

MILLION VETERAN PROGRAM

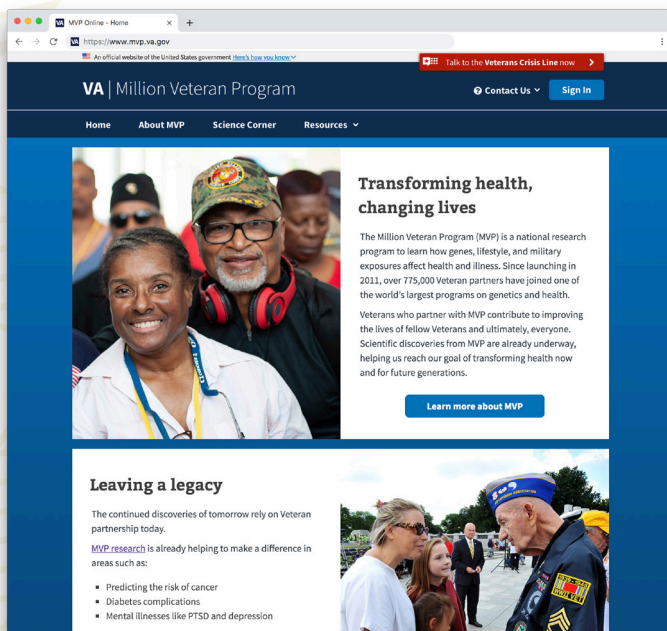
MVP Insider

A newsletter for Million Veteran Program partners

Issue 7 | Fall 2019

Thank you to all 800,000 Veterans now in MVP!

What a year for MVP! Thanks to you, we are well on our way to meet our goal of one million Veteran partners. This newsletter shares MVP 2019 highlights, including some very exciting news:



Visit MVP Online today at mvp.va.gov.

MVP is Online!

If you are reading this newsletter on your computer, tablet, or phone you already know the big news—MVP Online launched!

“We’re giving Veterans access to MVP in a whole new way,” explains Senior Program Manager for MVP Online, Sybil Murphy, M.P.H. MVP’s new mobile-friendly website offers options for how to learn more about the program and how to stay connected.

“MVP Online was developed with Veterans, for Veterans. We will continue making changes based on Veteran feedback,” Murphy explains. MVP partners can now sign-in online to view their MVP enrollment status on a personalized dashboard, schedule an MVP visit in real-time, and complete MVP surveys—all online!

“Veterans can now do absolutely everything online, except for specimen collection,” says Murphy. “It allows Veterans to take ownership of their partnership with MVP.” Within the first month of launching MVP Online, close to 2,000 people visited the site from 49 states, and over 100 Veterans joined online!

The MVP Info Center supports online users between 8 a.m.–6 p.m. (ET) Monday-Friday at 866-441-6075. “Live chat” is planned for the future, and smart “FAQs” (searchable answers to frequently asked questions) are available now.

Also in this issue:

- Who’s in MVP?
- MVP Data
- New Eligibility Criteria
- New Projects Published
- Outreach Events
- Survey News

Dear MVP Partners,

It has been a momentous year for MVP. On behalf of the VA Office of Research and Development and the MVP staff, we congratulate each and every one of you. Thanks to you, we are now the largest health-system-based cohort in the world.

Much has happened in MVP since our last newsletter. In May, we passed the 750,000 mark. In August, we launched MVP Online. We are continuing our partnership with the Department of Energy and now have access to the biggest computers in the world. We are continuing our collaboration with the Department of Defense to enhance our recruitment efforts to include as many partners as possible.

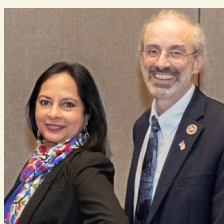
Today, as we stand tall on the foundation of our successes, our initial goal of one million is well within sight. We are already beginning to see the fruits of your contributions to MVP. Thirty teams of VA researchers are working with our university and federal colleagues to improve the health of Veterans through a better understanding of diseases that affect Veterans. Early results are pointing to new genetic factors that may play a role in heart disease, chronic kidney disease, PTSD, and substance use disorders, among others. Importantly, because of the large numbers of minority participants in MVP, some

of these new genetic factors were found specifically in Africans Americans and in Hispanics and had not been discovered until now. More research is needed to validate these findings and potentially develop new treatments or biomarkers from them, but we are off to a good start.

As we reflect upon our journey from the humble beginnings of MVP over a decade ago, one thing stands out above all—your altruism and your desire to help improve healthcare for all Veterans and mankind. For that, we are indebted to you. Veterans Health Administration Executive in Charge, Dr. Richard Stone, (US Army, retired) has joined you as an enrollee in the mission to improve the health of Veterans and all Americans.

On behalf of the entire MVP team, we want to sincerely thank you again for your generosity and willingness to serve again. We are honored to be a part of this journey with you and look forward to celebrating the grand milestone of one million enrollees in the near future.

Together we are changing the world.

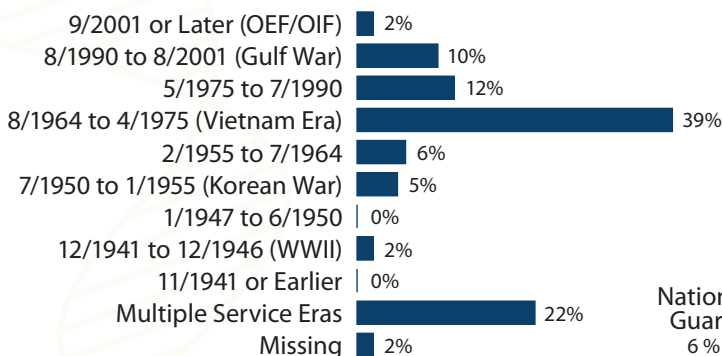


Sumitra Muralidhar, Ph.D.
Director, MVP, VA Office of Research and Development, Washington, DC

J. Michael Gaziano, M.D., M.P.H.
Principal Investigator, MVP, VA Boston Healthcare System

Who's in MVP?

By Service Era

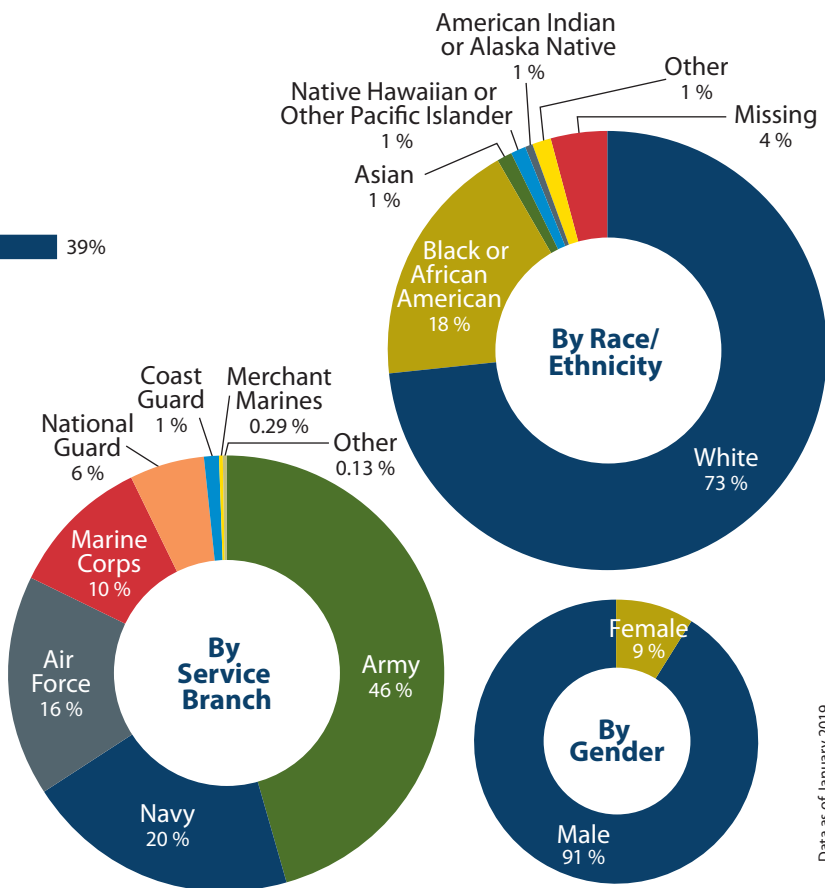


Top 5 Conditions for Men

Hypertension (39.6%), High Cholesterol (35.0%), Tinnitus (21.9%), Hearing Loss (20.0%), Acid Reflux/GERD (20.6%)

Top 5 Conditions for Women

Depression (27.1%), Hypertension (22.7%), High Cholesterol (22.7%), Acid Reflux/GERD (21.3%), Anxiety Reaction/Panic Disorder (17.8%)



Data as of January 2019.



Veterans Health Administration Executive in Charge, Richard A. Stone, M.D., joins the Million Veteran Program with the help of National Program Coordinator, Sandhya Subramanian.

MVP teams help Veterans join

Throughout the US, nearly 300 VA employees help with recruitment and enrollment for MVP at more than 60 flagship locations. “The MVP site teams are our ‘boots on the ground,’” says Program Director for MVP Recruitment and Enrollment, Stacey Whitbourne, Ph.D. “They go to lobbies in VA facilities to spread the word about MVP.”

In addition to conducting recruitment and outreach, site teams help Veteran partners join MVP. They work with Veterans to make sure they understand all aspects of joining MVP, conduct the consent process, and help get blood samples.

“They do everything,” explains Whitbourne. “They’re a real renaissance group. We have so many team members across the country who are committed to MVP. They’re always engaged and always looking for new opportunities to spread the word about the program.”

Whitbourne specifically cited the work of MVP site teams at the VA Palo Alto Health Care System and the Leavenworth VA Medical Center. These team members have worked closely with their affiliated outpatient clinics across Northern California and Kansas to establish a recruitment and enrollment presence at as many locations as possible. Palo Alto currently operates at seven outpatient clinics and Leavenworth at six. This is despite the fact that some of the clinics are hours away from the main VA facilities.

“We are incredibly indebted to all our MVP site teams for the work they do each and every day,” concludes Whitbourne. “We think of ourselves as a family with the shared goal of helping improve the lives of Veterans.”

MVP Outreach Events

Summer is the season of picnics, cookouts, beaches, baseball—and Veterans Service Organization conventions! Tens of thousands of Veterans attend these annual conferences to connect with fellow Veterans, explore new cities, and have a great time!

Anywhere large groups of Veterans gather, MVP is there to offer the convenience of enrolling on site. This year, thousands of Veterans learned about MVP at a number of conventions and national meetings:

April

- Military Officers of America Association National Convention, Arlington, VA

June

- VA Acquisition Academy, Frederick, MD

July

- Vietnam Veterans of America National Convention, Spokane, WA
- Veterans of Foreign Wars 120th National Convention, Orlando, FL

August

- Disabled American Veterans National Convention, Orlando, FL
- Catholic War Veterans National Convention, San Antonio, TX
- American Veterans (AMVETS) National Convention, Louisville, KY
- New York State Fair, Syracuse, NY
- Women’s Army Corps Veterans Association, Dayton OH
- The American Legion 101st National Convention, Indianapolis, IN

September

- Big E Fair, Military Appreciation Day, Springfield, MA
- The Retired Enlisted Association of America, Louisville, KY
- National Minority Veteran Summit, Dallas, TX

October

- Association of the United States Army National Convention, Washington, DC

Surveying the landscape

One of the most important parts of MVP's partnership with Veterans is the completion and return of MVP surveys. In particular, the Baseline and Lifestyle Surveys are integral steps in the process.

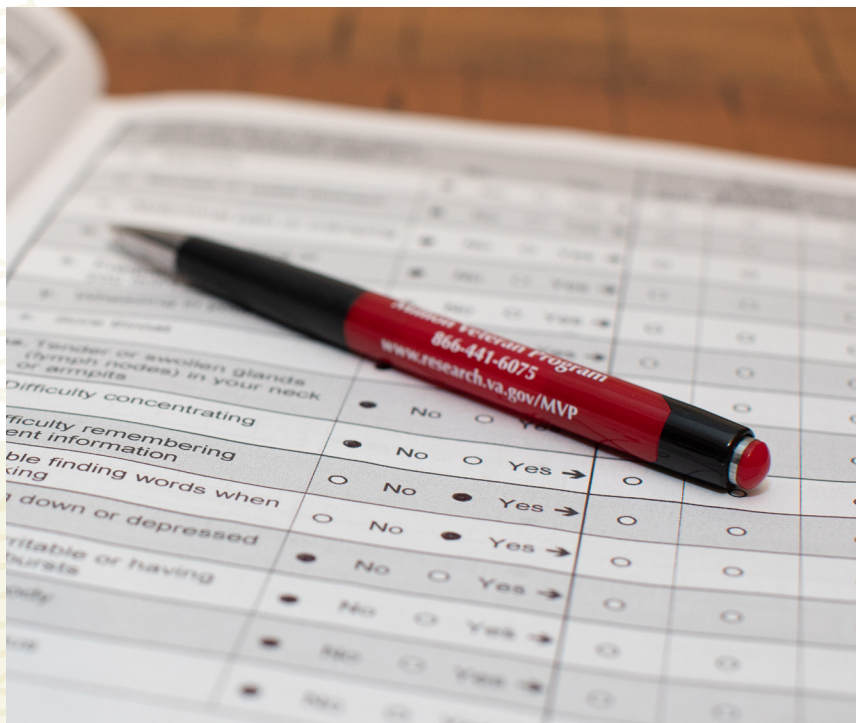
"The goal of MVP is to look at genetic risk factors for various diseases," explains Lead for MVP Data Operations, Sarah Preis, Sc.D., M.P.H. "Without the valuable information from surveys, we don't have a complete picture of our partners' lifestyle factors, diseases, and risk factors for illness."

Approximately 60% of MVP partners have completed the Baseline Survey and 39% have completed both the Baseline and Lifestyle Surveys. There are also more than 300,000 Veterans who have completed the Baseline Survey but have not yet finished joining.

Survey completion is essential to the success of MVP. If you have not yet completed an MVP survey or still need to finish joining, please go online (mvp.va.gov) or contact the MVP Info Center (866-441-6075, askmvp@va.gov).

Follow-Up Survey coming soon!

MVP plans to launch a Follow-Up Survey for Veterans who have been in the program for at least five years. The 8-page survey takes about 15 minutes to complete and has similar questions to the Baseline and Lifestyle Surveys. Responses will be used to evaluate how health and lifestyle changes over time impact MVP partners. When launched, surveys will be made available (via mail and online) on a routine basis to all MVP partners five years after their enrollment date.



Gulf War Era Survey continues

In addition to MVP's Baseline and Lifestyle Surveys, the program recently finished mailing its first specialized survey—a survey of MVP partners who served during the first Gulf War, between 1990 and 1991.

The Gulf War Era Survey was sent to all MVP partners who were in uniform during that time, not just to those who were deployed in support of the War. The survey is part of a project designed to support research into the genomics of chronic multisymptom illness (aka Gulf War Illness), a cluster of medically unexplained chronic symptoms that can include fatigue, headaches, joint pain, indigestion, insomnia, dizziness, respiratory disorders, and memory problems.

"One strength of MVP is the ability to use self-reported data from MVP surveys combined with information from other VA sources to determine their eligibility for these types of research opportunities," explains Program Director for MVP Recruitment and Enrollment, Stacey Whitbourne, Ph.D.

The survey was sent to approximately 110,000 partners in 2018 and early 2019. To date, almost 45,000 surveys have been returned—a "promising" 41% return rate, according to Whitbourne. "This was our first major re-contact effort and we're excited to continue adding information about our Veteran partners to make MVP as information rich as possible," Whitbourne continues, and "completed surveys are still coming in!"

If you have not yet completed an MVP survey please go online (mvp.va.gov) or contact the MVP Info Center for a mailed version (866-441-6075, askmvp@va.gov).



New eligibility criteria for MVP

Joining MVP is now possible for all Veterans, not only those who receive VA health care.

“The promise of MVP is to help all Veterans,” says Deputy Program Director for MVP Recruitment and Enrollment, Jessica Brewer, M.P.H. “There are millions of Veterans who don’t get their care from VA. We want to serve all of them. Expanding our eligibility criteria to make sure all Veterans can join is really important.”

Adding medical data and genetic information from Veterans who receive their health care from non-VA providers “will make MVP data more inclusive and more diverse, eventually resulting in better health care for all,” Brewer explains.

Program staff are also working on ways to access medical records from non-VA providers, an essential part of the MVP process. “We will be informing Veterans as we develop that process,” Brewer tells us. “We may need some Veterans to sign a form authorizing us to get health records from their providers.”

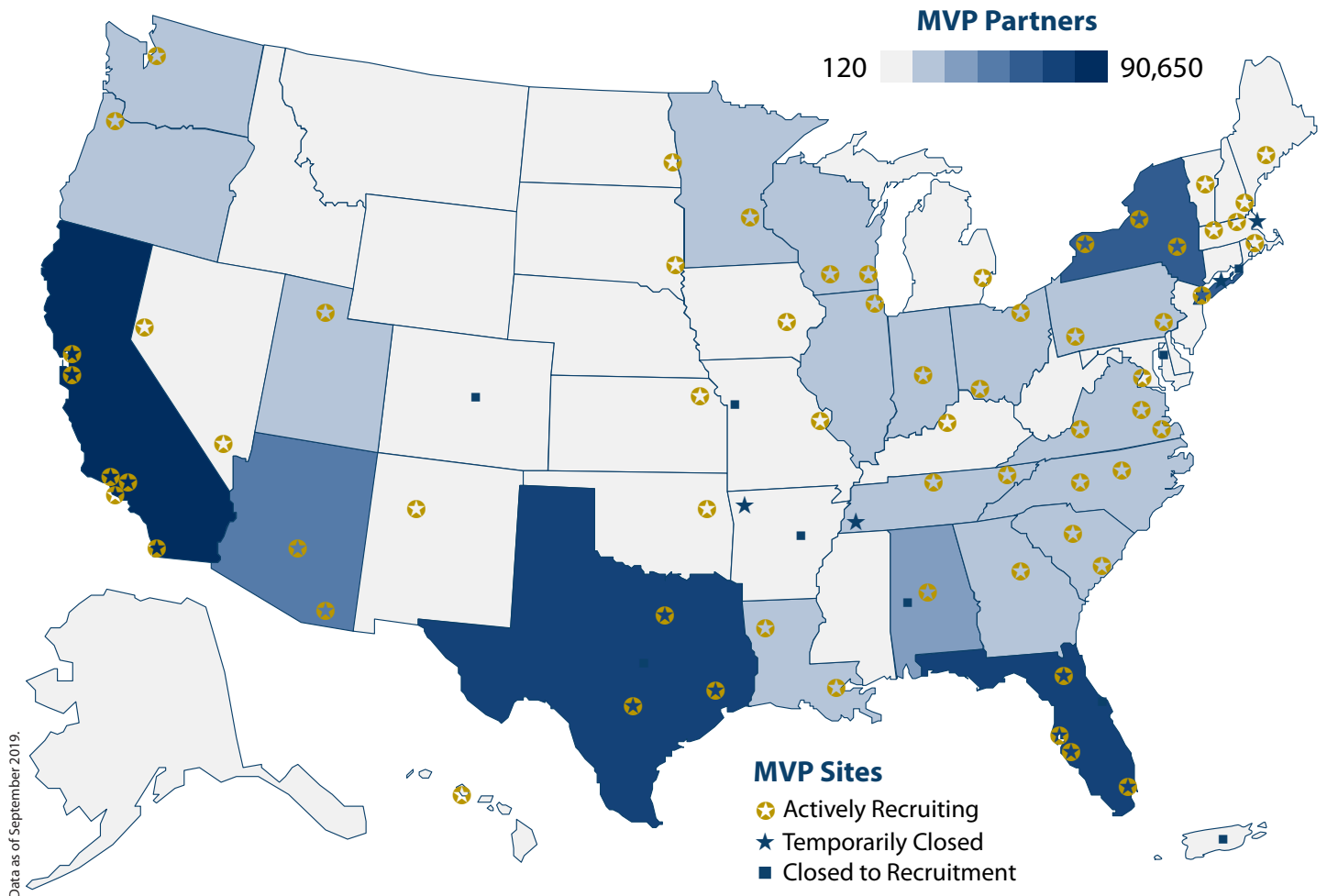
Withdrawal rules simplified

MVP has made it easier for Veterans who wish to withdraw from the program to do so.

“If a Veteran changes his or her mind, he or she just needs to call the MVP Info Center (866-441-6075), or walk into an MVP VA facility,” explains Brewer.

Previously, Veterans were required to sign a withdrawal form. The form is still available for those who wish to formally request withdrawal, and can be obtained either by calling the MVP Info Center or their nearest MVP VA facility. However, it is no longer necessary. A phone call or telling MVP staff in person will suffice. Regardless of how the withdrawal happens, all withdrawn Veterans receive a letter confirming they have withdrawn for their records.

MVP sites and partner locations





Helping research teams do their work

If an MVP research team is looking at the effects of smoking, how do they know whether the data they are reviewing is from a current or former smoker? It's easy enough to know if the participant filled out a Baseline and Lifestyle Survey—but what if they haven't?

There are other clues available if you know where to look. If a Veteran was prescribed a nicotine patch that's a good indication he or she smoked. Another clue would be a notation in VA's electronic health record that the Veteran attended a smoking cessation clinic. It's a difficult process that requires harmonizing data from a number of sources to get a clear picture. Most researchers don't have the time or skill set needed for this task—but MVP's Data Core team is here to help!

"Our job is to coordinate data for project teams to facilitate their research," explains Data Core Manager, Jacqueline Honerlaw, R.N., B.S.N., M.P.H. "We take the wide world of data available—VA data, data from non-VA

sources, registries prepared by other federal agencies, and medical record data, and try to harmonize them in a way that is usable by the researchers."

One of the most important aspects of the Data Core team's work is called phenotyping. Phenotyping is a way to define disease conditions using medical record data. For example, how do researchers define PTSD? "We'll do a chart review and see what characteristics in the medical record people with PTSD have in common," says Honerlaw. "Those characteristics are called phenotypes."

"When people are doing an MVP research project," Honerlaw concludes, "we want to help them finish that research project as efficiently as they can and help them get the most accurate results possible. We help them to do that, and once that's done, we share the information that's been developed with other MVP projects. It's all about expediting MVP research."

VA's Technology Transfer Program brings today's latest technology to Veterans

VA's Technology Transfer Program (TTP) makes inventions developed by VA researchers available to Veterans and the American public. Legislation passed in the 1980s authorizes government laboratories, such as those VA manages, to enter into agreements with outside parties to bring new technologies to market, and to use the income from those agreements to support further VA research and education.

"Often, our researchers need some outside help to develop products and then to bring their discoveries to the marketplace," explains Technology Transfer Specialist for MVP, Kip Bodi, J.D. "Veterans benefit by being able to use these discoveries. That's what the Tech Transfer Program does."

Bodi and his VA TTP colleagues review new technologies developed by MVP teams to see if they should be patented. They also market those technologies to private companies to see if those companies might be interested in developing products based on MVP discoveries.

"Finding commercial partners to invest in VA and create products and treatments based on these findings is essential to improving Veteran patient care," Bodi tells us.

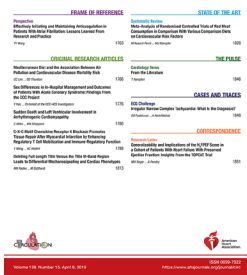
"The clinical trial process does take a while, so these advances are not going to happen next month or next year, but we'll get there eventually," he concludes. "We really want to take what's developed by MVP and bring it to market. Our researchers are great at making new discoveries, but what's really important is to get treatments out there to the marketplace to benefit Veterans."

Recently published MVP projects

MVP is in the initial phase of making data available from its 800,000 enrolled participants for genomic and epidemiological projects that inform and facilitate health care delivery. Data are currently available to VA investigators and VA-approved collaborators, who are supported by a current portfolio of approximately 30 projects.

“Thanks to the incredible altruism of our MVP partners, MVP researchers are analyzing a richness of health and genetic data from one of the world’s largest biobanks,” says Co-Principal Investigator for MVP, Christopher J. O’Donnell, M.D., M.P.H. “We will strive to translate discoveries into treatments and prevention strategies to treat and prevent disease and improve health in Veterans and their fellow Americans.”

Circulation



Links Between Chronic Kidney Disease and Cardiovascular Disease Explored in African Americans.

Gene variants associated with chronic kidney disease (CKD) specifically in African Americans have only a modest link to cardiovascular disease, according to a project led by researchers from the VA

Tennessee Valley Health Care System. The project, one of the largest in genetics to date examining the role of APOL1 in African American Veterans, was published in the July 24, 2019, issue of *Circulation*.



Gender Differences Among MVP Partners.

Gender differences in the MVP cohort were analyzed by VA Boston Healthcare researchers. As of June 2018, there were 654,903 MVP partners. The MVP Baseline Survey was completed by 415,694 Veterans, 8% of whom were women. Women were younger, more racially diverse, had

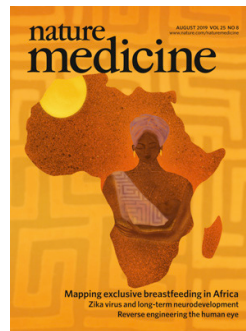
higher educational attainment, and were less likely to be married or cohabitating with a partner than men. Women were more likely to report good to excellent health status but poorer physical fitness, and were less likely to report lifetime smoking and drinking than men. The project is found in the June 2019 issue of *Women's Health*.



New Project to Identify Genes Related to PTSD.

Researchers are working to identify genes that increase the risk of PTSD to improve ways of detecting and treating the condition in the future. MVP data will be used to assemble and validate a project population of 20,000 combat-exposed participants—10,000

with PTSD and 10,000 without. Genetic analyses will identify genes associated with an increased risk of developing the condition. The methods and rationale for the project were described in the March 2019 issue of the *International Journal of Methods in Psychiatric Research*.



Genetic Markers for PAD Uncovered.

Peripheral artery disease (PAD) is a narrowing of the arteries serving the legs that can cause pain and difficulty walking and lead to ulcer formation, gangrene, and amputation. In the largest project of its kind, a research team from several institutions, including

the Corporal Michael J. Crescenz VA Medical Center in Philadelphia, explored the genetic characteristics of 31,300 MVP partners with the disease and identified 19 genetic markers for PAD, 18 of which had not been previously reported. The project appeared in the August 2019 edition of *Nature Medicine*.



200 Genes That Could Contribute to High Blood Pressure Identified.

One of the largest, international projects of its kind has used MVP data, along with data from collaborators, to identify more than 200 gene variants that could contribute to high blood pressure. Nearly 100 researchers worldwide contributed to the

project, including 24 VA researchers. It was published in the January 2019 issue of *Nature Genetics*.

For more information on how MVP research is helping to improve the lives of Veterans and humanity, please visit us online at mvp.va.gov.

Million Veteran Program

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Have questions? If you have any questions or would like to request MVP materials for distribution, please visit mvp.va.gov or contact the MVP Info Center toll-free at 866-441-6075 or by email at askmvp@va.gov.