

Diabetes

ANN ARBOR, MICHIGAN

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Background

Type 2 diabetes affects nearly 20% of Veterans who use the VA healthcare system, or more than one million Veterans at any given time. Diabetes is a leading cause of blindness, end-stage renal disease, and amputation in the U.S. Further, up to 80% of patients with diabetes will develop or die from macrovascular disease, such as heart attack and stroke. While there is a growing array of therapeutic options and efficacious treatment strategies to prevent or delay some of the most severe diabetes-related complications and to enhance quality of life, there remain significant gaps in the use of these treatments.

Diabetes Quality Enhancement Research Initiative (QUERI)

Diabetes-QUERI is committed to research and collaborations that promote the use of effective care strategies to help Veterans with and at risk for diabetes to live longer and better lives. Diabetes-QUERI is committed to achieving two overarching goals, each with specific sub-goals:

- To work with operations partners to promote evidence-based approaches to reduce diabetes risk factors and the incidence of diabetes among Veterans by:
 - Developing and implementing low-cost, scalable approaches to support self-management for diet, exercise, and weight loss; and
 - Developing and using individualized assessments to tailor recommendations and enhance uptake of prevention programs.
- To work with partners to promote

evidence-based approaches to improve treatment and reduce complications of diabetes. Specifically by,

- Developing and implementing individualized assessments and decision support tools to enhance the use of appropriate diabetes treatments and decrease inappropriate care; and
- Developing and implementing innovative programs to improve diabetes self-management.

Diabetes-QUERI Projects and Findings

Diabetes-QUERI conducts a diverse portfolio of projects to facilitate the implementation of research findings and evidence-based recommendations within routine clinical practice. The following projects are examples of how the Diabetes-QUERI is addressing its priority areas.

ASPIRE-VA Weight Management

Diabetes-QUERI investigators piloted a telephone-based, small-change weight loss intervention (ASPIRE-VA) in which a lifestyle coach helped patients lose a significant amount of weight. These promising results led to a larger trial in collaboration with VA's National Center for Health Promotion and Disease Prevention, which is ongoing. Nearly 500 Veterans have been randomized to:

- MOVE!, VA's national weight management program;
- Phone-based ASPIRE-VA; or
- Onsite group ASPIRE-VA.

Key program components include:

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.

patient manual with educational material and activities, setting small goals, keeping a food log, and logging daily steps by wearing a pedometer.

Improving Insulin Therapy with Peer Support

At two VA facilities, diabetes patients were enrolled in a six-month randomized controlled trial testing the effectiveness of a diabetes peer-support program. The intervention group learned goal-setting and communication skills and were paired with other age-matched participants. Intervention participants were encouraged to call their partner weekly using a telephone platform that recorded call frequency and duration, and provided automated reminders promoting peer contact. Control patients attended a baseline diabetes education session, received educational materials, and were encouraged to communicate with their nurse care manager. Compared to controls, intervention participants had improved A1c levels, insulin starts, and diabetes-specific support after six months. Peer-based models such as this show promise for bridging service gaps, while increasing the quality and quantity of self-care support.

Developing More Meaningful Performance Measures for VA

VA's Office of Quality and Performance and Diabetes-QUERI have developed and are testing tightly linked clinical action measures that assess not only whether risk factor control was achieved (e.g., BP less than 140/90), but also whether appropriate action was taken if the level was above target. Unlike traditional measures of risk factor control, tightly-linked measures are designed to encourage appropriate clinical action while minimizing

unintended consequences, such as overtreatment. Based on these efforts, Diabetes-QUERI is working with the new VA Office of Analytics and Business Intelligence (OABI) to disseminate two of the measures as national indicators in FY2012. This partnership between research service and Operations paves the way for widespread use of these types of measures for diabetes and other conditions, an effort that should lead to better healthcare quality and fewer unintended consequences.

Diabetes QUERI and Systems Redesign

Diabetes-QUERI and investigators from HSR&D's Center for Implementation Practice and Research Support (CIPRS) are working with Patient Care Services, VA's In-Patient Evaluation Center (IPEC), and Systems Redesign to identify better practices for the delivery of diabetes care. In one project, high- and low-performing sites were identified and interviews were conducted to understand differences between sites in the delivery of outpatient diabetes care. A similar project was conducted jointly with the IPEC to identify potentially better practices that result in decreased hypoglycemia in ICU patients. This project identified variation in ICU hypoglycemia rates and the use of various practices to address hypoglycemia (e.g., nurse-driven protocols, comprehensive teams with real-time evaluation of hypoglycemia, technology such as a smart pump), providing important insights for quality improvement.

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The Diabetes-QUERI Executive Committee

Each QUERI Executive Committee is co-chaired by a research expert and a clinician. The research expert and Director for the Diabetes QUERI is **Eve Kerr, M.D., M.P.H.**, and the clinical coordinators are **Leonard Pogach, M.D.** and **Susan Kirsh, M.D.** Other Diabetes QUERI staff include: **Sarah Krein, Ph.D., R.N.** (Co-Research Coordinator); **Julie Lowery, Ph.D.** (Co-Implementation Research Coordinator); **Laura Damschroder, M.S., M.P.H.** (Co-Implementation Research Coordinator); **Caroline Richardson, M.D.** (Diabetes Prevention Coordinator); and **Douglas Bentley, M.P.H.** (Administrative Coordinator). The Executive Committee includes other experts in the field of diabetes mellitus: Paul Conlin, M.D.; Linda Kinsinger, M.D., M.P.H.; Jonathan Nebeker, M.D., M.S.; David Aron, M.D., M.S.; Gayle Reiber, Ph.D., M.P.H.; Anne Sales, Ph.D., R.N.; Alexander Young, M.D., M.S.H.S.; Joanne Shear, M.S., FNP-BC; William Yancy, M.D.; Michael Goldstein, M.D.; Sharon Watts, D.N.P., R.N.-C, C.D.E.; and Mark McConnell, M.D.

QUERI web link:

www.hsr.d.research.va.gov/queri