.6710	5.02E-01	0.0035	0.0013	0.9938	0.0069	0.0049	0.0051
Time spent using computer	European	-0.0302	0.0459	-0.6577	5.11E-01	0.0948	0.0043	1.0507	0.0105	-0.0020	0.0067
Duration of other exercises	European	-0.0604	0.0973	-0.6210	5.35E-01	0.0190	0.0031	1.0084	0.0070	0.0012	0.0054
Illnesses of mother: Breast cancer	European	-0.0504	0.0846	-0.5952	5.52E-01	0.0094	0.0020	1.0068	0.0086	-0.0053	0.0045
Reproducibility of spirometry measurement using ERS/ATS criteria	European	-0.0611	0.1027	-0.5950	5.52E-01	0.0144	0.0023	1.0077	0.0073	0.0102	0.0058
Non-cancer illness code self-reported: hyperthyroidism/thyrototoxicosis	European	0.0605	0.1042	0.5810	5.61E-01	0.0087	0.0026	1.0063	0.0085	-0.0002	0.0052
Diagnoses - main ICD10: K35 Acute appendicitis	European	-0.0986	0.1719	-0.5738	5.66E-01	0.0023	0.0013	1.0040	0.0066	0.0041	0.0053
Whole body water mass	European	0.0187	0.0327	0.5729	5.67E-01	0.2899	0.0131	1.1271	0.0314	0.0086	0.0069
Whole body fat-free mass	European	0.0186	0.0327	0.5684	5.70E-01	0.2898	0.0131	1.1282	0.0315	0.0082	0.0069
Duration of strenuous sports	European	0.0835	0.1474	0.5662	5.71E-01	0.0321	0.0136	0.9932	0.0065	0.0034	0.0048
Diagnoses - main ICD10: I30 Acute pericarditis	European	0.1048	0.1903	0.5505	5.82E-01	0.0023	0.0015	0.9949	0.0069	-0.0002	0.0052
Non-cancer illness code self-reported: pernicious anaemia	European	0.0787	0.1443	0.5456	5.85E-01	0.0036	0.0013	0.9908	0.0067	0.0018	0.0052
Non-cancer illness code self-reported: enlarged prostate	European	0.0513	0.0993	0.5169	6.05E-01	0.0063	0.0016	1.0036	0.0070	0.0007	0.0048
Non-cancer illness code self-reported: arthritis (nos)	European	0.0948	0.1841	0.5150	6.07E-01	0.0020	0.0014	1.0135	0.0065	0.0041	0.0051
Hair/balding pattern: Pattern 2	European	-0.0306	0.0606	-0.5049	6.14E-01	0.0517	0.0062	1.0346	0.0141	0.0103	0.0053

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Ever taken oral contraceptive pill	European	0.0410	0.0824	0.4981	6.18E-01	0.0199	0.0030	1.0101	0.0073	0.0030	0.0050
Non-cancer illness code self-reported: varicose veins	European	-0.0616	0.1241	-0.4969	6.19E-01	0.0046	0.0014	1.0091	0.0067	0.0012	0.0050
Cancer code self-reported: lung cancer	European	0.7449	1.6566	0.4497	6.53E-01	0.0003	0.0012	0.9934	0.0067	-0.0053	0.0048
Cancer code self-reported: prostate cancer	European	0.0448	0.1000	0.4481	6.54E-01	0.0062	0.0016	1.0143	0.0082	-0.0099	0.0054
Tinnitus: Yes now most or all of the time	European	0.0373	0.0836	0.4457	6.56E-01	0.0335	0.0049	1.0018	0.0070	0.0040	0.0054
Alcohol drinker status: Never	European	0.0356	0.0799	0.4456	6.56E-01	0.0142	0.0017	1.0175	0.0077	0.0070	0.0054
Non-cancer illness code self-reported: hypertrophic cardiomyopathy (hcm / hocm)	European	0.1013	0.2320	0.4367	6.62E-01	0.0013	0.0013	1.0032	0.0068	-0.0039	0.0049
Non-cancer illness code self-reported: eczema/dermatitis	European	-0.0447	0.1035	-0.4315	6.66E-01	0.0083	0.0021	1.0151	0.0073	0.0055	0.0055
Number of days/week of vigorous physical activity 10+ minutes	European	0.0237	0.0579	0.4092	6.82E-01	0.0378	0.0023	1.0165	0.0079	0.0011	0.0058
Systolic blood pressure automated reading	European	0.0170	0.0434	0.3910	6.96E-01	0.1274	0.0060	1.0678	0.0171	-0.0049	0.0066
Non-cancer illness code self-reported: malabsorption/coeliac disease	European	0.0399	0.1123	0.3548	7.23E-01	0.0171	0.0123	0.9928	0.0226	-0.0004	0.0051
Non-cancer illness code self-reported: osteoporosis	European	0.0327	0.0935	0.3503	7.26E-01	0.0147	0.0020	1.0018	0.0084	0.0042	0.0058
Underlying (primary) cause of death: ICD10: E85.4 Organ-limited amyloidosis	European	0.0925	0.2726	0.3394	7.34E-01	0.0471	0.0597	1.0020	0.0073	0.0074	0.0050
Types of transport used (excluding work): Public transport	European	-0.0218	0.0735	-0.2962	7.67E-01	0.0223	0.0017	1.0251	0.0067	-0.0026	0.0056
Diagnoses - main ICD10: M70 Soft tissue disorders related to use overuse and pressure	European	0.0364	0.1247	0.2915	7.71E-01	0.0042	0.0013	0.9813	0.0067	-0.0016	0.0047
Diagnoses - main ICD10: D12 Benign neoplasm of colon rectum anus and anal canal	European	-0.0280	0.0959	-0.2914	7.71E-01	0.0085	0.0015	1.0043	0.0067	0.0094	0.0047
Cancer code self-reported: malignant melanoma	European	-0.0339	0.1163	-0.2914	7.71E-01	0.0051	0.0017	0.9929	0.0066	-0.0030	0.0046
Ever had bowel cancer screening	European	0.0237	0.0820	0.2883	7.73E-01	0.0130	0.0016	1.0198	0.0073	0.0071	0.0054
Diagnoses - main ICD10: F31 Bipolar affective disorder	European	0.0311	0.1149	0.2710	7.86E-01	0.0050	0.0015	0.9860	0.0072	0.0016	0.0051
Diagnoses - main ICD10: J33 Nasal polyp	European	-0.0391	0.1444	-0.2710	7.86E-01	0.0034	0.0015	1.0059	0.0075	0.0026	0.0055
Diagnoses - main ICD10: O75 Other complications of labour and delivery not elsewhere classified	European	-0.0387	0.1502	-0.2578	7.97E-01	0.0027	0.0012	0.9903	0.0056	-0.0018	0.0047
Diagnoses - main ICD10: S52 Fracture of forearm	European	0.0352	0.1395	0.2525	8.01E-01	0.0064	0.0019	0.9992	0.0075	-0.0066	0.0056
Underlying (primary) cause of death: ICD10: J84.1 Other interstitial pulmonary diseases with fibrosis	European	0.0393	0.1644	0.2392	8.11E-01	0.1111	0.0612	0.9918	0.0064	-0.0057	0.0049
Handedness (chirality/laterality): Left-handed	European	-0.0233	0.0976	-0.2385	8.12E-01	0.0098	0.0017	1.0056	0.0073	-0.0022	0.0056
Pulse wave reflection index	European	-0.0174	0.0743	-0.2339	8.15E-01	0.0539	0.0055	1.0103	0.0078	-0.0027	0.0051
Trunk predicted mass	European	-0.0072	0.0314	-0.2289	8.19E-01	0.2858	0.0135	1.1357	0.0329	0.0094	0.0069
Cancer code self-reported: basal cell carcinoma	European	-0.0190	0.0857	-0.2212	8.25E-01	0.0103	0.0019	0.9981	0.0077	0.0001	0.0053
Trunk fat-free mass	European	-0.0065	0.0313	-0.2081	8.35E-01	0.2874	0.0136	1.1363	0.0331	0.0093	0.0069
Non-cancer illness code self-reported: ankylosing spondylitis	European	0.0418	0.2082	0.2007	8.41E-01	0.0016	0.0015	1.0032	0.0070	0.0112	0.0051
Non-cancer illness code self-reported: glaucoma	European	-0.0132	0.0858	-0.1543	8.77E-01	0.0116	0.0017	1.0108	0.0079	-0.0041	0.0053

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Father still alive	European	-0.0160	0.1056	-0.1516	8.80E-01	0.0064	0.0015	1.0158	0.0070	0.0046	0.0050
Potassium in urine	European	0.0079	0.0540	0.1464	8.84E-01	0.0430	0.0024	1.0155	0.0091	-0.0009	0.0055
Diagnoses - main ICD10: S76 Injury of muscle and tendon at hip and thigh level	European	0.0301	0.2125	0.1416	8.87E-01	0.0013	0.0012	0.9993	0.0066	-0.0001	0.0047
Mineral and other dietary supplements: Calcium	European	-0.0108	0.0774	-0.1399	8.89E-01	0.0122	0.0016	0.9992	0.0070	0.0011	0.0048
Cancer code self-reported: small intestine/small bowel cancer	European	0.0336	0.2742	0.1226	9.02E-01	0.0011	0.0014	0.9996	0.0067	0.0045	0.0051
Most recent bowel cancer screening	European	-0.0185	0.1543	-0.1200	9.05E-01	0.0116	0.0064	1.0118	0.0066	0.0054	0.0045
Diagnoses - main ICD10: I80 Phlebitis and thrombophlebitis	European	0.0116	0.1046	0.1113	9.11E-01	0.0083	0.0016	0.9925	0.0085	0.0005	0.0049
Vitamin and mineral supplements: Multivitamins +/- minerals	European	0.0062	0.0627	0.0986	9.22E-01	0.0237	0.0017	1.0072	0.0074	0.0056	0.0052
Diagnoses - main ICD10: N40 Hyperplasia of prostate	European	0.0105	0.1102	0.0949	9.24E-01	0.0062	0.0015	1.0079	0.0068	-0.0009	0.0049
Diagnoses - main ICD10: I48 Atrial fibrillation and flutter	European	0.0072	0.0836	0.0856	9.32E-01	0.0130	0.0020	1.0101	0.0080	0.0034	0.0050
Diagnoses - main ICD10: N19 Unspecified renal failure	European	-0.0133	0.1660	-0.0803	9.36E-01	0.0030	0.0013	0.9992	0.0069	-0.0010	0.0051
Doctor diagnosed hayfever or allergic rhinitis	European	-0.0039	0.0645	-0.0612	9.51E-01	0.0803	0.0092	1.0057	0.0085	0.0026	0.0050
Birth weight	European	-0.0024	0.0455	-0.0526	9.58E-01	0.1088	0.0067	1.0501	0.0139	-0.0063	0.0063
Diagnoses - main ICD10: K50 Crohn's disease [regional enteritis]	European	-0.0060	0.1326	-0.0454	9.64E-01	0.0042	0.0014	1.0046	0.0069	0.0030	0.0051
Fracture resulting from simple fall	European	-0.0032	0.1124	-0.0289	9.77E-01	0.0535	0.0145	0.9913	0.0065	-0.0058	0.0048
Illness injury bereavement stress in last 2 years: Serious illness injury or assault of a close relative	European	-0.0011	0.1034	-0.0110	9.91E-01	0.0112	0.0017	1.0105	0.0073	0.0048	0.0057
Non-cancer illness code self-reported: uterine fibroids	European	0.0003	0.1038	0.0032	9.98E-01	0.0068	0.0015	1.0093	0.0068	0.0024	0.0051

**eTable 8.** Genetic correlations for “covariate” Design

All results from LDhub analyses. Trait= trait against which genetic correlation was calculated. PMID= PMID for publication that belongs to tested summary statistics. rG= genetic correlation. SE= standard error for genetic correlation. Z= Z-score. p= P-value for genetic correlation analysis. ethnicity= sample ethnicity for sample referenced in “Trait” column. h2\_obs= Heritability on the observed scale for sample referenced in “Trait”. se= standard errors for variable reported in the cell to the left (i.e. h2\_obs, ht\_int, gcov\_int). h2\_int= LD score intercept for sample referenced in “Trait”. gcov\_int= cross-trait LD Score regression intercept.

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Age of first birth	27798627	reproductive	-0.4085	0.0795	-5.1409	2.73E-07	European	0.0627	0.0035	0.9531	0.0080	-0.0020	0.0057
Years of schooling 2016	27225129	education	-0.1986	0.0543	-3.6550	3.00E-04	European	0.1258	0.0045	0.9329	0.0101	-0.0115	0.0060
Intelligence	28530673	cognitive	-0.2125	0.0660	-3.2182	1.30E-03	European	0.1874	0.0106	1.0115	0.0085	0.0052	0.0049
Depressive symptoms	27089181	psychiatric	0.3906	0.1233	3.1685	1.50E-03	European	0.0466	0.0037	1.0031	0.0072	-0.0028	0.0055
Lung cancer	27488534	cancer	0.3581	0.1213	2.9523	3.20E-03	European	0.3251	0.0658	1.0120	0.0076	-0.0047	0.0047
Major depressive disorder	22472876	psychiatric	0.4461	0.1535	2.9067	3.70E-03	European	0.1585	0.0262	1.0102	0.0061	-0.0031	0.0049
Squamous cell lung cancer	27488534	cancer	0.5792	0.2100	2.7588	5.80E-03	European	0.0393	0.0123	1.0101	0.0065	-0.0089	0.0054
Lung cancer (squamous cell)	24880342	cancer	0.6259	0.2300	2.7214	6.50E-03	European	0.0520	0.0193	1.0057	0.0066	-0.0116	0.0049
Cigarettes smoked per day	20418890	smoking behaviour	0.3861	0.1424	2.7125	6.70E-03	European	0.0565	0.0152	1.0073	0.0064	-0.0011	0.0042
Age at Menarche	25231870	reproductive	-0.1679	0.0633	-2.6539	8.00E-03	European	0.2031	0.0101	0.9518	0.0118	0.0011	0.0061
Excessive daytime sleepiness	27992416	sleeping	0.2474	0.0933	2.6528	8.00E-03	European	0.0532	0.0050	1.0049	0.0071	-0.0091	0.0049
Height_2010	20881960	anthropometric	-0.1597	0.0609	-2.6220	8.70E-03	European	0.2863	0.0163	1.0166	0.0188	0.0058	0.0065
Lung adenocarcinoma	27488534	cancer	0.4737	0.1844	2.5682	1.02E-02	European	0.0348	0.0118	1.0162	0.0070	-0.0074	0.0047
Lung cancer (all)	24880342	cancer	0.3427	0.1337	2.5630	1.04E-02	European	0.1314	0.0295	1.0059	0.0083	-0.0041	0.0048
Description of average fatty acid chain length; not actual carbon number	27005778	metabolites	-0.5297	0.2152	-2.4612	1.38E-02	European	0.1008	0.0351	0.9831	0.0070	0.0088	0.0048
Schizophrenia	25056061	psychiatric	0.1519	0.0665	2.2825	2.25E-02	Mixed	0.4573	0.0192	1.0551	0.0131	0.0013	0.0068
Ever vs never smoked	20418890	smoking behaviour	0.2435	0.1070	2.2747	2.29E-02	European	0.0750	0.0065	0.9973	0.0061	0.0014	0.0047



Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Coronary artery disease	26343387	cardiometabolic	0.1582	0.0698	2.2667	2.34E-02	Mixed	0.0785	0.0057	1.0478	0.0096	0.0040	0.0057
Ratio of bisallylic groups to double bonds	27005778	metabolites	-0.2754	0.1220	-2.2579	2.40E-02	European	0.2972	0.1066	0.9772	0.0095	0.0073	0.0044
Mothers age at death	27015805	aging	-0.3198	0.1457	-2.1939	2.82E-02	European	0.0369	0.0072	1.0110	0.0069	0.0030	0.0052
Ratio of bisallylic groups to total fatty acids	27005778	metabolites	-0.2916	0.1359	-2.1464	3.18E-02	European	0.2753	0.0951	0.9856	0.0083	0.0064	0.0046
Insomnia	28604731	sleeping	0.2226	0.1046	2.1284	3.33E-02	European	0.0470	0.0050	1.0041	0.0070	-0.0008	0.0050
Neuroticism	27089181	personality	0.2646	0.1261	2.0976	3.59E-02	European	0.0888	0.0078	0.9915	0.0126	0.0039	0.0068
Albumin	27005778	metabolites	0.4138	0.2027	2.0414	4.12E-02	European	0.0604	0.0246	0.9896	0.0070	-0.0018	0.0042
Overweight	23563607	anthropometric	0.1393	0.0706	1.9739	4.84E-02	European	0.1096	0.0065	1.0242	0.0096	0.0009	0.0057
Obesity class 1	23563607	anthropometric	0.1385	0.0705	1.9648	4.94E-02	European	0.2171	0.0114	1.0184	0.0114	0.0026	0.0061
College completion	23722424	education	-0.1733	0.0912	-1.8997	5.75E-02	European	0.0793	0.0057	1.0209	0.0086	-0.0066	0.0060
Neuroticism	24828478	personality	0.3419	0.1870	1.8282	6.75E-02	European	0.0136	0.0034	1.0125	0.0064	0.0049	0.0049
Concentration of medium HDL particles	27005778	metabolites	0.3605	0.1990	1.8112	7.01E-02	European	0.0692	0.0259	0.9930	0.0077	-0.0052	0.0044
Average number of methylene groups per a double bond	27005778	metabolites	0.2648	0.1466	1.8065	7.08E-02	European	0.2012	0.0779	0.9959	0.0084	-0.0054	0.0045
Subjective well being	27089181	psychiatric	-0.1893	0.1053	-1.7972	7.23E-02	European	0.0249	0.0021	1.0027	0.0075	0.0050	0.0057
Total lipids in medium HDL	27005778	metabolites	0.3759	0.2099	1.7915	7.32E-02	European	0.0648	0.0262	0.9948	0.0080	-0.0061	0.0044
Tyrosine	27005778	metabolites	0.3106	0.1739	1.7861	7.41E-02	European	0.0770	0.0272	0.9980	0.0069	-0.0084	0.0047
Years of schooling (proxy cognitive performance)	25201988	education	-0.1580	0.0898	-1.7585	7.87E-02	European	0.1065	0.0073	1.0274	0.0090	-0.0101	0.0066
Cholesterol esters in medium HDL	27005778	metabolites	0.4154	0.2364	1.7570	7.89E-02	European	0.0568	0.0284	0.9997	0.0088	-0.0082	0.0044
Lumbar Spine bone mineral density	26367794	bone	0.1708	0.0979	1.7453	8.09E-02	Mixed	0.1267	0.0157	0.9813	0.0084	-0.0078	0.0052
Forced expiratory volume in 1 second (FEV1)/ Forced Vital capacity (FVC)	21946350	lung function	-0.1606	0.0931	-1.7243	8.47E-02	European	0.1239	0.0136	0.9283	0.0077	0.0064	0.0051

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
PGC cross-disorder analysis	23453885	psychiatric	0.1525	0.0911	1.6738	9.42E-02	European	0.1714	0.0133	1.0154	0.0114	0.0051	0.0067
Multiple sclerosis	21833088	autoimmune	0.4905	0.2937	1.6702	9.49E-02	European	0.0572	0.0275	1.0588	0.0089	-0.0029	0.0056
Citrate	27005778	metabolites	-0.2693	0.1645	-1.6372	1.02E-01	European	0.0674	0.0215	1.0135	0.0074	-0.0034	0.0049
Average number of double bonds in a fatty acid chain	27005778	metabolites	-0.2429	0.1490	-1.6301	1.03E-01	European	0.1713	0.0530	1.0019	0.0079	0.0052	0.0046
Forced expiratory volume in 1 second (FEV1)/ Forced Vital capacity (FVC)	28166213	lung function	-0.1262	0.0781	-1.6161	1.06E-01	European	0.2607	0.0214	0.9717	0.0092	0.0050	0.0049
Years of schooling 2013	23722424	education	-0.1456	0.0910	-1.6004	1.10E-01	European	0.0841	0.0064	1.0195	0.0091	-0.0083	0.0061
Obesity class 2	23563607	anthropometric	0.1188	0.0753	1.5771	1.15E-01	European	0.1843	0.0123	1.0022	0.0097	0.0005	0.0062
HbA1C	20858683	glycemic	0.1902	0.1227	1.5495	1.21E-01	European	0.0649	0.0120	0.9995	0.0073	-0.0046	0.0045
Neo-openness to experience	21173776	personality	0.2768	0.1788	1.5483	1.22E-01	European	0.1063	0.0264	0.9916	0.0065	-0.0086	0.0056
Extreme waist-to-hip ratio	23563607	anthropometric	0.2362	0.1544	1.5302	1.26E-01	European	0.3641	0.0596	0.9765	0.0089	-0.0027	0.0064
Age at Menopause	26414677	reproductive	-0.1233	0.0814	-1.5138	1.30E-01	European	0.1355	0.0156	0.9904	0.0140	-0.0025	0.0053
Forced expiratory volume in 1 second (FEV1)/ Forced Vital capacity (FVC)	26635082	lung function	-0.1719	0.1144	-1.5024	1.33E-01	European	0.1142	0.0149	0.9808	0.0069	0.0025	0.0049
Number of children ever born	27798627	reproductive	0.1382	0.0920	1.5023	1.33E-01	European	0.0255	0.0017	0.9713	0.0069	0.0012	0.0051
Omega-9 and saturated fatty acids	27005778	metabolites	0.3081	0.2097	1.4692	1.42E-01	European	0.0904	0.0448	0.9950	0.0082	-0.0015	0.0046
Lumbar spine bone mineral density	22504420	bone	0.1264	0.0863	1.4651	1.43E-01	Mixed	0.2699	0.0244	1.0133	0.0086	-0.0075	0.0052
Mean platelet volume	22139419	haematological	0.1677	0.1153	1.4544	1.46E-01	European	0.3215	0.0523	0.9808	0.0109	-0.0060	0.0057
Total cholesterol in medium HDL	27005778	metabolites	0.3058	0.2131	1.4349	1.51E-01	European	0.0570	0.0250	0.9979	0.0088	-0.0060	0.0045
Concentration of chylomicrons and largest VLDL particles	27005778	metabolites	0.2075	0.1462	1.4192	1.56E-01	European	0.1135	0.0271	0.9893	0.0070	0.0000	0.0047

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Femoral neck bone mineral density	22504420	bone	0.1105	0.0794	1.3907	1.64E-01	Mixed	0.3025	0.0249	0.9809	0.0083	0.0023	0.0049
Adiponectin	22479202	cardiometabolic	0.1711	0.1257	1.3608	1.74E-01	Mixed	0.1194	0.0261	1.0228	0.0125	-0.0051	0.0049
2hr glucose adjusted for BMI	20081857	glycemic	0.2778	0.2066	1.3446	1.79E-01	European	0.1040	0.0341	0.9933	0.0071	-0.0065	0.0051
Childhood obesity	22484627	anthropometric	0.1252	0.0935	1.3398	1.80E-01	European	0.4199	0.0461	0.9248	0.0076	-0.0010	0.0053
Body fat	26833246	anthropometric	0.1337	0.1001	1.3365	1.81E-01	Mixed	0.1063	0.0082	0.9055	0.0064	-0.0019	0.0057
Glycoprotein acetyls; mainly a1-acid glycoprotein	27005778	metabolites	0.2123	0.1634	1.2992	1.94E-01	European	0.0972	0.0297	0.9867	0.0065	0.0013	0.0044
Waist-to-hip ratio	25673412	anthropometric	0.0827	0.0640	1.2922	1.96E-01	European	0.1139	0.0071	0.9186	0.0092	0.0075	0.0049
Systemic lupus erythematosus	26502338	autoimmune	0.1815	0.1411	1.2862	1.98E-01	European	0.3874	0.0677	1.1065	0.0102	-0.0042	0.0064
Phospholipids in medium HDL	27005778	metabolites	0.2322	0.1806	1.2857	1.99E-01	European	0.0721	0.0233	0.9928	0.0079	-0.0030	0.0045
Forced expiratory volume in 1 second (FEV1)	28166213	lung function	-0.1008	0.0787	-1.2805	2.00E-01	European	0.2642	0.0179	0.9723	0.0078	0.0035	0.0049
Extreme height	23563607	anthropometric	-0.1084	0.0858	-1.2630	2.07E-01	European	1.2364	0.1090	1.0345	0.0180	-0.0023	0.0075
Anorexia Nervosa	24514567	psychiatric	0.1206	0.0964	1.2501	2.11E-01	European	0.5535	0.0315	0.8995	0.0073	-0.0080	0.0055
Free cholesterol in medium HDL	27005778	metabolites	0.2313	0.1868	1.2385	2.16E-01	European	0.0705	0.0236	0.9962	0.0083	-0.0038	0.0045
Parkinsons disease	19915575	neurological	-0.1446	0.1178	-1.2274	2.20E-01	European	0.3807	0.1104	1.1266	0.0087	0.0046	0.0043
Mono-unsaturated fatty acids	27005778	metabolites	0.2253	0.1837	1.2266	2.20E-01	European	0.1094	0.0432	0.9869	0.0083	0.0002	0.0046
Phospholipids in chylomicrons and largest VLDL particles	27005778	metabolites	0.1622	0.1337	1.2133	2.25E-01	European	0.1005	0.0272	0.9837	0.0065	-0.0008	0.0047
Forearm Bone mineral density	26367794	bone	0.2796	0.2318	1.2063	2.28E-01	Mixed	0.0858	0.0438	1.0120	0.0071	-0.0054	0.0043
Free cholesterol in very large HDL	27005778	metabolites	-0.3096	0.2590	-1.1956	2.32E-01	European	0.0489	0.0253	1.0145	0.0141	0.0076	0.0052
Total lipids in small HDL	27005778	metabolites	0.2821	0.2370	1.1903	2.34E-01	European	0.0534	0.0267	1.0030	0.0076	-0.0025	0.0048
Former vs Current smoker	20418890	smoking behaviour	-0.1845	0.1600	-1.1534	2.49E-01	European	0.0598	0.0106	1.0033	0.0066	-0.0025	0.0050
Body mass index	20935630	anthropometric	0.0680	0.0599	1.1361	2.56E-01	European	0.1894	0.0097	1.0109	0.0106	0.0042	0.0053
Childhood IQ	23358156	education	-0.1478	0.1303	-1.1345	2.57E-01	European	0.2714	0.0457	1.0028	0.0092	-0.0056	0.0057
Glucose	27005778	metabolites	0.1699	0.1510	1.1256	2.60E-01	European	0.0891	0.0218	0.9944	0.0068	-0.0067	0.0045

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Infant head circumference	22504419	anthropometric	-0.1773	0.1585	-1.1188	2.63E-01	European	0.2229	0.0453	0.9921	0.0066	0.0007	0.0051
Phenylalanine	27005778	metabolites	0.2565	0.2298	1.1160	2.64E-01	European	0.0550	0.0222	1.0042	0.0068	0.0017	0.0054
Concentration of large VLDL particles	27005778	metabolites	0.1306	0.1184	1.1030	2.70E-01	European	0.1315	0.0353	0.9740	0.0071	-0.0003	0.0043
Rheumatoid Arthritis	24390342	autoimmune	0.1001	0.0935	1.0704	2.84E-01	European	0.1585	0.0293	1.0250	0.0169	0.0030	0.0049
22: 6 docosaheaxaenoic acid	27005778	metabolites	-0.1635	0.1542	-1.0600	2.89E-01	European	0.1323	0.0380	0.9953	0.0077	0.0017	0.0044
Sitting height ratio	25865494	anthropometric	0.1248	0.1180	1.0577	2.90E-01	European	0.2284	0.0283	0.9772	0.0078	-0.0048	0.0055
Total cholesterol in very large HDL	27005778	metabolites	-0.3270	0.3150	-1.0381	2.99E-01	European	0.0363	0.0233	1.0122	0.0118	0.0080	0.0050
Leucine	27005778	metabolites	0.2303	0.2275	1.0123	3.11E-01	European	0.0450	0.0217	1.0093	0.0073	-0.0056	0.0051
Creatinine	27005778	metabolites	-0.1363	0.1353	-1.0074	3.14E-01	European	0.1149	0.0246	1.0121	0.0074	0.0000	0.0050
Attention deficit hyperactivity disorder (GC)	27663945	psychiatric	0.2079	0.2071	1.0039	3.15E-01	European	0.0725	0.0294	0.9928	0.0075	0.0092	0.0051
Attention deficit hyperactivity disorder (No GC)	27663945	psychiatric	0.2070	0.2072	0.9989	3.18E-01	European	0.0734	0.0299	1.0075	0.0076	0.0093	0.0052
Transferrin	25352340	metal	-0.1213	0.1292	-0.9389	3.48E-01	European	0.1623	0.0770	1.0622	0.0242	0.0026	0.0059
Chronic Kidney Disease	26831199	kidney	0.1701	0.1867	0.9109	3.62E-01	Mixed	0.0176	0.0059	1.0180	0.0091	-0.0040	0.0052
Concentration of very large VLDL particles	27005778	metabolites	0.1275	0.1400	0.9103	3.63E-01	European	0.1220	0.0293	0.9843	0.0072	-0.0004	0.0048
Eczema	26482879	autoimmune	-0.1258	0.1452	-0.8669	3.86E-01	Mixed	0.0681	0.0154	1.0234	0.0074	0.0107	0.0048
Waist circumference	25673412	anthropometric	0.0523	0.0607	0.8620	3.89E-01	European	0.1220	0.0051	0.8431	0.0080	0.0091	0.0051
Extreme BMI	23563607	anthropometric	0.0776	0.0911	0.8518	3.94E-01	European	0.6930	0.0540	1.0296	0.0114	0.0016	0.0068
Forced Vital capacity (FVC)	28166213	lung function	-0.0672	0.0792	-0.8480	3.96E-01	European	0.2578	0.0165	0.9794	0.0077	0.0012	0.0050
Isoleucine	27005778	metabolites	0.1433	0.1698	0.8443	3.99E-01	European	0.0686	0.0241	0.9958	0.0070	-0.0046	0.0052
Valine	27005778	metabolites	0.1535	0.1862	0.8245	4.10E-01	European	0.0611	0.0201	1.0150	0.0079	-0.0043	0.0047
Sleep duration	27494321	sleeping	-0.0880	0.1075	-0.8186	4.13E-01	European	0.0545	0.0052	1.0225	0.0081	-0.0043	0.0050
Type 2 Diabetes	22885922	glycemic	0.0822	0.1020	0.8060	4.20E-01	European	0.0882	0.0094	1.0081	0.0072	0.0002	0.0046
Amyotrophic lateral sclerosis	27455348	neurological	0.1544	0.1944	0.7944	4.27E-01	European	0.0507	0.0131	0.9934	0.0064	0.0002	0.0050

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Free cholesterol	27005778	metabolites	-0.1865	0.2361	-0.7902	4.29E-01	European	0.0687	0.0429	1.0231	0.0110	0.0049	0.0048
Alzheimer's disease	24162737	neurological	0.1237	0.1609	0.7692	4.42E-01	European	0.0429	0.0225	1.0681	0.0303	-0.0071	0.0049
Insomnia	27992416	sleeping	0.0787	0.1034	0.7608	4.47E-01	European	0.1332	0.0120	1.0028	0.0080	0.0057	0.0054
Asthma	17611496	autoimmune	0.1080	0.1432	0.7545	4.51E-01	European	0.1229	0.0279	1.0074	0.0089	0.0002	0.0053
18: 2 linoleic acid (LA)	27005778	metabolites	-0.1216	0.1652	-0.7361	4.62E-01	European	0.1222	0.0489	1.0045	0.0100	0.0056	0.0048
Total cholesterol in small LDL	27005778	metabolites	-0.1429	0.1944	-0.7352	4.62E-01	European	0.0683	0.0451	1.0168	0.0198	0.0087	0.0048
Total lipids in large VLDL	27005778	metabolites	0.0878	0.1214	0.7232	4.70E-01	European	0.1355	0.0312	0.9867	0.0068	0.0018	0.0046
Total cholesterol in large VLDL	27005778	metabolites	-0.0857	0.1199	-0.7145	4.75E-01	European	0.1191	0.0297	0.9906	0.0068	0.0055	0.0042
Inflammatory Bowel Disease (Euro)	26192919	autoimmune	-0.0591	0.0834	-0.7091	4.78E-01	European	0.3296	0.0354	1.0566	0.0112	0.0059	0.0055
Phospholipids in large HDL	27005778	metabolites	0.0964	0.1388	0.6944	4.88E-01	European	0.1269	0.0306	0.9986	0.0144	-0.0034	0.0045
Difference in height between adolescence and adulthood; age 14	23449627	anthropometric	-0.1260	0.1815	-0.6938	4.88E-01	European	0.4451	0.1124	0.9818	0.0070	0.0030	0.0052
Total lipids in very large VLDL	27005778	metabolites	0.0830	0.1210	0.6854	4.93E-01	European	0.1391	0.0304	0.9774	0.0071	0.0007	0.0045
Femoral Neck bone mineral density	26367794	bone	0.0612	0.0929	0.6583	5.10E-01	Mixed	0.1242	0.0149	0.9772	0.0083	0.0011	0.0051
Total lipids in very large HDL	27005778	metabolites	-0.1575	0.2406	-0.6549	5.13E-01	European	0.0615	0.0282	1.0158	0.0153	0.0059	0.0052
HDL cholesterol	20686565	lipids	-0.0452	0.0710	-0.6363	5.25E-01	European	0.1267	0.0240	1.0601	0.0508	-0.0069	0.0053
Mean diameter for VLDL particles	27005778	metabolites	0.0811	0.1277	0.6345	5.26E-01	European	0.1340	0.0349	0.9903	0.0088	-0.0022	0.0046
Ulcerative colitis	26192919	autoimmune	-0.0692	0.1093	-0.6338	5.26E-01	European	0.2526	0.0331	1.0505	0.0106	0.0019	0.0055
Forced expiratory volume in 1 second (FEV1)	26635082	lung function	-0.0611	0.0973	-0.6284	5.30E-01	European	0.1421	0.0161	0.9909	0.0068	-0.0018	0.0048
Primary biliary cirrhosis	26394269	autoimmune	0.0728	0.1171	0.6221	5.34E-01	European	0.3818	0.0645	1.0024	0.0100	0.0067	0.0058
Phospholipids in large VLDL	27005778	metabolites	0.0774	0.1249	0.6193	5.36E-01	European	0.1131	0.0317	0.9909	0.0068	0.0024	0.0047
Fathers age at death	27015805	aging	-0.0944	0.1538	-0.6139	5.39E-01	European	0.0403	0.0068	1.0171	0.0070	-0.0051	0.0049

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Neo-conscientiousness	21173776	personality	-0.1322	0.2206	-0.5992	5.49E-01	European	0.0719	0.0291	1.0006	0.0069	0.0008	0.0052
Concentration of large HDL particles	27005778	metabolites	0.0819	0.1385	0.5918	5.54E-01	European	0.1317	0.0305	1.0000	0.0155	-0.0024	0.0046
Urate	23263486	other	0.0317	0.0552	0.5737	5.66E-01	European	0.1780	0.0596	0.9499	0.0517	0.0032	0.0048
Total cholesterol in small VLDL	27005778	metabolites	-0.0892	0.1565	-0.5702	5.69E-01	European	0.0866	0.0319	1.0070	0.0098	0.0064	0.0043
Triglycerides in large VLDL	27005778	metabolites	0.0695	0.1231	0.5642	5.73E-01	European	0.1100	0.0297	0.9895	0.0066	0.0032	0.0046
Total lipids in chylomicrons and largest VLDL particles	27005778	metabolites	0.0757	0.1364	0.5549	5.79E-01	European	0.1233	0.0285	0.9887	0.0067	0.0012	0.0047
Parents age at death	27015805	aging	-0.0903	0.1634	-0.5525	5.81E-01	European	0.0287	0.0069	1.0163	0.0066	0.0008	0.0047
Free cholesterol in small VLDL	27005778	metabolites	-0.0775	0.1411	-0.5494	5.83E-01	European	0.1079	0.0341	1.0014	0.0089	0.0072	0.0044
Autism spectrum disorder	0	psychiatric	0.0684	0.1288	0.5312	5.95E-01	European	0.4249	0.0520	0.9722	0.0067	-0.0017	0.0050
Cholesterol esters in large VLDL	27005778	metabolites	0.0623	0.1175	0.5298	5.96E-01	European	0.1626	0.0347	0.9782	0.0072	0.0013	0.0045
Concentration of medium VLDL particles	27005778	metabolites	0.0623	0.1184	0.5265	5.99E-01	European	0.1462	0.0364	0.9818	0.0071	0.0027	0.0044
Acetate	27005778	metabolites	-0.0932	0.1807	-0.5159	6.06E-01	European	0.0532	0.0194	1.0024	0.0068	0.0029	0.0044
Heart rate	23583979	haematological	0.0464	0.0960	0.4833	6.29E-01	Mixed	0.0842	0.0092	1.0130	0.0086	0.0069	0.0055
Fasting insulin main effect	22581228	glycemic	0.0626	0.1343	0.4661	6.41E-01	European	0.0717	0.0099	1.0134	0.0070	0.0025	0.0050
Concentration of very large HDL particles	27005778	metabolites	-0.1017	0.2209	-0.4603	6.45E-01	European	0.0654	0.0272	1.0021	0.0155	0.0031	0.0051
Forced Vital capacity (FVC)	26635082	lung function	0.0467	0.1020	0.4580	6.47E-01	European	0.1459	0.0155	0.9863	0.0068	-0.0046	0.0047
Bipolar disorder	21926972	psychiatric	0.0470	0.1041	0.4516	6.52E-01	European	0.4278	0.0376	1.0245	0.0076	0.0059	0.0053
Crohn's disease	26192919	autoimmune	-0.0376	0.0838	-0.4491	6.53E-01	European	0.4982	0.0597	1.0245	0.0114	0.0071	0.0053
Phospholipids in very large HDL	27005778	metabolites	-0.0808	0.1828	-0.4422	6.58E-01	European	0.0906	0.0298	1.0085	0.0175	0.0027	0.0051
Apolipoprotein B	27005778	metabolites	-0.0720	0.1633	-0.4408	6.59E-01	European	0.0830	0.0414	1.0082	0.0153	0.0082	0.0045
Phospholipids in small VLDL	27005778	metabolites	-0.0575	0.1319	-0.4363	6.63E-01	European	0.1110	0.0356	1.0007	0.0085	0.0064	0.0043
HOMA-IR	20081858	glycemic	0.0737	0.1695	0.4349	6.64E-01	European	0.0696	0.0124	1.0021	0.0064	0.0029	0.0048

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Total lipids in large HDL	27005778	metabolites	0.0614	0.1413	0.4346	6.64E-01	European	0.1292	0.0309	1.0013	0.0153	-0.0023	0.0047
Omega-3 fatty acids	27005778	metabolites	-0.0658	0.1520	-0.4328	6.65E-01	European	0.1493	0.0431	0.9925	0.0079	0.0010	0.0047
Triglycerides in chylomicrons and largest VLDL particles	27005778	metabolites	0.0592	0.1386	0.4273	6.69E-01	European	0.0928	0.0275	0.9900	0.0069	0.0022	0.0046
Celiac disease	20190752	autoimmune	0.0580	0.1440	0.4025	6.87E-01	European	0.3024	0.0496	1.0674	0.0111	-0.0026	0.0071
Ferritin	25352340	metal	0.0691	0.1738	0.3974	6.91E-01	European	0.0908	0.0270	1.0279	0.0093	0.0010	0.0063
LDL cholesterol	20686565	lipids	0.0318	0.0817	0.3897	6.97E-01	European	0.1032	0.0290	1.0526	0.0496	0.0054	0.0055
Child birth length	25281659	anthropometric	0.0502	0.1309	0.3832	7.02E-01	European	0.1676	0.0234	0.9936	0.0073	-0.0051	0.0058
Phospholipids in IDL	27005778	metabolites	0.0719	0.1897	0.3789	7.05E-01	European	0.0603	0.0429	1.0211	0.0201	0.0039	0.0045
Triglycerides in very large HDL	27005778	metabolites	0.0647	0.1735	0.3730	7.09E-01	European	0.0829	0.0257	1.0153	0.0284	0.0068	0.0050
Primary sclerosing cholangitis	27992413	autoimmune	-0.0451	0.1208	-0.3729	7.09E-01	Mixed	0.3933	0.1568	0.9942	0.0159	0.0043	0.0060
Serum cystatin c	26831199	kidney	-0.0379	0.1022	-0.3704	7.11E-01	Mixed	0.1687	0.0676	0.9622	0.0143	0.0012	0.0050
Total lipids in small VLDL	27005778	metabolites	-0.0485	0.1311	-0.3700	7.11E-01	European	0.1406	0.0374	0.9931	0.0083	0.0056	0.0046
Alanine	27005778	metabolites	0.0575	0.1603	0.3585	7.20E-01	European	0.0939	0.0273	1.0076	0.0075	-0.0071	0.0051
Phospholipids in very large VLDL	27005778	metabolites	0.0449	0.1258	0.3568	7.21E-01	European	0.1080	0.0288	0.9850	0.0068	0.0015	0.0045
Total lipids in medium VLDL	27005778	metabolites	0.0444	0.1255	0.3536	7.24E-01	European	0.1367	0.0353	0.9870	0.0070	0.0039	0.0046
Platelet count	22139419	haematological	-0.0291	0.0845	-0.3450	7.30E-01	European	0.1195	0.0118	0.9860	0.0087	0.0091	0.0046
Triglycerides	20686565	lipids	0.0298	0.0894	0.3329	7.39E-01	European	0.1690	0.0294	0.9674	0.0167	0.0084	0.0061
Phospholipids in large LDL	27005778	metabolites	0.0583	0.1856	0.3138	7.54E-01	European	0.0605	0.0465	1.0181	0.0222	0.0053	0.0046
Triglycerides in medium VLDL	27005778	metabolites	0.0435	0.1393	0.3120	7.55E-01	European	0.0937	0.0311	1.0002	0.0066	0.0053	0.0047
Concentration of small VLDL particles	27005778	metabolites	-0.0366	0.1259	-0.2906	7.71E-01	European	0.1470	0.0380	0.9912	0.0081	0.0059	0.0045
Phospholipids in very small VLDL	27005778	metabolites	0.0507	0.1755	0.2892	7.72E-01	European	0.0864	0.0387	1.0139	0.0158	0.0026	0.0048
Free cholesterol in large VLDL	27005778	metabolites	-0.0312	0.1154	-0.2703	7.87E-01	European	0.1249	0.0308	0.9879	0.0070	0.0041	0.0043
Serum creatinine (non-diabetes)	26831199	kidney	0.0238	0.0892	0.2664	7.90E-01	Mixed	0.1140	0.0109	0.9810	0.0143	0.0004	0.0058

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Triglycerides in very small VLDL	27005778	metabolites	-0.0351	0.1361	-0.2582	7.96E-01	European	0.1370	0.0378	0.9987	0.0101	0.0067	0.0046
Total cholesterol in medium VLDL	27005778	metabolites	-0.0311	0.1221	-0.2550	7.99E-01	European	0.1210	0.0362	0.9938	0.0078	0.0063	0.0045
Triglycerides in IDL	27005778	metabolites	-0.0403	0.1589	-0.2536	8.00E-01	European	0.1064	0.0361	1.0107	0.0156	0.0063	0.0046
HOMA-B	20081858	glycemic	-0.0357	0.1516	-0.2357	8.14E-01	European	0.0895	0.0136	0.9896	0.0064	0.0039	0.0050
Height; Females at age 10 and males at age 12	23449627	anthropometric	-0.0232	0.0986	-0.2353	8.14E-01	European	0.4289	0.0485	0.9532	0.0080	-0.0040	0.0054
Difference in height between childhood and adulthood; age 8	23449627	anthropometric	0.0319	0.1374	0.2325	8.16E-01	European	0.3391	0.0506	0.9709	0.0078	-0.0057	0.0055
Phospholipids in medium LDL	27005778	metabolites	0.0386	0.1762	0.2189	8.27E-01	European	0.0721	0.0442	1.0086	0.0200	0.0053	0.0047
Forced expiratory volume in 1 second (FEV1)	21946350	lung function	-0.0271	0.1245	-0.2180	8.27E-01	European	0.1737	0.0229	0.8800	0.0121	-0.0094	0.0081
Triglycerides in small HDL	27005778	metabolites	0.0400	0.1893	0.2114	8.33E-01	European	0.0633	0.0274	1.0003	0.0083	0.0044	0.0045
Triglycerides in very large VLDL	27005778	metabolites	0.0237	0.1152	0.2055	8.37E-01	European	0.1228	0.0298	0.9796	0.0070	0.0014	0.0043
Triglycerides in small VLDL	27005778	metabolites	-0.0260	0.1298	-0.2002	8.41E-01	European	0.1184	0.0360	0.9947	0.0076	0.0067	0.0044
Mean diameter for HDL particles	27005778	metabolites	-0.0309	0.1573	-0.1963	8.44E-01	European	0.1164	0.0294	1.0098	0.0197	0.0010	0.0048
Total lipids in very small VLDL	27005778	metabolites	-0.0295	0.1545	-0.1909	8.49E-01	European	0.1075	0.0374	1.0091	0.0131	0.0049	0.0047
Fasting proinsulin	20081858	glycemic	0.0289	0.1513	0.1908	8.49E-01	European	0.1956	0.0890	0.9794	0.0098	0.0048	0.0044
Leptin_adjBMI	26833098	hormone	-0.0269	0.1490	-0.1803	8.57E-01	European	0.0953	0.0173	1.0032	0.0071	0.0031	0.0050
Serum total triglycerides	27005778	metabolites	-0.0215	0.1202	-0.1785	8.58E-01	European	0.1235	0.0369	0.9927	0.0078	0.0065	0.0045
Birth weight	27680694	anthropometric	-0.0132	0.0765	-0.1722	8.63E-01	European	0.1016	0.0067	1.0439	0.0099	-0.0037	0.0054
Glutamine	27005778	metabolites	-0.0277	0.1674	-0.1655	8.69E-01	European	0.0643	0.0217	1.0175	0.0076	-0.0017	0.0042
Attention deficit hyperactivity disorder	20732625	psychiatric	-0.0363	0.2307	-0.1575	8.75E-01	European	0.2392	0.0884	1.0072	0.0062	0.0034	0.0048
Urinary albumin-to-creatinine ratio	26631737	kidney	-0.0235	0.1504	-0.1559	8.76E-01	European	0.0458	0.0088	0.9963	0.0071	0.0034	0.0051
Concentration of IDL particles	27005778	metabolites	0.0285	0.1834	0.1552	8.77E-01	European	0.0749	0.0449	1.0180	0.0190	0.0041	0.0047



Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Cholesterol esters in medium LDL	27005778	metabolites	-0.0283	0.1851	-0.1526	8.79E-01	European	0.0777	0.0513	1.0109	0.0215	0.0057	0.0048
Cholesterol esters in large LDL	27005778	metabolites	-0.0284	0.1878	-0.1514	8.80E-01	European	0.0741	0.0530	1.0129	0.0227	0.0051	0.0047
Phospholipids in medium VLDL	27005778	metabolites	-0.0196	0.1293	-0.1512	8.80E-01	European	0.1070	0.0343	0.9983	0.0071	0.0066	0.0045
Total cholesterol in large HDL	27005778	metabolites	-0.0232	0.1560	-0.1490	8.82E-01	European	0.1039	0.0282	1.0072	0.0148	-0.0004	0.0047
Leptin_not_adjBM I	26833098	hormone	0.0205	0.1463	0.1399	8.89E-01	European	0.0977	0.0159	0.9953	0.0068	0.0064	0.0051
Cholesterol esters in large HDL	27005778	metabolites	0.0202	0.1504	0.1346	8.93E-01	European	0.1210	0.0308	1.0019	0.0145	-0.0015	0.0048
Free cholesterol in medium VLDL	27005778	metabolites	-0.0161	0.1211	-0.1327	8.94E-01	European	0.1091	0.0344	0.9965	0.0072	0.0054	0.0044
Cholesterol esters in medium VLDL	27005778	metabolites	-0.0161	0.1252	-0.1286	8.98E-01	European	0.1482	0.0383	0.9873	0.0081	0.0048	0.0046
Fasting glucose main effect	22581228	glycemic	0.0132	0.1103	0.1195	9.05E-01	European	0.0985	0.0192	0.9982	0.0102	0.0035	0.0051
Acetoacetate	27005778	metabolites	0.0229	0.1920	0.1192	9.05E-01	European	0.0775	0.0281	0.9784	0.0071	0.0026	0.0050
Obesity class 3	23563607	anthropometric	-0.0130	0.1167	-0.1110	9.12E-01	European	0.1225	0.0138	0.9792	0.0093	0.0093	0.0062
Chronotype	27494321	sleeping	-0.0086	0.0822	-0.1047	9.17E-01	European	0.0995	0.0058	1.0186	0.0081	-0.0003	0.0052
Serum total cholesterol	27005778	metabolites	-0.0190	0.1846	-0.1027	9.18E-01	European	0.0622	0.0396	1.0229	0.0159	0.0057	0.0046
Age of smoking initiation	20418890	smoking behaviour	-0.0184	0.1985	-0.0927	9.26E-01	European	0.0640	0.0187	0.9983	0.0061	-0.0040	0.0048
Free cholesterol in large HDL	27005778	metabolites	-0.0137	0.1507	-0.0907	9.28E-01	European	0.1053	0.0284	1.0088	0.0146	-0.0009	0.0046
Total cholesterol in IDL	27005778	metabolites	-0.0160	0.1895	-0.0844	9.33E-01	European	0.0712	0.0479	1.0184	0.0209	0.0043	0.0047
Child birth weight	23202124	anthropometric	-0.0100	0.1210	-0.0828	9.34E-01	European	0.1158	0.0177	1.0027	0.0060	-0.0050	0.0047
Apolipoprotein A-I	27005778	metabolites	0.0151	0.1939	0.0778	9.38E-01	European	0.0798	0.0314	1.0030	0.0119	0.0058	0.0047
Serum creatinine	26831199	kidney	0.0065	0.0859	0.0758	9.40E-01	Mixed	0.1066	0.0096	0.9782	0.0142	0.0041	0.0058
Total cholesterol in large LDL	27005778	metabolites	-0.0133	0.1856	-0.0718	9.43E-01	European	0.0634	0.0487	1.0156	0.0236	0.0061	0.0046
Free cholesterol in large LDL	27005778	metabolites	-0.0134	0.1876	-0.0712	9.43E-01	European	0.0628	0.0505	1.0174	0.0247	0.0060	0.0046
Free cholesterol to esterified cholesterol ratio	27005778	metabolites	0.0164	0.2444	0.0672	9.47E-01	European	0.0621	0.0523	1.0120	0.0130	0.0010	0.0046
Total cholesterol in HDL	27005778	metabolites	-0.0105	0.1567	-0.0670	9.47E-01	European	0.0949	0.0291	1.0062	0.0127	0.0015	0.0046

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Total cholesterol in LDL	27005778	metabolites	-0.0120	0.1874	-0.0640	9.49E-01	European	0.0670	0.0526	1.0143	0.0248	0.0058	0.0047
Total lipids in IDL	27005778	metabolites	0.0103	0.1856	0.0557	9.56E-01	European	0.0735	0.0464	1.0188	0.0199	0.0041	0.0047
Total lipids in small LDL	27005778	metabolites	0.0091	0.1703	0.0532	9.58E-01	European	0.0834	0.0469	1.0091	0.0182	0.0062	0.0047
Free cholesterol in IDL	27005778	metabolites	0.0087	0.1802	0.0485	9.61E-01	European	0.0720	0.0431	1.0194	0.0209	0.0041	0.0045
Hip circumference	25673412	anthropometric	-0.0027	0.0627	-0.0424	9.66E-01	European	0.1275	0.0056	0.8604	0.0082	0.0066	0.0054
Concentration of very small VLDL particles	27005778	metabolites	-0.0061	0.1481	-0.0415	9.67E-01	European	0.1164	0.0374	1.0048	0.0127	0.0050	0.0046
Total Cholesterol	20686565	lipids	0.0030	0.0761	0.0388	9.69E-01	European	0.1335	0.0245	1.0221	0.0358	0.0056	0.0058
Serumurate overweight	25811787	uric_acid	-0.0037	0.0995	-0.0377	9.70E-01	European	0.5259	0.2915	0.9692	0.0260	0.0035	0.0045
Total lipids in large LDL	27005778	metabolites	-0.0067	0.1876	-0.0359	9.71E-01	European	0.0728	0.0537	1.0152	0.0230	0.0047	0.0047
Concentration of small LDL particles	27005778	metabolites	-0.0043	0.1642	-0.0261	9.79E-01	European	0.0916	0.0445	1.0078	0.0164	0.0067	0.0047
Total lipids in medium LDL	27005778	metabolites	0.0025	0.1808	0.0139	9.89E-01	European	0.0785	0.0515	1.0108	0.0215	0.0053	0.0048
Concentration of medium LDL particles	27005778	metabolites	0.0024	0.1815	0.0132	9.90E-01	European	0.0774	0.0505	1.0123	0.0208	0.0055	0.0047
Mean diameter for LDL particles	27005778	metabolites	-0.0026	0.2220	-0.0119	9.91E-01	European	0.0573	0.0270	0.9964	0.0123	-0.0039	0.0044
Concentration of large LDL particles	27005778	metabolites	-0.0019	0.1869	-0.0101	9.92E-01	European	0.0733	0.0524	1.0165	0.0224	0.0048	0.0047
Total cholesterol in medium LDL	27005778	metabolites	-0.0014	0.1856	-0.0074	9.94E-01	European	0.0678	0.0487	1.0133	0.0230	0.0057	0.0048
Urinary albumin-to-creatinine ratio (non-diabetes)	26631737	kidney	0.0000	0.1543	0.0001	1.00E+00	European	0.0533	0.0104	0.9951	0.0072	0.0032	0.0047

**eTable 9.** Genetic correlations for “covariate” Design (UKBB traits)

All results from LDhub analyses. Trait= trait against which genetic correlation was calculated. ethnicity= sample ethnicity for sample referenced in “Trait” column. rG= genetic correlation. SE= standard error for genetic correlation. z= Z-score. p= P-value for genetic correlation analysis. h2\_obs= Heritability on the observed scale for sample referenced in “Trait”. se= standard errors for variable reported in the cell to the left (i.e. h2\_obs, ht\_int, gcov\_int). h2\_int= LD score intercept for sample referenced in “Trait”. gcov\_int= cross-trait LD Score regression intercept.

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Pack years adult smoking as proportion of life span exposed to smoking PREVIEW ONLY	European	0.4604	0.0744	6.1907	5.99E-10	0.1280	0.0110	1.0135	0.0097	-0.0113	0.0050
Pack years of smoking PREVIEW ONLY	European	0.4736	0.0787	6.0183	1.76E-09	0.1105	0.0098	1.0140	0.0093	-0.0122	0.0048
Overall health rating	European	0.3931	0.0670	5.8637	4.53E-09	0.0992	0.0031	1.0652	0.0110	-0.0037	0.0063
Age at first live birth	European	-0.4495	0.0773	-5.8169	6.00E-09	0.1655	0.0078	1.0488	0.0093	-0.0020	0.0057
Seen doctor (GP) for nerves anxiety tension or depression	European	0.4506	0.0801	5.6246	1.86E-08	0.0612	0.0030	1.0151	0.0095	0.0059	0.0059
Illness injury bereavement stress in last 2 years: Financial difficulties	European	0.4933	0.0884	5.5830	2.36E-08	0.0329	0.0022	1.0306	0.0082	-0.0108	0.0050
Age completed full time education	European	-0.3813	0.0699	-5.4582	4.81E-08	0.0843	0.0046	1.0636	0.0100	0.0072	0.0056
Seen a psychiatrist for nerves anxiety tension or depression	European	0.5066	0.0935	5.4161	6.09E-08	0.0308	0.0022	1.0072	0.0085	0.0003	0.0051
Smoking status: Current	European	0.4093	0.0759	5.3941	6.89E-08	0.0519	0.0028	1.0139	0.0094	-0.0077	0.0052
Current tobacco smoking	European	0.3941	0.0752	5.2384	1.62E-07	0.0553	0.0028	1.0128	0.0097	-0.0059	0.0055
Pain type(s) experienced in last month: None of the above	European	-0.3359	0.0647	-5.1918	2.08E-07	0.0549	0.0027	1.0388	0.0088	-0.0060	0.0052
Frequency of tenseness / restlessness in last 2 weeks	European	0.4265	0.0848	5.0271	4.98E-07	0.0436	0.0026	1.0157	0.0093	0.0023	0.0053
Frequency of tiredness / lethargy in last 2 weeks	European	0.3683	0.0734	5.0193	5.19E-07	0.0591	0.0029	1.0300	0.0093	0.0003	0.0056
Past tobacco smoking	European	-0.3312	0.0663	-4.9964	5.84E-07	0.0901	0.0041	1.0273	0.0106	0.0085	0.0059
Ever smoked	European	0.3315	0.0671	4.9396	7.83E-07	0.0743	0.0035	1.0273	0.0104	-0.0163	0.0058
Illness injury bereavement stress in last 2 years: None of the above	European	-0.4576	0.0929	-4.9278	8.32E-07	0.0233	0.0017	1.0108	0.0067	0.0040	0.0050
Age at last live birth	European	-0.4358	0.0894	-4.8752	1.09E-06	0.0874	0.0059	1.0194	0.0087	-0.0017	0.0052
Chest pain or discomfort	European	0.3944	0.0835	4.7234	2.32E-06	0.0328	0.0022	1.0191	0.0078	0.0003	0.0052
Long-standing illness disability or infirmity	European	0.3074	0.0658	4.6743	2.95E-06	0.0496	0.0024	1.0291	0.0088	0.0036	0.0051
Usual walking pace	European	-0.2989	0.0663	-4.5090	6.51E-06	0.0769	0.0031	1.0347	0.0105	0.0082	0.0062
Medication for pain relief constipation heartburn: None of the above	European	-0.3116	0.0696	-4.4759	7.61E-06	0.0538	0.0026	1.0326	0.0093	-0.0032	0.0052
Diagnoses - main ICD10: R07 Pain in throat and chest	European	0.4823	0.1080	4.4638	8.05E-06	0.0164	0.0018	1.0047	0.0076	0.0000	0.0047
Health satisfaction	European	0.4166	0.0934	4.4618	8.13E-06	0.0813	0.0054	1.0098	0.0077	-0.0028	0.0054
Loneliness isolation	European	0.3951	0.0886	4.4576	8.29E-06	0.0376	0.0022	1.0247	0.0080	-0.0066	0.0057

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Taking other prescription medications	European	0.3293	0.0739	4.4561	8.34E-06	0.0428	0.0024	1.0193	0.0088	0.0059	0.0054
Medication for pain relief constipation heartburn: Omeprazole (e.g. Zanol)	European	0.4400	0.1000	4.4009	1.08E-05	0.0181	0.0017	1.0197	0.0073	-0.0029	0.0049
Current employment status: Unable to work because of sickness or disability	European	0.4803	0.1098	4.3733	1.22E-05	0.0241	0.0019	1.0206	0.0075	-0.0050	0.0057
Number of treatments/medications taken	European	0.3036	0.0698	4.3484	1.37E-05	0.0602	0.0026	1.0342	0.0095	0.0043	0.0054
Shortness of breath walking on level ground	European	0.4851	0.1125	4.3128	1.61E-05	0.0488	0.0052	1.0087	0.0068	-0.0053	0.0050
Qualifications: None of the above	European	0.2656	0.0621	4.2807	1.86E-05	0.0970	0.0039	1.0698	0.0120	-0.0002	0.0065
Number of operations self-reported	European	0.3558	0.0832	4.2776	1.89E-05	0.0379	0.0022	1.0393	0.0077	-0.0054	0.0059
Pain type(s) experienced in last month: Neck or shoulder pain	European	0.3243	0.0770	4.2090	2.56E-05	0.0327	0.0020	1.0267	0.0078	0.0025	0.0045
Number of self-reported non-cancer illnesses	European	0.2675	0.0637	4.2004	2.66E-05	0.0607	0.0026	1.0301	0.0106	0.0048	0.0053
Age started oral contraceptive pill	European	-0.4285	0.1034	-4.1445	3.41E-05	0.0482	0.0043	1.0164	0.0077	0.0030	0.0051
Medication for cholesterol blood pressure diabetes or take exogenous hormones: Cholesterol lowering medication	European	0.3874	0.0939	4.1238	3.73E-05	0.0511	0.0058	1.0240	0.0146	-0.0109	0.0050
Difficulty not smoking for 1 day	European	0.6735	0.1649	4.0841	4.42E-05	0.1124	0.0222	0.9886	0.0067	-0.0145	0.0056
Townsend deprivation index at recruitment	European	0.3604	0.0894	4.0330	5.51E-05	0.0331	0.0020	1.0389	0.0077	-0.0003	0.0056
Qualifications: College or University degree	European	-0.2336	0.0581	-4.0209	5.80E-05	0.1680	0.0055	1.1191	0.0143	-0.0076	0.0071
Forced vital capacity (FVC) Best measure	European	-0.2311	0.0576	-4.0145	5.96E-05	0.1889	0.0086	1.0817	0.0180	0.0105	0.0057
Forced expiratory volume in 1-second (FEV1) Best measure	European	-0.2451	0.0612	-4.0081	6.12E-05	0.1626	0.0073	1.0584	0.0145	0.0109	0.0056
Frequency of depressed mood in last 2 weeks	European	0.3945	0.0999	3.9483	7.87E-05	0.0421	0.0028	1.0133	0.0088	-0.0017	0.0058
Qualifications: NVQ or HND or HNC or equivalent	European	0.4618	0.1173	3.9356	8.30E-05	0.0146	0.0017	1.0136	0.0068	-0.0065	0.0056
Frequency of unenthusiasm / disinterest in last 2 weeks	European	0.3512	0.0896	3.9190	8.89E-05	0.0390	0.0027	1.0168	0.0093	0.0006	0.0055
Alcohol usually taken with meals	European	-0.2950	0.0773	-3.8163	1.00E-04	0.1101	0.0052	1.0596	0.0094	0.0035	0.0060
Other serious medical condition/disability diagnosed by doctor	European	0.3899	0.1015	3.8401	1.00E-04	0.0254	0.0018	1.0110	0.0074	-0.0045	0.0054
Ever unenthusiastic/disinterested for a whole week	European	0.4040	0.1052	3.8400	1.00E-04	0.0574	0.0063	1.0007	0.0076	0.0037	0.0052
Mouth/teeth dental problems: Dentures	European	0.3222	0.0848	3.8007	1.00E-04	0.0487	0.0029	1.0329	0.0098	-0.0046	0.0058
Vascular/heart problems diagnosed by doctor: Angina	European	0.3536	0.0921	3.8405	1.00E-04	0.0217	0.0021	1.0283	0.0080	-0.0035	0.0048
Medication for cholesterol blood pressure diabetes or take exogenous hormones: None of the above	European	-0.3387	0.0886	-3.8227	1.00E-04	0.0662	0.0045	1.0177	0.0089	0.0114	0.0053
Falls in the last year	European	0.3243	0.0857	3.7839	2.00E-04	0.0326	0.0022	1.0041	0.0082	-0.0075	0.0051
Forced expiratory volume in 1-second (FEV1)	European	-0.2331	0.0620	-3.7570	2.00E-04	0.1477	0.0064	1.0658	0.0150	0.0117	0.0059
Time from waking to first cigarette	European	-0.6877	0.1831	-3.7565	2.00E-04	0.0881	0.0254	1.0145	0.0078	0.0108	0.0047
Non-cancer illness code self-reported: angina	European	0.3457	0.0934	3.7022	2.00E-04	0.0222	0.0021	1.0252	0.0080	-0.0037	0.0049
Alcohol drinker status: Previous	European	0.4840	0.1308	3.7000	2.00E-04	0.0132	0.0015	1.0071	0.0068	-0.0061	0.0049
Standing height	European	-0.1756	0.0485	-3.6223	3.00E-04	0.4511	0.0223	1.2528	0.0562	0.0103	0.0084

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Maternal smoking around birth	European	0.2646	0.0740	3.5753	3.00E-04	0.0498	0.0028	1.0360	0.0089	0.0063	0.0048
Mood swings	European	0.2913	0.0807	3.6105	3.00E-04	0.0708	0.0034	1.0190	0.0104	0.0054	0.0056
Tense / highly strung	European	0.3741	0.1040	3.5988	3.00E-04	0.0571	0.0033	0.9968	0.0104	0.0007	0.0062
Diabetes diagnosed by doctor	European	0.2757	0.0754	3.6586	3.00E-04	0.0438	0.0027	1.0401	0.0107	-0.0071	0.0053
Mothers age at death	European	-0.4228	0.1167	-3.6235	3.00E-04	0.0247	0.0030	1.0268	0.0075	0.0011	0.0054
Illnesses of siblings: None of the above (group 1)	European	-0.3054	0.0853	-3.5803	3.00E-04	0.0364	0.0026	1.0134	0.0076	-0.0001	0.0053
Smoking status: Previous	European	0.2516	0.0696	3.6157	3.00E-04	0.0512	0.0030	1.0251	0.0100	-0.0004	0.0050
Qualifications: A levels/AS levels or equivalent	European	-0.2245	0.0621	-3.6166	3.00E-04	0.0964	0.0036	1.0551	0.0115	-0.0056	0.0063
Leg pain on walking	European	0.4002	0.1128	3.5495	4.00E-04	0.0566	0.0052	1.0105	0.0072	-0.0014	0.0052
Mouth/teeth dental problems: None of the above	European	-0.2993	0.0846	-3.5375	4.00E-04	0.0378	0.0021	1.0170	0.0083	0.0030	0.0056
Medication for pain relief constipation heartburn: Paracetamol	European	0.2924	0.0824	3.5473	4.00E-04	0.0426	0.0024	1.0298	0.0088	-0.0003	0.0051
Pain type(s) experienced in last month: Headache	European	0.3081	0.0872	3.5351	4.00E-04	0.0444	0.0027	1.0077	0.0092	0.0002	0.0055
Forced vital capacity (FVC)	European	-0.2011	0.0582	-3.4567	5.00E-04	0.1707	0.0076	1.0936	0.0186	0.0105	0.0059
Peak expiratory flow (PEF)	European	-0.2683	0.0767	-3.4999	5.00E-04	0.0896	0.0046	1.0581	0.0127	0.0184	0.0069
Ever highly irritable/argumentative for 2 days	European	0.3756	0.1086	3.4580	5.00E-04	0.0522	0.0057	0.9982	0.0075	0.0021	0.0054
Non-cancer illness code self-reported: chronic obstructive airways disease/copd	European	0.6306	0.1812	3.4805	5.00E-04	0.0061	0.0015	0.9917	0.0071	-0.0130	0.0047
Illness injury bereavement stress in last 2 years: Serious illness injury or assault to yourself	European	0.4508	0.1286	3.5052	5.00E-04	0.0142	0.0017	1.0110	0.0069	-0.0072	0.0052
Pain type(s) experienced in last month: Knee pain	European	0.2602	0.0758	3.4345	6.00E-04	0.0404	0.0023	1.0159	0.0084	-0.0004	0.0054
Pain type(s) experienced in last month: Pain all over the body	European	0.4523	0.1324	3.4172	6.00E-04	0.0102	0.0016	1.0043	0.0074	0.0006	0.0048
Exposure to tobacco smoke outside home	European	0.2958	0.0875	3.3786	7.00E-04	0.0317	0.0024	1.0196	0.0083	-0.0075	0.0049
Wheeze or whistling in the chest in last year	European	0.2273	0.0673	3.3802	7.00E-04	0.0599	0.0032	1.0326	0.0107	0.0065	0.0057
Former alcohol drinker	European	0.5736	0.1688	3.3987	7.00E-04	0.1204	0.0210	0.9981	0.0062	-0.0122	0.0048
Non-cancer illness code self-reported: depression	European	0.4314	0.1278	3.3750	7.00E-04	0.0183	0.0017	1.0017	0.0073	-0.0011	0.0057
Ever manic/hyper for 2 days	European	0.5974	0.1779	3.3573	8.00E-04	0.0180	0.0049	0.9958	0.0066	-0.0117	0.0045
Leg fat percentage (right)	European	0.1785	0.0533	3.3512	8.00E-04	0.2078	0.0066	1.0827	0.0169	0.0068	0.0066
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: Emphysema/chronic bronchitis	European	0.4465	0.1333	3.3487	8.00E-04	0.0127	0.0018	0.9848	0.0076	-0.0044	0.0055
Medication for pain relief constipation heartburn: Aspirin	European	0.3338	0.0999	3.3417	8.00E-04	0.0210	0.0018	1.0142	0.0069	-0.0063	0.0051
Pain type(s) experienced in last month: Back pain	European	0.2748	0.0817	3.3651	8.00E-04	0.0393	0.0023	1.0246	0.0091	0.0004	0.0057
Non-cancer illness code self-reported: pulmonary embolism +/- dvt	European	0.6978	0.2105	3.3156	9.00E-04	0.0050	0.0015	1.0112	0.0075	-0.0126	0.0049
Reason for glasses/contact lenses: For short-sightedness i.e. only or mainly for distance viewing such as driving cinema etc (called myopia)	European	-0.3675	0.1107	-3.3192	9.00E-04	0.0251	0.0021	1.1176	0.0091	0.0060	0.0055

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Sleeplessness / insomnia	European	0.2281	0.0692	3.2982	1.00E-03	0.0627	0.0029	1.0165	0.0091	0.0001	0.0057
Forced expiratory volume in 1-second (FEV1) predicted	European	-0.2251	0.0682	-3.2981	1.00E-03	0.1725	0.0123	1.0386	0.0121	0.0079	0.0050
Illnesses of father: Chronic bronchitis/emphysema	European	0.3686	0.1124	3.2805	1.00E-03	0.0148	0.0020	1.0240	0.0069	0.0056	0.0046
Mineral and other dietary supplements: Glucosamine	European	-0.2806	0.0852	-3.2921	1.00E-03	0.0243	0.0020	1.0100	0.0078	-0.0016	0.0049
Number of cigarettes previously smoked daily	European	0.3129	0.0956	3.2731	1.10E-03	0.0997	0.0139	1.0029	0.0092	-0.0069	0.0052
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: Blood clot in the lung	European	0.6526	0.2000	3.2631	1.10E-03	0.0053	0.0016	1.0117	0.0075	-0.0112	0.0050
Noisy workplace	European	0.3121	0.0966	3.2301	1.20E-03	0.0610	0.0058	1.0300	0.0078	-0.0001	0.0050
Ever had stillbirth spontaneous miscarriage or termination	European	0.4726	0.1474	3.2057	1.30E-03	0.0199	0.0032	0.9961	0.0077	-0.0082	0.0051
Leg fat percentage (left)	European	0.1727	0.0538	3.2097	1.30E-03	0.2075	0.0066	1.0871	0.0168	0.0074	0.0067
Non-cancer illness code self-reported: hiatus hernia	European	0.4578	0.1437	3.1848	1.40E-03	0.0083	0.0014	1.0329	0.0065	-0.0031	0.0047
Diagnoses - main ICD10: K21 Gastro-oesophageal reflux disease	European	0.5224	0.1634	3.1971	1.40E-03	0.0066	0.0013	1.0010	0.0058	-0.0009	0.0047
Job involves heavy manual or physical work	European	0.2262	0.0719	3.1460	1.70E-03	0.0864	0.0046	1.0386	0.0093	0.0037	0.0058
Number of cigarettes currently smoked daily (current cigarette smokers)	European	0.5826	0.1871	3.1130	1.90E-03	0.1014	0.0265	1.0012	0.0072	-0.0116	0.0055
Financial situation satisfaction	European	0.3318	0.1071	3.0990	1.90E-03	0.0573	0.0060	1.0056	0.0080	-0.0033	0.0052
Non-cancer illness code self-reported: emphysema/chronic bronchitis	European	0.4667	0.1503	3.1053	1.90E-03	0.0099	0.0017	0.9870	0.0071	-0.0018	0.0054
Job involves shift work	European	0.2839	0.0924	3.0708	2.10E-03	0.0309	0.0029	1.0012	0.0066	-0.0011	0.0050
Duration walking for pleasure	European	-0.3161	0.1029	-3.0707	2.10E-03	0.0249	0.0024	1.0135	0.0071	0.0056	0.0050
Why stopped smoking: Doctors advice	European	0.6921	0.2265	3.0563	2.20E-03	0.0171	0.0049	0.9995	0.0057	-0.0073	0.0045
Non-cancer illness code self-reported: diabetes	European	0.2540	0.0833	3.0492	2.30E-03	0.0358	0.0025	1.0377	0.0106	-0.0047	0.0055
Fluid intelligence score	European	-0.1775	0.0584	-3.0393	2.40E-03	0.2363	0.0108	1.0455	0.0109	0.0002	0.0055
Pain type(s) experienced in last month: Stomach or abdominal pain	European	0.3368	0.1116	3.0183	2.50E-03	0.0213	0.0018	1.0088	0.0074	-0.0003	0.0048
Illness injury bereavement stress in last 2 years: Marital separation/divorce	European	0.6609	0.2201	3.0029	2.70E-03	0.0042	0.0015	1.0094	0.0070	-0.0071	0.0044
Non-cancer illness code self-reported: osteoarthritis	European	0.3006	0.1011	2.9747	2.90E-03	0.0190	0.0018	1.0278	0.0080	-0.0013	0.0055
Neuroticism score	European	0.2664	0.0908	2.9336	3.40E-03	0.1182	0.0064	1.0187	0.0142	0.0068	0.0068
Guilty feelings	European	0.2707	0.0931	2.9071	3.60E-03	0.0516	0.0027	1.0056	0.0088	-0.0024	0.0059
Had other major operations	European	0.3145	0.1090	2.8845	3.90E-03	0.0294	0.0031	1.0137	0.0069	0.0021	0.0051
Diagnoses - main ICD10: N92 Excessive frequent and irregular menstruation	European	0.4735	0.1664	2.8457	4.40E-03	0.0070	0.0017	1.0011	0.0075	-0.0024	0.0051
Types of physical activity in last 4 weeks: None of the above	European	0.2809	0.0996	2.8210	4.80E-03	0.0239	0.0017	1.0185	0.0072	0.0022	0.0055
Diagnoses - main ICD10: K22 Other diseases of oesophagus	European	0.6356	0.2261	2.8108	4.90E-03	0.0042	0.0015	1.0041	0.0068	-0.0065	0.0052
Exposure to tobacco smoke at home	European	0.3804	0.1354	2.8094	5.00E-03	0.0116	0.0016	0.9995	0.0064	-0.0003	0.0049
Miserableness	European	0.2553	0.0917	2.7838	5.40E-03	0.0643	0.0037	1.0177	0.0110	0.0091	0.0059

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Vascular/heart problems diagnosed by doctor: None of the above	European	-0.1727	0.0627	-2.7555	5.90E-03	0.1129	0.0049	1.0619	0.0159	-0.0018	0.0068
Illnesses of mother: None of the above (group 1)	European	-0.2879	0.1048	-2.7464	6.00E-03	0.0164	0.0018	1.0158	0.0075	0.0046	0.0052
Sensitivity / hurt feelings	European	0.2371	0.0875	2.7106	6.70E-03	0.0632	0.0032	1.0182	0.0096	0.0018	0.0064
Alcohol intake frequency.	European	0.1580	0.0589	2.6809	7.30E-03	0.0829	0.0042	1.0479	0.0114	0.0040	0.0054
Diagnoses - main ICD10: K57 Diverticular disease of intestine	European	0.3274	0.1219	2.6850	7.30E-03	0.0131	0.0015	1.0032	0.0067	-0.0035	0.0051
Hand grip strength (left)	European	-0.1553	0.0581	-2.6728	7.50E-03	0.1037	0.0042	1.0577	0.0126	0.0066	0.0062
Average weekly red wine intake	European	-0.2103	0.0788	-2.6705	7.60E-03	0.0566	0.0036	1.0126	0.0083	-0.0046	0.0049
Medication for cholesterol blood pressure diabetes or take exogenous hormones: Blood pressure medication	European	0.2155	0.0809	2.6651	7.70E-03	0.1050	0.0068	1.0320	0.0123	-0.0076	0.0061
Ever used hormone-replacement therapy (HRT)	European	0.2541	0.0962	2.6398	8.30E-03	0.0405	0.0033	1.0001	0.0073	0.0044	0.0051
Non-cancer illness code self-reported: gastro-oesophageal reflux (gord) / gastric reflux	European	0.3278	0.1248	2.6255	8.70E-03	0.0114	0.0017	1.0144	0.0074	-0.0003	0.0053
Frequency of stair climbing in last 4 weeks	European	-0.2167	0.0834	-2.5975	9.40E-03	0.0352	0.0022	1.0159	0.0077	0.0129	0.0052
Hand grip strength (right)	European	-0.1576	0.0608	-2.5937	9.50E-03	0.1033	0.0044	1.0652	0.0138	0.0082	0.0062
Medication for pain relief constipation heartburn: Laxatives (e.g. Dulcolax Senokot)	European	0.2997	0.1163	2.5758	1.00E-02	0.0114	0.0016	1.0101	0.0069	-0.0031	0.0050
Types of physical activity in last 4 weeks: Other exercises (eg: swimming cycling keep fit bowling)	European	-0.1915	0.0745	-2.5693	1.02E-02	0.0469	0.0023	1.0111	0.0087	-0.0075	0.0057
Number of full sisters	European	0.2695	0.1053	2.5595	1.05E-02	0.0187	0.0018	1.0394	0.0069	0.0030	0.0056
Forced expiratory volume in 1-second (FEV1) predicted percentage	European	-0.1857	0.0725	-2.5600	1.05E-02	0.2012	0.0099	1.0352	0.0097	0.0079	0.0057
Prospective memory result	European	0.2514	0.0984	2.5538	1.07E-02	0.0587	0.0051	1.0100	0.0079	0.0014	0.0051
Illnesses of mother: Chronic bronchitis/emphysema	European	0.3186	0.1253	2.5431	1.10E-02	0.0124	0.0020	1.0063	0.0071	0.0017	0.0047
Transport type for commuting to job workplace: Cycle	European	-0.2430	0.0961	-2.5291	1.14E-02	0.0307	0.0033	1.0184	0.0071	-0.0017	0.0048
Arm fat percentage (right)	European	0.1366	0.0545	2.5052	1.22E-02	0.2152	0.0076	1.0820	0.0179	0.0074	0.0068
Non-cancer illness code self-reported: type 2 diabetes	European	0.4307	0.1719	2.5056	1.22E-02	0.0065	0.0014	1.0100	0.0064	-0.0074	0.0047
Sitting height	European	-0.1218	0.0487	-2.5012	1.24E-02	0.3204	0.0184	1.1440	0.0434	0.0065	0.0074
Reason for glasses/contact lenses: For astigmatism	European	-0.3511	0.1406	-2.4972	1.25E-02	0.0088	0.0015	1.0278	0.0066	0.0071	0.0050
Types of transport used (excluding work): Cycle	European	-0.2281	0.0914	-2.4967	1.25E-02	0.0250	0.0019	1.0239	0.0070	-0.0028	0.0054
Hearing difficulty/problems with background noise	European	0.1833	0.0738	2.4852	1.29E-02	0.0517	0.0026	1.0195	0.0088	-0.0050	0.0055
Body fat percentage	European	0.1301	0.0525	2.4770	1.32E-02	0.2156	0.0073	1.0885	0.0180	0.0086	0.0066
Mouth/teeth dental problems: Painful gums	European	0.3842	0.1555	2.4713	1.35E-02	0.0070	0.0014	1.0034	0.0064	-0.0007	0.0052
Pain type(s) experienced in last month: Facial pain	European	0.4843	0.1963	2.4676	1.36E-02	0.0070	0.0015	0.9966	0.0065	-0.0033	0.0054
Body mass index (BMI)	European	0.1375	0.0559	2.4589	1.39E-02	0.2467	0.0090	1.0767	0.0193	0.0057	0.0075
Arm fat percentage (left)	European	0.1335	0.0545	2.4483	1.44E-02	0.2186	0.0078	1.0772	0.0182	0.0064	0.0068

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Diagnoses - main ICD10: J44 Other chronic obstructive pulmonary disease	European	0.5240	0.2146	2.4412	1.46E-02	0.0046	0.0014	0.9960	0.0070	-0.0034	0.0045
Fed-up feelings	European	0.1969	0.0810	2.4315	1.50E-02	0.0715	0.0033	1.0266	0.0103	0.0115	0.0058
Diagnoses - main ICD10: R10 Abdominal and pelvic pain	European	0.2985	0.1228	2.4313	1.50E-02	0.0125	0.0017	0.9935	0.0072	0.0009	0.0053
Had major operations	European	0.2935	0.1207	2.4311	1.51E-02	0.0251	0.0036	1.0052	0.0075	-0.0038	0.0049
Tobacco smoking: Ex-smoker	European	0.2814	0.1158	2.4307	1.51E-02	0.0777	0.0082	1.0074	0.0082	0.0046	0.0052
Neck/shoulder pain for 3+ months	European	0.5169	0.2146	2.4091	1.60E-02	0.0202	0.0061	1.0096	0.0074	-0.0065	0.0049
Ever depressed for a whole week	European	0.2362	0.0988	2.3912	1.68E-02	0.0630	0.0053	0.9943	0.0071	0.0029	0.0049
Illnesses of siblings: Diabetes	European	0.2821	0.1191	2.3689	1.78E-02	0.0206	0.0021	1.0100	0.0070	0.0018	0.0053
Frequency of walking for pleasure in last 4 weeks	European	0.2183	0.0924	2.3634	1.81E-02	0.0346	0.0026	1.0066	0.0077	-0.0014	0.0054
Mouth/teeth dental problems: Toothache	European	0.3145	0.1332	2.3609	1.82E-02	0.0086	0.0016	1.0034	0.0074	-0.0005	0.0051
Vascular/heart problems diagnosed by doctor: High blood pressure	European	0.1473	0.0626	2.3532	1.86E-02	0.1161	0.0052	1.0623	0.0171	0.0032	0.0068
Diagnoses - main ICD10: K29 Gastritis and duodenitis	European	0.3420	0.1456	2.3483	1.89E-02	0.0075	0.0015	1.0035	0.0065	0.0026	0.0050
Pulse wave peak to peak time	European	-0.2738	0.1167	-2.3454	1.90E-02	0.0393	0.0048	1.0106	0.0076	-0.0006	0.0045
Diagnoses - main ICD10: M54 Dorsalgia	European	0.3320	0.1417	2.3427	1.91E-02	0.0100	0.0015	1.0040	0.0075	-0.0007	0.0050
Mean time to correctly identify matches	European	0.1543	0.0659	2.3422	1.92E-02	0.0722	0.0030	1.0371	0.0099	-0.0155	0.0056
Vitamin and mineral supplements: Vitamin D	European	-0.3596	0.1537	-2.3405	1.93E-02	0.0061	0.0015	0.9970	0.0070	0.0054	0.0048
Types of physical activity in last 4 weeks: Walking for pleasure (not as a means of transport)	European	-0.1906	0.0819	-2.3268	2.00E-02	0.0370	0.0021	1.0429	0.0078	-0.0010	0.0055
Drive faster than motorway speed limit	European	-0.1799	0.0774	-2.3254	2.01E-02	0.0565	0.0028	1.0302	0.0088	0.0035	0.0052
Transport type for commuting to job workplace: Public transport	European	-0.2603	0.1121	-2.3211	2.03E-02	0.0319	0.0035	1.0237	0.0076	0.0044	0.0054
Illness injury bereavement stress in last 2 years: Death of a close relative	European	0.3540	0.1534	2.3075	2.10E-02	0.0062	0.0015	1.0052	0.0066	0.0006	0.0049
Non-cancer illness code self-reported: hypertension	European	0.1423	0.0621	2.2899	2.20E-02	0.1146	0.0051	1.0560	0.0171	0.0033	0.0065
Diagnoses - main ICD10: I83 Varicose veins of lower extremities	European	0.2664	0.1168	2.2816	2.25E-02	0.0193	0.0022	1.0334	0.0108	-0.0033	0.0056
Ever had hysterectomy (womb removed)	European	0.3511	0.1549	2.2662	2.34E-02	0.0212	0.0034	1.0069	0.0076	0.0003	0.0055
Illnesses of siblings: High blood pressure	European	0.1939	0.0857	2.2630	2.36E-02	0.0366	0.0027	1.0066	0.0082	0.0004	0.0057
Smoking/smokers in household	European	0.3445	0.1528	2.2545	2.42E-02	0.0097	0.0019	1.0131	0.0075	0.0025	0.0056
Types of transport used (excluding work): Car/motor vehicle	European	-0.2182	0.0971	-2.2471	2.46E-02	0.0247	0.0018	1.0076	0.0075	0.0085	0.0054
Qualifications: O levels/GCSEs or equivalent	European	-0.1736	0.0773	-2.2457	2.47E-02	0.0487	0.0025	1.0154	0.0096	-0.0010	0.0057
Other eye problems	European	0.3406	0.1535	2.2190	2.65E-02	0.0094	0.0015	1.0230	0.0072	0.0035	0.0052
Illnesses of siblings: None of the above (group 2)	European	-0.3301	0.1489	-2.2162	2.67E-02	0.0087	0.0018	1.0044	0.0067	0.0033	0.0049
Qualifications: Other professional qualifications eg: nursing teaching	European	-0.1567	0.0708	-2.2121	2.70E-02	0.0467	0.0025	1.0287	0.0093	-0.0096	0.0055
Types of physical activity in last 4 weeks: Heavy DIY (eg: weeding lawn mowing carpentry digging)	European	-0.1816	0.0824	-2.2034	2.76E-02	0.0341	0.0020	1.0069	0.0075	0.0011	0.0050



Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Maximum workload during fitness test	European	-0.3906	0.1781	-2.1934	2.83E-02	0.0421	0.0101	1.0078	0.0071	-0.0003	0.0049
Leg fat mass (right)	European	0.1192	0.0544	2.1918	2.84E-02	0.2300	0.0082	1.0731	0.0182	0.0088	0.0071
Number of trend entries	European	-0.4544	0.2078	-2.1864	2.88E-02	0.0312	0.0096	1.0057	0.0070	0.0011	0.0046
Age when periods started (menarche)	European	-0.1277	0.0588	-2.1737	2.97E-02	0.2091	0.0103	1.0052	0.0127	0.0059	0.0059
Non-cancer illness code self-reported: anxiety/panic attacks	European	0.3799	0.1753	2.1675	3.02E-02	0.0062	0.0012	0.9991	0.0059	0.0029	0.0049
Vascular/heart problems diagnosed by doctor: Heart attack	European	0.1908	0.0892	2.1389	3.24E-02	0.0186	0.0019	1.0145	0.0077	0.0006	0.0048
Non-cancer illness code self-reported: heart attack/myocardial infarction	European	0.1879	0.0885	2.1223	3.38E-02	0.0190	0.0018	1.0126	0.0075	0.0009	0.0048
Irritability	European	0.2067	0.0983	2.1028	3.55E-02	0.0679	0.0043	0.9934	0.0117	-0.0017	0.0064
Illnesses of mother: Diabetes	European	0.2180	0.1038	2.0992	3.58E-02	0.0203	0.0019	1.0180	0.0093	-0.0006	0.0050
Daytime dozing / sleeping (narcolepsy)	European	0.1454	0.0693	2.0972	3.60E-02	0.0485	0.0028	1.0111	0.0089	-0.0059	0.0051
Hearing difficulty/problems: Yes	European	0.1642	0.0785	2.0929	3.64E-02	0.0416	0.0024	1.0139	0.0090	-0.0026	0.0053
Leg fat mass (left)	European	0.1132	0.0543	2.0859	3.70E-02	0.2309	0.0082	1.0745	0.0182	0.0096	0.0072
Average weekly champagne plus white wine intake	European	-0.2000	0.0971	-2.0596	3.94E-02	0.0303	0.0027	1.0424	0.0081	-0.0006	0.0054
Handedness (chirality/laterality): Use both right and left hands equally	European	0.3961	0.1923	2.0595	3.94E-02	0.0039	0.0014	1.0078	0.0068	-0.0071	0.0049
Number of live births	European	0.1625	0.0789	2.0578	3.96E-02	0.0613	0.0042	1.0080	0.0083	-0.0036	0.0056
Number of unsuccessful stop-smoking attempts	European	0.2703	0.1315	2.0561	3.98E-02	0.0502	0.0072	1.0064	0.0070	-0.0013	0.0054
Non-cancer illness code self-reported: high cholesterol	European	0.1707	0.0831	2.0545	3.99E-02	0.0401	0.0056	1.0582	0.0287	0.0002	0.0061
Nervous feelings	European	0.1928	0.0948	2.0329	4.21E-02	0.0666	0.0040	1.0122	0.0124	0.0002	0.0064
Pain type(s) experienced in last month: Hip pain	European	0.1828	0.0899	2.0330	4.21E-02	0.0238	0.0020	1.0179	0.0077	-0.0051	0.0048
Duration of heavy DIY	European	0.2352	0.1162	2.0246	4.29E-02	0.0334	0.0038	1.0079	0.0070	-0.0068	0.0052
Tinnitus: Yes but not now but have in the past	European	0.3466	0.1713	2.0237	4.30E-02	0.0179	0.0043	0.9923	0.0065	-0.0042	0.0054
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: Blood clot in the leg (DVT)	European	0.3116	0.1542	2.0203	4.34E-02	0.0103	0.0017	1.0117	0.0093	-0.0061	0.0053
Job involves mainly walking or standing	European	0.1478	0.0733	2.0176	4.36E-02	0.0796	0.0046	1.0329	0.0093	0.0027	0.0054
Non-cancer illness code self-reported: rheumatoid arthritis	European	0.3773	0.1872	2.0148	4.39E-02	0.0046	0.0014	1.0055	0.0065	-0.0075	0.0044
Fathers age at death	European	-0.2033	0.1015	-2.0032	4.52E-02	0.0342	0.0032	1.0227	0.0082	-0.0004	0.0058
Diagnoses - main ICD10: R04 Haemorrhage from respiratory passages	European	0.5736	0.2898	1.9793	4.78E-02	0.0025	0.0015	0.9980	0.0066	-0.0037	0.0049
Illnesses of siblings: Severe depression	European	0.2325	0.1178	1.9743	4.83E-02	0.0145	0.0019	1.0030	0.0067	-0.0001	0.0049
Diagnoses - main ICD10: K30 Dyspepsia	European	0.5083	0.2593	1.9605	4.99E-02	0.0028	0.0014	1.0061	0.0067	-0.0043	0.0047
Non-cancer illness code self-reported: hayfever/allergic rhinitis	European	-0.1873	0.0959	-1.9545	5.06E-02	0.0228	0.0025	1.0195	0.0090	0.0026	0.0051
Trunk fat percentage	European	0.0993	0.0514	1.9303	5.36E-02	0.2055	0.0073	1.0900	0.0183	0.0095	0.0063
Current employment status: In paid employment or self-employed	European	-0.2651	0.1376	-1.9271	5.40E-02	0.0080	0.0015	1.0198	0.0067	0.0056	0.0046
Mineral and other dietary supplements: Selenium	European	0.3272	0.1704	1.9209	5.47E-02	0.0063	0.0015	1.0004	0.0074	-0.0115	0.0048

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Breastfed as a baby	European	-0.1849	0.0969	-1.9087	5.63E-02	0.0260	0.0024	1.0211	0.0072	-0.0059	0.0050
Diagnoses - main ICD10: J34 Other disorders of nose and nasal sinuses	European	0.4965	0.2604	1.9067	5.66E-02	0.0026	0.0014	1.0064	0.0065	0.0009	0.0047
Diagnoses - main ICD10: K20 Oesophagitis	European	0.5713	0.3004	1.9014	5.72E-02	0.0020	0.0013	1.0076	0.0065	0.0022	0.0047
Illnesses of father: None of the above (group 1)	European	-0.2478	0.1323	-1.8733	6.10E-02	0.0145	0.0019	1.0251	0.0072	0.0020	0.0049
Adopted as a child	European	0.3245	0.1743	1.8619	6.26E-02	0.0056	0.0014	1.0030	0.0068	-0.0011	0.0048
Illnesses of mother: Heart disease	European	0.2034	0.1093	1.8614	6.27E-02	0.0155	0.0018	1.0121	0.0069	0.0014	0.0053
Duration of light DIY	European	0.1678	0.0908	1.8488	6.45E-02	0.0355	0.0034	1.0024	0.0073	0.0004	0.0049
Comparative height size at age 10	European	-0.0920	0.0500	-1.8403	6.57E-02	0.2411	0.0120	1.1160	0.0339	0.0056	0.0064
Loud music exposure frequency	European	0.2358	0.1302	1.8106	7.02E-02	0.0284	0.0047	1.0149	0.0075	-0.0034	0.0048
Impedance of arm (left)	European	-0.1001	0.0556	-1.8020	7.15E-02	0.2315	0.0084	1.1055	0.0221	0.0055	0.0076
Arm fat mass (right)	European	0.0987	0.0550	1.7926	7.30E-02	0.2304	0.0087	1.0738	0.0183	0.0077	0.0071
Duration of walks	European	0.1376	0.0768	1.7915	7.32E-02	0.0462	0.0029	1.0093	0.0088	0.0037	0.0050
Family relationship satisfaction	European	0.1799	0.1007	1.7863	7.41E-02	0.0574	0.0050	1.0052	0.0077	-0.0076	0.0055
Types of physical activity in last 4 weeks: Light DIY (eg: pruning watering the lawn)	European	-0.1463	0.0821	-1.7825	7.47E-02	0.0393	0.0023	1.0029	0.0085	-0.0058	0.0060
Transport type for commuting to job workplace: Walk	European	-0.2480	0.1394	-1.7790	7.52E-02	0.0166	0.0028	1.0039	0.0066	0.0089	0.0049
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: Hayfever allergic rhinitis or eczema	European	-0.1116	0.0628	-1.7772	7.55E-02	0.0723	0.0058	1.0445	0.0167	0.0085	0.0058
Illnesses of father: High blood pressure	European	0.1969	0.1111	1.7715	7.65E-02	0.0191	0.0019	1.0152	0.0076	-0.0098	0.0053
Waist circumference	European	0.0922	0.0521	1.7699	7.67E-02	0.1996	0.0078	1.0654	0.0180	0.0100	0.0065
Risk taking	European	0.1345	0.0770	1.7468	8.07E-02	0.0557	0.0029	1.0047	0.0095	0.0073	0.0057
Medication for cholesterol blood pressure or diabetes: None of the above	European	-0.1419	0.0820	-1.7304	8.36E-02	0.0879	0.0051	1.0352	0.0106	-0.0035	0.0060
Suffer from nerves	European	0.1685	0.0980	1.7198	8.55E-02	0.0458	0.0032	0.9985	0.0101	0.0091	0.0059
Non-cancer illness code self-reported: joint disorder	European	-0.5475	0.3217	-1.7019	8.88E-02	0.0020	0.0013	0.9923	0.0064	0.0122	0.0048
Non-accidental death in close genetic family	European	0.3438	0.2028	1.6949	9.01E-02	0.0185	0.0048	0.9944	0.0066	-0.0053	0.0054
Non-cancer illness code self-reported: deep venous thrombosis (dvt)	European	0.2617	0.1544	1.6948	9.01E-02	0.0107	0.0018	1.0095	0.0093	-0.0046	0.0055
Illnesses of siblings: Stroke	European	0.3920	0.2323	1.6879	9.14E-02	0.0043	0.0018	1.0077	0.0066	0.0012	0.0052
Medication for cholesterol blood pressure diabetes or take exogenous hormones: Hormone replacement therapy	European	0.2579	0.1536	1.6784	9.33E-02	0.0157	0.0027	1.0008	0.0063	-0.0038	0.0051
Ever stopped smoking for 6+ months	European	0.2790	0.1675	1.6660	9.57E-02	0.0194	0.0055	1.0015	0.0069	0.0040	0.0044
Diagnoses - main ICD10: M10 Gout	European	0.4755	0.2899	1.6405	1.01E-01	0.0022	0.0015	0.9998	0.0071	-0.0067	0.0052
Bring up phlegm/sputum/mucus on most days	European	0.2457	0.1502	1.6364	1.02E-01	0.0272	0.0059	1.0066	0.0075	0.0017	0.0044
Arm fat mass (left)	European	0.0893	0.0548	1.6305	1.03E-01	0.2311	0.0088	1.0706	0.0183	0.0086	0.0070

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Non-cancer illness code self-reported: sleep apnoea	European	0.3730	0.2289	1.6295	1.03E-01	0.0031	0.0014	1.0053	0.0070	-0.0083	0.0047
Whole body fat mass	European	0.0865	0.0532	1.6259	1.04E-01	0.2336	0.0084	1.0784	0.0185	0.0099	0.0069
Average weekly beer plus cider intake	European	0.1504	0.0935	1.6080	1.08E-01	0.0515	0.0034	1.0625	0.0093	0.0040	0.0061
Duration of other exercises	European	-0.2156	0.1352	-1.5946	1.11E-01	0.0188	0.0031	1.0088	0.0074	0.0091	0.0050
Diagnoses - main ICD10: K44 Diaphragmatic hernia	European	0.3112	0.1978	1.5734	1.16E-01	0.0047	0.0013	1.0079	0.0064	0.0008	0.0049
Non-cancer illness code self-reported: cholelithiasis/gall stones	European	0.2256	0.1442	1.5650	1.18E-01	0.0083	0.0018	1.0212	0.0083	-0.0024	0.0048
Happiness	European	0.1434	0.0925	1.5501	1.21E-01	0.0602	0.0049	1.0077	0.0074	-0.0011	0.0054
Duration of vigorous activity	European	0.1634	0.1064	1.5359	1.25E-01	0.0359	0.0033	0.9923	0.0078	0.0011	0.0053
Illnesses of siblings: Heart disease	European	0.1635	0.1077	1.5172	1.29E-01	0.0170	0.0022	1.0134	0.0071	0.0045	0.0041
Mineral and other dietary supplements: Fish oil (including cod liver oil)	European	-0.1592	0.1050	-1.5157	1.30E-01	0.0265	0.0019	1.0086	0.0071	0.0065	0.0059
Impedance of arm (right)	European	-0.0846	0.0563	-1.5038	1.33E-01	0.2352	0.0084	1.0880	0.0223	0.0047	0.0075
Diagnoses - main ICD10: I20 Angina pectoris	European	0.2362	0.1585	1.4900	1.36E-01	0.0083	0.0015	1.0092	0.0072	0.0005	0.0051
Non-cancer illness code self-reported: muscle or soft tissue injuries	European	0.4315	0.2897	1.4896	1.36E-01	0.0026	0.0015	0.9987	0.0074	-0.0082	0.0055
Non-cancer illness code self-reported: hypothyroidism/myxoedema	European	0.1457	0.0984	1.4803	1.39E-01	0.0507	0.0059	1.0340	0.0153	0.0000	0.0058
Number of full brothers	European	0.1618	0.1094	1.4784	1.39E-01	0.0186	0.0018	1.0290	0.0071	0.0079	0.0052
Hair/balding pattern: Pattern 3	European	-0.1194	0.0812	-1.4713	1.41E-01	0.0570	0.0143	1.0171	0.0200	0.0016	0.0050
Frequency of light DIY in last 4 weeks	European	0.1589	0.1084	1.4664	1.43E-01	0.0230	0.0029	1.0014	0.0064	-0.0015	0.0049
Number of self-reported cancers	European	0.2254	0.1546	1.4587	1.45E-01	0.0065	0.0015	1.0138	0.0068	-0.0018	0.0049
Illnesses of father: Diabetes	European	0.1684	0.1157	1.4549	1.46E-01	0.0181	0.0023	1.0290	0.0079	0.0001	0.0054
Weight change compared with 1 year ago	European	0.1955	0.1345	1.4534	1.46E-01	0.0086	0.0014	1.0226	0.0062	0.0024	0.0050
Pulse wave Arterial Stiffness index	European	0.1695	0.1173	1.4452	1.48E-01	0.0382	0.0051	1.0094	0.0078	0.0032	0.0044
Illnesses of mother: High blood pressure	European	0.1323	0.0922	1.4350	1.51E-01	0.0290	0.0022	1.0204	0.0086	-0.0029	0.0056
Diagnoses - main ICD10: C44 Other malignant neoplasms of skin	European	0.1889	0.1319	1.4323	1.52E-01	0.0101	0.0023	1.0082	0.0088	-0.0100	0.0049
Sleep duration	European	-0.1081	0.0758	-1.4258	1.54E-01	0.0711	0.0037	1.0254	0.0104	-0.0093	0.0057
Why reduced smoking: Illness or ill health	European	0.3499	0.2459	1.4229	1.55E-01	0.1092	0.0429	0.9984	0.0064	-0.0024	0.0050
Mouth/teeth dental problems: Loose teeth	European	0.1609	0.1136	1.4161	1.57E-01	0.0147	0.0017	1.0098	0.0072	0.0009	0.0051
Eye problems/disorders: Diabetes related eye disease	European	0.2143	0.1534	1.3973	1.62E-01	0.0199	0.0043	1.0071	0.0062	0.0026	0.0047
Illnesses of father: Lung cancer	European	0.1710	0.1224	1.3970	1.62E-01	0.0150	0.0020	0.9925	0.0073	0.0057	0.0051
Medication for cholesterol blood pressure or diabetes: Cholesterol lowering medication	European	0.1156	0.0827	1.3972	1.62E-01	0.0676	0.0065	1.0353	0.0146	0.0054	0.0054
Diagnoses - main ICD10: L03 Cellulitis	European	0.3159	0.2263	1.3962	1.63E-01	0.0040	0.0015	1.0023	0.0070	-0.0058	0.0054
Fractured bone site(s): Other bones	European	0.1899	0.1364	1.3926	1.64E-01	0.0087	0.0016	1.0029	0.0067	-0.0066	0.0048
Mineral and other dietary supplements: None of the above	European	0.1298	0.0938	1.3832	1.67E-01	0.0296	0.0021	1.0121	0.0074	0.0000	0.0056

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Diagnoses - main ICD10: R69 Unknown and unspecified causes of morbidity	European	0.2583	0.1876	1.3767	1.69E-01	0.0049	0.0014	1.0009	0.0069	0.0055	0.0049
Non-cancer illness code self-reported: migraine	European	0.1403	0.1024	1.3703	1.71E-01	0.0162	0.0019	1.0151	0.0077	0.0004	0.0045
Heel bone mineral density (BMD) T-score automated	European	0.0885	0.0648	1.3659	1.72E-01	0.2966	0.0344	1.0795	0.0367	-0.0061	0.0078
Non-cancer illness code self-reported: vaginal prolapse/uterine prolapse	European	0.2829	0.2076	1.3629	1.73E-01	0.0046	0.0015	1.0071	0.0069	-0.0005	0.0048
Non-cancer illness code self-reported: retinal detachment	European	0.3134	0.2329	1.3456	1.78E-01	0.0031	0.0013	1.0054	0.0068	-0.0046	0.0051
Reason for reducing amount of alcohol drunk: Health precaution	European	-0.1302	0.0974	-1.3361	1.82E-01	0.0461	0.0044	0.9969	0.0068	0.0094	0.0051
Trunk fat mass	European	0.0694	0.0520	1.3335	1.82E-01	0.2302	0.0083	1.0840	0.0191	0.0097	0.0067
Alcohol drinker status: Never	European	-0.1450	0.1089	-1.3321	1.83E-01	0.0143	0.0016	1.0176	0.0068	0.0122	0.0048
Qualifications: CSEs or equivalent	European	0.1279	0.0973	1.3142	1.89E-01	0.0209	0.0019	1.0593	0.0075	0.0043	0.0048
Trunk predicted mass	European	-0.0726	0.0553	-1.3126	1.89E-01	0.2842	0.0130	1.1422	0.0321	0.0080	0.0078
Non-cancer illness code self-reported: vitiligo	European	0.6103	0.4684	1.3031	1.93E-01	0.0013	0.0014	0.9959	0.0071	-0.0023	0.0048
Diastolic blood pressure automated reading	European	0.0839	0.0647	1.2979	1.94E-01	0.1356	0.0059	1.0682	0.0157	-0.0012	0.0070
Diagnoses - main ICD10: I30 Acute pericarditis	European	-0.4104	0.3172	-1.2941	1.96E-01	0.0020	0.0015	0.9968	0.0070	0.0026	0.0047
Knee pain for 3+ months	European	0.2030	0.1569	1.2939	1.96E-01	0.0253	0.0067	1.0021	0.0064	0.0023	0.0050
Trunk fat-free mass	European	-0.0701	0.0553	-1.2680	2.05E-01	0.2858	0.0131	1.1429	0.0323	0.0074	0.0078
Wears glasses or contact lenses	European	-0.1265	0.0999	-1.2663	2.05E-01	0.0160	0.0016	1.0020	0.0073	0.0056	0.0045
Diagnoses - main ICD10: M17 Gonarthrosis [arthrosis of knee]	European	0.1481	0.1175	1.2606	2.08E-01	0.0142	0.0017	1.0047	0.0077	0.0043	0.0054
Diagnoses - main ICD10: I84 Haemorrhoids	European	0.1612	0.1281	1.2584	2.08E-01	0.0094	0.0016	1.0013	0.0074	-0.0023	0.0046
Time spent watching television (TV)	European	0.0832	0.0665	1.2511	2.11E-01	0.0993	0.0041	1.0568	0.0115	0.0084	0.0066
Tinnitus: Yes now some of the time	European	0.3305	0.2663	1.2411	2.15E-01	0.0077	0.0040	1.0017	0.0063	-0.0051	0.0049
Worrier / anxious feelings	European	0.1177	0.0952	1.2358	2.17E-01	0.0791	0.0051	1.0030	0.0128	0.0091	0.0070
Cancer code self-reported: squamous cell carcinoma	European	0.3655	0.2971	1.2300	2.19E-01	0.0021	0.0013	1.0001	0.0069	-0.0019	0.0047
Bilateral oophorectomy (both ovaries removed)	European	0.1600	0.1304	1.2265	2.20E-01	0.0213	0.0032	1.0106	0.0076	0.0042	0.0048
Alcohol intake versus 10 years previously	European	0.1048	0.0855	1.2246	2.21E-01	0.0347	0.0024	1.0302	0.0082	0.0087	0.0055
Birth weight of first child	European	-0.0976	0.0799	-1.2216	2.22E-01	0.1089	0.0064	1.0228	0.0100	0.0033	0.0058
Number of older siblings	European	0.4466	0.3672	1.2164	2.24E-01	0.0058	0.0052	1.0072	0.0063	0.0007	0.0047
Non-cancer illness code self-reported: bone disorder	European	-0.4345	0.3609	-1.2040	2.29E-01	0.0015	0.0013	1.0061	0.0064	0.0044	0.0046
Diagnoses - main ICD10: R11 Nausea and vomiting	European	0.4963	0.4156	1.1943	2.32E-01	0.0012	0.0013	0.9943	0.0062	0.0003	0.0051
Fracture resulting from simple fall	European	-0.2169	0.1819	-1.1923	2.33E-01	0.0547	0.0142	0.9904	0.0063	0.0025	0.0050
Diagnoses - main ICD10: N40 Hyperplasia of prostate	European	0.1794	0.1507	1.1907	2.34E-01	0.0061	0.0015	1.0083	0.0069	-0.0065	0.0046
Current employment status: Doing unpaid or voluntary work	European	-0.1613	0.1375	-1.1724	2.41E-01	0.0087	0.0014	1.0117	0.0066	-0.0030	0.0048
Duration of moderate activity	European	0.1071	0.0914	1.1718	2.41E-01	0.0316	0.0024	1.0105	0.0080	0.0036	0.0050

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Pulse rate automated reading	European	0.0670	0.0574	1.1679	2.43E-01	0.1528	0.0107	1.0549	0.0299	0.0084	0.0069
Cough on most days	European	0.1616	0.1386	1.1662	2.44E-01	0.0481	0.0067	0.9985	0.0076	-0.0007	0.0054
Non-cancer illness code self-reported: ulcerative colitis	European	-0.1943	0.1713	-1.1343	2.57E-01	0.0060	0.0017	1.0099	0.0081	0.0051	0.0053
Started insulin within one year diagnosis of diabetes	European	-0.1772	0.1565	-1.1323	2.58E-01	0.1667	0.0481	1.0061	0.0085	0.0066	0.0048
Diagnoses - main ICD10: K62 Other diseases of anus and rectum	European	0.2075	0.1840	1.1276	2.60E-01	0.0050	0.0014	1.0025	0.0066	-0.0032	0.0051
Frequency of travelling from home to job workplace	European	0.1356	0.1208	1.1226	2.62E-01	0.0209	0.0027	1.0208	0.0069	0.0024	0.0049
Types of transport used (excluding work): Walk	European	-0.1000	0.0905	-1.1048	2.69E-01	0.0329	0.0024	1.0364	0.0092	-0.0062	0.0055
Non-cancer illness code self-reported: pneumothorax	European	-0.2526	0.2295	-1.1006	2.71E-01	0.0030	0.0015	0.9873	0.0073	-0.0023	0.0056
Ever had prostate specific antigen (PSA) test	European	-0.1231	0.1121	-1.0984	2.72E-01	0.0336	0.0035	1.0050	0.0076	0.0020	0.0053
Diagnoses - main ICD10: I21 Acute myocardial infarction	European	0.1309	0.1204	1.0874	2.77E-01	0.0104	0.0017	1.0054	0.0075	0.0018	0.0047
Number of days/week walked 10+ minutes	European	0.0778	0.0727	1.0699	2.85E-01	0.0423	0.0023	1.0098	0.0078	0.0004	0.0045
Diagnoses - main ICD10: H25 Senile cataract	European	0.2773	0.2598	1.0673	2.86E-01	0.0028	0.0014	1.0167	0.0071	-0.0035	0.0051
Diagnoses - main ICD10: M24 Other specific joint derangements	European	0.2424	0.2278	1.0642	2.87E-01	0.0035	0.0013	0.9875	0.0064	-0.0021	0.0051
Eye problems/disorders: Glaucoma	European	0.1235	0.1163	1.0622	2.88E-01	0.0404	0.0056	1.0154	0.0079	-0.0096	0.0048
Current employment status: Retired	European	-0.1580	0.1489	-1.0612	2.89E-01	0.0082	0.0015	1.0179	0.0070	-0.0028	0.0048
Diagnoses - main ICD10: I25 Chronic ischaemic heart disease	European	0.1007	0.0950	1.0596	2.89E-01	0.0201	0.0023	1.0197	0.0077	0.0024	0.0051
Diagnoses - main ICD10: H26 Other cataract	European	0.1427	0.1352	1.0553	2.91E-01	0.0093	0.0017	0.9940	0.0075	-0.0009	0.0050
Diagnoses - main ICD10: K51 Ulcerative colitis	European	-0.1894	0.1796	-1.0546	2.92E-01	0.0048	0.0017	1.0122	0.0069	0.0048	0.0047
Maximum heart rate during fitness test	European	-0.1710	0.1627	-1.0511	2.93E-01	0.0688	0.0132	1.0157	0.0087	0.0015	0.0054
Birth weight	European	-0.0710	0.0679	-1.0459	2.96E-01	0.1089	0.0062	1.0496	0.0134	0.0009	0.0056
Medication for cholesterol blood pressure or diabetes: Blood pressure medication	European	0.0844	0.0809	1.0429	2.97E-01	0.1037	0.0055	1.0339	0.0101	-0.0001	0.0063
Transport type for commuting to job workplace: Car/motor vehicle	European	0.1105	0.1061	1.0412	2.98E-01	0.0248	0.0031	1.0228	0.0070	0.0032	0.0046
Impedance of whole body	European	-0.0575	0.0560	-1.0275	3.04E-01	0.2573	0.0096	1.0933	0.0227	0.0035	0.0077
Diagnoses - main ICD10: R35 Polyuria	European	0.3217	0.3161	1.0177	3.09E-01	0.0029	0.0015	0.9986	0.0067	-0.0012	0.0056
Types of physical activity in last 4 weeks: Strenuous sports	European	-0.0893	0.0886	-1.0074	3.14E-01	0.0220	0.0018	1.0111	0.0069	-0.0076	0.0055
Diagnoses - main ICD10: M23 Internal derangement of knee	European	0.1379	0.1370	1.0063	3.14E-01	0.0082	0.0018	1.0043	0.0076	-0.0028	0.0048
Headaches for 3+ months	European	-0.1215	0.1213	-1.0017	3.17E-01	0.0556	0.0077	1.0071	0.0068	-0.0042	0.0050
Doctor diagnosed hayfever or allergic rhinitis	European	-0.0991	0.1000	-0.9917	3.21E-01	0.0784	0.0095	1.0087	0.0083	0.0076	0.0049
Whole body fat-free mass	European	-0.0547	0.0555	-0.9855	3.24E-01	0.2883	0.0126	1.1342	0.0306	0.0074	0.0077
Diagnoses - main ICD10: D12 Benign neoplasm of colon rectum anus and anal canal	European	-0.1287	0.1310	-0.9822	3.26E-01	0.0085	0.0014	1.0045	0.0066	0.0057	0.0045
No-wear time bias adjusted acceleration standard deviation	European	-0.0952	0.0970	-0.9814	3.26E-01	0.0880	0.0080	1.0030	0.0073	-0.0002	0.0046
Whole body water mass	European	-0.0546	0.0557	-0.9793	3.27E-01	0.2883	0.0126	1.1335	0.0303	0.0076	0.0077

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Diagnoses - main ICD10: S09 Other and unspecified injuries of head	European	0.1808	0.1846	0.9793	3.27E-01	0.0041	0.0015	0.9932	0.0065	-0.0021	0.0053
Diagnoses - main ICD10: M67 Other disorders of synovium and tendon	European	0.2845	0.2918	0.9750	3.30E-01	0.0019	0.0014	1.0009	0.0067	0.0029	0.0048
Illnesses of father: None of the above (group 2)	European	-0.1504	0.1554	-0.9678	3.33E-01	0.0096	0.0016	1.0000	0.0071	-0.0005	0.0052
Getting up in morning	European	-0.0619	0.0650	-0.9520	3.41E-01	0.0680	0.0031	1.0427	0.0109	0.0029	0.0055
Cancer diagnosed by doctor	European	0.1458	0.1562	0.9337	3.51E-01	0.0067	0.0016	1.0094	0.0067	-0.0022	0.0047
Diagnoses - main ICD10: J33 Nasal polyp	European	-0.2176	0.2360	-0.9220	3.57E-01	0.0032	0.0015	1.0077	0.0071	0.0090	0.0046
Diagnoses - main ICD10: G56 Mononeuropathies of upper limb	European	0.1105	0.1201	0.9201	3.58E-01	0.0141	0.0019	1.0069	0.0074	0.0029	0.0053
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: Asthma	European	0.0605	0.0661	0.9158	3.60E-01	0.0568	0.0058	1.0292	0.0152	0.0075	0.0051
Average weekly intake of other alcoholic drinks	European	0.2706	0.2957	0.9152	3.60E-01	0.0081	0.0058	1.0033	0.0067	0.0006	0.0046
Mineral and other dietary supplements: Calcium	European	-0.1052	0.1167	-0.9009	3.68E-01	0.0124	0.0016	0.9984	0.0066	0.0014	0.0049
Fractured/broken bones in last 5 years	European	0.0912	0.1021	0.8932	3.72E-01	0.0185	0.0021	1.0100	0.0075	-0.0041	0.0049
Non-cancer illness code self-reported: polio / poliomyelitis	European	0.2049	0.2297	0.8919	3.72E-01	0.0026	0.0013	0.9927	0.0070	-0.0025	0.0049
Sodium in urine	European	0.0615	0.0692	0.8890	3.74E-01	0.0721	0.0031	1.0248	0.0098	0.0041	0.0059
Had menopause	European	0.1383	0.1564	0.8842	3.77E-01	0.0202	0.0040	1.0044	0.0070	-0.0008	0.0054
Diagnoses - main ICD10: F43 Reaction to severe stress and adjustment disorders	European	0.5203	0.5911	0.8802	3.79E-01	0.0008	0.0013	1.0025	0.0055	-0.0046	0.0049
Non-cancer illness code self-reported: asthma	European	0.0593	0.0682	0.8688	3.85E-01	0.0575	0.0059	1.0304	0.0153	0.0078	0.0052
Why stopped smoking: None of the above	European	-0.1178	0.1373	-0.8578	3.91E-01	0.0398	0.0058	0.9985	0.0065	0.0068	0.0050
Frequency of heavy DIY in last 4 weeks	European	0.1230	0.1443	0.8522	3.94E-01	0.0200	0.0037	1.0104	0.0067	-0.0039	0.0047
Non-cancer illness code self-reported: crohn's disease	European	-0.1601	0.1898	-0.8437	3.99E-01	0.0051	0.0015	1.0068	0.0067	0.0058	0.0051
Leg fat-free mass (right)	European	-0.0473	0.0563	-0.8409	4.00E-01	0.2638	0.0112	1.1166	0.0266	0.0072	0.0074
Diagnoses - main ICD10: Z47 Other orthopaedic follow-up care	European	0.1682	0.2007	0.8381	4.02E-01	0.0033	0.0013	0.9985	0.0065	-0.0025	0.0050
Leg predicted mass (right)	European	-0.0466	0.0563	-0.8279	4.08E-01	0.2634	0.0112	1.1165	0.0265	0.0070	0.0074
Non-cancer illness code self-reported: malabsorption/coeliac disease	European	0.1646	0.1997	0.8239	4.10E-01	0.0169	0.0122	0.9941	0.0213	-0.0074	0.0044
Heel bone mineral density (BMD) T-score automated (right)	European	0.0640	0.0780	0.8208	4.12E-01	0.3034	0.0371	1.0291	0.0230	-0.0024	0.0072
Diagnoses - main ICD10: K80 Cholelithiasis	European	0.1159	0.1430	0.8103	4.18E-01	0.0096	0.0019	1.0232	0.0090	0.0023	0.0055
Back pain for 3+ months	European	0.0912	0.1160	0.7862	4.32E-01	0.0400	0.0059	0.9923	0.0070	-0.0023	0.0049
Non-cancer illness code self-reported: kidney stone/ureter stone/bladder stone	European	0.1138	0.1456	0.7817	4.34E-01	0.0090	0.0018	1.0031	0.0080	-0.0019	0.0051
Average weekly fortified wine intake	European	-0.1134	0.1455	-0.7792	4.36E-01	0.0127	0.0022	1.0174	0.0067	-0.0010	0.0053
Fractured bone site(s): Ankle	European	0.1185	0.1526	0.7769	4.37E-01	0.0064	0.0015	0.9956	0.0065	-0.0014	0.0048
Number of children fathered	European	0.0910	0.1180	0.7717	4.40E-01	0.0322	0.0037	1.0111	0.0072	-0.0039	0.0052
Hip circumference	European	0.0441	0.0571	0.7715	4.40E-01	0.2168	0.0093	1.0841	0.0196	0.0084	0.0072

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Cancer code self-reported: basal cell carcinoma	European	-0.0974	0.1270	-0.7669	4.43E-01	0.0104	0.0019	0.9977	0.0080	0.0020	0.0051
Non-cancer illness code self-reported: osteoporosis	European	-0.0926	0.1241	-0.7463	4.56E-01	0.0147	0.0020	1.0019	0.0080	0.0039	0.0049
Nap during day	European	0.0479	0.0644	0.7439	4.57E-01	0.0805	0.0036	1.0248	0.0104	0.0035	0.0056
Comparative body size at age 10	European	0.0428	0.0579	0.7382	4.60E-01	0.1454	0.0096	1.0183	0.0190	-0.0094	0.0059
Vitamin and mineral supplements: Vitamin E	European	-0.1098	0.1518	-0.7235	4.69E-01	0.0069	0.0014	0.9932	0.0061	0.0062	0.0050
Cancer code self-reported: malignant melanoma	European	0.1377	0.1909	0.7212	4.71E-01	0.0049	0.0015	0.9948	0.0064	-0.0027	0.0047
Diagnoses - main ICD10: K35 Acute appendicitis	European	-0.1863	0.2584	-0.7210	4.71E-01	0.0024	0.0013	1.0038	0.0067	0.0010	0.0046
Diagnoses - main ICD10: O75 Other complications of labour and delivery not elsewhere classified	European	-0.1605	0.2234	-0.7186	4.72E-01	0.0030	0.0012	0.9882	0.0055	0.0050	0.0043
Underlying (primary) cause of death: ICD10: E85.4 Organ-limited amyloidosis	European	-0.2870	0.4011	-0.7156	4.74E-01	0.0595	0.0612	0.9999	0.0070	0.0026	0.0051
Distance between home and job workplace	European	0.1331	0.1871	0.7117	4.77E-01	0.0121	0.0032	1.0057	0.0068	-0.0033	0.0050
Diagnoses - main ICD10: Z09 Follow-up examination after treatment for conditions other than malignant neoplasms	European	0.1581	0.2251	0.7023	4.83E-01	0.0027	0.0013	1.0023	0.0066	0.0019	0.0045
Non-cancer illness code self-reported: gout	European	0.0563	0.0807	0.6979	4.85E-01	0.0251	0.0069	0.9903	0.0198	-0.0009	0.0049
Light smokers at least 100 smokes in lifetime	European	0.0604	0.0866	0.6975	4.86E-01	0.0770	0.0072	1.0057	0.0074	0.0078	0.0049
Diagnoses - main ICD10: K76 Other diseases of liver	European	0.1478	0.2129	0.6942	4.88E-01	0.0036	0.0013	0.9935	0.0063	0.0033	0.0047
Non-cancer illness code self-reported: psoriasis	European	0.1190	0.1727	0.6894	4.91E-01	0.0071	0.0016	1.0178	0.0085	0.0016	0.0050
Diagnoses - main ICD10: R55 Syncope and collapse	European	0.1266	0.1843	0.6869	4.92E-01	0.0055	0.0014	1.0078	0.0071	-0.0002	0.0049
Vitamin and mineral supplements: Vitamin A	European	-0.1497	0.2180	-0.6865	4.92E-01	0.0036	0.0016	1.0037	0.0065	0.0029	0.0052
Basal metabolic rate	European	-0.0378	0.0556	-0.6795	4.97E-01	0.2836	0.0120	1.1211	0.0283	0.0090	0.0077
Types of transport used (excluding work): Public transport	European	0.0714	0.1051	0.6791	4.97E-01	0.0220	0.0018	1.0275	0.0069	-0.0104	0.0054
Cancer code self-reported: lung cancer	European	0.6574	0.9685	0.6787	4.97E-01	0.0005	0.0012	0.9921	0.0068	-0.0040	0.0044
Systolic blood pressure automated reading	European	0.0447	0.0665	0.6724	5.01E-01	0.1273	0.0058	1.0682	0.0155	-0.0022	0.0064
Diagnoses - main ICD10: C61 Malignant neoplasm of prostate	European	0.1336	0.1993	0.6706	5.03E-01	0.0045	0.0014	1.0174	0.0068	-0.0066	0.0053
Diagnoses - main ICD10: K40 Inguinal hernia	European	-0.0733	0.1094	-0.6699	5.03E-01	0.0184	0.0022	0.9920	0.0071	-0.0012	0.0053
Why stopped smoking: Health precaution	European	-0.0735	0.1102	-0.6676	5.04E-01	0.0553	0.0064	0.9977	0.0070	-0.0048	0.0048
Diagnoses - main ICD10: K60 Fissure and fistula of anal and rectal regions	European	0.1059	0.1591	0.6657	5.06E-01	0.0054	0.0014	0.9832	0.0067	0.0012	0.0046
Vitamin and mineral supplements: None of the above	European	0.0547	0.0835	0.6554	5.12E-01	0.0299	0.0018	0.9956	0.0068	-0.0048	0.0050
Underlying (primary) cause of death: ICD10: J84.1 Other interstitial pulmonary diseases with fibrosis	European	-0.1444	0.2213	-0.6526	5.14E-01	0.1155	0.0641	0.9910	0.0067	-0.0034	0.0045
Worry too long after embarrassment	European	0.0551	0.0846	0.6510	5.15E-01	0.0648	0.0034	1.0186	0.0106	0.0049	0.0066
Diagnoses - main ICD10: M25 Other joint disorders not elsewhere classified	European	0.3364	0.5302	0.6345	5.26E-01	0.0008	0.0014	1.0171	0.0067	0.0006	0.0044

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Diagnoses - main ICD10: T84 Complications of internal orthopaedic prosthetic devices implants and grafts	European	0.1317	0.2079	0.6336	5.26E-01	0.0048	0.0017	0.9932	0.0072	0.0081	0.0055
Vitamin and mineral supplements: Multivitamins +/- minerals	European	-0.0573	0.0910	-0.6297	5.29E-01	0.0237	0.0018	1.0069	0.0077	0.0006	0.0050
Fractured bone site(s): Arm	European	-0.1309	0.2084	-0.6281	5.30E-01	0.0051	0.0016	0.9981	0.0075	0.0029	0.0053
Pulse wave reflection index	European	0.0682	0.1094	0.6234	5.33E-01	0.0542	0.0054	1.0094	0.0077	-0.0047	0.0051
Tinnitus: Yes now most or all of the time	European	-0.0749	0.1215	-0.6162	5.38E-01	0.0337	0.0047	1.0015	0.0064	0.0029	0.0050
Heel bone mineral density (BMD) T-score automated (left)	European	0.0475	0.0780	0.6089	5.43E-01	0.3002	0.0366	1.0329	0.0223	0.0014	0.0073
Non-cancer illness code self-reported: enlarged prostate	European	0.0914	0.1510	0.6056	5.45E-01	0.0064	0.0016	1.0034	0.0070	-0.0027	0.0044
Illnesses of father: Heart disease	European	0.0539	0.0893	0.6038	5.46E-01	0.0299	0.0027	1.0042	0.0090	-0.0031	0.0050
Non-cancer illness code self-reported: hyperthyroidism/thyrotoxicosis	European	0.0874	0.1466	0.5959	5.51E-01	0.0089	0.0025	1.0049	0.0078	-0.0051	0.0048
Ever had bowel cancer screening	European	-0.0758	0.1277	-0.5935	5.53E-01	0.0129	0.0016	1.0201	0.0070	0.0018	0.0051
Diagnoses - main ICD10: N32 Other disorders of bladder	European	0.1188	0.2012	0.5906	5.55E-01	0.0040	0.0012	0.9896	0.0059	-0.0031	0.0050
Diagnoses - main ICD10: M70 Soft tissue disorders related to use overuse and pressure	European	-0.1089	0.1845	-0.5903	5.55E-01	0.0042	0.0013	0.9816	0.0068	0.0017	0.0047
Leg fat-free mass (left)	European	-0.0332	0.0564	-0.5885	5.56E-01	0.2659	0.0112	1.1098	0.0261	0.0070	0.0075
Cancer code self-reported: breast cancer	European	0.0796	0.1356	0.5867	5.57E-01	0.0099	0.0017	1.0189	0.0079	-0.0008	0.0047
Hair/balding pattern: Pattern 4	European	0.0325	0.0556	0.5834	5.60E-01	0.1671	0.0200	1.1003	0.0255	-0.0074	0.0052
Leg predicted mass (left)	European	-0.0326	0.0564	-0.5793	5.62E-01	0.2655	0.0112	1.1097	0.0259	0.0068	0.0075
Potassium in urine	European	-0.0442	0.0765	-0.5783	5.63E-01	0.0431	0.0023	1.0148	0.0091	-0.0046	0.0054
Duration of strenuous sports	European	-0.1231	0.2163	-0.5694	5.69E-01	0.0302	0.0138	0.9945	0.0066	-0.0023	0.0050
Diagnoses - main ICD10: G47 Sleep disorders	European	0.0975	0.1734	0.5620	5.74E-01	0.0064	0.0015	0.9937	0.0068	-0.0026	0.0051
Type of tobacco previously smoked: Cigars or pipes	European	-0.1206	0.2155	-0.5594	5.76E-01	0.0117	0.0051	1.0009	0.0060	-0.0002	0.0047
Current employment status: Looking after home and/or family	European	-0.0941	0.1692	-0.5563	5.78E-01	0.0059	0.0014	1.0020	0.0067	-0.0044	0.0050
Duration of fitness test	European	-0.1365	0.2499	-0.5464	5.85E-01	0.0185	0.0089	1.0063	0.0067	-0.0010	0.0048
Number of incorrect matches in round	European	0.0352	0.0661	0.5335	5.94E-01	0.0540	0.0028	1.0082	0.0090	0.0074	0.0051
Work/job satisfaction	European	0.0648	0.1226	0.5283	5.97E-01	0.0481	0.0069	0.9952	0.0068	-0.0020	0.0051
Hair/balding pattern: Pattern 2	European	-0.0460	0.0898	-0.5129	6.08E-01	0.0511	0.0066	1.0363	0.0137	0.0102	0.0050
Illnesses of mother: Breast cancer	European	-0.0604	0.1195	-0.5053	6.13E-01	0.0095	0.0019	1.0066	0.0079	-0.0017	0.0046
Diagnoses - main ICD10: N20 Calculus of kidney and ureter	European	0.0754	0.1504	0.5016	6.16E-01	0.0078	0.0014	1.0102	0.0070	0.0030	0.0050
Relative age voice broke	European	-0.0406	0.0822	-0.4941	6.21E-01	0.0730	0.0055	1.0086	0.0085	-0.0050	0.0053
Diagnoses - main ICD10: S66 Injury of muscle and tendon at wrist and hand level	European	0.1394	0.2828	0.4928	6.22E-01	0.0018	0.0012	1.0032	0.0065	-0.0010	0.0048
Time spent using computer	European	0.0330	0.0671	0.4915	6.23E-01	0.0957	0.0042	1.0466	0.0098	-0.0068	0.0059
Reproducibility of spirometry measurement using ERS/ATS criteria	European	-0.0729	0.1489	-0.4894	6.25E-01	0.0145	0.0022	1.0073	0.0073	0.0050	0.0058



Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Arm fat-free mass (right)	European	-0.0272	0.0556	-0.4893	6.25E-01	0.2656	0.0113	1.1065	0.0276	0.0063	0.0075
Friendships satisfaction	European	0.0448	0.0923	0.4847	6.28E-01	0.0614	0.0052	1.0000	0.0078	-0.0026	0.0052
Diagnoses - main ICD10: C50 Malignant neoplasm of breast	European	0.0658	0.1363	0.4824	6.30E-01	0.0086	0.0016	1.0057	0.0080	0.0004	0.0043
Non-cancer illness code self-reported: uterine fibroids	European	-0.0727	0.1554	-0.4678	6.40E-01	0.0071	0.0014	1.0074	0.0067	-0.0013	0.0050
Non-cancer illness code self-reported: allergy or anaphylactic reaction to drug	European	0.1826	0.3916	0.4664	6.41E-01	0.0010	0.0014	1.0080	0.0065	-0.0025	0.0044
Arm predicted mass (right)	European	-0.0254	0.0552	-0.4597	6.46E-01	0.2642	0.0113	1.1087	0.0280	0.0069	0.0076
Illnesses of father: Prostate cancer	European	-0.0632	0.1380	-0.4584	6.47E-01	0.0082	0.0019	1.0136	0.0084	0.0005	0.0050
Illnesses of mother: Alzheimer's disease/dementia	European	-0.1079	0.2392	-0.4510	6.52E-01	0.0036	0.0047	1.0372	0.0356	-0.0025	0.0052
Diagnoses - main ICD10: M72 Fibroblastic disorders	European	0.0593	0.1323	0.4485	6.54E-01	0.0103	0.0031	1.0188	0.0215	0.0019	0.0049
Chest pain or discomfort walking normally	European	0.0505	0.1143	0.4422	6.58E-01	0.0757	0.0093	1.0076	0.0071	0.0079	0.0050
Eye problems/disorders: Injury or trauma resulting in loss of vision	European	1.0942	2.4925	0.4390	6.61E-01	0.0012	0.0040	1.0105	0.0062	-0.0037	0.0047
Medication for cholesterol blood pressure or diabetes: Insulin	European	0.0928	0.2130	0.4356	6.63E-01	0.0094	0.0032	1.0124	0.0070	0.0052	0.0048
Diagnoses - main ICD10: N81 Female genital prolapse	European	0.0705	0.1625	0.4341	6.64E-01	0.0071	0.0016	1.0249	0.0067	0.0030	0.0053
Diagnoses - main ICD10: S52 Fracture of forearm	European	0.0866	0.2049	0.4227	6.73E-01	0.0067	0.0018	0.9975	0.0070	-0.0027	0.0056
Mouth/teeth dental problems: Bleeding gums	European	0.0434	0.1050	0.4137	6.79E-01	0.0222	0.0019	1.0121	0.0080	0.0017	0.0054
Mouth/teeth dental problems: Mouth ulcers	European	-0.0357	0.0872	-0.4092	6.82E-01	0.0292	0.0037	1.0313	0.0111	0.0012	0.0054
Reason for glasses/contact lenses: For just reading/near work as you are getting older (called presbyopia)	European	-0.0916	0.2245	-0.4079	6.83E-01	0.0039	0.0017	1.1364	0.0083	-0.0009	0.0052
Non-cancer illness code self-reported: arthritis (nos)	European	-0.1170	0.2902	-0.4031	6.87E-01	0.0019	0.0014	1.0138	0.0066	-0.0025	0.0050
Diagnoses - main ICD10: K52 Other non-infective gastro-enteritis and colitis	European	0.0742	0.1850	0.4012	6.88E-01	0.0048	0.0013	1.0041	0.0060	0.0023	0.0050
Diagnoses - main ICD10: R14 Flatulence and related conditions	European	0.0886	0.2214	0.4003	6.89E-01	0.0034	0.0013	0.9910	0.0068	-0.0002	0.0047
Home area population density - urban or rural: Scotland - Large Urban Area	European	-0.0719	0.1800	-0.3995	6.90E-01	0.0116	0.0032	2.1327	0.0155	-0.0060	0.0071
Ever taken oral contraceptive pill	European	-0.0475	0.1235	-0.3841	7.01E-01	0.0196	0.0030	1.0112	0.0073	0.0036	0.0050
Impedance of leg (left)	European	-0.0219	0.0572	-0.3831	7.02E-01	0.2412	0.0094	1.0813	0.0223	0.0054	0.0073
Diagnoses - main ICD10: F31 Bipolar affective disorder	European	0.0662	0.1736	0.3811	7.03E-01	0.0049	0.0015	0.9869	0.0069	0.0016	0.0046
Pulse rate	European	0.0288	0.0764	0.3768	7.06E-01	0.1337	0.0122	1.0287	0.0146	0.0095	0.0057
Average weekly spirits intake	European	0.0340	0.0906	0.3753	7.07E-01	0.0320	0.0028	1.0146	0.0081	0.0065	0.0051
Non-cancer illness code self-reported: bladder problem (not cancer)	European	-0.0869	0.2319	-0.3746	7.08E-01	0.0024	0.0013	1.0009	0.0070	-0.0004	0.0045
Number of depression episodes	European	0.0880	0.2362	0.3724	7.10E-01	0.0312	0.0119	1.0057	0.0063	0.0033	0.0054
Number of days/week of vigorous physical activity 10+ minutes	European	-0.0308	0.0836	-0.3686	7.12E-01	0.0375	0.0023	1.0179	0.0082	0.0004	0.0055
Medication for pain relief constipation heartburn: Ibuprofen (e.g. Nurofen)	European	0.0367	0.1003	0.3661	7.14E-01	0.0230	0.0018	0.9950	0.0068	0.0085	0.0052

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Diagnoses - main ICD10: J22 Unspecified acute lower respiratory infection	European	0.0840	0.2307	0.3640	7.16E-01	0.0031	0.0015	0.9971	0.0073	0.0067	0.0051
Non-cancer illness code self-reported: pernicious anaemia	European	-0.0785	0.2158	-0.3637	7.16E-01	0.0034	0.0013	0.9923	0.0066	0.0069	0.0046
Time spent driving	European	0.0334	0.0963	0.3465	7.29E-01	0.0421	0.0029	1.0028	0.0078	0.0017	0.0054
Non-cancer illness code self-reported: nasal polyps	European	-0.0603	0.1771	-0.3406	7.33E-01	0.0050	0.0016	1.0073	0.0066	-0.0033	0.0051
Diagnoses - main ICD10: I10 Essential (primary) hypertension	European	0.0888	0.2662	0.3337	7.39E-01	0.0024	0.0013	0.9988	0.0063	0.0008	0.0053
Non-cancer illness code self-reported: iron deficiency anaemia	European	0.0562	0.1687	0.3331	7.39E-01	0.0043	0.0013	0.9921	0.0062	-0.0033	0.0046
Arm predicted mass (left)	European	-0.0187	0.0560	-0.3330	7.39E-01	0.2633	0.0111	1.1175	0.0273	0.0095	0.0076
Diagnoses - main ICD10: R31 Unspecified haematuria	European	-0.0723	0.2188	-0.3306	7.41E-01	0.0029	0.0015	1.0103	0.0067	-0.0008	0.0045
Used an inhaler for chest within last hour	European	-0.0577	0.1751	-0.3295	7.42E-01	0.0041	0.0016	1.0032	0.0062	0.0039	0.0050
Weight	European	0.0176	0.0543	0.3252	7.45E-01	0.2645	0.0103	1.0891	0.0225	0.0104	0.0074
Diagnoses - main ICD10: D25 Leiomyoma of uterus	European	0.0553	0.1727	0.3204	7.49E-01	0.0058	0.0015	0.9938	0.0064	-0.0029	0.0049
Vitamin and mineral supplements: Vitamin C	European	-0.0394	0.1249	-0.3156	7.52E-01	0.0132	0.0017	0.9984	0.0073	0.0037	0.0047
Arm fat-free mass (left)	European	-0.0177	0.0560	-0.3152	7.53E-01	0.2644	0.0110	1.1140	0.0268	0.0086	0.0075
Length of menstrual cycle	European	0.0426	0.1368	0.3114	7.56E-01	0.0985	0.0204	1.0019	0.0068	0.0012	0.0051
Vitamin and mineral supplements: Vitamin B	European	0.0500	0.1608	0.3108	7.56E-01	0.0072	0.0015	1.0015	0.0068	0.0066	0.0052
Diagnoses - main ICD10: Z80 Family history of malignant neoplasm	European	-0.0994	0.3226	-0.3081	7.58E-01	0.0013	0.0013	0.9905	0.0062	-0.0032	0.0051
Handedness (chirality/laterality): Left-handed	European	0.0423	0.1383	0.3059	7.60E-01	0.0098	0.0017	1.0061	0.0073	-0.0014	0.0051
Diagnoses - main ICD10: E04 Other non-toxic goitre	European	0.0525	0.1823	0.2880	7.73E-01	0.0049	0.0013	0.9950	0.0064	-0.0022	0.0052
Non-cancer illness code self-reported: back problem	European	0.0521	0.1814	0.2875	7.74E-01	0.0048	0.0013	1.0070	0.0064	0.0048	0.0049
Length of working week for main job	European	-0.0371	0.1325	-0.2798	7.80E-01	0.0192	0.0028	1.0098	0.0066	0.0047	0.0052
Non-cancer illness code self-reported: ankylosing spondylitis	European	-0.0868	0.3121	-0.2782	7.81E-01	0.0017	0.0015	1.0029	0.0068	0.0071	0.0050
Eye problems/disorders: Cataract	European	0.0412	0.1496	0.2752	7.83E-01	0.0226	0.0044	1.0150	0.0071	0.0039	0.0050
Diagnoses - main ICD10: I80 Phlebitis and thrombophlebitis	European	0.0432	0.1570	0.2749	7.83E-01	0.0080	0.0016	0.9934	0.0086	-0.0039	0.0049
Non-cancer illness code self-reported: diverticular disease/diverticulitis	European	0.0293	0.1091	0.2682	7.89E-01	0.0125	0.0017	0.9947	0.0072	0.0046	0.0050
Father still alive	European	-0.0425	0.1621	-0.2622	7.93E-01	0.0063	0.0016	1.0168	0.0068	0.0057	0.0047
Diagnoses - main ICD10: M20 Acquired deformities of fingers and toes	European	0.0312	0.1231	0.2536	8.00E-01	0.0095	0.0015	1.0002	0.0070	0.0076	0.0050
Diagnoses - main ICD10: I48 Atrial fibrillation and flutter	European	-0.0307	0.1213	-0.2528	8.00E-01	0.0128	0.0021	1.0116	0.0079	0.0028	0.0050
Mineral and other dietary supplements: Zinc	European	0.0309	0.1246	0.2482	8.04E-01	0.0110	0.0015	0.9896	0.0061	0.0055	0.0048
Impedance of leg (right)	European	-0.0139	0.0563	-0.2467	8.05E-01	0.2402	0.0093	1.0916	0.0222	0.0034	0.0072
Morning/evening person (chronotype)	European	0.0154	0.0630	0.2451	8.06E-01	0.1151	0.0041	1.0469	0.0116	-0.0018	0.0059
Snoring	European	-0.0154	0.0660	-0.2330	8.16E-01	0.0595	0.0028	1.0247	0.0090	-0.0021	0.0056

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Most recent bowel cancer screening	European	-0.0546	0.2438	-0.2239	8.23E-01	0.0115	0.0058	1.0121	0.0063	0.0028	0.0050
Target heart rate achieved	European	0.0395	0.1783	0.2217	8.25E-01	0.0330	0.0107	1.0073	0.0070	-0.0062	0.0049
Cancer code self-reported: small intestine/small bowel cancer	European	-0.0895	0.4101	-0.2183	8.27E-01	0.0012	0.0015	0.9987	0.0073	0.0039	0.0047
Fractured bone site(s): Wrist	European	0.0318	0.1595	0.1993	8.42E-01	0.0068	0.0017	1.0063	0.0074	0.0024	0.0052
Diagnoses - main ICD10: B37 Candidiasis	European	0.0849	0.4476	0.1896	8.50E-01	0.0008	0.0014	1.0004	0.0068	-0.0029	0.0048
Number of pregnancy terminations	European	0.0249	0.1384	0.1802	8.57E-01	0.0600	0.0098	1.0078	0.0075	0.0020	0.0053
Non-cancer illness code self-reported: glaucoma	European	-0.0204	0.1147	-0.1776	8.59E-01	0.0116	0.0016	1.0107	0.0080	-0.0035	0.0046
Reason for glasses/contact lenses: For long-sightedness i.e. for distance and near but particularly for near tasks like reading (called hypermetropia)	European	-0.0193	0.1356	-0.1424	8.87E-01	0.0098	0.0016	1.0645	0.0074	0.0079	0.0052
Diagnoses - main ICD10: N19 Unspecified renal failure	European	0.0351	0.2481	0.1416	8.87E-01	0.0029	0.0013	0.9994	0.0067	-0.0038	0.0052
Home area population density - urban or rural: England/Wales - Village - less sparse	European	0.0400	0.2988	0.1338	8.94E-01	0.0021	0.0014	1.0247	0.0061	-0.0018	0.0049
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: None of the above	European	-0.0078	0.0626	-0.1249	9.01E-01	0.0757	0.0068	1.0429	0.0182	-0.0077	0.0057
Doctor diagnosed asthma	European	0.0131	0.1068	0.1226	9.02E-01	0.0695	0.0102	0.9987	0.0080	0.0068	0.0051
Frequency of other exercises in last 4 weeks	European	-0.0154	0.1299	-0.1185	9.06E-01	0.0213	0.0032	0.9975	0.0063	-0.0048	0.0048
Non-cancer illness code self-reported: hypertrophic cardiomyopathy (hcm / hocm)	European	-0.0281	0.3082	-0.0913	9.27E-01	0.0016	0.0014	1.0014	0.0067	-0.0051	0.0050
Diagnoses - main ICD10: K43 Ventral hernia	European	0.0149	0.1684	0.0883	9.30E-01	0.0052	0.0014	0.9942	0.0070	0.0035	0.0048
Number of days/week of moderate physical activity 10+ minutes	European	0.0067	0.0829	0.0809	9.36E-01	0.0414	0.0026	1.0150	0.0082	0.0021	0.0055
Diagnoses - main ICD10: S76 Injury of muscle and tendon at hip and thigh level	European	0.0262	0.3268	0.0801	9.36E-01	0.0013	0.0013	0.9992	0.0068	0.0010	0.0051
Non-cancer illness code self-reported: hypopituitarism	European	-0.0237	0.3543	-0.0667	9.47E-01	0.0015	0.0012	0.9908	0.0063	0.0026	0.0051
Illnesses of mother: None of the above (group 2)	European	-0.0090	0.1367	-0.0659	9.47E-01	0.0094	0.0018	1.0000	0.0066	-0.0062	0.0043
Non-cancer illness code self-reported: eczema/dermatitis	European	-0.0082	0.1443	-0.0566	9.55E-01	0.0085	0.0022	1.0138	0.0076	0.0054	0.0050
Relative age of first facial hair	European	-0.0036	0.0721	-0.0506	9.60E-01	0.1254	0.0071	1.0412	0.0115	-0.0072	0.0053
Diagnoses - main ICD10: M16 Coxarthrosis [arthrosis of hip]	European	0.0072	0.1557	0.0464	9.63E-01	0.0110	0.0017	1.0080	0.0082	0.0012	0.0054
Illness injury bereavement stress in last 2 years: Serious illness injury or assault of a close relative	European	0.0065	0.1401	0.0461	9.63E-01	0.0112	0.0017	1.0104	0.0071	0.0029	0.0053
Diagnoses - main ICD10: K50 Crohn's disease [regional enteritis]	European	-0.0083	0.1803	-0.0459	9.63E-01	0.0044	0.0014	1.0034	0.0069	0.0028	0.0050
Hearing aid user	European	0.0053	0.1381	0.0381	9.70E-01	0.0173	0.0027	1.0032	0.0068	-0.0019	0.0054
Non-cancer illness code self-reported: varicose veins	European	-0.0060	0.2000	-0.0299	9.76E-01	0.0046	0.0014	1.0094	0.0067	-0.0011	0.0052
Cancer code self-reported: prostate cancer	European	0.0041	0.1650	0.0251	9.80E-01	0.0060	0.0015	1.0152	0.0080	-0.0047	0.0051
Non-cancer illness code self-reported: mania/bipolar disorder/manic depression	European	0.0038	0.1819	0.0210	9.83E-01	0.0054	0.0014	1.0018	0.0062	-0.0019	0.0052
Creatinine (enzymatic) in urine	European	0.0006	0.0642	0.0089	9.93E-01	0.0662	0.0030	1.0179	0.0092	-0.0031	0.0056

**eTable 10.** Genetic correlations for “propensity” Design

All results from LDhub analyses. Trait= trait against which genetic correlation was calculated. PMID= PMID for publication that belongs to tested summary statistics. rG= genetic correlation. SE= standard error for genetic correlation. Z= Z-score. p= P-value for genetic correlation analysis. ethnicity= sample ethnicity for sample referenced in “Trait” column. h2\_obs= Heritability on the observed scale for sample referenced in “Trait”. se= standard errors for variable reported in the cell to the left (i.e. h2\_obs, ht\_int, gcov\_int). h2\_int= LD score intercept for sample referenced in “Trait”. gcov\_int= cross-trait LD Score regression intercept.

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Neuroticism	27089181	personality	0.4491	0.0933	4.8131	1.49E-06	European	0.0864	0.0074	0.9918	0.0165	-0.0063	0.0073
Depressive symptoms	27089181	psychiatric	0.4737	0.1147	4.1302	3.63E-05	European	0.0463	0.0049	1.0074	0.0116	-0.0024	0.0071
Subjective well being	27089181	psychiatric	-0.3329	0.0988	-3.3702	8.00E-04	European	0.0257	0.0023	0.9953	0.0104	-0.0012	0.0067
Years of schooling 2016	27225129	education	0.2052	0.0751	2.7311	6.30E-03	European	0.1248	0.0055	0.9398	0.0178	-0.0062	0.0090
Major depressive disorder	22472876	psychiatric	0.5491	0.2099	2.6153	8.90E-03	European	0.1023	0.0314	1.0412	0.0098	0.0013	0.0075
Attention deficit hyperactivity disorder (GC)	27663945	psychiatric	-0.8634	0.3803	-2.2706	2.32E-02	European	0.0558	0.0320	0.9998	0.0095	0.0107	0.0075
Attention deficit hyperactivity disorder (No GC)	27663945	psychiatric	-0.8635	0.3824	-2.2581	2.39E-02	European	0.0564	0.0324	1.0146	0.0095	0.0107	0.0076
Fasting insulin main effect	22581228	glycemic	0.3148	0.1413	2.2278	2.59E-02	European	0.0739	0.0121	1.0093	0.0103	-0.0073	0.0068
Neuroticism	24828478	personality	0.5006	0.2393	2.0916	3.65E-02	European	0.0107	0.0037	1.0232	0.0098	-0.0005	0.0068
Intelligence	28530673	cognitive	0.1806	0.0877	2.0604	3.94E-02	European	0.2001	0.0125	0.9999	0.0126	0.0012	0.0078
Total lipids in medium HDL	27005778	metabolites	0.5740	0.2787	2.0593	3.95E-02	European	0.0708	0.0326	0.9968	0.0120	-0.0167	0.0070
Concentration of medium HDL particles	27005778	metabolites	0.5511	0.2677	2.0583	3.96E-02	European	0.0749	0.0319	0.9950	0.0113	-0.0165	0.0069
Multiple sclerosis	21833088	autoimmune	0.6001	0.2934	2.0454	4.08E-02	European	0.0524	0.0332	1.0633	0.0139	-0.0019	0.0074
Forced expiratory volume in 1 second (FEV1)/ Forced Vital capacity (FVC)	26635082	lung function	-0.2739	0.1343	-2.0394	4.14E-02	European	0.1113	0.0165	0.9830	0.0100	0.0055	0.0072
Cholesterol esters in medium HDL	27005778	metabolites	0.6154	0.3129	1.9667	4.92E-02	European	0.0603	0.0363	1.0030	0.0140	-0.0153	0.0072
Height_2010	20881960	anthropometric	-0.1533	0.0801	-1.9140	5.56E-02	European	0.2874	0.0217	1.0348	0.0323	0.0171	0.0100
Total cholesterol in medium HDL	27005778	metabolites	0.5122	0.2687	1.9062	5.66E-02	European	0.0605	0.0332	1.0018	0.0150	-0.0147	0.0071
Free cholesterol in medium HDL	27005778	metabolites	0.4344	0.2353	1.8465	6.48E-02	European	0.0731	0.0307	0.9998	0.0141	-0.0152	0.0070

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Forced expiratory volume in 1 second (FEV1)/ Forced Vital capacity (FVC)	21946350	lung function	-0.2044	0.1116	-1.8314	6.70E-02	European	0.1257	0.0158	0.9333	0.0118	0.0148	0.0072
HDL cholesterol	20686565	lipids	0.1984	0.1088	1.8242	6.81E-02	European	0.1153	0.0347	1.1050	0.0789	-0.0086	0.0083
Phenylalanine	27005778	metabolites	0.4473	0.2522	1.7734	7.62E-02	European	0.0567	0.0266	1.0067	0.0105	-0.0144	0.0067
Phospholipids in large HDL	27005778	metabolites	0.3942	0.2230	1.7675	7.71E-02	European	0.0967	0.0412	1.0177	0.0233	-0.0131	0.0074
Forced Vital capacity (FVC)	28166213	lung function	-0.1559	0.0888	-1.7559	7.91E-02	European	0.2694	0.0216	0.9701	0.0140	0.0081	0.0072
Obesity class 3	23563607	anthropometric	-0.2597	0.1481	-1.7537	7.95E-02	European	0.1153	0.0168	0.9867	0.0130	0.0149	0.0073
Phospholipids in medium HDL	27005778	metabolites	0.4035	0.2318	1.7410	8.17E-02	European	0.0764	0.0296	0.9964	0.0126	-0.0150	0.0069
Schizophrenia	25056061	psychiatric	0.1352	0.0779	1.7351	8.27E-02	Mixed	0.4031	0.0243	1.1766	0.0231	0.0192	0.0102
Concentration of large HDL particles	27005778	metabolites	0.3844	0.2216	1.7349	8.28E-02	European	0.0988	0.0417	1.0202	0.0248	-0.0119	0.0075
Urate	23263486	other	-0.1216	0.0707	-1.7214	8.52E-02	European	0.1987	0.0807	0.9154	0.0971	0.0135	0.0081
Neo-openness to experience	21173776	personality	0.3174	0.1846	1.7191	8.56E-02	European	0.1219	0.0326	0.9860	0.0100	-0.0008	0.0071
Former vs Current smoker	20418890	smoking behaviour	0.3254	0.1948	1.6705	9.48E-02	European	0.0556	0.0133	1.0061	0.0096	-0.0096	0.0071
Forced expiratory volume in 1 second (FEV1)	28166213	lung function	-0.1450	0.0876	-1.6559	9.77E-02	European	0.2717	0.0232	0.9670	0.0137	0.0068	0.0070
Albumin	27005778	metabolites	0.4233	0.2568	1.6481	9.93E-02	European	0.0685	0.0295	0.9870	0.0101	-0.0053	0.0068
Ever vs never smoked	20418890	smoking behaviour	-0.2167	0.1320	-1.6420	1.01E-01	European	0.0601	0.0079	1.0227	0.0095	0.0144	0.0070
Years of schooling 2013	23722424	education	0.1673	0.1045	1.6018	1.09E-01	European	0.0848	0.0071	1.0146	0.0124	0.0008	0.0078
Total lipids in large HDL	27005778	metabolites	0.3512	0.2241	1.5673	1.17E-01	European	0.0953	0.0417	1.0223	0.0245	-0.0105	0.0075
Insomnia	27992416	sleeping	0.1743	0.1132	1.5392	1.24E-01	European	0.1312	0.0140	1.0027	0.0122	-0.0020	0.0077
HOMA-IR	20081858	glycemic	0.2692	0.1826	1.4743	1.40E-01	European	0.0687	0.0151	1.0048	0.0096	-0.0034	0.0071
Years of schooling (proxy cognitive performance)	25201988	education	0.1505	0.1026	1.4668	1.42E-01	European	0.1062	0.0087	1.0266	0.0128	0.0027	0.0082
Number of children ever born	27798627	reproductive	-0.1585	0.1082	-1.4644	1.43E-01	European	0.0245	0.0022	0.9774	0.0108	0.0111	0.0067
PGC cross-disorder analysis	23453885	psychiatric	0.1676	0.1216	1.3785	1.68E-01	European	0.1601	0.0158	1.0426	0.0161	0.0121	0.0086
Chronotype	27494321	sleeping	-0.1267	0.0931	-1.3612	1.74E-01	European	0.1008	0.0072	1.0213	0.0130	-0.0027	0.0072
Celiac disease	20190752	autoimmune	0.2173	0.1623	1.3388	1.81E-01	European	0.2501	0.0604	1.0930	0.0159	-0.0050	0.0100
Glycoprotein acetyls; mainly a1-acid glycoprotein	27005778	metabolites	0.2837	0.2124	1.3355	1.82E-01	European	0.1092	0.0348	0.9855	0.0100	-0.0116	0.0074
Extreme height	23563607	anthropometric	-0.1509	0.1138	-1.3261	1.85E-01	European	1.3193	0.1224	1.0134	0.0227	0.0115	0.0099

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Excessive daytime sleepiness	27992416	sleeping	0.1678	0.1314	1.2766	2.02E-01	European	0.0485	0.0058	1.0185	0.0103	0.0036	0.0071
Age of first birth	27798627	reproductive	0.1135	0.0909	1.2493	2.12E-01	European	0.0635	0.0043	0.9471	0.0123	-0.0046	0.0074
Femoral neck bone mineral density	22504420	bone	0.1332	0.1072	1.2423	2.14E-01	Mixed	0.3019	0.0293	0.9896	0.0145	-0.0016	0.0080
Parents age at death	27015805	aging	0.2825	0.2286	1.2359	2.17E-01	European	0.0280	0.0083	1.0196	0.0100	-0.0099	0.0079
Cholesterol esters in large HDL	27005778	metabolites	0.2888	0.2342	1.2333	2.18E-01	European	0.0861	0.0415	1.0237	0.0238	-0.0069	0.0076
Mean diameter for LDL particles	27005778	metabolites	0.5431	0.4433	1.2251	2.21E-01	European	0.0394	0.0327	1.0045	0.0175	-0.0196	0.0072
Total cholesterol in large VLDL	27005778	metabolites	-0.2573	0.2107	-1.2209	2.22E-01	European	0.1033	0.0358	1.0038	0.0120	0.0124	0.0079
Neo-conscientiousness	21173776	personality	-0.3027	0.2480	-1.2202	2.22E-01	European	0.0730	0.0370	1.0005	0.0103	0.0034	0.0067
Eczema	26482879	autoimmune	-0.1970	0.1620	-1.2161	2.24E-01	Mixed	0.0742	0.0182	1.0175	0.0102	0.0099	0.0070
HOMA-B	20081858	glycemic	0.1956	0.1640	1.1924	2.33E-01	European	0.0786	0.0174	0.9957	0.0107	0.0001	0.0068
Amyotrophic lateral sclerosis	27455348	neurological	-0.3326	0.2879	-1.1551	2.48E-01	European	0.0331	0.0152	1.0106	0.0094	0.0083	0.0070
Age at Menarche	25231870	reproductive	-0.0924	0.0802	-1.1524	2.49E-01	European	0.2165	0.0126	0.9193	0.0203	-0.0103	0.0091
Total cholesterol in HDL	27005778	metabolites	0.2663	0.2315	1.1500	2.50E-01	European	0.0724	0.0404	1.0236	0.0235	-0.0076	0.0075
Autism spectrum disorder	0	psychiatric	0.2529	0.2257	1.1205	2.63E-01	European	0.1803	0.0667	1.0379	0.0117	-0.0015	0.0070
Glucose	27005778	metabolites	0.1920	0.1770	1.0847	2.78E-01	European	0.1005	0.0287	0.9895	0.0108	-0.0129	0.0070
Obesity class 2	23563607	anthropometric	-0.1102	0.1030	-1.0692	2.85E-01	European	0.1753	0.0144	1.0138	0.0147	0.0081	0.0086
Rheumatoid Arthritis	24390342	autoimmune	-0.1064	0.1004	-1.0596	2.89E-01	European	0.1547	0.0404	1.0423	0.0403	0.0048	0.0074
College completion	23722424	education	0.1131	0.1068	1.0586	2.90E-01	European	0.0797	0.0066	1.0175	0.0119	0.0043	0.0074
Total cholesterol in large HDL	27005778	metabolites	0.2509	0.2381	1.0540	2.92E-01	European	0.0705	0.0392	1.0309	0.0251	-0.0067	0.0076
Waist circumference	25673412	anthropometric	-0.0855	0.0814	-1.0512	2.93E-01	European	0.1208	0.0064	0.8491	0.0138	0.0070	0.0074
Child birth length	25281659	anthropometric	0.1737	0.1659	1.0471	2.95E-01	European	0.1595	0.0297	0.9979	0.0114	-0.0072	0.0073
Femoral Neck bone mineral density	26367794	bone	-0.1275	0.1240	-1.0281	3.04E-01	Mixed	0.1236	0.0174	0.9771	0.0129	0.0096	0.0073
Leptin_adjBMI	26833098	hormone	0.1744	0.1734	1.0055	3.15E-01	European	0.0877	0.0207	1.0104	0.0105	0.0034	0.0072
Forced expiratory volume in 1 second (FEV1)	26635082	lung function	-0.1191	0.1197	-0.9949	3.20E-01	European	0.1365	0.0203	0.9919	0.0116	0.0006	0.0075
Free cholesterol in large HDL	27005778	metabolites	0.2266	0.2341	0.9682	3.33E-01	European	0.0720	0.0370	1.0331	0.0234	-0.0064	0.0077
Age at Menopause	26414677	reproductive	-0.1152	0.1199	-0.9603	3.37E-01	European	0.1299	0.0217	1.0151	0.0259	-0.0033	0.0078
Difference in height between adolescence and adulthood; age 14	23449627	anthropometric	-0.1711	0.1806	-0.9471	3.44E-01	European	0.4816	0.1205	0.9787	0.0092	0.0097	0.0065
Platelet count	22139419	haematological	0.0938	0.1000	0.9378	3.48E-01	European	0.1173	0.0146	1.0000	0.0153	-0.0037	0.0070
Lumbar spine bone mineral density	22504420	bone	0.1050	0.1120	0.9370	3.49E-01	Mixed	0.2571	0.0293	1.0322	0.0164	-0.0039	0.0083

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Hip circumference	25673412	anthropometric	-0.0768	0.0829	-0.9274	3.54E-01	European	0.1307	0.0071	0.8532	0.0135	0.0028	0.0078
Alzheimer's disease	24162737	neurological	0.1761	0.1913	0.9203	3.57E-01	European	0.0425	0.0332	1.0796	0.0500	-0.0108	0.0079
Fasting proinsulin	20081858	glycemic	-0.1452	0.1581	-0.9182	3.59E-01	European	0.2372	0.1209	0.9717	0.0177	-0.0018	0.0062
Attention deficit hyperactivity disorder	20732625	psychiatric	-0.6859	0.7527	-0.9112	3.62E-01	European	0.0766	0.1132	1.0299	0.0100	-0.0043	0.0068
Total lipids in small HDL	27005778	metabolites	0.2697	0.3111	0.8670	3.86E-01	European	0.0539	0.0301	1.0056	0.0116	-0.0068	0.0073
LDL cholesterol	20686565	lipids	-0.1000	0.1166	-0.8583	3.91E-01	European	0.0854	0.0366	1.1117	0.0782	0.0071	0.0087
Total cholesterol in small LDL	27005778	metabolites	-0.2395	0.2798	-0.8560	3.92E-01	European	0.0654	0.0669	1.0267	0.0345	0.0068	0.0083
18: 2 linoleic acid (LA)	27005778	metabolites	-0.1914	0.2252	-0.8498	3.96E-01	European	0.1135	0.0647	1.0089	0.0159	0.0061	0.0076
Primary sclerosing cholangitis	27992413	autoimmune	0.1400	0.1656	0.8457	3.98E-01	Mixed	0.5082	0.2201	0.9770	0.0265	0.0002	0.0077
Squamous cell lung cancer	27488534	cancer	0.2064	0.2486	0.8305	4.06E-01	European	0.0313	0.0140	1.0212	0.0099	-0.0069	0.0073
Insomnia	28604731	sleeping	0.1163	0.1419	0.8191	4.13E-01	European	0.0463	0.0063	1.0074	0.0114	0.0007	0.0078
Fathers age at death	27015805	aging	0.1573	0.1945	0.8087	4.19E-01	European	0.0390	0.0080	1.0200	0.0101	-0.0096	0.0079
Total cholesterol in small VLDL	27005778	metabolites	-0.1956	0.2439	-0.8021	4.23E-01	European	0.0652	0.0399	1.0257	0.0160	0.0076	0.0074
Alanine	27005778	metabolites	0.1547	0.1947	0.7949	4.27E-01	European	0.0989	0.0324	1.0048	0.0106	-0.0090	0.0075
Serumurate overweight	25811787	uric_acid	-0.0912	0.1149	-0.7935	4.28E-01	European	0.6295	0.4347	0.9544	0.0531	0.0092	0.0067
Lung cancer (squamous cell)	24880342	cancer	0.2242	0.2874	0.7798	4.36E-01	European	0.0404	0.0225	1.0168	0.0094	-0.0090	0.0071
Anorexia Nervosa	24514567	psychiatric	0.0978	0.1260	0.7765	4.38E-01	European	0.3092	0.0365	0.9980	0.0106	-0.0005	0.0068
Free cholesterol in large VLDL	27005778	metabolites	-0.1580	0.2036	-0.7763	4.38E-01	European	0.1135	0.0372	0.9976	0.0122	0.0086	0.0080
22: 6 docosahexaenoic acid	27005778	metabolites	0.2185	0.2822	0.7741	4.39E-01	European	0.1033	0.0382	1.0013	0.0103	-0.0029	0.0077
Triglycerides in chylomicrons and largest VLDL particles	27005778	metabolites	-0.1490	0.1984	-0.7510	4.53E-01	European	0.0977	0.0337	0.9919	0.0115	0.0085	0.0074
Free cholesterol	27005778	metabolites	-0.2409	0.3214	-0.7494	4.54E-01	European	0.0684	0.0522	1.0253	0.0149	0.0019	0.0077
Phospholipids in small VLDL	27005778	metabolites	-0.1470	0.1994	-0.7369	4.61E-01	European	0.1000	0.0426	1.0148	0.0144	0.0056	0.0074
Tyrosine	27005778	metabolites	0.1604	0.2191	0.7318	4.64E-01	European	0.0579	0.0313	1.0121	0.0105	-0.0068	0.0069
Free cholesterol in small VLDL	27005778	metabolites	-0.1500	0.2097	-0.7150	4.75E-01	European	0.0944	0.0406	1.0157	0.0150	0.0067	0.0076
Apolipoprotein B	27005778	metabolites	-0.1642	0.2346	-0.6997	4.84E-01	European	0.0792	0.0568	1.0189	0.0263	0.0068	0.0076
Serum creatinine	26831199	kidney	-0.0665	0.0952	-0.6991	4.85E-01	Mixed	0.1077	0.0128	0.9792	0.0226	0.0103	0.0084
Serum creatinine (non-diabetes)	26831199	kidney	-0.0666	0.0962	-0.6922	4.89E-01	Mixed	0.1165	0.0143	0.9792	0.0216	0.0084	0.0083
Childhood IQ	23358156	education	0.1111	0.1605	0.6921	4.89E-01	European	0.2757	0.0549	1.0027	0.0124	0.0024	0.0080
Cholesterol esters in medium LDL	27005778	metabolites	-0.1856	0.2689	-0.6902	4.90E-01	European	0.0693	0.0769	1.0240	0.0375	0.0062	0.0081
Triglycerides in very large VLDL	27005778	metabolites	-0.1327	0.1926	-0.6887	4.91E-01	European	0.1203	0.0356	0.9851	0.0118	0.0098	0.0076
Extreme waist-to-hip ratio	23563607	anthropometric	0.1374	0.2001	0.6866	4.92E-01	European	0.3614	0.0620	0.9765	0.0099	-0.0076	0.0082

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Waist-to-hip ratio	25673412	anthropometric	-0.0582	0.0867	-0.6710	5.02E-01	European	0.1132	0.0090	0.9305	0.0163	0.0075	0.0074
Infant head circumference	22504419	anthropometric	0.1306	0.1968	0.6636	5.07E-01	European	0.2287	0.0521	0.9892	0.0092	-0.0037	0.0071
Body fat	26833246	anthropometric	0.0797	0.1212	0.6574	5.11E-01	Mixed	0.1086	0.0104	0.9039	0.0110	-0.0037	0.0075
Total lipids in small LDL	27005778	metabolites	-0.1668	0.2550	-0.6540	5.13E-01	European	0.0780	0.0667	1.0202	0.0310	0.0072	0.0081
Chronic Kidney Disease	26831199	kidney	0.1158	0.1783	0.6498	5.16E-01	Mixed	0.0211	0.0070	1.0128	0.0145	-0.0025	0.0072
Bipolar disorder	21926972	psychiatric	0.0825	0.1275	0.6475	5.17E-01	European	0.3819	0.0471	1.0475	0.0134	0.0165	0.0073
Mean diameter for HDL particles	27005778	metabolites	0.1588	0.2465	0.6444	5.19E-01	European	0.0706	0.0414	1.0358	0.0296	-0.0043	0.0074
Body mass index	20935630	anthropometric	-0.0543	0.0854	-0.6361	5.25E-01	European	0.1887	0.0108	1.0161	0.0175	0.0017	0.0082
Forced expiratory volume in 1 second (FEV1)/ Forced Vital capacity (FVC)	28166213	lung function	-0.0509	0.0803	-0.6346	5.26E-01	European	0.2562	0.0271	0.9824	0.0159	-0.0022	0.0067
Sitting height ratio	25865494	anthropometric	0.0879	0.1392	0.6316	5.28E-01	European	0.2171	0.0349	0.9899	0.0120	-0.0049	0.0078
Type 2 Diabetes	22885922	glycemic	-0.0774	0.1229	-0.6301	5.29E-01	European	0.0880	0.0100	1.0195	0.0110	-0.0008	0.0071
Concentration of small LDL particles	27005778	metabolites	-0.1485	0.2383	-0.6232	5.33E-01	European	0.0904	0.0622	1.0169	0.0278	0.0072	0.0082
Total lipids in chylomicrons and largest VLDL particles	27005778	metabolites	-0.1204	0.1933	-0.6232	5.33E-01	European	0.1205	0.0354	0.9918	0.0116	0.0069	0.0076
Heart rate	23583979	haematological	0.0799	0.1288	0.6202	5.35E-01	Mixed	0.0799	0.0115	1.0229	0.0133	0.0048	0.0085
Cholesterol esters in large VLDL	27005778	metabolites	-0.1027	0.1664	-0.6174	5.37E-01	European	0.1594	0.0418	0.9880	0.0125	0.0071	0.0076
Phospholipids in very large VLDL	27005778	metabolites	-0.1335	0.2167	-0.6161	5.38E-01	European	0.1009	0.0344	0.9912	0.0115	0.0074	0.0079
Triglycerides in medium VLDL	27005778	metabolites	-0.1351	0.2195	-0.6157	5.38E-01	European	0.0764	0.0377	1.0125	0.0116	0.0094	0.0073
Acetate	27005778	metabolites	0.1410	0.2302	0.6125	5.40E-01	European	0.0473	0.0220	1.0071	0.0101	0.0009	0.0067
Phospholipids in large VLDL	27005778	metabolites	-0.1253	0.2084	-0.6010	5.48E-01	European	0.0946	0.0397	1.0039	0.0129	0.0103	0.0077
Valine	27005778	metabolites	0.1328	0.2209	0.6011	5.48E-01	European	0.0580	0.0247	1.0184	0.0116	-0.0045	0.0066
Birth weight	27680694	anthropometric	0.0568	0.0958	0.5929	5.53E-01	European	0.0940	0.0081	1.0651	0.0159	-0.0029	0.0081
Description of average fatty acid chain length; not actual carbon number	27005778	metabolites	-0.1244	0.2099	-0.5925	5.54E-01	European	0.1183	0.0414	0.9776	0.0108	-0.0010	0.0072
Total Cholesterol	20686565	lipids	-0.0593	0.1012	-0.5857	5.58E-01	European	0.1188	0.0339	1.0729	0.0641	0.0086	0.0095
Child birth weight	23202124	anthropometric	-0.0906	0.1558	-0.5813	5.61E-01	European	0.1187	0.0213	0.9983	0.0089	-0.0051	0.0069
Total lipids in medium LDL	27005778	metabolites	-0.1543	0.2669	-0.5782	5.63E-01	European	0.0708	0.0768	1.0236	0.0373	0.0051	0.0081
Parkinsons disease	19915575	neurological	-0.0802	0.1390	-0.5768	5.64E-01	European	0.3172	0.1359	1.1357	0.0127	0.0010	0.0070
Cigarettes smoked per day	20418890	smoking behaviour	0.1161	0.2050	0.5662	5.71E-01	European	0.0515	0.0179	1.0149	0.0099	-0.0005	0.0073



Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Overweight	23563607	anthropometric	0.0482	0.0870	0.5545	5.79E-01	European	0.1097	0.0076	1.0263	0.0161	-0.0089	0.0077
Triglycerides in very large HDL	27005778	metabolites	0.1626	0.2934	0.5543	5.79E-01	European	0.0503	0.0443	1.0343	0.0427	0.0003	0.0081
Cholesterol esters in large LDL	27005778	metabolites	-0.1470	0.2658	-0.5531	5.80E-01	European	0.0655	0.0799	1.0263	0.0394	0.0043	0.0079
Transferrin	25352340	metal	-0.0828	0.1538	-0.5384	5.90E-01	European	0.1503	0.0727	1.0627	0.0310	0.0037	0.0076
Ratio of bisallylic groups to double bonds	27005778	metabolites	-0.0722	0.1348	-0.5356	5.92E-01	European	0.3305	0.1131	0.9695	0.0127	0.0023	0.0070
Leucine	27005778	metabolites	0.1556	0.2933	0.5305	5.96E-01	European	0.0466	0.0256	1.0085	0.0107	-0.0061	0.0076
Coronary artery disease	26343387	cardiometabolic	0.0465	0.0893	0.5210	6.02E-01	Mixed	0.0786	0.0067	1.0615	0.0175	-0.0037	0.0081
Free cholesterol in medium VLDL	27005778	metabolites	-0.1006	0.1943	-0.5176	6.05E-01	European	0.0963	0.0417	1.0088	0.0127	0.0065	0.0074
Leptin_not_adjBMI	26833098	hormone	0.0826	0.1597	0.5175	6.05E-01	European	0.0979	0.0199	0.9975	0.0108	0.0025	0.0071
Triglycerides in large VLDL	27005778	metabolites	-0.1067	0.2084	-0.5120	6.09E-01	European	0.0932	0.0369	1.0013	0.0125	0.0104	0.0076
Phospholipids in medium VLDL	27005778	metabolites	-0.1002	0.1974	-0.5075	6.12E-01	European	0.0942	0.0407	1.0099	0.0123	0.0078	0.0073
Concentration of medium LDL particles	27005778	metabolites	-0.1335	0.2650	-0.5040	6.14E-01	European	0.0706	0.0742	1.0246	0.0359	0.0044	0.0081
Sleep duration	27494321	sleeping	-0.0525	0.1047	-0.5017	6.16E-01	European	0.0512	0.0059	1.0317	0.0118	-0.0041	0.0067
Total cholesterol in medium VLDL	27005778	metabolites	-0.0937	0.1918	-0.4886	6.25E-01	European	0.1055	0.0432	1.0079	0.0137	0.0067	0.0074
Total lipids in very large HDL	27005778	metabolites	-0.2299	0.4809	-0.4781	6.33E-01	European	0.0219	0.0366	1.0394	0.0228	0.0087	0.0070
Total lipids in small VLDL	27005778	metabolites	-0.0849	0.1799	-0.4721	6.37E-01	European	0.1355	0.0445	1.0033	0.0140	0.0033	0.0075
Phospholipids in very small VLDL	27005778	metabolites	0.1240	0.2665	0.4655	6.42E-01	European	0.0575	0.0509	1.0316	0.0245	-0.0062	0.0075
Concentration of very small VLDL particles	27005778	metabolites	0.0990	0.2198	0.4504	6.52E-01	European	0.0860	0.0449	1.0227	0.0185	-0.0043	0.0071
Concentration of very large HDL particles	27005778	metabolites	0.1780	0.3961	0.4494	6.53E-01	European	0.0288	0.0349	1.0240	0.0223	0.0011	0.0066
Ulcerative colitis	26192919	autoimmune	0.0562	0.1283	0.4382	6.61E-01	European	0.2281	0.0441	1.0720	0.0184	0.0002	0.0070
Primary biliary cirrhosis	26394269	autoimmune	0.0598	0.1370	0.4364	6.63E-01	European	0.3744	0.0758	1.0124	0.0147	0.0028	0.0078
Free cholesterol in very large HDL	27005778	metabolites	-0.6092	1.4051	-0.4335	6.65E-01	European	0.0115	0.0313	1.0400	0.0214	0.0117	0.0071
Ratio of bisallylic groups to total fatty acids	27005778	metabolites	-0.0593	0.1407	-0.4217	6.73E-01	European	0.3121	0.1033	0.9765	0.0113	0.0008	0.0069
Citrate	27005778	metabolites	-0.0851	0.2033	-0.4188	6.75E-01	European	0.0730	0.0222	1.0085	0.0094	-0.0005	0.0068
Difference in height between childhood and adulthood; age 8	23449627	anthropometric	-0.0659	0.1590	-0.4148	6.78E-01	European	0.3394	0.0626	0.9716	0.0113	0.0012	0.0073

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Concentration of small VLDL particles	27005778	metabolites	-0.0712	0.1745	-0.4083	6.83E-01	European	0.1448	0.0451	1.0003	0.0137	0.0031	0.0075
Triglycerides in small VLDL	27005778	metabolites	-0.0739	0.1852	-0.3989	6.90E-01	European	0.1175	0.0441	1.0036	0.0138	0.0042	0.0076
Mothers age at death	27015805	aging	-0.0560	0.1453	-0.3857	7.00E-01	European	0.0478	0.0081	0.9945	0.0102	0.0001	0.0067
Average number of double bonds in a fatty acid chain	27005778	metabolites	-0.0595	0.1555	-0.3829	7.02E-01	European	0.1775	0.0565	1.0022	0.0117	0.0020	0.0065
Ferritin	25352340	metal	-0.0833	0.2191	-0.3801	7.04E-01	European	0.0776	0.0343	1.0362	0.0130	-0.0035	0.0077
Triglycerides in IDL	27005778	metabolites	0.0772	0.2046	0.3774	7.06E-01	European	0.0919	0.0464	1.0224	0.0229	-0.0056	0.0073
Lung adenocarcinoma	27488534	cancer	0.1022	0.2785	0.3671	7.14E-01	European	0.0201	0.0135	1.0339	0.0094	-0.0037	0.0070
Crohn's disease	26192919	autoimmune	-0.0362	0.0994	-0.3644	7.16E-01	European	0.4704	0.0735	1.0463	0.0204	0.0056	0.0077
Serum total triglycerides	27005778	metabolites	-0.0657	0.1810	-0.3633	7.16E-01	European	0.1259	0.0445	0.9997	0.0137	0.0052	0.0078
Omega-9 and saturated fatty acids	27005778	metabolites	0.1266	0.3530	0.3586	7.20E-01	European	0.0768	0.0520	1.0013	0.0120	-0.0003	0.0080
Childhood obesity	22484627	anthropometric	-0.0451	0.1282	-0.3518	7.25E-01	European	0.4003	0.0478	0.9307	0.0111	-0.0030	0.0078
Total lipids in large LDL	27005778	metabolites	-0.0943	0.2708	-0.3484	7.28E-01	European	0.0620	0.0802	1.0291	0.0397	0.0020	0.0078
Free cholesterol to esterified cholesterol ratio	27005778	metabolites	-0.1371	0.3940	-0.3479	7.28E-01	European	0.0471	0.0682	1.0202	0.0196	0.0016	0.0075
Adiponectin	22479202	cardiometabolic	0.0529	0.1605	0.3294	7.42E-01	Mixed	0.1108	0.0341	1.0295	0.0195	0.0029	0.0069
Phospholipids in chylomicrons and largest VLDL particles	27005778	metabolites	-0.0646	0.1963	-0.3293	7.42E-01	European	0.1046	0.0322	0.9828	0.0111	0.0064	0.0075
Concentration of chylomicrons and largest VLDL particles	27005778	metabolites	-0.0695	0.2245	-0.3097	7.57E-01	European	0.0830	0.0340	1.0013	0.0109	0.0044	0.0071
Asthma	17611496	autoimmune	-0.0424	0.1381	-0.3071	7.59E-01	European	0.1234	0.0328	1.0081	0.0134	0.0005	0.0079
Concentration of IDL particles	27005778	metabolites	0.0846	0.2818	0.3002	7.64E-01	European	0.0539	0.0615	1.0341	0.0303	-0.0041	0.0075
Triglycerides	20686565	lipids	-0.0264	0.0882	-0.2990	7.65E-01	European	0.1831	0.0397	0.9609	0.0300	0.0048	0.0082
Lung cancer (all)	24880342	cancer	0.0512	0.1715	0.2986	7.65E-01	European	0.1299	0.0348	1.0113	0.0114	-0.0040	0.0076
Acetoacetate	27005778	metabolites	-0.0690	0.2334	-0.2956	7.68E-01	European	0.0824	0.0353	0.9721	0.0111	0.0025	0.0070
Age of smoking initiation	20418890	smoking behaviour	-0.0644	0.2239	-0.2876	7.74E-01	European	0.0486	0.0224	1.0065	0.0096	0.0054	0.0065
Forced Vital capacity (FVC)	26635082	lung function	0.0368	0.1282	0.2867	7.74E-01	European	0.1475	0.0194	0.9801	0.0113	-0.0043	0.0077
Height; Females at age 10 and males at age 12	23449627	anthropometric	-0.0316	0.1104	-0.2860	7.75E-01	European	0.4402	0.0542	0.9518	0.0120	0.0074	0.0071
Serum cystatin c	26831199	kidney	-0.0325	0.1161	-0.2800	7.80E-01	Mixed	0.1759	0.0699	0.9595	0.0167	0.0037	0.0071
Extreme BMI	23563607	anthropometric	-0.0343	0.1240	-0.2766	7.82E-01	European	0.6888	0.0643	1.0337	0.0145	-0.0029	0.0088
Total cholesterol in large LDL	27005778	metabolites	-0.0759	0.2799	-0.2711	7.86E-01	European	0.0492	0.0726	1.0328	0.0410	0.0045	0.0077

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Total lipids in very large VLDL	27005778	metabolites	-0.0490	0.1892	-0.2591	7.96E-01	European	0.1353	0.0361	0.9833	0.0117	0.0045	0.0076
Inflammatory Bowel Disease (Euro)	26192919	autoimmune	0.0259	0.1026	0.2525	8.01E-01	European	0.3055	0.0465	1.0836	0.0214	0.0010	0.0079
Concentration of large LDL particles	27005778	metabolites	-0.0683	0.2708	-0.2522	8.01E-01	European	0.0617	0.0776	1.0306	0.0383	0.0010	0.0078
Total lipids in very small VLDL	27005778	metabolites	0.0544	0.2243	0.2424	8.09E-01	European	0.0795	0.0450	1.0267	0.0189	-0.0036	0.0072
Forced expiratory volume in 1 second (FEV1)	21946350	lung function	-0.0314	0.1356	-0.2317	8.17E-01	European	0.1730	0.0280	0.8771	0.0193	-0.0175	0.0110
Mean platelet volume	22139419	haematological	-0.0315	0.1360	-0.2313	8.17E-01	European	0.3159	0.0639	0.9916	0.0185	-0.0042	0.0076
Isoleucine	27005778	metabolites	0.0474	0.2334	0.2032	8.39E-01	European	0.0633	0.0294	0.9975	0.0108	-0.0004	0.0074
Free cholesterol in large LDL	27005778	metabolites	-0.0566	0.2852	-0.1984	8.43E-01	European	0.0468	0.0758	1.0353	0.0429	0.0029	0.0076
Total cholesterol in medium LDL	27005778	metabolites	-0.0515	0.2685	-0.1917	8.48E-01	European	0.0605	0.0730	1.0263	0.0402	0.0030	0.0080
Cholesterol esters in medium VLDL	27005778	metabolites	-0.0332	0.1778	-0.1869	8.52E-01	European	0.1361	0.0455	0.9990	0.0136	0.0041	0.0075
Serum total cholesterol	27005778	metabolites	-0.0486	0.2718	-0.1789	8.58E-01	European	0.0612	0.0544	1.0292	0.0257	0.0055	0.0079
Total lipids in IDL	27005778	metabolites	0.0472	0.2772	0.1703	8.65E-01	European	0.0547	0.0651	1.0344	0.0322	-0.0032	0.0075
Creatinine	27005778	metabolites	0.0268	0.1606	0.1668	8.68E-01	European	0.1213	0.0315	1.0126	0.0112	-0.0004	0.0070
Total lipids in large VLDL	27005778	metabolites	-0.0320	0.1952	-0.1641	8.70E-01	European	0.1133	0.0386	0.9994	0.0124	0.0069	0.0075
2hr glucose adjusted for BMI	20081857	glycemic	0.0352	0.2236	0.1575	8.75E-01	European	0.1238	0.0402	0.9828	0.0098	0.0019	0.0073
Urinary albumin-to-creatinine ratio (non-diabetes)	26631737	kidney	0.0256	0.1696	0.1507	8.80E-01	European	0.0485	0.0124	0.9989	0.0093	0.0019	0.0064
Lung cancer	27488534	cancer	0.0219	0.1504	0.1459	8.84E-01	European	0.3173	0.0783	1.0184	0.0109	0.0001	0.0075
Concentration of large VLDL particles	27005778	metabolites	-0.0278	0.1941	-0.1433	8.86E-01	European	0.1233	0.0433	0.9821	0.0133	0.0046	0.0077
Mono-unsaturated fatty acids	27005778	metabolites	0.0394	0.2786	0.1413	8.88E-01	European	0.1003	0.0482	0.9922	0.0114	0.0013	0.0076
Apolipoprotein A-I	27005778	metabolites	0.0353	0.2527	0.1397	8.89E-01	European	0.0802	0.0431	1.0068	0.0203	0.0009	0.0076
Total cholesterol in LDL	27005778	metabolites	-0.0385	0.2765	-0.1394	8.89E-01	European	0.0586	0.0792	1.0287	0.0436	0.0027	0.0079
Urinary albumin-to-creatinine ratio	26631737	kidney	0.0218	0.1643	0.1329	8.94E-01	European	0.0422	0.0101	1.0005	0.0090	-0.0011	0.0065
Phospholipids in IDL	27005778	metabolites	0.0440	0.3325	0.1324	8.95E-01	European	0.0356	0.0602	1.0402	0.0332	-0.0011	0.0073
Free cholesterol in IDL	27005778	metabolites	-0.0330	0.2808	-0.1175	9.07E-01	European	0.0466	0.0626	1.0387	0.0348	0.0006	0.0073
Omega-3 fatty acids	27005778	metabolites	0.0280	0.2431	0.1153	9.08E-01	European	0.1306	0.0489	0.9956	0.0122	0.0058	0.0077
Glutamine	27005778	metabolites	-0.0259	0.2357	-0.1100	9.12E-01	European	0.0508	0.0251	1.0248	0.0114	-0.0006	0.0065
Average number of methylene groups per a double bond	27005778	metabolites	0.0167	0.1575	0.1062	9.15E-01	European	0.2190	0.0827	0.9920	0.0118	-0.0011	0.0065

Trait	PMID	Category	rg	SE	z	p	ethnicity	h2_obs	se	h2_int	se	gcov_int	se
Concentration of medium VLDL particles	27005778	metabolites	-0.0194	0.1894	-0.1024	9.18E-01	European	0.1238	0.0456	0.9976	0.0133	0.0029	0.0075
Forearm Bone mineral density	26367794	bone	-0.0328	0.3207	-0.1022	9.19E-01	Mixed	0.0599	0.0522	1.0181	0.0100	-0.0006	0.0066
Total lipids in medium VLDL	27005778	metabolites	-0.0182	0.1854	-0.0984	9.22E-01	European	0.1246	0.0433	0.9982	0.0122	0.0041	0.0074
Triglycerides in very small VLDL	27005778	metabolites	0.0162	0.1766	0.0920	9.27E-01	European	0.1359	0.0465	1.0063	0.0157	-0.0021	0.0074
Systemic lupus erythematosus	26502338	autoimmune	0.0123	0.1361	0.0906	9.28E-01	European	0.3671	0.0669	1.1171	0.0172	0.0100	0.0076
Obesity class 1	23563607	anthropometric	0.0077	0.0860	0.0891	9.29E-01	European	0.2091	0.0137	1.0315	0.0177	0.0016	0.0084
Concentration of very large VLDL particles	27005778	metabolites	0.0165	0.1962	0.0841	9.33E-01	European	0.1174	0.0360	0.9895	0.0114	0.0012	0.0079
Triglycerides in small HDL	27005778	metabolites	-0.0203	0.2516	-0.0806	9.36E-01	European	0.0540	0.0364	1.0118	0.0145	0.0013	0.0070
Phospholipids in medium LDL	27005778	metabolites	-0.0192	0.2508	-0.0765	9.39E-01	European	0.0702	0.0640	1.0186	0.0343	0.0021	0.0080
Mean diameter for VLDL particles	27005778	metabolites	-0.0113	0.2024	-0.0557	9.56E-01	European	0.1115	0.0446	1.0057	0.0146	0.0023	0.0075
Phospholipids in large LDL	27005778	metabolites	0.0162	0.2969	0.0544	9.57E-01	European	0.0451	0.0681	1.0348	0.0383	0.0019	0.0076
HbA1C	20858683	glycemic	0.0093	0.1791	0.0520	9.59E-01	European	0.0514	0.0151	1.0156	0.0117	-0.0033	0.0066
Total cholesterol in IDL	27005778	metabolites	-0.0119	0.2674	-0.0445	9.65E-01	European	0.0570	0.0701	1.0330	0.0346	-0.0011	0.0075
Fasting glucose main effect	22581228	glycemic	-0.0035	0.1171	-0.0300	9.76E-01	European	0.0990	0.0245	0.9977	0.0183	0.0007	0.0073
Phospholipids in very large HDL	27005778	metabolites	0.0011	0.2879	0.0039	9.97E-01	European	0.0472	0.0381	1.0337	0.0256	0.0041	0.0070
Lumbar Spine bone mineral density	26367794	bone	0.0002	0.1234	0.0017	9.99E-01	Mixed	0.1155	0.0175	0.9948	0.0125	-0.0057	0.0075

**eTable 11.** Genetic correlations for “propensity” Design (UKBB traits)

All results from LDhub analyses. Trait= trait against which genetic correlation was calculated. ethnicity= sample ethnicity for sample referenced in “Trait” column. rG= genetic correlation. SE= standard error for genetic correlation. z= Z-score. p= P-value for genetic correlation analysis. h2\_obs= Heritability on the observed scale for sample referenced in “Trait”. se= standard errors for variable reported in the cell to the left (i.e. h2\_obs, ht\_int, gcov\_int). h2\_int= LD score intercept for sample referenced in “Trait”. gcov\_int= cross-trait LD Score regression intercept.

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Seen doctor (GP) for nerves anxiety tension or depression	European	0.6269	0.1050	5.9683	2.40E-09	0.0594	0.0033	1.0342	0.0149	-0.0101	0.0089
Seen a psychiatrist for nerves anxiety tension or depression	European	0.6770	0.1259	5.3759	7.62E-08	0.0292	0.0026	1.0222	0.0126	-0.0075	0.0085
Frequency of depressed mood in last 2 weeks	European	0.4922	0.1009	4.8776	1.07E-06	0.0402	0.0035	1.0288	0.0143	-0.0034	0.0078
Neuroticism score	European	0.3667	0.0760	4.8245	1.40E-06	0.1181	0.0064	1.0206	0.0196	0.0026	0.0075
Nervous feelings	European	0.4137	0.0915	4.5236	6.08E-06	0.0656	0.0045	1.0188	0.0184	-0.0008	0.0077
Getting up in morning	European	-0.3809	0.0858	-4.4376	9.10E-06	0.0688	0.0035	1.0412	0.0166	0.0149	0.0075
Loneliness isolation	European	0.4284	0.1019	4.2025	2.64E-05	0.0364	0.0028	1.0384	0.0120	-0.0053	0.0075
Guilty feelings	European	0.3578	0.0858	4.1690	3.06E-05	0.0502	0.0031	1.0177	0.0139	-0.0011	0.0071
Worrier / anxious feelings	European	0.3278	0.0813	4.0307	5.56E-05	0.0786	0.0050	1.0068	0.0194	0.0042	0.0081
Miserableness	European	0.3555	0.0892	3.9835	6.79E-05	0.0634	0.0039	1.0230	0.0159	0.0041	0.0079
Non-cancer illness code self-reported: depression	European	0.5331	0.1349	3.9522	7.74E-05	0.0186	0.0021	1.0010	0.0112	-0.0049	0.0076
Tense / highly strung	European	0.3557	0.0902	3.9424	8.07E-05	0.0572	0.0037	0.9989	0.0156	-0.0084	0.0079
Happiness	European	0.4854	0.1248	3.8909	9.99E-05	0.0573	0.0062	1.0166	0.0109	0.0001	0.0074
Frequency of tiredness / lethargy in last 2 weeks	European	0.3347	0.0878	3.8128	1.00E-04	0.0573	0.0036	1.0426	0.0149	-0.0040	0.0080
Mean time to correctly identify matches	European	0.2971	0.0777	3.8258	1.00E-04	0.0716	0.0033	1.0463	0.0146	-0.0075	0.0085
Peak expiratory flow (PEF)	European	-0.2981	0.0796	-3.7428	2.00E-04	0.0906	0.0060	1.0624	0.0202	0.0220	0.0086
Illnesses of siblings: Severe depression	European	0.6852	0.1817	3.7714	2.00E-04	0.0138	0.0023	1.0079	0.0099	-0.0120	0.0074
Friendships satisfaction	European	0.4311	0.1204	3.5812	3.00E-04	0.0574	0.0062	1.0097	0.0111	-0.0031	0.0075
Mood swings	European	0.2842	0.0805	3.5315	4.00E-04	0.0709	0.0038	1.0188	0.0148	0.0000	0.0077
Illness injury bereavement stress in last 2 years: Serious illness injury or assault to yourself	European	0.5416	0.1526	3.5482	4.00E-04	0.0116	0.0019	1.0303	0.0107	-0.0120	0.0069
Job involves mainly walking or standing	European	-0.3541	0.1014	-3.4923	5.00E-04	0.0768	0.0058	1.0435	0.0159	0.0018	0.0089
Types of transport used (excluding work): Public transport	European	0.4431	0.1265	3.5022	5.00E-04	0.0220	0.0023	1.0263	0.0115	-0.0072	0.0078
Transport type for commuting to job workplace: Public transport	European	0.4204	0.1235	3.4049	7.00E-04	0.0340	0.0042	1.0144	0.0115	-0.0049	0.0070
Hand grip strength (left)	European	-0.2547	0.0761	-3.3485	8.00E-04	0.1044	0.0051	1.0568	0.0206	0.0096	0.0087

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Ever depressed for a whole week	European	0.4516	0.1362	3.3150	9.00E-04	0.0638	0.0076	0.9952	0.0123	-0.0047	0.0080
Frequency of tenseness / restlessness in last 2 weeks	European	0.3208	0.0972	3.3002	1.00E-03	0.0433	0.0034	1.0185	0.0148	0.0046	0.0077
Ever unenthusiastic/disinterested for a whole week	European	0.4381	0.1346	3.2545	1.10E-03	0.0608	0.0080	1.0002	0.0130	-0.0019	0.0078
Suffer from nerves	European	0.3218	0.0991	3.2472	1.20E-03	0.0462	0.0035	0.9970	0.0148	0.0020	0.0075
Illness injury bereavement stress in last 2 years: Financial difficulties	European	0.3544	0.1118	3.1695	1.50E-03	0.0312	0.0025	1.0451	0.0118	-0.0101	0.0079
Transport type for commuting to job workplace: Car/motor vehicle	European	-0.4415	0.1413	-3.1243	1.80E-03	0.0216	0.0037	1.0317	0.0114	0.0002	0.0069
Family relationship satisfaction	European	0.4146	0.1344	3.0858	2.00E-03	0.0514	0.0065	1.0193	0.0116	-0.0044	0.0077
Types of transport used (excluding work): Walk	European	0.3493	0.1129	3.0934	2.00E-03	0.0301	0.0026	1.0536	0.0123	-0.0087	0.0077
Usual walking pace	European	-0.2686	0.0874	-3.0740	2.10E-03	0.0731	0.0034	1.0589	0.0153	0.0239	0.0084
Time spent driving	European	-0.3134	0.1074	-2.9184	3.50E-03	0.0441	0.0034	0.9947	0.0113	-0.0022	0.0077
Qualifications: None of the above	European	-0.2415	0.0832	-2.9028	3.70E-03	0.0968	0.0049	1.0716	0.0201	-0.0040	0.0097
Fed-up feelings	European	0.2096	0.0731	2.8677	4.10E-03	0.0701	0.0038	1.0383	0.0165	0.0036	0.0072
Illnesses of mother: Heart disease	European	0.3776	0.1315	2.8720	4.10E-03	0.0163	0.0021	1.0089	0.0105	-0.0060	0.0071
Duration of other exercises	European	-0.4932	0.1736	-2.8402	4.50E-03	0.0204	0.0036	1.0059	0.0098	0.0094	0.0075
Illnesses of mother: None of the above (group 1)	European	-0.3622	0.1288	-2.8127	4.90E-03	0.0168	0.0023	1.0207	0.0125	0.0040	0.0073
Drive faster than motorway speed limit	European	-0.2566	0.0916	-2.8012	5.10E-03	0.0556	0.0033	1.0389	0.0139	0.0121	0.0082
Qualifications: A levels/AS levels or equivalent	European	0.2177	0.0796	2.7354	6.20E-03	0.0953	0.0043	1.0652	0.0174	0.0113	0.0088
Frequency of other exercises in last 4 weeks	European	-0.4189	0.1549	-2.7049	6.80E-03	0.0214	0.0041	0.9962	0.0099	0.0094	0.0071
Hand grip strength (right)	European	-0.2110	0.0784	-2.6924	7.10E-03	0.1024	0.0054	1.0710	0.0210	0.0072	0.0089
Number of days/week of moderate physical activity 10+ minutes	European	-0.2904	0.1079	-2.6910	7.10E-03	0.0393	0.0029	1.0311	0.0128	0.0091	0.0083
Frequency of unenthusiasm / disinterest in last 2 weeks	European	0.2528	0.0947	2.6697	7.60E-03	0.0386	0.0035	1.0198	0.0155	0.0059	0.0072
Duration walking for pleasure	European	-0.3469	0.1304	-2.6597	7.80E-03	0.0260	0.0030	1.0164	0.0107	0.0267	0.0076
Number of days/week of vigorous physical activity 10+ minutes	European	-0.2802	0.1062	-2.6376	8.30E-03	0.0360	0.0028	1.0275	0.0117	0.0043	0.0082
Light smokers at least 100 smokes in lifetime	European	-0.3162	0.1197	-2.6410	8.30E-03	0.0710	0.0089	1.0171	0.0113	0.0091	0.0075
Illnesses of siblings: None of the above (group 2)	European	-0.4996	0.1908	-2.6186	8.80E-03	0.0098	0.0023	1.0010	0.0102	0.0074	0.0072
Qualifications: O levels/GCSEs or equivalent	European	0.2261	0.0867	2.6086	9.10E-03	0.0494	0.0031	1.0092	0.0153	0.0098	0.0076
Hearing difficulty/problems with background noise	European	0.2295	0.0895	2.5638	1.04E-02	0.0530	0.0030	1.0167	0.0131	-0.0052	0.0083
Morning/evening person (chronotype)	European	0.1801	0.0716	2.5147	1.19E-02	0.1129	0.0051	1.0663	0.0218	-0.0058	0.0081
Number of self-reported non-cancer illnesses	European	0.2143	0.0854	2.5093	1.21E-02	0.0633	0.0030	1.0210	0.0153	-0.0103	0.0086
Other serious medical condition/disability diagnosed by doctor	European	0.2806	0.1126	2.4926	1.27E-02	0.0255	0.0022	1.0140	0.0108	-0.0029	0.0076
Age completed full time education	European	0.2185	0.0896	2.4379	1.48E-02	0.0827	0.0052	1.0722	0.0145	0.0005	0.0086
Pain type(s) experienced in last month: Stomach or abdominal pain	European	0.2824	0.1164	2.4267	1.52E-02	0.0200	0.0020	1.0166	0.0106	-0.0024	0.0073
Types of transport used (excluding work): Car/motor vehicle	European	-0.2516	0.1042	-2.4151	1.57E-02	0.0233	0.0021	1.0220	0.0120	-0.0007	0.0071

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Qualifications: College or University degree	European	0.1779	0.0738	2.4099	1.60E-02	0.1664	0.0065	1.1352	0.0227	0.0051	0.0108
Non-cancer illness code self-reported: pulmonary embolism +/- dvt	European	0.5734	0.2388	2.4015	1.63E-02	0.0050	0.0018	1.0120	0.0101	-0.0195	0.0066
Arm fat-free mass (left)	European	-0.1699	0.0708	-2.3978	1.65E-02	0.2667	0.0145	1.1347	0.0498	0.0126	0.0118
Illness injury bereavement stress in last 2 years: None of the above	European	-0.2871	0.1202	-2.3889	1.69E-02	0.0211	0.0020	1.0290	0.0101	0.0043	0.0069
Job involves heavy manual or physical work	European	-0.2138	0.0913	-2.3414	1.92E-02	0.0807	0.0059	1.0589	0.0158	-0.0023	0.0085
Difficulty not smoking for 1 day	European	0.4688	0.2010	2.3327	1.97E-02	0.1061	0.0264	0.9941	0.0097	-0.0079	0.0073
Time spent using computer	European	0.2106	0.0904	2.3309	1.98E-02	0.0910	0.0050	1.0724	0.0174	-0.0057	0.0097
Sensitivity / hurt feelings	European	0.1868	0.0801	2.3307	1.98E-02	0.0638	0.0038	1.0138	0.0151	0.0101	0.0081
Arm predicted mass (left)	European	-0.1626	0.0698	-2.3288	1.99E-02	0.2667	0.0145	1.1306	0.0500	0.0108	0.0117
Mineral and other dietary supplements: Fish oil (including cod liver oil)	European	-0.2505	0.1084	-2.3115	2.08E-02	0.0247	0.0023	1.0213	0.0111	0.0011	0.0071
Forced expiratory volume in 1-second (FEV1)	European	-0.1615	0.0700	-2.3073	2.10E-02	0.1524	0.0081	1.0581	0.0249	0.0129	0.0096
Arm fat-free mass (right)	European	-0.1579	0.0690	-2.2891	2.21E-02	0.2689	0.0147	1.1185	0.0511	0.0072	0.0114
Number of operations self-reported	European	0.1940	0.0852	2.2768	2.28E-02	0.0369	0.0026	1.0455	0.0113	-0.0078	0.0076
Time spent watching television (TV)	European	-0.1808	0.0797	-2.2693	2.32E-02	0.1007	0.0049	1.0489	0.0184	0.0005	0.0100
Irritability	European	0.1695	0.0752	2.2543	2.42E-02	0.0677	0.0043	0.9926	0.0168	0.0006	0.0078
Trunk predicted mass	European	-0.1599	0.0710	-2.2539	2.42E-02	0.2875	0.0169	1.1629	0.0596	0.0120	0.0121
Diagnoses - main ICD10: N32 Other disorders of bladder	European	0.6987	0.3145	2.2217	2.63E-02	0.0031	0.0015	0.9950	0.0092	-0.0111	0.0067
Worry too long after embarrassment	European	0.1788	0.0809	2.2104	2.71E-02	0.0634	0.0037	1.0278	0.0154	0.0206	0.0073
Duration of walks	European	-0.2177	0.0989	-2.2012	2.77E-02	0.0442	0.0036	1.0223	0.0143	0.0009	0.0091
Overall health rating	European	0.1724	0.0784	2.1983	2.79E-02	0.0985	0.0040	1.0788	0.0185	-0.0060	0.0094
Ever had stillbirth spontaneous miscarriage or termination	European	0.3521	0.1606	2.1925	2.83E-02	0.0205	0.0036	0.9968	0.0112	-0.0109	0.0072
Trunk fat-free mass	European	-0.1548	0.0708	-2.1882	2.87E-02	0.2891	0.0170	1.1631	0.0601	0.0107	0.0121
Vascular/heart problems diagnosed by doctor: High blood pressure	European	0.1646	0.0753	2.1859	2.88E-02	0.1139	0.0058	1.0876	0.0274	-0.0095	0.0095
Arm predicted mass (right)	European	-0.1506	0.0690	-2.1819	2.91E-02	0.2678	0.0147	1.1203	0.0516	0.0076	0.0114
Taking other prescription medications	European	0.1898	0.0870	2.1806	2.92E-02	0.0442	0.0029	1.0144	0.0134	-0.0042	0.0079
Non-cancer illness code self-reported: hypertension	European	0.1594	0.0737	2.1629	3.05E-02	0.1134	0.0057	1.0757	0.0264	-0.0088	0.0093
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: Blood clot in the lung	European	0.4876	0.2266	2.1519	3.14E-02	0.0053	0.0018	1.0132	0.0103	-0.0162	0.0065
Why stopped smoking: None of the above	European	-0.3160	0.1469	-2.1511	3.15E-02	0.0418	0.0070	0.9981	0.0095	0.0084	0.0065
Vascular/heart problems diagnosed by doctor: None of the above	European	-0.1597	0.0754	-2.1187	3.41E-02	0.1116	0.0054	1.0839	0.0251	0.0084	0.0094
Types of physical activity in last 4 weeks: Light DIY (eg: pruning watering the lawn)	European	0.1977	0.0937	2.1098	3.49E-02	0.0414	0.0028	0.9938	0.0136	-0.0028	0.0084
Duration of moderate activity	European	-0.2437	0.1157	-2.1063	3.52E-02	0.0305	0.0030	1.0148	0.0120	0.0010	0.0079
Medication for pain relief constipation heartburn: Omeprazole (e.g. Zantrol)	European	0.2523	0.1201	2.1018	3.56E-02	0.0167	0.0018	1.0324	0.0111	-0.0055	0.0065

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Whole body fat-free mass	European	-0.1481	0.0707	-2.0953	3.61E-02	0.2921	0.0165	1.1522	0.0565	0.0088	0.0121
Length of working week for main job	European	-0.3220	0.1551	-2.0765	3.78E-02	0.0186	0.0035	1.0159	0.0110	0.0050	0.0075
Age when periods started (menarche)	European	-0.1551	0.0748	-2.0741	3.81E-02	0.2054	0.0137	1.0333	0.0236	0.0124	0.0090
Whole body water mass	European	-0.1461	0.0705	-2.0725	3.82E-02	0.2915	0.0164	1.1553	0.0563	0.0083	0.0122
Diagnoses - main ICD10: K57 Diverticular disease of intestine	European	0.2659	0.1288	2.0645	3.90E-02	0.0125	0.0018	1.0104	0.0113	-0.0084	0.0073
Mouth/teeth dental problems: Painful gums	European	0.4347	0.2113	2.0570	3.97E-02	0.0056	0.0018	1.0134	0.0100	-0.0098	0.0068
Basal metabolic rate	European	-0.1435	0.0705	-2.0356	4.18E-02	0.2873	0.0158	1.1384	0.0525	0.0078	0.0122
Qualifications: Other professional qualifications eg: nursing teaching	European	0.2059	0.1012	2.0353	4.18E-02	0.0466	0.0028	1.0302	0.0132	0.0015	0.0091
Illnesses of father: None of the above (group 2)	European	-0.3502	0.1739	-2.0141	4.40E-02	0.0106	0.0021	0.9914	0.0110	0.0052	0.0072
Had other major operations	European	0.2639	0.1316	2.0043	4.50E-02	0.0294	0.0036	1.0139	0.0102	-0.0123	0.0075
Chest pain or discomfort walking normally	European	-0.3075	0.1548	-1.9863	4.70E-02	0.0731	0.0113	1.0101	0.0110	0.0090	0.0071
Forced expiratory volume in 1-second (FEV1) Best measure	European	-0.1430	0.0721	-1.9824	4.74E-02	0.1696	0.0094	1.0416	0.0236	0.0105	0.0094
Forced vital capacity (FVC)	European	-0.1416	0.0715	-1.9814	4.75E-02	0.1758	0.0092	1.0925	0.0278	0.0129	0.0102
Former alcohol drinker	European	0.3501	0.1770	1.9778	4.80E-02	0.1342	0.0259	0.9877	0.0100	-0.0098	0.0070
Forced vital capacity (FVC) Best measure	European	-0.1465	0.0745	-1.9669	4.92E-02	0.1964	0.0105	1.0700	0.0273	0.0126	0.0100
Standing height	European	-0.1365	0.0695	-1.9635	4.96E-02	0.4594	0.0290	1.2737	0.1003	0.0199	0.0140
Weight	European	-0.1319	0.0676	-1.9519	5.10E-02	0.2670	0.0138	1.1065	0.0419	0.0069	0.0118
Length of menstrual cycle	European	0.3116	0.1599	1.9493	5.13E-02	0.0988	0.0251	1.0024	0.0114	-0.0067	0.0068
Fluid intelligence score	European	0.1542	0.0793	1.9448	5.18E-02	0.2437	0.0122	1.0344	0.0160	0.0093	0.0093
Non-cancer illness code self-reported: glaucoma	European	0.2821	0.1466	1.9244	5.43E-02	0.0121	0.0021	1.0103	0.0116	-0.0108	0.0078
Non-cancer illness code self-reported: anxiety/panic attacks	European	0.3565	0.1865	1.9115	5.59E-02	0.0066	0.0016	0.9964	0.0098	0.0032	0.0069
Pulse rate automated reading	European	0.1385	0.0726	1.9087	5.63E-02	0.1519	0.0128	1.0685	0.0444	-0.0066	0.0106
Frequency of stair climbing in last 4 weeks	European	-0.1818	0.0970	-1.8738	6.10E-02	0.0347	0.0028	1.0208	0.0130	0.0155	0.0078
Cough on most days	European	0.2830	0.1520	1.8621	6.26E-02	0.0461	0.0076	1.0057	0.0104	-0.0185	0.0078
Diagnoses - main ICD10: K22 Other diseases of oesophagus	European	0.8218	0.4423	1.8580	6.32E-02	0.0022	0.0018	1.0168	0.0108	-0.0096	0.0070
Eye problems/disorders: Glaucoma	European	0.2726	0.1468	1.8574	6.33E-02	0.0391	0.0074	1.0240	0.0130	-0.0130	0.0081
Non-cancer illness code self-reported: kidney stone/ureter stone/bladder stone	European	0.3294	0.1779	1.8517	6.41E-02	0.0077	0.0020	1.0099	0.0111	-0.0088	0.0068
Illnesses of father: High blood pressure	European	0.2565	0.1388	1.8481	6.46E-02	0.0188	0.0023	1.0194	0.0117	-0.0157	0.0075
Time from waking to first cigarette	European	-0.3638	0.1969	-1.8475	6.47E-02	0.0865	0.0304	1.0212	0.0118	0.0018	0.0071
Number of live births	European	-0.1753	0.0956	-1.8338	6.67E-02	0.0617	0.0047	1.0046	0.0128	0.0048	0.0075
Work/job satisfaction	European	0.2791	0.1533	1.8207	6.87E-02	0.0483	0.0086	0.9949	0.0107	-0.0028	0.0078
Pain type(s) experienced in last month: Headache	European	0.1491	0.0820	1.8176	6.91E-02	0.0447	0.0037	1.0095	0.0162	0.0070	0.0075



Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Diagnoses - main ICD10: M70 Soft tissue disorders related to use overuse and pressure	European	-0.3661	0.2015	-1.8165	6.93E-02	0.0046	0.0015	0.9817	0.0097	0.0048	0.0066
Other eye problems	European	0.3359	0.1853	1.8130	6.98E-02	0.0083	0.0018	1.0329	0.0106	0.0033	0.0079
Used an inhaler for chest within last hour	European	-0.6051	0.3341	-1.8109	7.02E-02	0.0026	0.0019	1.0182	0.0098	0.0024	0.0075
Comparative height size at age 10	European	-0.1341	0.0748	-1.7936	7.29E-02	0.2438	0.0157	1.1244	0.0561	0.0113	0.0111
Diagnoses - main ICD10: C61 Malignant neoplasm of prostate	European	0.4370	0.2447	1.7859	7.41E-02	0.0046	0.0018	1.0174	0.0112	-0.0128	0.0072
Mouth/teeth dental problems: Bleeding gums	European	0.1872	0.1051	1.7811	7.49E-02	0.0220	0.0024	1.0130	0.0125	-0.0076	0.0071
Leg fat mass (left)	European	-0.1115	0.0629	-1.7721	7.64E-02	0.2327	0.0109	1.0863	0.0338	0.0075	0.0106
Mouth/teeth dental problems: None of the above	European	-0.1629	0.0935	-1.7422	8.15E-02	0.0369	0.0025	1.0211	0.0124	0.0106	0.0076
Alcohol drinker status: Never	European	-0.2372	0.1368	-1.7340	8.29E-02	0.0145	0.0021	1.0173	0.0115	0.0098	0.0074
Leg fat mass (right)	European	-0.1080	0.0629	-1.7165	8.61E-02	0.2313	0.0108	1.0879	0.0332	0.0074	0.0106
Risk taking	European	-0.1518	0.0887	-1.7119	8.69E-02	0.0537	0.0036	1.0193	0.0153	0.0096	0.0084
Illnesses of siblings: High blood pressure	European	0.1798	0.1058	1.6995	8.92E-02	0.0359	0.0029	1.0175	0.0119	-0.0028	0.0075
Leg fat-free mass (left)	European	-0.1209	0.0715	-1.6920	9.07E-02	0.2683	0.0146	1.1329	0.0469	0.0037	0.0121
Leg predicted mass (left)	European	-0.1205	0.0713	-1.6901	9.10E-02	0.2682	0.0146	1.1317	0.0467	0.0035	0.0121
Duration of vigorous activity	European	-0.1984	0.1177	-1.6854	9.19E-02	0.0330	0.0041	1.0031	0.0118	-0.0055	0.0073
Non-cancer illness code self-reported: hiatus hernia	European	0.2792	0.1665	1.6771	9.35E-02	0.0076	0.0017	1.0425	0.0099	-0.0086	0.0065
Number of days/week walked 10+ minutes	European	-0.1565	0.0941	-1.6635	9.62E-02	0.0400	0.0027	1.0226	0.0121	0.0048	0.0083
Why stopped smoking: Health precaution	European	0.2204	0.1332	1.6546	9.80E-02	0.0541	0.0081	1.0025	0.0108	-0.0045	0.0064
Forced expiratory volume in 1-second (FEV1) predicted percentage	European	-0.1281	0.0776	-1.6518	9.86E-02	0.2122	0.0134	1.0174	0.0178	0.0124	0.0083
Leg predicted mass (right)	European	-0.1184	0.0717	-1.6515	9.86E-02	0.2670	0.0145	1.1335	0.0475	0.0031	0.0121
Mouth/teeth dental problems: Toothache	European	0.2782	0.1692	1.6446	1.00E-01	0.0094	0.0019	0.9970	0.0106	-0.0010	0.0075
Illnesses of mother: Breast cancer	European	0.2470	0.1504	1.6421	1.01E-01	0.0099	0.0024	1.0066	0.0126	-0.0073	0.0065
Number of children fathered	European	-0.2011	0.1225	-1.6417	1.01E-01	0.0320	0.0044	1.0069	0.0114	-0.0034	0.0068
Leg fat-free mass (right)	European	-0.1174	0.0715	-1.6413	1.01E-01	0.2674	0.0146	1.1333	0.0477	0.0029	0.0121
Exposure to tobacco smoke at home	European	-0.2310	0.1410	-1.6377	1.02E-01	0.0131	0.0019	0.9882	0.0089	0.0064	0.0071
Diagnoses - main ICD10: R35 Polyuria	European	0.4378	0.2684	1.6310	1.03E-01	0.0036	0.0017	0.9884	0.0097	-0.0006	0.0066
Non-cancer illness code self-reported: enlarged prostate	European	0.3547	0.2207	1.6067	1.08E-01	0.0048	0.0018	1.0143	0.0106	-0.0100	0.0068
Sleeplessness / insomnia	European	0.1387	0.0864	1.6057	1.08E-01	0.0634	0.0033	1.0159	0.0138	0.0053	0.0089
Average weekly champagne plus white wine intake	European	0.1714	0.1071	1.6002	1.10E-01	0.0315	0.0033	1.0436	0.0113	-0.0038	0.0071
Number of incorrect matches in round	European	0.1391	0.0869	1.5995	1.10E-01	0.0519	0.0033	1.0283	0.0146	-0.0005	0.0076
Average weekly intake of other alcoholic drinks	European	0.7482	0.4683	1.5978	1.10E-01	0.0079	0.0065	1.0050	0.0089	-0.0137	0.0067
Noisy workplace	European	-0.1734	0.1088	-1.5938	1.11E-01	0.0629	0.0069	1.0258	0.0113	0.0000	0.0078
Mineral and other dietary supplements: Selenium	European	0.3088	0.1944	1.5888	1.12E-01	0.0064	0.0018	0.9976	0.0100	-0.0076	0.0068

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Ever manic/hyper for 2 days	European	0.2763	0.1747	1.5821	1.14E-01	0.0213	0.0060	0.9892	0.0107	-0.0099	0.0059
No-wear time bias adjusted acceleration standard deviation	European	-0.1819	0.1152	-1.5791	1.14E-01	0.0853	0.0097	1.0044	0.0118	-0.0059	0.0075
Whole body fat mass	European	-0.1007	0.0640	-1.5737	1.16E-01	0.2350	0.0113	1.0942	0.0345	0.0054	0.0108
Ever smoked	European	0.1214	0.0780	1.5569	1.20E-01	0.0774	0.0043	1.0173	0.0178	-0.0202	0.0086
Chest pain or discomfort	European	0.1572	0.1017	1.5456	1.22E-01	0.0327	0.0027	1.0222	0.0128	0.0081	0.0077
Non-cancer illness code self-reported: joint disorder	European	-0.5387	0.3488	-1.5444	1.23E-01	0.0023	0.0015	0.9874	0.0095	0.0117	0.0072
Number of treatments/medications taken	European	0.1298	0.0850	1.5264	1.27E-01	0.0610	0.0031	1.0380	0.0147	-0.0026	0.0083
Diagnoses - main ICD10: K40 Inguinal hernia	European	-0.1727	0.1132	-1.5259	1.27E-01	0.0189	0.0026	0.9879	0.0118	0.0088	0.0068
Number of full brothers	European	-0.1783	0.1175	-1.5176	1.29E-01	0.0200	0.0021	1.0188	0.0115	0.0176	0.0072
Illnesses of mother: None of the above (group 2)	European	-0.2389	0.1596	-1.4967	1.35E-01	0.0086	0.0021	1.0097	0.0109	0.0021	0.0063
Trunk fat mass	European	-0.0965	0.0650	-1.4843	1.38E-01	0.2308	0.0111	1.1040	0.0348	0.0044	0.0108
Transport type for commuting to job workplace: Walk	European	0.2578	0.1741	1.4809	1.39E-01	0.0172	0.0034	1.0030	0.0105	0.0063	0.0074
Alcohol drinker status: Previous	European	0.2001	0.1352	1.4805	1.39E-01	0.0141	0.0019	0.9935	0.0109	-0.0054	0.0070
Diagnoses - main ICD10: J44 Other chronic obstructive pulmonary disease	European	-0.3558	0.2423	-1.4684	1.42E-01	0.0039	0.0016	1.0060	0.0098	0.0130	0.0072
Mineral and other dietary supplements: None of the above	European	0.1464	0.1002	1.4604	1.44E-01	0.0286	0.0025	1.0200	0.0113	0.0060	0.0072
Had major operations	European	0.2159	0.1499	1.4405	1.50E-01	0.0260	0.0044	1.0025	0.0103	-0.0065	0.0075
Diagnoses - main ICD10: K60 Fissure and fistula of anal and rectal regions	European	0.2563	0.1799	1.4246	1.54E-01	0.0061	0.0017	0.9765	0.0096	-0.0049	0.0072
Diagnoses - main ICD10: M24 Other specific joint derangements	European	-0.4058	0.2849	-1.4246	1.54E-01	0.0033	0.0016	0.9884	0.0090	0.0098	0.0071
Diagnoses - main ICD10: K50 Crohn's disease [regional enteritis]	European	0.3168	0.2226	1.4236	1.55E-01	0.0041	0.0018	1.0106	0.0110	-0.0034	0.0070
Tinnitus: Yes now some of the time	European	0.3520	0.2480	1.4192	1.56E-01	0.0113	0.0051	0.9944	0.0097	-0.0047	0.0066
Impedance of arm (left)	European	0.0893	0.0632	1.4142	1.57E-01	0.2294	0.0107	1.1469	0.0391	0.0015	0.0109
Forced expiratory volume in 1-second (FEV1) predicted	European	-0.1344	0.0952	-1.4120	1.58E-01	0.1803	0.0153	1.0305	0.0194	0.0068	0.0088
Diagnoses - main ICD10: H26 Other cataract	European	0.2381	0.1693	1.4065	1.60E-01	0.0088	0.0019	0.9982	0.0095	-0.0056	0.0074
Medication for cholesterol blood pressure diabetes or take exogenous hormones: Blood pressure medication	European	0.1246	0.0893	1.3958	1.63E-01	0.1028	0.0075	1.0411	0.0189	-0.0068	0.0084
Types of physical activity in last 4 weeks: Strenuous sports	European	-0.1567	0.1135	-1.3804	1.68E-01	0.0193	0.0021	1.0282	0.0109	-0.0007	0.0071
Diagnoses - main ICD10: K20 Oesophagitis	European	0.3608	0.2628	1.3729	1.70E-01	0.0032	0.0015	0.9982	0.0100	0.0016	0.0068
Frequency of travelling from home to job workplace	European	-0.1952	0.1425	-1.3694	1.71E-01	0.0183	0.0032	1.0338	0.0099	-0.0016	0.0068
Alcohol intake versus 10 years previously	European	-0.1498	0.1098	-1.3639	1.73E-01	0.0364	0.0029	1.0176	0.0130	0.0093	0.0084
Loud music exposure frequency	European	0.2299	0.1689	1.3612	1.74E-01	0.0285	0.0056	1.0147	0.0097	-0.0119	0.0073
Mineral and other dietary supplements: Calcium	European	0.1938	0.1427	1.3583	1.74E-01	0.0132	0.0020	0.9917	0.0107	-0.0133	0.0075
Diagnoses - main ICD10: D12 Benign neoplasm of colon rectum anus and anal canal	European	-0.2360	0.1741	-1.3553	1.75E-01	0.0070	0.0018	1.0173	0.0106	0.0076	0.0068
Diagnoses - main ICD10: M23 Internal derangement of knee	European	-0.2439	0.1800	-1.3551	1.75E-01	0.0088	0.0025	1.0004	0.0125	-0.0003	0.0073

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Illnesses of siblings: Diabetes	European	-0.1758	0.1303	-1.3494	1.77E-01	0.0216	0.0028	1.0062	0.0114	0.0173	0.0068
Qualifications: CSEs or equivalent	European	-0.1778	0.1323	-1.3437	1.79E-01	0.0191	0.0023	1.0663	0.0111	-0.0088	0.0079
Vascular/heart problems diagnosed by doctor: Angina	European	0.1395	0.1041	1.3402	1.80E-01	0.0223	0.0024	1.0305	0.0115	0.0033	0.0070
Vitamin and mineral supplements: Vitamin B	European	0.2821	0.2105	1.3403	1.80E-01	0.0062	0.0018	1.0132	0.0100	-0.0017	0.0076
Diastolic blood pressure automated reading	European	0.0931	0.0705	1.3210	1.87E-01	0.1340	0.0069	1.0937	0.0285	-0.0121	0.0098
Sodium in urine	European	-0.1079	0.0822	-1.3120	1.90E-01	0.0670	0.0036	1.0566	0.0163	-0.0103	0.0092
Mineral and other dietary supplements: Glucosamine	European	-0.1437	0.1099	-1.3077	1.91E-01	0.0241	0.0024	1.0099	0.0107	-0.0141	0.0073
Impedance of arm (right)	European	0.0807	0.0618	1.3065	1.91E-01	0.2322	0.0108	1.1334	0.0403	0.0022	0.0106
Long-standing illness disability or infirmity	European	0.1087	0.0832	1.3056	1.92E-01	0.0500	0.0028	1.0312	0.0136	0.0008	0.0075
Medication for cholesterol blood pressure diabetes or take exogenous hormones: None of the above	European	-0.1266	0.0970	-1.3056	1.92E-01	0.0623	0.0053	1.0316	0.0138	0.0033	0.0073
Alcohol intake frequency.	European	-0.1074	0.0829	-1.2968	1.95E-01	0.0826	0.0049	1.0503	0.0177	0.0133	0.0094
Financial situation satisfaction	European	0.1636	0.1273	1.2846	1.99E-01	0.0556	0.0069	1.0107	0.0114	0.0033	0.0073
Hair/balding pattern: Pattern 4	European	0.0941	0.0745	1.2634	2.06E-01	0.1549	0.0258	1.1461	0.0524	-0.0124	0.0085
Leg fat percentage (left)	European	-0.0774	0.0614	-1.2608	2.07E-01	0.2083	0.0087	1.0985	0.0302	0.0078	0.0102
Illnesses of siblings: None of the above (group 1)	European	-0.1442	0.1150	-1.2533	2.10E-01	0.0347	0.0031	1.0282	0.0125	-0.0011	0.0080
Townsend deprivation index at recruitment	European	0.1326	0.1066	1.2437	2.14E-01	0.0341	0.0024	1.0327	0.0111	-0.0087	0.0082
Smoking/smokers in household	European	-0.2220	0.1793	-1.2380	2.16E-01	0.0110	0.0023	1.0046	0.0116	0.0037	0.0076
Leg fat percentage (right)	European	-0.0747	0.0605	-1.2350	2.17E-01	0.2086	0.0087	1.0949	0.0295	0.0081	0.0099
Average weekly spirits intake	European	-0.1323	0.1076	-1.2293	2.19E-01	0.0313	0.0032	1.0166	0.0114	0.0057	0.0072
Back pain for 3+ months	European	-0.1922	0.1579	-1.2174	2.24E-01	0.0384	0.0074	0.9904	0.0113	-0.0019	0.0066
Mineral and other dietary supplements: Zinc	European	0.1770	0.1458	1.2139	2.25E-01	0.0110	0.0019	0.9917	0.0103	0.0028	0.0069
Cancer code self-reported: squamous cell carcinoma	European	0.5577	0.4636	1.2029	2.29E-01	0.0018	0.0017	1.0061	0.0110	-0.0064	0.0068
Non-cancer illness code self-reported: angina	European	0.1245	0.1044	1.1923	2.33E-01	0.0230	0.0024	1.0262	0.0114	0.0025	0.0070
Sitting height	European	-0.0829	0.0702	-1.1814	2.37E-01	0.3316	0.0234	1.1263	0.0711	0.0084	0.0123
Ever used hormone-replacement therapy (HRT)	European	-0.1408	0.1193	-1.1803	2.38E-01	0.0427	0.0038	0.9933	0.0109	0.0135	0.0080
Underlying (primary) cause of death: ICD10: J84.1 Other interstitial pulmonary diseases with fibrosis	European	0.3597	0.3063	1.1743	2.40E-01	0.1194	0.0793	0.9899	0.0102	-0.0072	0.0065
Arm fat mass (left)	European	-0.0749	0.0639	-1.1725	2.41E-01	0.2320	0.0114	1.0904	0.0333	0.0008	0.0108
Diagnoses - main ICD10: M67 Other disorders of synovium and tendon	European	0.3350	0.2871	1.1665	2.43E-01	0.0027	0.0015	0.9959	0.0086	-0.0024	0.0070
Diagnoses - main ICD10: R10 Abdominal and pelvic pain	European	0.1625	0.1395	1.1651	2.44E-01	0.0121	0.0019	0.9963	0.0101	-0.0045	0.0073
Arm fat mass (right)	European	-0.0740	0.0636	-1.1630	2.45E-01	0.2310	0.0115	1.0967	0.0341	0.0012	0.0107
Most recent bowel cancer screening	European	0.3604	0.3152	1.1432	2.53E-01	0.0101	0.0069	1.0138	0.0087	0.0006	0.0069

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Illnesses of father: Prostate cancer	European	0.1914	0.1676	1.1419	2.54E-01	0.0092	0.0022	1.0093	0.0120	-0.0055	0.0069
Number of pregnancy terminations	European	-0.1986	0.1752	-1.1337	2.57E-01	0.0578	0.0118	1.0100	0.0106	0.0083	0.0072
Number of trend entries	European	-0.2338	0.2080	-1.1242	2.61E-01	0.0428	0.0113	0.9980	0.0096	0.0075	0.0072
Number of cigarettes currently smoked daily (current cigarette smokers)	European	0.2043	0.1823	1.1208	2.62E-01	0.0973	0.0287	1.0065	0.0103	0.0024	0.0068
Hair/balding pattern: Pattern 2	European	-0.1285	0.1147	-1.1207	2.62E-01	0.0469	0.0084	1.0520	0.0231	0.0128	0.0070
Fathers age at death	European	0.1172	0.1050	1.1167	2.64E-01	0.0330	0.0036	1.0292	0.0128	-0.0108	0.0069
Maximum heart rate during fitness test	European	0.1690	0.1531	1.1041	2.70E-01	0.0707	0.0140	1.0157	0.0121	-0.0046	0.0071
Number of depression episodes	European	0.2184	0.2004	1.0896	2.76E-01	0.0395	0.0138	1.0008	0.0092	0.0094	0.0071
Diagnoses - main ICD10: Z47 Other orthopaedic follow-up care	European	0.6252	0.5815	1.0752	2.82E-01	0.0016	0.0017	1.0102	0.0111	-0.0050	0.0069
Diagnoses - main ICD10: K44 Diaphragmatic hernia	European	0.2365	0.2214	1.0684	2.85E-01	0.0042	0.0016	1.0154	0.0098	-0.0032	0.0070
Job involves shift work	European	-0.1425	0.1369	-1.0415	2.98E-01	0.0260	0.0033	1.0209	0.0097	-0.0004	0.0078
Pain type(s) experienced in last month: Facial pain	European	0.1678	0.1647	1.0187	3.08E-01	0.0066	0.0018	1.0025	0.0104	0.0027	0.0071
Bring up phlegm/sputum/mucus on most days	European	0.1995	0.1970	1.0128	3.11E-01	0.0266	0.0081	1.0117	0.0111	-0.0104	0.0070
Health satisfaction	European	0.1108	0.1105	1.0031	3.16E-01	0.0783	0.0065	1.0190	0.0126	0.0085	0.0079
Average weekly fortified wine intake	European	0.1622	0.1629	0.9957	3.19E-01	0.0120	0.0027	1.0180	0.0105	0.0042	0.0070
Diagnoses - main ICD10: I21 Acute myocardial infarction	European	0.1423	0.1431	0.9945	3.20E-01	0.0102	0.0019	1.0060	0.0107	-0.0081	0.0065
Diagnoses - main ICD10: K80 Cholelithiasis	European	0.1753	0.1768	0.9918	3.21E-01	0.0075	0.0022	1.0409	0.0169	-0.0031	0.0076
Hip circumference	European	-0.0636	0.0647	-0.9831	3.26E-01	0.2165	0.0118	1.1132	0.0352	0.0004	0.0116
Waist circumference	European	-0.0646	0.0661	-0.9769	3.29E-01	0.1991	0.0103	1.0901	0.0301	-0.0036	0.0106
Diagnoses - main ICD10: R69 Unknown and unspecified causes of morbidity	European	0.1955	0.2002	0.9765	3.29E-01	0.0055	0.0018	0.9984	0.0107	-0.0003	0.0068
Diagnoses - main ICD10: M54 Dorsalgia	European	-0.1341	0.1380	-0.9716	3.31E-01	0.0117	0.0019	0.9938	0.0101	0.0015	0.0071
Hearing difficulty/problems: Yes	European	0.0893	0.0919	0.9712	3.31E-01	0.0430	0.0033	1.0091	0.0143	0.0006	0.0078
Diagnoses - main ICD10: R31 Unspecified haematuria	European	-0.3223	0.3325	-0.9693	3.32E-01	0.0023	0.0017	1.0193	0.0098	0.0030	0.0070
Home area population density - urban or rural: Scotland - Large Urban Area	European	0.2679	0.2766	0.9686	3.33E-01	0.0089	0.0039	2.1563	0.0228	0.0005	0.0107
Pulse wave peak to peak time	European	-0.1272	0.1317	-0.9660	3.34E-01	0.0398	0.0061	1.0089	0.0115	0.0059	0.0068
Illness injury bereavement stress in last 2 years: Marital separation/divorce	European	0.2166	0.2255	0.9602	3.37E-01	0.0037	0.0017	1.0139	0.0101	-0.0043	0.0065
Medication for pain relief constipation heartburn: Paracetamol	European	0.0894	0.0931	0.9603	3.37E-01	0.0417	0.0028	1.0324	0.0126	-0.0015	0.0077
Types of physical activity in last 4 weeks: Walking for pleasure (not as a means of transport)	European	0.0947	0.0992	0.9554	3.39E-01	0.0351	0.0025	1.0567	0.0116	-0.0012	0.0077
Impedance of whole body	European	0.0584	0.0616	0.9481	3.43E-01	0.2581	0.0119	1.1297	0.0398	0.0046	0.0115
Illnesses of father: None of the above (group 1)	European	-0.1519	0.1617	-0.9397	3.47E-01	0.0138	0.0023	1.0343	0.0115	-0.0011	0.0073
Age at last live birth	European	0.0914	0.0981	0.9315	3.52E-01	0.0867	0.0075	1.0267	0.0135	-0.0153	0.0070
Non-cancer illness code self-reported: vaginal prolapse/uterine prolapse	European	0.1948	0.2093	0.9307	3.52E-01	0.0054	0.0018	1.0005	0.0101	-0.0053	0.0072

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Illnesses of father: Chronic bronchitis/emphysema	European	-0.1195	0.1287	-0.9280	3.53E-01	0.0161	0.0023	1.0172	0.0107	0.0137	0.0067
Trunk fat percentage	European	-0.0591	0.0637	-0.9273	3.54E-01	0.2044	0.0098	1.1152	0.0323	0.0018	0.0102
Adopted as a child	European	0.1979	0.2137	0.9260	3.55E-01	0.0055	0.0015	1.0064	0.0098	-0.0066	0.0074
Body fat percentage	European	-0.0570	0.0615	-0.9257	3.55E-01	0.2158	0.0099	1.1069	0.0324	0.0026	0.0102
Alcohol usually taken with meals	European	0.0884	0.0956	0.9241	3.56E-01	0.1086	0.0062	1.0617	0.0143	0.0011	0.0087
Mouth/teeth dental problems: Mouth ulcers	European	0.0974	0.1058	0.9209	3.57E-01	0.0278	0.0040	1.0460	0.0162	-0.0084	0.0081
Non-cancer illness code self-reported: hypothyroidism/myxoedema	European	0.0792	0.0862	0.9179	3.59E-01	0.0514	0.0075	1.0449	0.0253	0.0044	0.0080
Doctor diagnosed asthma	European	0.1112	0.1213	0.9166	3.59E-01	0.0791	0.0128	0.9841	0.0131	-0.0107	0.0074
Diagnoses - main ICD10: K51 Ulcerative colitis	European	-0.2203	0.2464	-0.8941	3.71E-01	0.0043	0.0019	1.0147	0.0109	0.0030	0.0072
Body mass index (BMI)	European	-0.0548	0.0614	-0.8926	3.72E-01	0.2479	0.0118	1.1014	0.0359	-0.0023	0.0112
Maximum workload during fitness test	European	-0.1697	0.1904	-0.8914	3.73E-01	0.0508	0.0119	1.0029	0.0105	0.0052	0.0076
Reproducibility of spirometry measurement using ERS/ATS criteria	European	-0.1270	0.1433	-0.8865	3.75E-01	0.0144	0.0026	1.0081	0.0105	0.0027	0.0067
Non-cancer illness code self-reported: ulcerative colitis	European	-0.1958	0.2210	-0.8862	3.76E-01	0.0058	0.0020	1.0090	0.0120	0.0064	0.0079
Diagnoses - main ICD10: M16 Coxarthrosis [arthrosis of hip]	European	-0.1413	0.1603	-0.8814	3.78E-01	0.0101	0.0021	1.0085	0.0123	0.0014	0.0075
Diagnoses - main ICD10: N19 Unspecified renal failure	European	0.2764	0.3164	0.8737	3.82E-01	0.0022	0.0015	1.0047	0.0089	-0.0079	0.0068
Medication for pain relief constipation heartburn: None of the above	European	-0.0690	0.0796	-0.8666	3.86E-01	0.0512	0.0034	1.0488	0.0147	-0.0018	0.0080
Qualifications: NVQ or HND or HNC or equivalent	European	-0.1179	0.1364	-0.8643	3.87E-01	0.0151	0.0021	1.0100	0.0114	0.0000	0.0073
Non-cancer illness code self-reported: cholelithiasis/gall stones	European	0.1436	0.1662	0.8637	3.88E-01	0.0082	0.0021	1.0299	0.0165	-0.0040	0.0072
Systolic blood pressure automated reading	European	0.0611	0.0709	0.8621	3.89E-01	0.1263	0.0066	1.0882	0.0255	-0.0075	0.0089
Medication for pain relief constipation heartburn: Ibuprofen (e.g. Nurofen)	European	0.0973	0.1136	0.8565	3.92E-01	0.0209	0.0021	1.0116	0.0103	-0.0100	0.0075
Shortness of breath walking on level ground	European	0.1157	0.1358	0.8522	3.94E-01	0.0541	0.0065	0.9991	0.0112	-0.0020	0.0082
Diagnoses - main ICD10: R04 Haemorrhage from respiratory passages	European	0.5905	0.6953	0.8493	3.96E-01	0.0011	0.0017	1.0101	0.0100	-0.0062	0.0068
Started insulin within one year diagnosis of diabetes	European	0.1608	0.1895	0.8482	3.96E-01	0.1502	0.0528	1.0139	0.0140	0.0103	0.0073
Diagnoses - main ICD10: I84 Haemorrhoids	European	-0.1199	0.1413	-0.8481	3.96E-01	0.0095	0.0020	0.9998	0.0109	0.0099	0.0067
Ever highly irritable/argumentative for 2 days	European	0.0924	0.1094	0.8443	3.99E-01	0.0530	0.0071	0.9980	0.0126	0.0091	0.0068
Weight change compared with 1 year ago	European	0.1522	0.1810	0.8412	4.00E-01	0.0073	0.0017	1.0311	0.0103	-0.0052	0.0077
Non-cancer illness code self-reported: diverticular disease/diverticulitis	European	0.1179	0.1408	0.8374	4.02E-01	0.0131	0.0021	0.9944	0.0110	-0.0043	0.0077
Age started oral contraceptive pill	European	-0.0981	0.1209	-0.8109	4.17E-01	0.0467	0.0052	1.0207	0.0122	-0.0007	0.0078
Home area population density - urban or rural: England/Wales - Village - less sparse	European	-0.3289	0.4106	-0.8010	4.23E-01	0.0018	0.0017	1.0274	0.0101	0.0108	0.0078
Diagnoses - main ICD10: S52 Fracture of forearm	European	0.1295	0.1617	0.8011	4.23E-01	0.0068	0.0019	0.9955	0.0100	-0.0049	0.0065
Number of unsuccessful stop-smoking attempts	European	0.1215	0.1523	0.7980	4.25E-01	0.0472	0.0093	1.0083	0.0109	0.0074	0.0070
Types of physical activity in last 4 weeks: Other exercises (eg: swimming cycling keep fit bowling)	European	-0.0729	0.0926	-0.7864	4.32E-01	0.0455	0.0029	1.0190	0.0143	-0.0008	0.0084

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Diagnoses - main ICD10: R11 Nausea and vomiting	European	-0.3502	0.4476	-0.7823	4.34E-01	0.0013	0.0015	0.9957	0.0095	0.0098	0.0071
Why stopped smoking: Doctors advice	European	0.2191	0.2807	0.7807	4.35E-01	0.0123	0.0059	1.0083	0.0086	-0.0013	0.0073
Non-cancer illness code self-reported: rheumatoid arthritis	European	-0.1719	0.2211	-0.7775	4.37E-01	0.0051	0.0016	1.0088	0.0101	0.0029	0.0074
Falls in the last year	European	0.0836	0.1087	0.7692	4.42E-01	0.0311	0.0024	1.0208	0.0120	-0.0029	0.0076
Pain type(s) experienced in last month: Neck or shoulder pain	European	0.0767	0.1006	0.7626	4.46E-01	0.0325	0.0024	1.0281	0.0126	-0.0012	0.0076
Heel bone mineral density (BMD) T-score automated (right)	European	-0.0516	0.0684	-0.7546	4.51E-01	0.2934	0.0381	1.0517	0.0365	0.0033	0.0088
Diagnoses - main ICD10: T84 Complications of internal orthopaedic prosthetic devices implants and grafts	European	-0.2023	0.2713	-0.7456	4.56E-01	0.0030	0.0019	1.0035	0.0107	0.0101	0.0068
Medication for pain relief constipation heartburn: Laxatives (e.g. Dulcolax Senokot)	European	0.1056	0.1425	0.7413	4.59E-01	0.0106	0.0019	1.0177	0.0106	-0.0118	0.0075
Average weekly red wine intake	European	0.0788	0.1066	0.7390	4.60E-01	0.0545	0.0042	1.0236	0.0135	0.0027	0.0086
Type of tobacco previously smoked: Cigars or pipes	European	-0.2532	0.3434	-0.7375	4.61E-01	0.0075	0.0058	1.0103	0.0085	0.0083	0.0071
Non-cancer illness code self-reported: pernicious anaemia	European	-0.2315	0.3167	-0.7310	4.65E-01	0.0023	0.0016	0.9996	0.0096	0.0090	0.0069
Non-accidental death in close genetic family	European	-0.1434	0.1993	-0.7196	4.72E-01	0.0192	0.0056	0.9962	0.0099	0.0086	0.0070
Non-cancer illness code self-reported: varicose veins	European	0.1615	0.2250	0.7179	4.73E-01	0.0048	0.0016	1.0072	0.0094	-0.0072	0.0071
Diagnoses - main ICD10: I30 Acute pericarditis	European	0.2022	0.2827	0.7151	4.75E-01	0.0032	0.0017	0.9876	0.0097	-0.0051	0.0070
Non-cancer illness code self-reported: arthritis (nos)	European	-0.2532	0.3548	-0.7137	4.75E-01	0.0017	0.0016	1.0172	0.0090	-0.0045	0.0070
Non-cancer illness code self-reported: uterine fibroids	European	-0.1354	0.1928	-0.7025	4.82E-01	0.0060	0.0020	1.0201	0.0107	0.0029	0.0071
Doctor diagnosed hayfever or allergic rhinitis	European	-0.0765	0.1095	-0.6985	4.85E-01	0.0884	0.0111	0.9936	0.0132	0.0006	0.0073
Diagnoses - main ICD10: N92 Excessive frequent and irregular menstruation	European	0.1216	0.1743	0.6977	4.85E-01	0.0075	0.0019	1.0023	0.0107	0.0037	0.0074
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: Hayfever allergic rhinitis or eczema	European	-0.0523	0.0753	-0.6948	4.87E-01	0.0748	0.0073	1.0410	0.0257	0.0141	0.0087
Heel bone mineral density (BMD) T-score automated	European	-0.0419	0.0607	-0.6902	4.90E-01	0.2865	0.0360	1.1238	0.0603	0.0002	0.0097
Maternal smoking around birth	European	-0.0657	0.0959	-0.6859	4.93E-01	0.0509	0.0035	1.0317	0.0141	0.0014	0.0084
Illnesses of siblings: Heart disease	European	0.0977	0.1427	0.6847	4.94E-01	0.0153	0.0028	1.0268	0.0110	0.0061	0.0068
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: Asthma	European	-0.0505	0.0740	-0.6824	4.95E-01	0.0580	0.0080	1.0337	0.0273	0.0067	0.0078
Diagnoses - main ICD10: J33 Nasal polyp	European	-0.1637	0.2410	-0.6792	4.97E-01	0.0036	0.0018	1.0083	0.0108	0.0096	0.0068
Duration of strenuous sports	European	-0.1789	0.2643	-0.6769	4.99E-01	0.0302	0.0165	0.9945	0.0100	-0.0009	0.0067
Non-cancer illness code self-reported: pneumothorax	European	-0.1717	0.2567	-0.6687	5.04E-01	0.0032	0.0016	0.9861	0.0092	0.0044	0.0070
Diagnoses - main ICD10: M10 Gout	European	-0.2373	0.3577	-0.6636	5.07E-01	0.0016	0.0016	1.0053	0.0100	0.0004	0.0072
Current employment status: Doing unpaid or voluntary work	European	0.1213	0.1838	0.6597	5.09E-01	0.0089	0.0018	1.0107	0.0103	0.0081	0.0081
Frequency of light DIY in last 4 weeks	European	0.0967	0.1468	0.6588	5.10E-01	0.0246	0.0036	0.9954	0.0107	0.0013	0.0076
Diagnoses - main ICD10: K35 Acute appendicitis	European	0.2129	0.3250	0.6549	5.13E-01	0.0022	0.0016	1.0037	0.0103	0.0048	0.0071

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Current tobacco smoking	European	0.0573	0.0877	0.6537	5.13E-01	0.0548	0.0034	1.0197	0.0154	-0.0066	0.0082
Diagnoses - main ICD10: S66 Injury of muscle and tendon at wrist and hand level	European	-0.3864	0.5975	-0.6467	5.18E-01	0.0009	0.0016	1.0122	0.0098	0.0088	0.0072
Birth weight	European	-0.0563	0.0873	-0.6456	5.19E-01	0.1081	0.0074	1.0565	0.0212	0.0092	0.0084
Tinnitus: Yes now most or all of the time	European	-0.0922	0.1428	-0.6454	5.19E-01	0.0334	0.0056	0.9969	0.0105	-0.0020	0.0067
Illnesses of mother: High blood pressure	European	0.0651	0.1022	0.6371	5.24E-01	0.0296	0.0026	1.0186	0.0122	0.0058	0.0074
Knee pain for 3+ months	European	-0.1301	0.2051	-0.6342	5.26E-01	0.0253	0.0079	0.9994	0.0092	0.0098	0.0074
Eye problems/disorders: Cataract	European	0.1329	0.2102	0.6323	5.27E-01	0.0204	0.0055	1.0197	0.0109	0.0028	0.0080
Diagnoses - main ICD10: L03 Cellulitis	European	0.1303	0.2090	0.6238	5.33E-01	0.0046	0.0019	0.9967	0.0100	-0.0083	0.0063
Bilateral oophorectomy (both ovaries removed)	European	-0.0895	0.1445	-0.6198	5.35E-01	0.0228	0.0038	1.0125	0.0106	0.0101	0.0070
Cancer diagnosed by doctor	European	-0.1265	0.2057	-0.6151	5.39E-01	0.0055	0.0019	1.0214	0.0102	0.0024	0.0069
Smoking status: Current	European	0.0546	0.0895	0.6100	5.42E-01	0.0518	0.0033	1.0190	0.0147	-0.0061	0.0081
Reason for glasses/contact lenses: For just reading/near work as you are getting older (called presbyopia)	European	-0.2003	0.3309	-0.6051	5.45E-01	0.0026	0.0021	1.1399	0.0126	-0.0023	0.0079
Diagnoses - main ICD10: K43 Ventral hernia	European	-0.1250	0.2076	-0.6023	5.47E-01	0.0058	0.0017	0.9917	0.0098	0.0055	0.0071
Types of physical activity in last 4 weeks: Heavy DIY (eg: weeding lawn mowing carpentry digging)	European	-0.0644	0.1070	-0.6018	5.47E-01	0.0309	0.0023	1.0325	0.0114	0.0083	0.0075
Reason for glasses/contact lenses: For long-sightedness i.e. for distance and near but particularly for near tasks like reading (called hypermetropia)	European	0.0963	0.1620	0.5943	5.52E-01	0.0092	0.0019	1.0717	0.0112	-0.0066	0.0069
Non-cancer illness code self-reported: type 2 diabetes	European	0.1198	0.2017	0.5941	5.53E-01	0.0058	0.0017	1.0135	0.0103	-0.0033	0.0072
Non-cancer illness code self-reported: retinal detachment	European	0.1759	0.2967	0.5929	5.53E-01	0.0023	0.0016	1.0109	0.0094	-0.0054	0.0069
Diagnoses - main ICD10: I48 Atrial fibrillation and flutter	European	-0.0787	0.1329	-0.5920	5.54E-01	0.0122	0.0022	1.0204	0.0180	-0.0016	0.0069
Non-cancer illness code self-reported: muscle or soft tissue injuries	European	0.1787	0.3024	0.5909	5.55E-01	0.0026	0.0016	0.9996	0.0098	-0.0090	0.0073
Non-cancer illness code self-reported: hypertrophic cardiomyopathy (hcm / hocm)	European	0.5239	0.8906	0.5883	5.56E-01	0.0007	0.0015	1.0070	0.0092	-0.0100	0.0077
Number of older siblings	European	-0.2889	0.4951	-0.5835	5.60E-01	0.0038	0.0056	1.0125	0.0095	0.0149	0.0071
Pain type(s) experienced in last month: Back pain	European	-0.0586	0.1014	-0.5776	5.64E-01	0.0382	0.0027	1.0259	0.0134	-0.0017	0.0082
Diagnoses - main ICD10: N40 Hyperplasia of prostate	European	0.1149	0.1994	0.5765	5.64E-01	0.0054	0.0018	1.0118	0.0109	-0.0108	0.0072
Non-cancer illness code self-reported: mania/bipolar disorder/manic depression	European	0.1104	0.1921	0.5746	5.66E-01	0.0062	0.0016	0.9985	0.0089	0.0032	0.0074
Diagnoses - main ICD10: K21 Gastro-oesophageal reflux disease	European	0.1026	0.1793	0.5725	5.67E-01	0.0063	0.0016	1.0032	0.0091	-0.0013	0.0069
Hair/balding pattern: Pattern 3	European	0.0643	0.1126	0.5708	5.68E-01	0.0565	0.0203	1.0212	0.0394	-0.0081	0.0080
Current employment status: Unable to work because of sickness or disability	European	0.0709	0.1243	0.5701	5.69E-01	0.0237	0.0023	1.0258	0.0110	0.0016	0.0083
Diagnoses - main ICD10: R07 Pain in throat and chest	European	0.0719	0.1270	0.5660	5.71E-01	0.0163	0.0020	1.0085	0.0112	0.0094	0.0076

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Relative age voice broke	European	-0.0617	0.1091	-0.5655	5.72E-01	0.0722	0.0071	1.0210	0.0139	0.0018	0.0084
Types of physical activity in last 4 weeks: None of the above	European	-0.0629	0.1119	-0.5620	5.74E-01	0.0247	0.0020	1.0127	0.0108	-0.0004	0.0069
Creatinine (enzymatic) in urine	European	-0.0431	0.0767	-0.5619	5.74E-01	0.0626	0.0035	1.0436	0.0151	-0.0077	0.0088
Sleep duration	European	-0.0416	0.0747	-0.5571	5.78E-01	0.0707	0.0041	1.0287	0.0173	-0.0091	0.0076
Illness injury bereavement stress in last 2 years: Serious illness injury or assault of a close relative	European	0.0899	0.1620	0.5548	5.79E-01	0.0099	0.0021	1.0208	0.0108	0.0054	0.0071
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: Blood clot in the leg (DVT)	European	0.0867	0.1585	0.5469	5.84E-01	0.0097	0.0021	1.0189	0.0158	-0.0053	0.0067
Eye problems/disorders: Diabetes related eye disease	European	0.0995	0.1824	0.5455	5.85E-01	0.0191	0.0053	1.0053	0.0098	0.0069	0.0069
Illnesses of father: Diabetes	European	-0.0707	0.1315	-0.5374	5.91E-01	0.0178	0.0029	1.0315	0.0129	0.0015	0.0072
Frequency of heavy DIY in last 4 weeks	European	-0.0976	0.1820	-0.5364	5.92E-01	0.0181	0.0041	1.0142	0.0091	0.0009	0.0071
Non-cancer illness code self-reported: malabsorption/coeliac disease	European	0.2136	0.4003	0.5335	5.94E-01	0.0221	0.0171	0.9853	0.0318	-0.0137	0.0076
Had menopause	European	-0.0987	0.1865	-0.5290	5.97E-01	0.0212	0.0050	1.0073	0.0113	0.0047	0.0077
Pulse rate	European	0.0506	0.0958	0.5278	5.98E-01	0.1354	0.0142	1.0311	0.0204	0.0035	0.0086
Leg pain on walking	European	-0.0613	0.1170	-0.5243	6.00E-01	0.0609	0.0065	0.9927	0.0124	-0.0004	0.0072
Medication for cholesterol blood pressure diabetes or take exogenous hormones: Hormone replacement therapy	European	0.0886	0.1698	0.5219	6.02E-01	0.0147	0.0033	1.0034	0.0102	-0.0072	0.0067
Diagnoses - main ICD10: K29 Gastritis and duodenitis	European	0.0928	0.1782	0.5207	6.03E-01	0.0077	0.0017	1.0049	0.0098	0.0042	0.0075
Vitamin and mineral supplements: Vitamin C	European	-0.0672	0.1306	-0.5148	6.07E-01	0.0139	0.0019	0.9946	0.0101	0.0012	0.0071
Diagnoses - main ICD10: G47 Sleep disorders	European	-0.0931	0.1810	-0.5144	6.07E-01	0.0063	0.0017	0.9917	0.0095	0.0056	0.0069
Diagnoses - main ICD10: K76 Other diseases of liver	European	0.1654	0.3220	0.5137	6.08E-01	0.0025	0.0016	1.0039	0.0102	0.0023	0.0070
Fractured/broken bones in last 5 years	European	0.0589	0.1157	0.5093	6.11E-01	0.0180	0.0024	1.0180	0.0115	-0.0130	0.0065
Wears glasses or contact lenses	European	0.0649	0.1285	0.5053	6.13E-01	0.0161	0.0019	1.0001	0.0108	0.0047	0.0070
Non-cancer illness code self-reported: deep venous thrombosis (dvt)	European	0.0786	0.1557	0.5050	6.14E-01	0.0101	0.0022	1.0176	0.0159	-0.0053	0.0070
Target heart rate achieved	European	0.0941	0.1896	0.4961	6.20E-01	0.0414	0.0119	0.9963	0.0103	-0.0059	0.0072
Non-cancer illness code self-reported: asthma	European	-0.0368	0.0743	-0.4959	6.20E-01	0.0585	0.0081	1.0372	0.0276	0.0047	0.0079
Non-cancer illness code self-reported: iron deficiency anaemia	European	0.1015	0.2055	0.4937	6.22E-01	0.0040	0.0015	0.9951	0.0086	-0.0002	0.0063
Diagnoses - main ICD10: H25 Senile cataract	European	0.1354	0.2768	0.4891	6.25E-01	0.0026	0.0017	1.0203	0.0108	-0.0004	0.0072
Cancer code self-reported: lung cancer	European	0.2005	0.4154	0.4828	6.29E-01	0.0013	0.0014	0.9854	0.0090	-0.0010	0.0070
Diagnoses - main ICD10: O75 Other complications of labour and delivery not elsewhere classified	European	0.1288	0.2692	0.4783	6.33E-01	0.0030	0.0015	0.9871	0.0090	0.0018	0.0071
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: None of the above	European	0.0326	0.0692	0.4706	6.38E-01	0.0789	0.0089	1.0346	0.0304	-0.0108	0.0084
Pain type(s) experienced in last month: Hip pain	European	-0.0520	0.1108	-0.4696	6.39E-01	0.0234	0.0022	1.0219	0.0111	-0.0059	0.0078



Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Vascular/heart problems diagnosed by doctor: Heart attack	European	0.0534	0.1145	0.4659	6.41E-01	0.0194	0.0022	1.0106	0.0115	0.0018	0.0076
Mouth/teeth dental problems: Loose teeth	European	-0.0580	0.1247	-0.4656	6.42E-01	0.0159	0.0021	0.9978	0.0108	-0.0065	0.0070
Vitamin and mineral supplements: Vitamin D	European	-0.0767	0.1671	-0.4592	6.46E-01	0.0072	0.0019	0.9894	0.0105	-0.0051	0.0073
Age at first live birth	European	0.0397	0.0864	0.4591	6.46E-01	0.1645	0.0088	1.0539	0.0140	-0.0079	0.0078
Diagnoses - main ICD10: K30 Dyspepsia	European	-0.1352	0.2952	-0.4579	6.47E-01	0.0026	0.0017	1.0091	0.0104	0.0021	0.0068
Vitamin and mineral supplements: Vitamin A	European	0.1196	0.2616	0.4574	6.47E-01	0.0038	0.0017	1.0019	0.0097	-0.0061	0.0076
Non-cancer illness code self-reported: migraine	European	0.0623	0.1381	0.4511	6.52E-01	0.0151	0.0022	1.0280	0.0121	0.0035	0.0070
Past tobacco smoking	European	-0.0344	0.0765	-0.4491	6.53E-01	0.0950	0.0050	1.0057	0.0180	0.0102	0.0088
Non-cancer illness code self-reported: hypopituitarism	European	0.2882	0.6558	0.4395	6.60E-01	0.0008	0.0015	0.9910	0.0089	0.0009	0.0067
Duration of heavy DIY	European	0.0567	0.1303	0.4353	6.63E-01	0.0361	0.0049	1.0005	0.0107	-0.0003	0.0072
Pain type(s) experienced in last month: Knee pain	European	-0.0420	0.0965	-0.4349	6.64E-01	0.0401	0.0028	1.0136	0.0133	-0.0055	0.0082
Diagnoses - main ICD10: K52 Other non-infective gastro-enteritis and colitis	European	0.1185	0.2737	0.4329	6.65E-01	0.0040	0.0016	1.0131	0.0092	-0.0061	0.0076
Mouth/teeth dental problems: Dentures	European	-0.0386	0.0902	-0.4279	6.69E-01	0.0484	0.0035	1.0384	0.0163	0.0025	0.0084
Illness injury bereavement stress in last 2 years: Death of a close relative	European	-0.0838	0.1970	-0.4252	6.71E-01	0.0051	0.0018	1.0167	0.0095	0.0052	0.0064
Average weekly beer plus cider intake	European	-0.0419	0.0988	-0.4241	6.72E-01	0.0515	0.0037	1.0589	0.0144	-0.0074	0.0080
Pain type(s) experienced in last month: Pain all over the body	European	0.0686	0.1621	0.4232	6.72E-01	0.0087	0.0020	1.0135	0.0108	-0.0005	0.0070
Fractured bone site(s): Wrist	European	0.0857	0.2027	0.4229	6.72E-01	0.0055	0.0019	1.0186	0.0107	-0.0105	0.0074
Fractured bone site(s): Ankle	European	-0.0885	0.2102	-0.4210	6.74E-01	0.0053	0.0017	1.0014	0.0093	-0.0036	0.0073
Comparative body size at age 10	European	0.0305	0.0726	0.4194	6.75E-01	0.1455	0.0111	1.0367	0.0310	-0.0100	0.0098
Relative age of first facial hair	European	-0.0343	0.0824	-0.4162	6.77E-01	0.1169	0.0087	1.0753	0.0187	-0.0062	0.0084
Medication for cholesterol blood pressure or diabetes: Cholesterol lowering medication	European	-0.0448	0.1083	-0.4135	6.79E-01	0.0644	0.0088	1.0575	0.0258	0.0143	0.0083
Illnesses of father: Heart disease	European	0.0416	0.1046	0.3974	6.91E-01	0.0297	0.0032	1.0120	0.0125	0.0072	0.0083
Duration of light DIY	European	0.0466	0.1183	0.3944	6.93E-01	0.0372	0.0040	0.9980	0.0108	0.0009	0.0076
Medication for pain relief constipation heartburn: Aspirin	European	0.0448	0.1148	0.3898	6.97E-01	0.0220	0.0023	1.0118	0.0113	0.0085	0.0073
Types of transport used (excluding work): Cycle	European	0.0415	0.1066	0.3892	6.97E-01	0.0245	0.0022	1.0305	0.0113	-0.0026	0.0078
Diagnoses - main ICD10: C44 Other malignant neoplasms of skin	European	0.0536	0.1406	0.3814	7.03E-01	0.0112	0.0029	1.0002	0.0142	-0.0076	0.0074
Non-cancer illness code self-reported: hayfever/allergic rhinitis	European	-0.0411	0.1083	-0.3794	7.04E-01	0.0247	0.0029	1.0117	0.0135	-0.0019	0.0069
Frequency of walking for pleasure in last 4 weeks	European	-0.0383	0.1028	-0.3728	7.09E-01	0.0352	0.0032	1.0048	0.0131	-0.0047	0.0074
Diagnoses - main ICD10: I80 Phlebitis and thrombophlebitis	European	-0.0693	0.1898	-0.3650	7.15E-01	0.0062	0.0020	1.0093	0.0125	-0.0016	0.0070
Ever stopped smoking for 6+ months	European	-0.0778	0.2141	-0.3637	7.16E-01	0.0183	0.0067	1.0008	0.0099	0.0101	0.0067
Diagnoses - main ICD10: M72 Fibroblastic disorders	European	-0.0543	0.1496	-0.3629	7.17E-01	0.0129	0.0025	1.0016	0.0140	0.0080	0.0077
Vitamin and mineral supplements: Vitamin E	European	0.0637	0.1762	0.3616	7.18E-01	0.0082	0.0016	0.9849	0.0089	-0.0043	0.0078

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Transport type for commuting to job workplace: Cycle	European	0.0430	0.1208	0.3557	7.22E-01	0.0310	0.0036	1.0145	0.0111	-0.0016	0.0072
Diagnoses - main ICD10: N20 Calculus of kidney and ureter	European	0.0674	0.1917	0.3517	7.25E-01	0.0071	0.0017	1.0122	0.0104	-0.0047	0.0081
Headaches for 3+ months	European	0.0582	0.1680	0.3462	7.29E-01	0.0561	0.0092	1.0045	0.0097	-0.0053	0.0078
Reason for reducing amount of alcohol drunk: Health precaution	European	-0.0402	0.1169	-0.3442	7.31E-01	0.0423	0.0055	1.0102	0.0105	0.0117	0.0070
Arm fat percentage (right)	European	-0.0209	0.0620	-0.3363	7.37E-01	0.2145	0.0103	1.1090	0.0325	-0.0014	0.0104
Non-cancer illness code self-reported: heart attack/myocardial infarction	European	0.0376	0.1134	0.3316	7.40E-01	0.0200	0.0022	1.0084	0.0114	0.0037	0.0077
Prospective memory result	European	-0.0377	0.1144	-0.3298	7.42E-01	0.0593	0.0068	1.0113	0.0115	-0.0007	0.0078
Diagnoses - main ICD10: J34 Other disorders of nose and nasal sinuses	European	0.0932	0.2886	0.3230	7.47E-01	0.0023	0.0016	1.0106	0.0100	0.0026	0.0066
Diagnoses - main ICD10: J22 Unspecified acute lower respiratory infection	European	-0.0984	0.3069	-0.3205	7.49E-01	0.0023	0.0017	0.9993	0.0106	0.0058	0.0070
Number of full sisters	European	-0.0405	0.1268	-0.3192	7.50E-01	0.0192	0.0021	1.0312	0.0105	0.0073	0.0077
Diagnoses - main ICD10: R14 Flatulence and related conditions	European	0.0887	0.2852	0.3111	7.56E-01	0.0031	0.0015	0.9912	0.0095	-0.0006	0.0073
Medication for cholesterol blood pressure or diabetes: Blood pressure medication	European	0.0286	0.0923	0.3100	7.57E-01	0.1006	0.0066	1.0552	0.0159	-0.0014	0.0087
Diagnoses - main ICD10: I83 Varicose veins of lower extremities	European	-0.0364	0.1180	-0.3083	7.58E-01	0.0177	0.0025	1.0440	0.0133	0.0088	0.0075
Non-cancer illness code self-reported: nasal polyps	European	0.0687	0.2304	0.2980	7.66E-01	0.0046	0.0019	1.0107	0.0098	-0.0070	0.0072
Handedness (chirality/laterality): Use both right and left hands equally	European	-0.0627	0.2117	-0.2964	7.67E-01	0.0054	0.0016	0.9967	0.0099	0.0006	0.0074
Blood clot DVT bronchitis emphysema asthma rhinitis eczema allergy diagnosed by doctor: Emphysema/chronic bronchitis	European	-0.0433	0.1473	-0.2937	7.69E-01	0.0121	0.0020	0.9865	0.0111	0.0051	0.0074
Snoring	European	-0.0246	0.0841	-0.2920	7.70E-01	0.0594	0.0037	1.0311	0.0150	0.0032	0.0083
Duration of fitness test	European	-0.0670	0.2348	-0.2856	7.75E-01	0.0279	0.0112	0.9980	0.0100	0.0029	0.0069
Diagnoses - main ICD10: C50 Malignant neoplasm of breast	European	-0.0488	0.1715	-0.2846	7.76E-01	0.0077	0.0021	1.0169	0.0126	0.0019	0.0072
Ever had bowel cancer screening	European	-0.0358	0.1263	-0.2837	7.77E-01	0.0132	0.0020	1.0182	0.0104	-0.0016	0.0066
Number of self-reported cancers	European	-0.0617	0.2242	-0.2752	7.83E-01	0.0045	0.0018	1.0283	0.0102	0.0014	0.0067
Non-cancer illness code self-reported: gastro-oesophageal reflux (gord) / gastric reflux	European	0.0394	0.1435	0.2743	7.84E-01	0.0125	0.0020	1.0109	0.0105	0.0080	0.0072
Nap during day	European	-0.0217	0.0803	-0.2698	7.87E-01	0.0783	0.0043	1.0434	0.0168	0.0088	0.0093
Current employment status: Retired	European	-0.0491	0.1847	-0.2657	7.91E-01	0.0072	0.0018	1.0223	0.0106	0.0073	0.0074
Cancer code self-reported: malignant melanoma	European	0.0588	0.2252	0.2612	7.94E-01	0.0042	0.0017	0.9998	0.0098	-0.0006	0.0064
Pulse wave Arterial Stiffness index	European	0.0362	0.1402	0.2581	7.96E-01	0.0405	0.0063	1.0040	0.0115	-0.0032	0.0072
Non-cancer illness code self-reported: osteoporosis	European	-0.0331	0.1315	-0.2519	8.01E-01	0.0132	0.0024	1.0135	0.0129	0.0016	0.0070
Distance between home and job workplace	European	0.0510	0.2039	0.2499	8.03E-01	0.0126	0.0037	1.0024	0.0099	0.0008	0.0068
Cancer code self-reported: basal cell carcinoma	European	-0.0364	0.1466	-0.2484	8.04E-01	0.0108	0.0022	0.9968	0.0115	0.0037	0.0076
Birth weight of first child	European	-0.0223	0.0909	-0.2452	8.06E-01	0.1090	0.0081	1.0280	0.0158	0.0051	0.0082
Illnesses of father: Lung cancer	European	-0.0325	0.1327	-0.2446	8.07E-01	0.0162	0.0023	0.9905	0.0114	0.0055	0.0074

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Heel bone mineral density (BMD) T-score automated (left)	European	-0.0153	0.0641	-0.2389	8.11E-01	0.2920	0.0376	1.0500	0.0366	0.0021	0.0086
Impedance of leg (right)	European	0.0149	0.0633	0.2361	8.13E-01	0.2419	0.0114	1.1188	0.0367	0.0093	0.0113
Fracture resulting from simple fall	European	-0.0442	0.1940	-0.2276	8.20E-01	0.0572	0.0178	0.9867	0.0098	0.0002	0.0070
Father still alive	European	0.0433	0.1923	0.2251	8.22E-01	0.0064	0.0019	1.0178	0.0107	0.0031	0.0071
Diagnoses - main ICD10: Z09 Follow-up examination after treatment for conditions other than malignant neoplasms	European	-0.0529	0.2399	-0.2204	8.26E-01	0.0032	0.0016	0.9964	0.0095	0.0028	0.0061
Non-cancer illness code self-reported: psoriasis	European	-0.0429	0.1979	-0.2170	8.28E-01	0.0065	0.0020	1.0301	0.0149	0.0053	0.0078
Diagnoses - main ICD10: I20 Angina pectoris	European	-0.0354	0.1630	-0.2169	8.28E-01	0.0083	0.0019	1.0114	0.0108	0.0086	0.0067
Daytime dozing / sleeping (narcolepsy)	European	0.0176	0.0821	0.2141	8.31E-01	0.0458	0.0032	1.0327	0.0140	0.0140	0.0077
Smoking status: Previous	European	-0.0188	0.0884	-0.2124	8.32E-01	0.0540	0.0037	1.0093	0.0161	-0.0039	0.0085
Diagnoses - main ICD10: B37 Candidiasis	European	-0.5395	2.5395	-0.2124	8.32E-01	0.0006	0.0016	0.9987	0.0091	-0.0001	0.0069
Ever had hysterectomy (womb removed)	European	-0.0338	0.1605	-0.2106	8.33E-01	0.0204	0.0040	1.0104	0.0114	0.0043	0.0075
Tobacco smoking: Ex-smoker	European	-0.0268	0.1316	-0.2040	8.38E-01	0.0795	0.0100	1.0071	0.0110	0.0036	0.0072
Arm fat percentage (left)	European	-0.0125	0.0622	-0.2007	8.41E-01	0.2176	0.0104	1.1059	0.0325	-0.0028	0.0105
Illnesses of mother: Diabetes	European	0.0241	0.1206	0.1999	8.42E-01	0.0192	0.0023	1.0290	0.0128	0.0063	0.0072
Potassium in urine	European	0.0185	0.0924	0.1997	8.42E-01	0.0408	0.0028	1.0313	0.0137	-0.0131	0.0086
Pain type(s) experienced in last month: None of the above	European	0.0165	0.0841	0.1965	8.44E-01	0.0523	0.0032	1.0552	0.0141	-0.0067	0.0077
Fractured bone site(s): Other bones	European	-0.0341	0.1757	-0.1941	8.46E-01	0.0081	0.0020	1.0082	0.0108	-0.0039	0.0068
Pack years adult smoking as proportion of life span exposed to smoking PREVIEW ONLY	European	0.0175	0.0930	0.1878	8.51E-01	0.1264	0.0136	1.0206	0.0143	0.0017	0.0079
Why reduced smoking: Illness or ill health	European	-0.0497	0.2665	-0.1866	8.52E-01	0.0836	0.0559	1.0047	0.0103	0.0114	0.0065
Reason for glasses/contact lenses: For short-sightedness i.e. only or mainly for distance viewing such as driving cinema etc (called myopia)	European	-0.0214	0.1152	-0.1857	8.53E-01	0.0230	0.0024	1.1376	0.0130	-0.0019	0.0074
Diagnoses - main ICD10: I10 Essential (primary) hypertension	European	-0.0636	0.3460	-0.1840	8.54E-01	0.0022	0.0016	1.0036	0.0093	0.0004	0.0075
Non-cancer illness code self-reported: ankylosing spondylitis	European	0.0751	0.4094	0.1834	8.55E-01	0.0014	0.0018	1.0103	0.0101	0.0057	0.0072
Medication for cholesterol blood pressure diabetes or take exogenous hormones: Cholesterol lowering medication	European	-0.0175	0.0971	-0.1803	8.57E-01	0.0489	0.0074	1.0370	0.0245	0.0097	0.0067
Non-cancer illness code self-reported: diabetes	European	0.0159	0.0930	0.1706	8.65E-01	0.0345	0.0028	1.0571	0.0157	0.0107	0.0075
Non-cancer illness code self-reported: back problem	European	0.0309	0.1910	0.1617	8.72E-01	0.0057	0.0017	0.9967	0.0096	-0.0035	0.0068
Diagnoses - main ICD10: R55 Syncope and collapse	European	0.0327	0.2096	0.1558	8.76E-01	0.0048	0.0015	1.0176	0.0095	0.0006	0.0071
Reason for glasses/contact lenses: For astigmatism	European	0.0282	0.1828	0.1545	8.77E-01	0.0078	0.0019	1.0359	0.0111	0.0058	0.0070
Diagnoses - main ICD10: K62 Other diseases of anus and rectum	European	-0.0288	0.1913	-0.1507	8.80E-01	0.0059	0.0018	0.9989	0.0105	-0.0016	0.0069
Non-cancer illness code self-reported: chronic obstructive airways disease/copd	European	0.0290	0.1954	0.1486	8.82E-01	0.0055	0.0017	0.9915	0.0088	-0.0043	0.0068

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Cancer code self-reported: prostate cancer	European	0.0273	0.1847	0.1480	8.82E-01	0.0058	0.0019	1.0196	0.0124	-0.0024	0.0069
Non-cancer illness code self-reported: gout	European	0.0173	0.1167	0.1478	8.83E-01	0.0251	0.0092	1.0004	0.0435	-0.0028	0.0079
Current employment status: In paid employment or self-employed	European	-0.0277	0.1892	-0.1466	8.84E-01	0.0064	0.0017	1.0281	0.0101	-0.0051	0.0073
Non-cancer illness code self-reported: sleep apnoea	European	0.0367	0.2552	0.1437	8.86E-01	0.0031	0.0018	1.0092	0.0110	-0.0022	0.0071
Cancer code self-reported: breast cancer	European	-0.0250	0.1750	-0.1427	8.87E-01	0.0077	0.0023	1.0419	0.0141	-0.0007	0.0068
Non-cancer illness code self-reported: emphysema/chronic bronchitis	European	0.0213	0.1586	0.1343	8.93E-01	0.0102	0.0019	0.9818	0.0110	0.0015	0.0071
Neck/shoulder pain for 3+ months	European	-0.0327	0.2465	-0.1324	8.95E-01	0.0154	0.0065	1.0156	0.0096	0.0027	0.0068
Vitamin and mineral supplements: Multivitamins +/- minerals	European	0.0137	0.1050	0.1300	8.97E-01	0.0233	0.0020	1.0115	0.0108	-0.0019	0.0078
Diagnoses - main ICD10: G56 Mononeuropathies of upper limb	European	0.0177	0.1408	0.1257	9.00E-01	0.0128	0.0022	1.0141	0.0119	-0.0092	0.0076
Exposure to tobacco smoke outside home	European	0.0128	0.1025	0.1245	9.01E-01	0.0338	0.0031	1.0071	0.0135	-0.0051	0.0076
Non-cancer illness code self-reported: hyperthyroidism/thyrotoxicosis	European	0.0216	0.1747	0.1237	9.02E-01	0.0091	0.0033	1.0077	0.0120	-0.0058	0.0072
Pulse wave reflection index	European	0.0149	0.1230	0.1214	9.03E-01	0.0535	0.0068	1.0082	0.0116	-0.0030	0.0075
Non-cancer illness code self-reported: bladder problem (not cancer)	European	0.0315	0.2677	0.1177	9.06E-01	0.0024	0.0014	1.0000	0.0091	0.0024	0.0066
Hearing aid user	European	0.0193	0.1672	0.1157	9.08E-01	0.0151	0.0032	1.0128	0.0107	0.0002	0.0075
Diagnoses - main ICD10: I25 Chronic ischaemic heart disease	European	0.0125	0.1103	0.1136	9.10E-01	0.0213	0.0028	1.0189	0.0119	0.0063	0.0070
Non-cancer illness code self-reported: osteoarthritis	European	0.0141	0.1245	0.1133	9.10E-01	0.0188	0.0023	1.0255	0.0126	-0.0099	0.0073
Impedance of leg (left)	European	0.0070	0.0626	0.1117	9.11E-01	0.2414	0.0114	1.1163	0.0371	0.0113	0.0113
Illnesses of mother: Chronic bronchitis/emphysema	European	-0.0163	0.1531	-0.1062	9.15E-01	0.0106	0.0021	1.0149	0.0107	0.0005	0.0065
Illnesses of siblings: Stroke	European	-0.0282	0.2683	-0.1049	9.16E-01	0.0040	0.0023	1.0100	0.0097	0.0000	0.0067
Vitamin and mineral supplements: None of the above	European	0.0083	0.0929	0.0891	9.29E-01	0.0290	0.0022	1.0033	0.0112	0.0021	0.0076
Wheeze or whistling in the chest in last year	European	-0.0072	0.0824	-0.0872	9.31E-01	0.0578	0.0042	1.0520	0.0177	-0.0049	0.0079
Handedness (chirality/laterality): Left-handed	European	-0.0128	0.1477	-0.0866	9.31E-01	0.0102	0.0021	1.0018	0.0111	0.0043	0.0071
Diagnoses - main ICD10: M20 Acquired deformities of fingers and toes	European	0.0104	0.1307	0.0792	9.37E-01	0.0108	0.0019	0.9857	0.0110	0.0079	0.0066
Diagnoses - main ICD10: D25 Leiomyoma of uterus	European	0.0162	0.2087	0.0775	9.38E-01	0.0047	0.0018	1.0041	0.0103	0.0033	0.0066
Diagnoses - main ICD10: E04 Other non-toxic goitre	European	0.0139	0.1797	0.0773	9.38E-01	0.0055	0.0016	0.9899	0.0097	0.0008	0.0066
Non-cancer illness code self-reported: crohn's disease	European	0.0185	0.2532	0.0730	9.42E-01	0.0035	0.0019	1.0155	0.0113	-0.0077	0.0073
Ever taken oral contraceptive pill	European	0.0106	0.1513	0.0701	9.44E-01	0.0175	0.0033	1.0203	0.0102	0.0035	0.0075
Current employment status: Looking after home and/or family	European	0.0121	0.1847	0.0656	9.48E-01	0.0064	0.0015	0.9965	0.0087	0.0059	0.0069
Non-cancer illness code self-reported: high cholesterol	European	0.0061	0.0985	0.0617	9.51E-01	0.0393	0.0075	1.0817	0.0491	0.0091	0.0086
Ever had prostate specific antigen (PSA) test	European	-0.0075	0.1325	-0.0570	9.55E-01	0.0346	0.0042	1.0006	0.0112	0.0013	0.0069
Diagnoses - main ICD10: S09 Other and unspecified injuries of head	European	0.0117	0.2122	0.0550	9.56E-01	0.0045	0.0019	0.9919	0.0107	-0.0032	0.0065
Breastfed as a baby	European	0.0060	0.1101	0.0544	9.57E-01	0.0234	0.0030	1.0334	0.0118	-0.0013	0.0073
Diabetes diagnosed by doctor	European	-0.0047	0.0871	-0.0534	9.57E-01	0.0410	0.0031	1.0689	0.0168	0.0108	0.0077

Trait	ethnicity	rg	SE	z	p	h2_obs	se	h2_int	se	gcov_int	se
Tinnitus: Yes but not now but have in the past	European	0.0094	0.2174	0.0432	9.66E-01	0.0150	0.0053	0.9976	0.0098	0.0052	0.0078
Pack years of smoking PREVIEW ONLY	European	0.0040	0.0976	0.0406	9.68E-01	0.1098	0.0122	1.0195	0.0139	0.0024	0.0077
Non-cancer illness code self-reported: eczema/dermatitis	European	-0.0061	0.1651	-0.0368	9.71E-01	0.0080	0.0026	1.0211	0.0107	0.0093	0.0068
Number of cigarettes previously smoked daily	European	-0.0030	0.1076	-0.0281	9.78E-01	0.0940	0.0166	1.0138	0.0132	-0.0033	0.0072
Mothers age at death	European	-0.0033	0.1301	-0.0257	9.80E-01	0.0255	0.0035	1.0248	0.0112	-0.0007	0.0074
Fractured bone site(s): Arm	European	-0.0055	0.2317	-0.0238	9.81E-01	0.0050	0.0016	0.9997	0.0092	-0.0020	0.0077
Diagnoses - main ICD10: F31 Bipolar affective disorder	European	-0.0050	0.2237	-0.0223	9.82E-01	0.0049	0.0016	0.9906	0.0089	0.0018	0.0069
Diagnoses - main ICD10: M17 Gonarthrosis [arthrosis of knee]	European	-0.0024	0.1395	-0.0175	9.86E-01	0.0140	0.0021	1.0042	0.0114	-0.0069	0.0083
Diagnoses - main ICD10: N81 Female genital prolapse	European	-0.0038	0.2213	-0.0174	9.86E-01	0.0053	0.0019	1.0360	0.0097	0.0056	0.0072
Medication for cholesterol blood pressure or diabetes: Insulin	European	-0.0028	0.2437	-0.0114	9.91E-01	0.0087	0.0039	1.0171	0.0110	0.0119	0.0068
Medication for cholesterol blood pressure or diabetes: None of the above	European	0.0011	0.1017	0.0104	9.92E-01	0.0849	0.0064	1.0550	0.0168	-0.0080	0.0088
Non-cancer illness code self-reported: polio / poliomyelitis	European	-0.0016	0.2508	-0.0066	9.95E-01	0.0028	0.0016	0.9903	0.0088	0.0055	0.0064

**eTable 12.** SNP Heritability estimates across varying analytical designs

All heritabilities are calculated using LDscore regression.  $h^2_{liab}$ = Heritability at the liability scale. SE= standard error for SNP heritability.  $k$ = prevalence used in the analysis.

<b>Design</b>	<b><math>h^2_{liab}</math></b>	<b>SE</b>	<b><math>k</math></b>
"Naïve"	0.2816	0.0267	0.2
Prevalence	0.2617	0.0278	0.2
Covariates	0.0813	0.0184	0.2
Covariates	0.0908	0.0205	0.3
Covariates	0.0960	0.0217	0.4
Covariates	0.0977	0.0221	0.5
Propensity	0.1316	0.0341	0.2
Propensity	0.1470	0.0381	0.3
Propensity	0.1555	0.0403	0.4
Propensity	0.1583	0.0410	0.5