Why is Participation Important?

The advances the VACS study has made over the course of its existence are very substantial; however there is still a long way to go. It is not only important to know about the conditions that may go along with HIV infection, but also how to treat such conditions and ultimately improve quality of life. The information from our Veterans has allowed us to gain a vast amount of insight into aging with and without HIV infection, and we hope for their continued support and participation that will allow us to provide the best care possible.

About VACS

The Veterans Aging Cohort Study (VACS) is an observational study that compares HIV-positive and HIV-negative veterans in care in the United States. The purpose of this study is to better understand HIV infection and how outside forces, such as alcohol use, smoking, and other diseases and infections, can influence the people living with and without HIV. The study consists of two cohorts, a “virtual cohort” that uses data from over 150,000 veterans, and a “living cohort” of over 9,000 veterans that actively participate and receive medical care at one of our eight VACS locations: Atlanta, Baltimore, Bronx, Brooklyn/Manhattan, Dallas, Houston, Los Angeles, and Washington DC. The information collected from these cohorts has played a large role in increasing knowledge about HIV infection and aging and the lives of those infected. We cannot thank our Veterans enough for their continued participation in this study.

Veterans Aging Cohort Study
950 Campbell Ave (11ACSL-G)
Building 35A
West Haven, CT 06516
http://medicine.yale.edu/intmed/vacs/

E: angela.consorte@va.gov
P: 203-932-5711 ext. 3541
F: 203-937-4926
Dr. Mohammad Sajadi is the Principal Investigator at VACS Baltimore, a position he has held since 2013. He serves as Assistant Professor of Medicine at the University of Maryland, School of Medicine. Dr. Sajadi is an Infectious Disease Specialist at the Veterans Affairs Maryland Healthcare System-Baltimore Division. Dr. Sajadi’s primary research interest includes the mechanisms of control involved in HIV-1 viral infection and the host mechanisms involved in control of the HIV-1 replication, and humoral immunity to HIV-1.

Mary Bowers-Lash, RN, has been a pillar for the VACS study for 14 years as a Clinical Research Coordinator. Her positivity and dedication to the study and study subjects is unparalleled. She has managed and implemented all aspects of the study with regulatory documentation, procedures, data collection, and database management. Mary keeps track of research files for 1,000 subjects. She also recruits and schedules exercise and quality of life protocols in HIV subjects.

Mary Bowers-Lash
Baltimore Site Coordinator

FEATURED SITE: BALTIMORE

The Baltimore site is one of our eight VACS sites across the country. Dr. Mohammad Sajadi is the Principal Investigator, and works with Dr. Rudolph Titanji, Co-Principal Investigator, and Site Coordinator, Mary Bowers-Lash. We would like to thank the Baltimore PIs, study coordinator and participants for their time with the study.
**Physical Function & Disability Workgroup:** Dr. Kris Ann Oursler, Chair. Workgroup Participants: Drs. Kathleen Akgün, Todd Brown, Kendall Bryant, Kristina Crothers, Stephen Crystal, Matthew Freiberg, Thomas Gill, Amy Justice, David Leaf, Karen Nieves, John Sorkin, Janet Tate, Hilary Tindle, Julie Womack

---

**What is frailty?**

Frailty is a geriatric syndrome that is used to describe a state of vulnerability due to a decreased ability of the body to deal with stressors.

Frailty can be difficult to understand and study because it does not have a single definition. Frailty is measured by the number and types of problems in health and physical function, the ability to do physical activities independently. When problems are grouped together and rated, frailty is defined as an indicator, which is either not present, pre-fail, or fail. When a broad range and number of problems are summed to measure frailty, it is called a frailty index.

---

**Why is frailty important?**

Frailty is more common with advanced age but can be prevented. Frailty puts a person at risk for poor health outcomes such as falls, hospitalizations and death.

Individuals in the pre-frail stage can be identified and frailty may be prevented through changes in lifestyle, exercise and diet.

---

**How is frailty measured in VACS?**

The Veterans Aging Cohort Study Risk Index (VACS Index) is a score that measures a person’s age, CD4 cell count and HIV viral load, hemoglobin (laboratory measurement that identifies anemia), kidney function, liver fibrosis and hepatitis C infection. The VACS index can be measured in HIV-infected and uninfected people. A higher VACS Index score means that a person is at higher risk for poor health outcomes such as bone fractures, hospitalization or death. The VACS Index can serve as a measurement of frailty.

A frailty indicator was developed from survey responses among VACS participants and were measured by self-report but did not include weakness. Frail was defined when at least 3 out of 4 possible problems were present. Pre-frail was 1-2 problems. Not frail was zero problems.

---

**Do the VACS Index and adapted frailty-related indicator vary by HIV status in VACS?**

VACS Index scores are higher in HIV-infected participants, especially those with detectable HIV-1 RNA, defined as > 400 copies.

Frailty was more common in HIV-infected participants with detectable HIV-1 but was less common in HIV-infected participants with undetectable HIV-1 RNA (≤ 400 copies/ml) compared with uninfected. (Table)

---

**How does the adapted frailty-related indicator compare with the VACS Index as a measure of frailty?**

- The adapted frailty-related indicator and the VACS Index are associated with increased risk for hospitalizations and death.
- The VACS Index was better at identifying people who were at higher risk for hospitalization and death than the adapted frailty-related indicator.

---

**CONCLUSIONS:**

1. Both this index and the VACS Index are measures of frailty.
2. Further research is needed to determine if these measures can be used to prevent poor health outcomes.

---

**DISCLAIMER:** Measures of frailty are used as research tools and are not intended for individuals use.

---

**PHYSICAL FUNCTION WORKGROUP ACKNOWLEDGEMENTS**

We want to thank VACS study participants and the VACS research team, without whom this study would not be possible.
Affiliated Programs & Resources:

- Center for Interdisciplinary Research on AIDS: http://www.cira.med.yale.edu
- American Foundation for AIDS Research (AMFAR): http://www.amfar.org
- Project Inform: http://www.projectinform.org
- US Department of Veterans Affairs: http://www.va.gov
- National Institute on Alcoholism and Alcohol Abuse: http://www.niaaa.nih.gov
- The Graying of AIDS: http://www.grayingofaids.org/
- Antiretroviral Therapy Cohort Collaboration (ART-CC): http://www.bristol.ac.uk/art-cc/

Funding and Affiliated Funding Sources:

VACS is funded primarily by the National Institute on Alcoholism and Alcohol Abuse, National Institutes of Health. The study has a special focus on the role of alcohol use and abuse in determining clinical outcomes. This project is also funded in kind by the US Department of Veterans Affairs and by supplemental support from the National Heart, Lung and Blood Institute, National Institute of Allergy and Infectious Diseases, the National Institute of Mental Health, the National Cancer Institute and the Medical Research Council.

QR Codes access the VACS Website and Index Risk Calculator:

**Confidential help for all Veterans and their families**
24 hours a day, 7 days a week

- Telephone 1-800-273-8255 Press 1
- Text message to 838255
- Online at http://www.veteranscrisisline.net

Funding and Affiliated Funding Sources: Please visit the VACS website at http://medicine.yale.edu/intmed/vacs/
For any questions or concerns please contact Angela Consorte at angela.consorte@va.gov or 203.932.5711 ext. 3541