

MVP Insider

A Newsletter for Million Veteran Program Participants



Thanks for Answering the Call

During his first address as president, former naval officer John F. Kennedy challenged Americans and the world to forge a grand alliance to assure a more fruitful life for all mankind by conquering "tyranny, poverty, disease, and war itself." Later in the same speech he issued what would become a famous call to Americans: "Ask not what your country can do for you, ask what you can do for your country."

As I write this note, I am struck by the fact that the more than 400,000 Veterans who have enrolled in the Million Veteran Program have answered both the call to arms, and the call to conquer disease. These MVP volunteers constitute a powerful force that is larger than the Air Force, Navy, Marines, or Coast Guard, and that will soon exceed the active-duty strength of the Army. These men and women, of all ages, are giving of themselves so that their fellow Veterans, their children, and their grandchildren will have better lives.

I am proud to work with you in this effort, both as a VA employee and as a participant in MVP, because I am certain that together we will make the world better, and that we are answering Kennedy's challenge. As he said, "The energy, the faith, the devotion which we bring to this endeavor will light our country and all who serve it—and the glow from that fire can truly light the world."



Timothy J. O'Leary, M.D., Ph.D.

The gift that you have given is being used by VA and academic scientists nationwide to find treatments and cures for diseases from which our fellow Veterans and our families suffer—diseases ranging from PTSD and Gulf War Illness to bipolar disorder, diabetes, heart and kidney disease, and addictions. This gift will make life better for millions.

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MVP Staff and Volunteers: Helping Veterans On and Off the Battlefield

Beatrice "Bea" Chakraborty served as a civilian with the U.S. Army's 25th Infantry Division in Cu Chi Vietnam and provided a comprehensive recreation program for enlisted troops, but that's only part of her story. She was in a war zone and endured many of the hardships of the people who lived there with her.

"I wasn't spared the full shock of the environmental and emotional events which the troops experienced, including rocket attacks, mortar barrages, flying shrapnel, long hours in red monsoon mud, dusty heat, humongous

mosquitos, spending nights in sandbagged bunkers, especially during the Tet Offensive in 1968," Bea said.

Recently, Bea was part of an esteemed group of Vietnamera female Veterans who were recognized for their civilian service in Vietnam by a local chapter of the Daughters of the American Revolution. "That warm and gracious acknowledgment was perhaps the first time I have ever publically allowed myself to feel proud that I may have made a difference in the lives of some of today's Veterans, decades ago," Bea said. In Vietnam, "I often found myself comforting soldiers, in their times of grief and suffering,

with songs and prayers we composed together to keep up their spirits. I had uncles who served in Korea, and my son is a Persian Gulf Vet. I am honored and enjoy working with and for Veterans because I feel spiritually connected to them," Bea said.

Bea said she wishes more people knew that "the Million Veteran Program is one of the very few genetic research studies designed just for Veterans who want to help improve the health care of future Veterans—my mantra for it is, paying it forward."

Almost 40 years later, in 2006, Cliff Hudson served in Balad, Iraq, with the Marines. Cliff

was an infantryman, and infantrymen patrolled the streets in and around Balad during a time of extreme violence and civil unrest brought about after Saddam Hussein was removed from power. It was a difficult time for everyone there, he recalls, as coalition forces tried to keep the peace while insurgents stirred up sectarian violence to drive a wedge between the government and the Shia and Sunni Iraqis who once lived in harmony.

harmony.

"I joined to help, to better the U.S. and to better life for the people of Iraq. I just wanted to do whatever I could to help as many people as possible from what looked to be a pretty

reprehensible situation," Cliff said.

On 9/11 Cliff was a junior in college studying psychology. He wanted to join the military but



Beatrice "Bea" Chakraborty, clinical research psychologist and MVP research coordinator, VA Pittsburgh Healthcare System.

he promised his mother that he would finish college before doing anything else; he kept that promise—and then he swore an oath to the nation.

"The attacks on September 11th happened while I was finishing college, so once I graduated and the discussion turned to Iraq, I enlisted in the Marine Corps. I wanted to be a part of the United States Marine Corps Infantry because I figured that if I was going to lean head first into one of the biggest fights the United States had to offer, it might be smart to surround myself with likeminded individuals who signed up for the same thing."

Cliff joined MVP as a participant and later became a research assistant with MVP at the Central Arkansas Veterans Healthcare System. "I joined the Million Veteran Program because if anything can be learned from my experience and genetics that might help the next person coming home, then that will be time well spent."



Cliff Hudson, Marine Corps Veteran and MVP research assistant, Central Arkansas Veterans Healthcare System (photographed during his last patrol in Balad, Irag).

Data Security

Right now, VA contracts with several vendors in the United States to carry out genomic analyses, including genotyping and sequencing. DNA from MVP blood samples is sent to these VA-approved contractors. DNA samples and the resulting data are secured according to VA regulations. In short, DNA samples are labeled with a code that does not identify individual Veterans. The coded samples are stored in locked freezers at the contractor sites. Once genomic information is generated, it is stored on computers at contractor locations. These computers are in locked areas and are not connected to the Internet. Data is transferred from the contractors' computers to the VA by secure methods such as "locked" hard drives. Only a few people in VA know how to "unlock" the secure hard drives to get the information. Any leftover DNA is destroyed by the contractors. Data is destroyed by the contractors once it is received and approved by VA.

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This gift, of your health information and of your DNA, will remain both treasured and protected. VA is committed to assuring that your medical and genetic information is used only for good. Researchers who have access to your data can use only the information that is directly relevant to their research, and cannot receive information that can be used to identify you as a participant; names, social security numbers, and other strong identifiers are removed from medical records when they are linked to your genetic information, and analysis of the data is done behind strong firewalls that prevent its removal from VA computers. I have a personal interest in making sure this information is protected—mine is there too.

As I thank you for becoming part of this great endeavor to improve the lives of Veterans and all Americans, I also ask your help once again—help in getting other Veterans to join us in this important work. The next time you are waiting in clinic, perhaps you can ask the Veteran next to you if he or she has considered becoming a part of MVP, joining our partnership to defeat disease. Working together, we can indeed change the world.

Timothy J. O'Leary, M.D., Ph.D.

Chief Research and Development Officer Veterans Health Administration

Million Veteran Program (MVP) Information Center:

Building a Partnership with Veterans

James Lally, VISN-1 Public Affairs Specialist

As MVP's central voice for communicating with Veterans, the MVP Information Center plays an important role in building lasting relationships with Veterans. The agents strive to provide warm, friendly, knowledgeable, and committed service, by ensuring Veterans can reach a real person on the phone in a timely manner. Located in Canandaigua, N.Y., the MVP Information Center provides a resource for Veterans from across the country to learn more about MVP, schedule study visits, and seek follow-up after enrollment.

People, not automated phone lines, build such relationships, and that's what makes MVP successful. The agents at the MVP Information Center are often the first point of contact for Veterans seeking to learn more about MVP.

"The MVP Information Center agents make every effort possible to ensure they understand as much about the MVP facilities, including directions, hours of operation, personnel, even construction details," notes Stacey Whitbourne, program director for MVP. "Their attention to detail, love of the job, and dedication has been a key to the success of MVP. In addition, many of the agents have served themselves and can relate to the Veterans on the other end."

Information Center agent Melissa M. Juhl says: "Many times just being able to speak to a person provides some comfort to a Veteran. When a Veteran calls in for MVP I often hear, 'Oh, you're a real person.' I feel we don't just offer MVP



Meet the MVP Information Center team (from left): Jonathan Martinez, Melissa Juhl, Steven Armstrong, Annie Correa, Gerard Schmidt, and George Barzac.

information—if a Veteran has a question regarding another topic, we are often able to point them in the right direction."

Annie Correa, Information Center supervisor, adds: "I think listening to their concerns and answering their questions clearly helps. I tend to hear from Veterans who have trust issues or bad past experiences with the VA. Acknowledging them, listening, and showing empathy go a long way to building trust. Taking the time to explain MVP and reassuring them that it is completely voluntary goes a long way into them deciding to participate."

Some Veterans express reservations about joining the program because they are concerned about privacy. By explaining the extensive MVP privacy safeguards that are in place, the Information Center agents can offer assurances and help Veterans to make informed decisions about participating.

"We explain that the blood sample and surveys are coded and that their name will not be associated with the survey or the blood sample" says Gerard Schmidt from the Information Center.

Mr. Schmidt says that generally, once Veterans understand what the program is all about, "they are excited the VA is doing something positive for future Veterans and they can't wait to help."

To reach the MVP Information Center, please contact 866-441-6075 anytime between the hours of 8 a.m. – 8 p.m. ET. We look forward to hearing from you!

LEARNING CORNER:

What is a genome-wide association study?

A genome-wide association study (called "GWAS" for short) is the way scientists scan specific pieces of DNA ("genes" inherited from our parents) of many people to find differences, or variations, that are associated with a particular trait. For example, researchers may try to see if these variations in DNA occur more often in people with a particular disease than in people without the disease. Researchers can use the information about these differences to develop better ways to identify, treat and prevent disease.

How do researchers do a GWAS?

To carry out a GWAS, researchers obtain DNA, usually from a blood sample, from two groups of participants: 1) people with the disease being studied, and 2) similar people without the disease.

Each person's DNA sample is placed on tiny chips and put in laboratory machines that scan each participant's genome for specific DNA variations.

If certain variations are found to be more frequent in people with the disease compared to people without disease, the variations are said to be "associated" with the disease. The associated genetic variations can point researchers to the area(s) of the human genome where the disease-causing problem resides. At the end of a successful GWAS, researchers hope to be able to

make statements like "This variant of [a certain] gene is associated with in an increased risk of [a specific] disease."

Why are GWASs important?

In the past few years, GWASs have been used to identify genetic variations that contribute to the risk of type 2 diabetes, Parkinson's disease, heart disorders, obesity, Crohn's disease, and prostate cancer, as well as genetic variations that influence response to some medications.

Researchers hope that future GWASs will identify more variations associated with chronic diseases, as well as variations that affect a person's response to certain medications.

References:

- 1. genome.gov (NHGRI)
- ghr.nlm.nih.gov/handbook/genomicresearch/ gwastudies
- 3. www.nature.com/scitable/topicpage/genetic-variation-and-disease-gwas-682
 Citation: Norrgard, K. (2008) Genetic variation and disease: GWAS. Nature Education 1(1):87

NEW RESEARCH ON CHRONIC DISEASE TO USE MVP DATA

VA is funding four new studies that will use genetic and other data from the Million Veteran Program to answer key questions on heart disease, kidney disease, and substance use—highpriority conditions affecting Veterans.

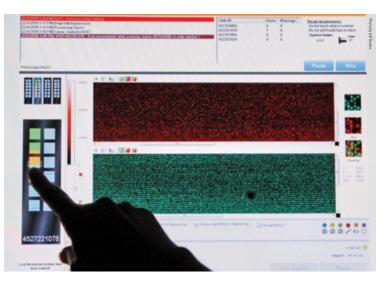
The new studies, involving consortiums of VA researchers and university colleagues, will specifically include the understudied African American and Hispanic Veteran populations. They will also help establish new methods for securely linking MVP data with other sources of health information. including from non-VA sources such as the Centers for Medicaid and Medicare Services.

The new studies, highlighted on the VA and White House websites in July, include the following:

Cardiovascular risk factors—Drs. Faroog Amin and Peter Wilson at the Atlanta VA Medical Center, and Dr. Kelly Cho at the Boston VA Health Care System, will lead an effort probing the genes that influence how obesity and lipid levels affect heart risk. Using MVP data, their team will also look at whether these genetic factors differ among African Americans and Hispanics. "These populations are extremely important in VA," said Amin.

Multi-substance use—Drs. Daniel Federman and Amy Justice at the VA

Connecticut Healthcare System, and Dr. Henry Kranzler at the Philadelphia VA Medical Center, will examine the genetic risk factors for chronic use of alcohol, tobacco, and opioids and the



VA researchers will use genetic and other data from MVP in four new studies on chronic disease.

dangerous use of all three together. "MVP offers an unprecedented opportunity to advance this field," said Federman.

Pharmacogenomics of kidney

disease—Dr. Adriana Hung at the VA Tennessee Valley Healthcare System will focus on how genes affect the risk and progression of kidney disease. One goal is to examine how patients with diabetes—who often develop kidney problems—respond differently to the drug metformin, the standard first-line treatment for diabetes, based on their genetic profile. The project will also look at the genetics of hypertension, a major risk factor for kidney disease. "Kidney disease is a major cause of morbidity and mortality in Veterans," said Hung, "and we're hoping to gain insights that will drive personalized medicine for this population."

Metabolic conditions—A team led by Dr. Philip Tsao at the VA Palo Alto Health Care System and Dr. Kyong-Mi Chang at the Philadelphia VA Medical Center will explore the role of genetics in obesity, diabetes, and abnormal lipid levels (namely, cholesterol and triglycerides), as drivers of heart disease. They will lead a wide consortium including researchers from five VA regions and two universities. "This project will help us more thoroughly understand the underlying causes of cardiometabolic disease and develop new therapies that are safe, effective, and personalized," said Tsao. Chang added: "This is also a great opportunity to partner with our colleagues at Stanford and the University of Pennsylvania."

INTERESTED IN MORE RESEARCH STUDIES?

New opportunities to participate in research studies using MVP data have started and others will be coming soon! You may be re-contacted to see if you are interested in participating in these new studies. As with all research, you can decide if you want to participate, but remember that you are under no obligation to do so. Your health care or compensation benefits will not be affected by your decision. Thanks for being a valued MVPer!

Exercise and Your Health

Exercise is a low-cost way of staying healthy. It can help you maintain or lose weight. It can reduce the chances of heart attack, stroke, most types of cancer, diabetes, high blood pressure, and high cholesterol. It can keep your bones strong and improve balance and it may even prevent depression. So in some ways it is your most important medicine.

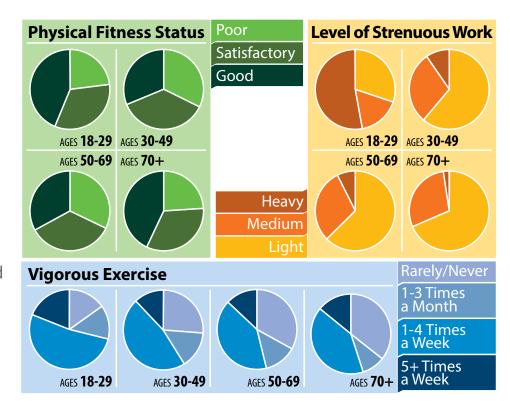
How are MVP participants doing with activity? The graphs to the right show that there are many MVPers who are doing quite well, but there is always room for improvement.

Dr. Gaziano, one of MVP's principal investigators, is a preventive cardiologist, and his clinic at the VA Boston was featured in the New York Times in June 2015. The article profiled a patient of his who used a simple exercise program to lose more than 60 pounds. The program has four parts: aerobic activity 20 to 60 minutes most days of the week; strength training two days; stretching and balance

training two days; and simply doing something—not just sitting—every day.

We hope that that the information you are providing in MVP will help us better understand how exercise and genes interact to maintain or improve health.





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MILLION VETERAN PROGRAM

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RETURN SERVICE REQUESTED

A Partnership with Veterans

