

VA's Million Veteran Program Publications through May 2022



U.S. Department of Veterans Affairs

Veterans Health Administration Office of Research & Development

Publication Title	Journal	Year	PMID/Journal
Million Veteran Program: A mega-biobank to study genetic influences on health and disease	Journal of Clinical Epidemiology	2016	<u>26441289</u>
Exome-wide association study of plasma lipids in >300,000 individuals	Nature Genetics	2017	<u>29083408</u>
Validating harmful alcohol use as a phenotype for genetic discovery using phosphatidylethanol and a polymorphism in ADH1B	Alcoholism Clinical and Experimental Research	2017	<u>28295416</u>
Baseline Characterization and Annual Trends of Body Mass Index for a Mega Biobank Cohort of US Veterans 2011-2017	Journal of Health Research and Reviews	2018	JHRR
Prevalence of Ideal Cardiovascular Health Metrics in the Million Veteran Program	American Journal of Cardiology	2018	<u>29753396</u>
Alcohol Consumption and Risk of Coronary Artery Disease (From The Million Veteran Program)	American Journal of Cardiology	2018	<u>29580627</u>
DASH Score and Subsequent Risk of Coronary Artery Disease: The Findings From Million Veteran Program	Journal of the American Heart Association	2018	<u>29680824</u>
A phenotyping algorithm to identify acute ischemic stroke accurately from a national biobank: the Million Veteran Program	Clinical Epidemiology	2018	<u>30425582</u>
Effects of Genetic Variants Associated with Familial Hypercholesterolemia on Low-Density Lipoprotein Cholesterol Levels and Cardiovascular Outcomes in the Million Veteran Program	Circulation Genomics and Precision Medicine	2018	<u>31106297</u>
Genetics of blood lipids among ~300,000 multi-ethnic participants of the Million Veteran Program	Nature Genetics	2018	<u>30275531</u>
Genetic analysis of over 1 million people identifies 535 new loci associated with blood pressure traits	Nature Genetics	2018	<u>30224653</u>
Association of Interleukin 6 Receptor Variant With Cardiovascular Disease Effects of Interleukin 6 Receptor Blocking Therapy: A Phenome-Wide Association Study	JAMA Cardiology	2018	<u>30090940</u>
Longitudinal drinking patterns and their clinical correlates in Million Veteran Program participants	Alcoholism Clinical and Experimental Research	2018	<u>30592535</u>

AUDIT-C and ICD codes as phenotypes for harmful alcohol use: Association with ADH1B polymorphisms in two US populations	Addiction	2018	<u>29972609</u>
Using DNA methylation to validate an electronic medical record phenotype for smoking	Addiction Biology	2018	<u>30284751</u>
Genomics of Posttraumatic Stress Disorder in Veterans: Methods and Rationale for Veterans Affairs Cooperative Study #575B	International Journal of Methods in Psychiatric Research	2019	<u>30767326</u>
Validation of an Electronic Medical Record-Based Algorithm for Identifying Posttraumatic Stress Disorder in US Veterans	Journal of Traumatic Stress	2019	<u>31009556</u>
Genomewide Association Study of Maximum Habitual Alcohol Intake in >140,000 US European- and African-American Veterans Yields Novel Risk Loci	Biological Psychiatry	2019	<u>31151762</u>
Genomewide Association Study of Posttraumatic Stress Disorder Re-Experiencing Symptoms in >165,000 US Veterans Yields New Biological Knowledge	Nature Neuroscience	2019	<u>31358989</u>
International meta-analysis of PTSD genome-wide association studies identifies sex- and ancestry-specific genetic risk loci	Nature Communications	2019	<u>31594949</u>
High-throughput Multimodal Automated Phenotyping (MAP) with Application to PheWAS	Journal of the American Medical Informatics Association	2019	JAMIA
Gender Differences in Demographic and Health Characteristics of the Million Veteran Program Cohort	Women's Health Issues	2019	<u>31253243</u>
Fried Food Consumption and Risk of Coronary Artery Disease: The Million Veteran Program	Clinical Nutrition	2019	<u>31279615</u>
Omega-3 supplement use, fish intake, and risk of non-fatal coronary artery disease and	Clinical Nutrition	2019	<u>30914216</u>
Association of APOL1 Risk Alleles with Cardiovascular Disease in African Americans in the Million Veteran Program	Circulation	2019	<u>31337231</u>
Trans-ethnic association study of blood pressure determinants in over 750,000 individuals	Nature Genetics	2019	<u>30578418</u>
Genome-wide association study of peripheral artery disease in the Million Veteran Program	Nature Medicine	2019	<u>31285632</u>
Genomic and Transcriptomic Association Studies Identify 16 Novel Susceptibility Loci for Venous Thromboembolism	Blood	2019	<u>31420334</u>
Harmonizing genetic ancestry and self-identified race/ethnicity in genome-wide association studies	American Journal of Human Genetics	2019	<u>31564439</u>
Mapping eGFR loci to the renal transcriptome and phenome in the VA Million Veteran Program	Nature Communications	2019	<u>31451708</u>

Genome-wide association analysis of venous thrombœmbolism identifies new risk loci and genetic overlap with arterial vascular disease	Nature Genetics	2019	<u>5395047</u>
Genome-Wide Association Study of Apparent Treatment-Resistant Hypertension in the CHARGE Consortium: The CHARGE Pharmacogenetics Working Group	American Journal of Hypertension	2019	<u>31545351</u>
Genome-wide association meta-analyses and fine-mapping elucidate pathways influencing albuminuria	Nature Communication	2019	<u>31511532</u>
Target genes, variants, tissues and transcriptional pathways influencing human serum urate levels	Nature Genetics	2019	<u>31578528</u>
A catalog of genetic loci associated with kidney function from analyses of a million individuals	Nature Genetics	2019	<u>31152163</u>
Genome-wide association study of alcohol consumption and use disorder in 274,424 individuals from multiple populations	Nature Communications	2019	<u>30940813</u>
Genetically-guided algorithm development and sample size optimization for age-related macular degeneration cases and controls in electronic health records from the VA Million Veteran Program	AMIA Joint Summits on Translational Science Proceedings	2019	<u>31258967</u>
Genome-Wide Association Studies of Schizophrenia and Bipolar Disorder in a Diverse Cohort of US Veterans	Schizophrenia Bulletin	2020	<u>33169155</u>
Reproducible Genetic Risk Loci for Anxiety: Results From ~200,000 Participants in the Million Veteran Program	The American Journal of Psychiatry	2020	<u>31906708</u>
Standardized Architecture for a Mega-Biobank Phenomic Library: The Million Veteran Program (MVP)	American Medical Informatics Association (AMIA) – Joint Summits on Translational Science proceedings	2020	<u>32477652</u>
JSONize: A Scalable Machine Learning Pipeline to Model Medical Notes as Semi-structured Documents	American Medical Informatics Association (AMIA) – Joint Summits on Translational Science proceedings	2020	<u>32477675</u>
PCSK9 loss of function is protective against extra-coronary atherosclerotic cardiovascular disease in a large multi-ethnic cohort	PLoS One	2020	<u>33166319</u>
The relationship between circulating lipids and breast cancer risk: A Mendelian randomization study	PLoS Medicine	2020	<u>32915777</u>
Egg consumption and risk of coronary artery disease in the Million Veteran Program	Clinical Nutrition	2020	<u>31902601</u>
Genetic determinants of increased body mass index mediate the effect of smoking on increased risk for type 2 diabetes risk but not coronary artery disease	Human Molecular Genetics	2020	<u>32833022</u>

Mendelian Randomization Analysis of Hemostatic Factors and Their Contribution to Peripheral Artery Disease	AHA Arteriosclerosis, Thrombosis, & Vascular Biology	2020	<u>32847391</u>
Chromosome 1q21.2 and additional loci influence risk of spontaneous coronary artery dissection and myocardial infarction	Nature Communications	2020	<u>32887874</u>
Genetic predisposition to smoking in relation to 14 cardiovascular diseases	European Heart Journal	2020	<u>32300774</u>
Genetic Architecture of Abdominal Aortic Aneurysm in the Million Veteran Program	Circulation	2020	<u>32981348</u>
Validating a non-invasive, ALT-based non-alcoholic fatty liver phenotype in the million veteran program	PLoS One	2020	<u>32841307</u>
Discovery of 318 new risk loci for type 2 diabetes and related vascular outcomes among 1.4 million participants in a multi- ancestry meta-analysis	Nature Genetics	2020	<u>32541925</u>
Association of OPRM1 Functional Coding Variant With Opioid Use Disorder: A Genome-Wide Association Study	JAMA Psychiatry	2020	<u>32492095</u>
Genome-wide association study of smoking trajectory and meta- analysis of smoking status in 842,000 individuals	Nature Communications	2020	<u>33082346</u>
Genome-wide meta-analysis of problematic alcohol use in 435,563 individuals yields insights into biology and relationships with other traits	Nature Neuroscience	2020	<u>32451486</u>
Novel Risk Loci in Tinnitus and Causal Inference With Neuropsychiatric Disorders Among Adults of European Ancestry	JAMA Otolaryngology - Head & Neck Surgery	2020	<u>32970095</u>
Genotyping Array Design and Data Quality Control in the Million Veteran Program	American Journal of Human Genetics	2020	<u>32243820</u>
Minority-centric meta-analyses of blood lipid levels identify novel loci in the Population Architecture using Genomics and Epidemiology (PAGE) study	PLOS Genetics	2020	<u>32226016</u>
A missense variant in Mitochondrial Amidoxime Reducing Component 1 gene and protection against liver disease	PLOS Genetics	2020	<u>32282858</u>
The Polygenic and Monogenic Basis of Blood Traits and Diseases	Cell Press	2020	32888494
Trans-ethnic and Ancestry-Specific Blood-Cell Genetics in 746,667 Individuals from 5 Global Populations	Cell Press	2020	<u>32888493</u>
Genome-wide association analyses of post-traumatic stress disorder and its symptom subdomains in the Million Veteran Program	Nature Genetics	2021	<u>33510476</u>

The Structure of Relationships between the Human Exposome and Cardiometabolic Health: The Million Veteran Program	Nutrients	2021	<u>33921792</u>
Racial and Ethnic Disparities in U.S. Veteran Health Characteristics	International Journal of Environmental Research and Public Health	2021	<u>33801200</u>
Consumption of potatoes and incidence rate of coronary artery disease: The Million Veteran Program	Clinical Nutrition ESPEN	2021	<u>33745578</u>
Associations of biogeographic ancestry with hypertension traits	Journal of Hypertension	2021	33534346
Urate, Blood Pressure, and Cardiovascular Disease: Evidence From Mendelian Randomization and Meta-Analysis of Clinical Trials	Hypertension	2021	<u>33356394</u>
Genetics of Smoking and Risk of Atherosclerotic Cardiovascular Diseases: A Mendelian Randomization Study	JAMA Network Open	2021	<u>33464320</u>
Multi-trait association studies discover pleiotropic loci between Alzheimer's disease and cardiometabolic traits	Alzheimer's Research & Therapy	2021	<u>33541420</u>
Actionable druggable genome-wide Mendelian randomization identifies repurposing opportunities for COVID-19	Nature Medicine	2021	<u>33837377</u>
Analysis of genetic and clinical factors associated with buprenorphine response	Drug Alcohol Depend	2021	<u>34488071</u>
Chocolate consumption and risk of coronary artery disease: the Million Veteran Program	Am J Clin Nutr	2021	<u>34483344</u>
Polygenic Breast Cancer Risk for Women Veterans in the Million Veteran Program	JCO Precis Oncol	2021	<u>34381935</u>
Hearing loss and tinnitus: association studies for complex-hearing disorders in mouse and man	Hum Genet	2021	<u>34318347</u>
Associations of Genetically Predicted Lp(a) (Lipoprotein [a]) Levels With Cardiovascular Traits in Individuals of European and African Ancestry	Circ Genom Precis Med	2021	<u>34282949</u>
Discovery and prioritization of variants and genes for kidney function in >1.2 million individuals	Nature Communications	2021	<u>34272381</u>
Regulatory variants in TCF7L2 are associated with thoracic aortic aneurysm	American Journal of Human Genetics	2021	<u>34265237</u>
Cooperative Studies Program (CSP) #572: A Study of Serious Mental Illness in Veterans as a Pathway to personalized medicine in Schizophrenia and Bipolar Illness	Personalized Medicine in Psychiatry	2021	<u>34222732</u>

Genomics of Gulf War Illness in U.S. Veterans Who Served during the 1990-1991 Persian Gulf War: Methods and Rationale for Veterans Affairs Cooperative Study #2006	Brain Sciences	2021	<u>34202057</u>
Association of Apparent Treatment-Resistant Hypertension With Differential Risk of End-Stage Kidney Disease Across Racial Groups in the Million Veteran Program	Hypertension	2021	<u>34148359</u>
Potential causal effect of posttraumatic stress disorder on alcohol use disorder and alcohol consumption in individuals of European descent: A Mendelian Randomization Study	Alcoholism, Clinical and Experimental Research	2021	<u>34120358</u>
Psychological trauma and the genetic overlap between posttraumatic stress disorder and major depressive disorder	Psychological Medicine	2021	<u>34085609</u>
Association of the transthyretin variant V122I with polyneuropathy among individuals of African ancestry	Scientific Reports	2021	<u>34079032</u>
Metabolic Traits and Stroke Risk in Individuals of African Ancestry: Mendelian Randomization Analysis	Stroke	2021	<u>34078102</u>
Bi-ancestral depression GWAS in the Million Veteran Program and meta-analysis in >1.2 million individuals highlight new therapeutic directions	Nature Neuroscience	2021	<u>34045744</u>
Dietary yogurt is distinct from other dairy foods in its association with circulating lipid profile: Findings from the Million Veteran Program	Clinical Nutrition ESPEN	2021	<u>34024555</u>
Phenome-wide association of 1809 phenotypes and COVID-19 disease progression in the Veterans Health Administration Million Veteran Program	PLoS One	2021	<u>33984066</u>
Genetic analysis in European ancestry individuals identifies 517 loci associated with liver enzymes	Nature Communications	2021	<u>33972514</u>
Association Between Genetic Variation in Blood Pressure and Increased Lifetime Risk of Peripheral Artery Disease	Arterioscler Thromb and Vasc Biol	2021	<u>33853351</u>
COVID-19 Insights Partnership: Leveraging big data from the Department of Veterans Affairs and supercomputers at the Department of Energy under the public health authority	JAMIA	2021	<u>33779710</u>
Attachment Style Moderates Polygenic Risk for Posttraumatic Stress in United States Military Veterans: Results From the National Health and Resilience in Veterans Study	Biological Psychiatry	2021	<u>33276944</u>
Leisure time physical activity, sedentary behavior, and risk of cardiovascular disease and mortality among US Veterans	J Nov Physiother Phys Rehabil	2021	<u>35098260</u>

Attachment Style Moderates Polygenic Risk for Incident Posttraumatic Stress in U.S. Military Veterans: A 7-Year, Nationally Representative, Prospective Cohort Study	Biol Psychiatry	2021	<u>34955171</u>
Characterization of Million Veteran Program (MVP) enrollees with Comprehensive Traumatic Brain Injury Evaluation (CTBIE) data: An analysis of neurobehavioral symptoms	J Psychiatr Res	2021	<u>34942434</u>
The power of genetic diversity in genome-wide association studies of lipids	Nature	2021	<u>34887591</u>
Enhancing Discovery of Genetic Variants for Posttraumatic Stress Disorder Through Integration of Quantitative Phenotypes and Trauma Exposure Information	Biol Psychiatry	2021	<u>34865855</u>
Dissecting the Shared Genetic Architecture of Suicide Attempt, Psychiatric Disorders, and Known Risk Factors	Biol Psychiatry	2021	<u>34861974</u>
Trellis for efficient data and task management in the VA Million Veteran Program	Sci Rep	2021	<u>34853358</u>
Development and Evaluation of a Rules-based Algorithm for Primary Open-Angle Glaucoma in the VA Million Veteran Program	Ophthalmic Epidemiol	2021	<u>34822319</u>
Clinical knowledge extraction via sparse embedding regression (KESER) with multi-center large scale electronic health record data	NPJ Digit Med	2021	<u>34707226</u>
A statistical quality assessment method for longitudinal observations in electronic health record data with an application to the VA million veteran program	BMC Med Inform Decis Mak	2021	<u>34670548</u>
Use of the PsycheMERGE Network to Investigate the Association Between Depression Polygenic Scores and White Blood Cell Count	JAMA Psychiatry	2021	<u>34668925</u>
Genetic liability for substance use associated with medical comorbidities in electronic health records of African- and European- ancestry individuals	Addict Biol	2021	<u>34611967</u>
Disentangling sex differences in the shared genetic architecture of posttraumatic stress disorder, traumatic experiences, and social support with body size and composition	Neurobiol Stress	2021	<u>34611531</u>
Association of Nut Consumption with Risk of Stroke and Cardiovascular Disease: The Million Veteran Program	Nutrients	2021	<u>34578913</u>
A Missense Variant in the IL-6 Receptor and Protection From Peripheral Artery Disease	Circ Res	2021	<u>34547901</u>
Analysis of genetic and clinical factors associated with buprenorphine response	Drug Alcohol Depend	2021	<u>34488071</u>

Associations of Genetically Predicted Lp(a) (Lipoprotein [a]) Levels With Cardiovascular Traits in Individuals of European and African Ancestry	Circ Genom Precis Med	2021	<u>34282949</u>
Association of Apparent Treatment-Resistant Hypertension With Differential Risk of End-Stage Kidney Disease Across Racial Groups in the Million Veteran Program	Hypertension	2021	<u>34148359</u>
Potential causal effect of posttraumatic stress disorder on alcohol use disorder and alcohol consumption in individuals of European descent: A Mendelian Randomization Study	Alcohol Clin Exp Res	2021	<u>34120358</u>
Metabolic Traits and Stroke Risk in Individuals of African Ancestry: Mendelian Randomization Analysis	Stroke	2021	<u>34078102</u>
A genome-wide association study of suicide attempts in the million veterans program identifies evidence of pan-ancestry and ancestry-specific risk loci	Mol Psychiatry	2022	<u>35347246</u>
Lipid traits and type 2 diabetes risk in African ancestry individuals: A Mendelian Randomization study	EBioMedicine	2022	<u>35325778</u>
Degree of Adherence to Based Diet and Total and Cause-Specific Mortality: Prospective Cohort Study in the Million Veteran Program	Public Health Nutr	2022	<u>35307047</u>
Development of a polygenic risk score to improve detection of peripheral artery disease	Vascular Medicine	2022	<u>35287516</u>
Dietary Sodium and Potassium Intake and Risk of Non-Fatal Cardiovascular Diseases: The Million Veteran Program	Nutrients	2022	<u>35268096</u>
Genetically regulated multi-omics study for symptom clusters of posttraumatic stress disorder highlights pleiotropy with hematologic and cardio-metabolic traits	Molecular Psychiatry	2022	<u>35241783</u>
Genetic and clinical determinants of abdominal aortic diameter: genome-wide association studies, exome array data and Mendelian randomization study	Human Molecular Genetics	2022	<u>35234888</u>
Genetic Loci Associated With COVID-19 Positivity and Hospitalization in White, Black, and Hispanic Veterans of the VA Million Veteran Program	Frontiers in Genetics	2022	<u>35222515</u>
Coronary Artery Disease Risk of Familial Hypercholesterolemia Genetic Variants Independent of Clinically Observed Longitudinal Cholesterol Exposure	Circulation Genomic and Precision Medicine	2022	<u>35143253</u>
Transcriptome-wide association study in UK biobank Europeans identifies associations with blood cell traits	Human Molecular Genetics	2022	<u>35138379</u>
Genome-wide meta-analysis of alcohol use disorder in East Asians	Neuropsychopharmacology	2022	<u>35094024</u>

Dissecting the Shared Genetic Architecture of Suicide Attempt, Psychiatric Disorders, and Known Risk Factors	Biological Psychiatry	2022	<u>34861974</u>
Genetic liability for substance use associated with medical comorbidities in electronic health records of African- and European- ancestry individuals	Addiction Biology	2022	<u>34611967</u>
Genome-wide and phenome-wide analysis of ideal cardiovascular health in the VA Million Veteran Program	PLoS One	2022	<u>35613103</u>
The Interrelationship of Tinnitus and Hearing Loss Secondary to Age, Noise Exposure, and Traumatic Brain Injury	Ear and hearing	2022	<u>35612496</u>
Integration of rare expression outlier-associated variants improves polygenic risk prediction	American Journal of Human Genetics	2022	<u>35588732</u>
A case for developing domain-specific vocabularies for extracting suicide factors from healthcare notes	Journal of Psychiatric Research	2022	<u>35533516</u>
Subjective cognitive and psychiatric well-being in U.S. Military Veterans screened for deployment-related traumatic brain injury: A Million Veteran Program Study	Journal of Psychiatric Research	2022	<u>35483132</u>
A Phenome-Wide Association Study of genes associated with COVID-19 severity reveals shared genetics with complex diseases in the Million Veteran Program	PLoS Genetics	2022	<u>35482673</u>
Million Veteran Program's response to COVID-19: Survey development and preliminary findings	PLoS One	2022	<u>35468170</u>
Integrating human brain proteomes with genome-wide association data implicates novel proteins in post-traumatic stress disorder	Molecular Psychiatry	2022	<u>35449297</u>
Binary acronym disambiguation in clinical notes from electronic health records with an application in computational phenotyping	Internal journal of medical informatics	2022	<u>35405530</u>
A genome-wide association study of suicide attempts in the million veterans program identifies evidence of pan-ancestry and ancestry-specific risk loci	Molecular Psychiatry	2022	<u>35347246</u>
Coronary Artery Disease Risk of Familial Hypercholesterolemia Genetic Variants Independent of Clinically Observed Longitudinal Cholesterol Exposure	Circular, Genomic and precision medicine	2022	<u>35143253</u>
APOL1 Risk Variants, Acute Kidney Injury, and Death in Participants With African Ancestry Hospitalized With COVID-19 From the Million Veteran Program	JAMA Internal Medicine	2022	<u>35089317</u>
Attachment Style Moderates Polygenic Risk for Incident Posttraumatic Stress in U.S. Military Veterans: A 7-Year, Nationally Representative, Prospective Cohort Study	Biological Psychiatry	2022	<u>34955171</u>

Enhancing Discovery of Genetic Variants for Posttraumatic S Disorder Through Integration of Quantitative Phenotypes and Trauma Exposure Information		2022	<u>34865855</u>
Hearing loss and tinnitus: association studies for complex-he disorders in mouse and man	aring Human Genetics	2022	<u>34318347</u>