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VA's
MILLION VETERAN PROGRAM

With nearly 500,000 Veteran enrollees as of June 2016, the Million Veteran Program (MVP) is one of the world's largest health and genomic databases.

What is the Million Veteran Program?

VA wants to learn more about how genes affect health, in order to improve health care for Veterans. To do this, VA established the Million Veteran Program (MVP)—a large database of genetic, military exposure, lifestyle, and health information. Research findings based on MVP data may lead to new ways of preventing and treating illnesses in Veterans and others. Such findings may help answer questions such as, "Why does a treatment work well for some people but not for others?"; "Why are some people at greater risk for developing certain diseases?"; and "How can we prevent certain illnesses in the first place?" With nearly 500,000 enrollees as of June 2016, MVP is fast on its way to being the largest database of its kind in the world—an integrated health and genomic database tied to a health care system. It is the world's largest genomic cohort of Veterans, and has the largest representation of minorities of any genomic cohort in the U.S. MVP is an important part of the White House's Precision Medicine Initiative. And because nearly a third of MVP participants report a history of cancer, discoveries based on

MVP are likely to advance the nation's Cancer Moonshot effort.

Why is it important to study genes?

Genes carry instructions for building and maintaining our bodies. They determine the color of our eyes and hair, our height, and other personal features. Small differences in our genes may also explain why some people get diseases and others do not. In addition, genes interact with our lifestyle factors and environment to influence our risk for common illnesses, such as heart disease, diabetes, and cancer. Genes may also affect how people respond to certain medications and treatments. Having a better understanding of how genes work may help to prevent and improve treatment of disease.

How does this research help Veterans?

Veterans—and in fact all Americans— stand to benefit greatly as researchers learn more about the effects of genes on health. Screening, diagnosis, and treatment for some illnesses—such as some forms of cancer—have already been improved through knowledge about the

effects of certain genes. MVP will lead to new knowledge about which genes put people at risk for certain diseases, and which ones affect how people respond to treatment. This knowledge may eventually lead to better treatments and preventive measures for many common diseases. Studies based on MVP data will also look at illnesses especially common among combat Veterans, such as PTSD.

What has MVP accomplished so far?

Several studies using MVP data are already underway in VA, on topics ranging from mental health to heart disease. The program has developed an impressive informatics infrastructure to ensure secure, efficient access to data for authorized researchers. MVP leaders are working with the Department of Defense, the National Institutes of Health, and the Department of Energy to further expand the program and optimize its impact. MVP is part of the White House's Precision Medicine Initiative, and talks are ongoing between VA and the National Cancer Institute to explore how MVP can propel the national Cancer Moonshot. This effort aims to transform how cancer is treated.

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Participation
What does participation involve?

The goal of MVP is to partner with Veterans receiving services in the VA health care system who volunteer to share their health information, as well as genetic material. Involvement in this program includes:

- Filling out surveys about health and health-related behaviors;

- Providing a blood sample (containing DNA and other substances) that will be stored for future genomic analyses;

- Allowing secure access to VA and VA-linked medical and health information, including past and future health records; and

- Agreeing to future contact

Why is it important that so many Veterans participate in the study?

In order to learn about the role of genes, health researchers compare genetic and health information from many thousands of people. With such large amounts of information, researchers are better able to gain valuable knowledge to improve health care.

Confidentiality and Data Security
What will happen to the health information and blood samples that are collected?

Samples and health information will be available to researchers with VA, other federal health agencies, and academic institutions within the U.S. for future research projects approved by appropriate VA oversight committees. Researchers who are approved access to analyze samples and data do not receive the name, address, date of birth, or social security number of participating Veterans. Also, investigators can access MVP data only through a secure portal. The data remain behind the VA firewall and do not leave the system.

How are VA electronic medical records accessed?

If consent is given to participate, MVP accesses health information from VA medical health records as needed and adds that information to the VA Central Research Database so that participants' health status and health care can be followed over time. All information is labeled with a code that does not identify participants directly.

How are confidentiality and privacy protected?

The security and confidentiality of data are MVP's top priorities. Confidentiality is protected through a variety of methods. DNA samples and health information are stored without name, address, date of birth, or social security number. Rather, samples and data are labeled with a code. Only a few authorized VA staff have access to the key for the code. It is necessary to keep the key for the code to connect participants with their information and samples in order to track medical records, contact participants again, or destroy the samples if a participant withdraws.

For more information please go to: www.research.va.gov/MVP

This research will help answer questions such as: Why does a treatment work well for some people but not others? Why are some people at greater risk for certain diseases? How can we prevent certain illnesses in the first place?

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