

HIV/ Hepatitis

Background

Human Immunodeficiency Virus (HIV) infection causes a chronic, progressive disease that leads to Acquired Immune Deficiency Syndrome (AIDS) and early death if left untreated. VA is the single largest provider of HIV/AIDS care in the United States. Veterans with HIV infection receive HIV care at all 152 VA Medical Centers and throughout all 21 of the VA Veterans Integrated Service Networks (VISNs). As of November 2011, more than 24,000 Veterans with HIV were receiving HIV care in the VA. Of these individuals, 6,650 (27%) also were infected with Hepatitis C virus.

Hepatitis C Virus (HCV) infection is the most common chronic blood-borne infection in the U.S. and is the leading cause of liver failure, cirrhosis, liver cancer, liver transplantation, and liver-related death. With approximately 3.2 million people infected nationally, HCV is three times as common as HIV. The HCV disease burden is even greater among U.S. Veterans, who have a risk of infection over twice that of the general public. Of the 5.6 million Veterans in care, 2.6% have active, chronic HCV, and more than 189,000 were diagnosed with chronic infection in the past decade. Accordingly, VA is the largest provider of HCV and HIV care in the U.S.

HIV/Hepatitis Quality Enhancement Research Initiative

The mission of the HIV/Hepatitis Quality Enhancement Research Initiative (QUERI) is to implement evidence-based research into practices to improve the identification and care of Veterans infected with HIV and HCV.

The HIV/Hepatitis-QUERI utilizes QUERI's six-step process to guide three primary objectives: (See side bar)

- Improve disease identification;
- Enhance chronic disease management; and
- Improve care access and equity for Veterans who are vulnerable due to geographic (rural vs. urban), racial, and ethnic status.

HIV/Hepatitis-QUERI Projects and Findings

Improving Disease Identification

The ability to confer benefits from chronic illness care and treatment depends on identifying infected Veterans and linking them to care. Thus, timely disease identification remains a priority of the HIV/Hepatitis-QUERI, especially in diagnosis of HIV. HIV/Hepatitis-QUERI has several ongoing projects that work to expand HIV testing by promoting routine screening in novel settings such as primary care clinics, substance use disorder clinics, and the ER, including:

The *Multi-VISN Quality Improvement* project assesses the generalizability of a previously successful intervention consisting of computerized decision support, provider education/feedback, and organizational change to increase HIV testing rates in additional facilities across three other VISNs. Thus far, the project has demonstrated that when HIV testing was routinely offered to all primary care patients, incident testing rates at active sites increased from 3% to 16%.

The *Nurse-Initiated Rapid HIV Testing* project recently completed its evaluation

About QUERI

VA/HSR&D's Quality Enhancement Research Initiative (QUERI) currently focuses on ten areas of great importance related to healthcare for Veterans: Chronic Heart Failure, Diabetes, eHealth, HIV/Hepatitis, Ischemic Heart Disease, Mental Health, Polytrauma and Blast-Related Injuries, Spinal Cord Injury, Stroke, and Substance Use Disorder.

Working with health system partners to develop research that speeds improvements in Veterans' healthcare, QUERI utilizes a six-step process to diagnose gaps in performance and identify and implement interventions to address them.

- Identify priority conditions and opportunities for improving the health of Veterans.
- Identify effective practices for improving outcomes for priority conditions.
- Examine variations in existing practices, the sources of variation, and their relation to health outcomes.
- Identify and test interventions to improve the delivery of best practices.
- Evaluate the feasibility, adoption, and impact of coordinated improvement programs to spread best practices.
- Evaluate the effects of improvement programs on Veterans' health outcomes, including quality of life.

at two high-prevalence VHA primary care sites. Of the 4,486 tests that were completed during the study intervention, 14 previously undetected Veterans were identified as HIV positive. Within four months post-study intervention, an additional four Veterans were diagnosed.

Enhancing Chronic Disease Management

Experts predict a sharp rise in HCV-related illness and death over the next two decades unless there are measurable improvements in HCV treatment efficacy, tolerability, access, and uptake. HCV patients with psychiatric disorders and substance abuse are considered particularly high risk for managing and responding to HCV treatment and may require new clinical strategies in order to increase treatment rates. As such, several of our HIV/Hepatitis QUERI studies focus on the co-management of HCV among Veterans with other, high-risk conditions.

The *Hepatitis C Translating Initiatives for Depression into Solutions* project aims to implement depression screening interventions, which were previously studied and successful in HIV treatment, to improve care for Veterans with HCV and depression.

Other projects include:

- *An Integrated Care Model for Improving HCV Patient Outcomes* continues as a prospective, randomized trial of Veterans with comorbid psychiatric and SUD problems that were screened at HCV clinics at three VAMCs. Investigators report that integrated care models may lead to sizable increases in antiviral treatment initiation, along with decreased adverse events at certain sites.
- *HCV Treatment Experience* combines qualitative and survey research methods to better understand patients' experiences of HCV medications, including challenges, resiliencies, and behaviors. With one phase completed, investigators report that Veterans' narratives of their motivations for

taking HCV medications organize into three broad themes.

- *Quality of Care among Patients with Chronic Hepatitis C Virus Infection* identified gaps in HCV care quality across different race and ethnicity groups and targeted interventions for disparity resolution to Veterans in treatment for HCV.
- *Hep C Cost* estimated the global costs of all medical care for Veterans with HCV compared with costs for matched Veterans without HCV. These costs impact network budget planning and serve as baselines for assessing the budget impacts of new HCV drugs.

Improving Access and Equity

Much of HIV/Hepatitis-QUERI's recent work has focused on disparities related to the rural/urban divide among Veterans with HIV and/or HCV. Investigators also continue research that explores the disparities that exist among Veterans of different racial and ethnic backgrounds, as racial/ethnic disparities have been observed in access to HIV and HCV care, service utilization, process of care, and health outcomes among Veterans.

The Internet, eHealth tools, and MyHealth_eVet (MHV) are key tools for bridging gaps in Veterans' access to health services. In the study, *Intervention to Provide Veterans with Health-Related Internet Skills*, investigators engaged Veterans diagnosed with either HIV or HCV in hands-on training in the use of Internet and MHV for health purposes. Results showed that self-efficacy for health-information seeking and Internet use increased, and both general Internet use and the use of patient websites for health increased. The study also has produced patient videos offering instruction for Internet usage and discussing Internet content with providers.

Other projects include *Homeless Outreach*, which partners with local public health authorities and is implementing an HIV screening and care linkage project in urban homeless shelters in Los Angeles County.

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The HIV/Hepatitis-QUERI Executive Committee

Each QUERI Executive Committee is co-chaired by a research expert and a clinician.

Co-Research Directors for HIV/Hepatitis QUERI are **Allen Gifford, M.D.** and **Steven Asch, M.D., M.P.H.**; the Clinical Coordinator is **Matthew Goetz, M.D.**; and the Implementation Research Coordinators are **A. Rani Elwy, Ph.D.** and **Amanda Midboe, Ph.D.** The Executive Committee includes other experts in the field of HIV/AIDS and hepatitis: Pamela Belperio, PharmD.; Jason Dornitz, M.D., M.H.S.; Hashem El-Serag, M.D., M.P.H.; James Halloran, M.S.N., R.N., C.N.S.; Christine Engstrom, Ph.D., C.R.N.P., A.O.C.N.; Amy Justice, M.D., Ph.D.; Don MacIver, BA; David Rimland, M.D.; Michael Simberkoff, M.D.; Samuel Ho, M.D.; Susan Zickmund, Ph.D.; and Paul Volberding, M.D.

QUERI web link:
www.hsrdr.research.va.gov/queri