

# Implementation Research and VHA's Clinical Care IT Strategy

Computerized patient records and decision support systems are essential requirements for implementing scientific evidence into routine practice. Developing strategies for the optimal use of these tools was the focus of a strategic planning retreat jointly sponsored by the Offices of Informatics and Patient Care Services – the first event of its kind in VA. Several implementation researchers from VA HSR&D, as well as the QUERI Director, participated in this event that was held November 3-4, 2004 in Arlington, VA. Also present were more than 60 individuals representing VA clinical program offices, medical informatics, and operational leadership.

The major issues facing VA information systems were framed at the start of the meeting by Jonathan Perlin, MD, PhD, Acting Under Secretary for Health; Michael Kussman, MD, Acting Deputy Under Secretary; Robert Kolodner, MD, Chief of Medical Informatics; and Madhu Agarwal, MD, Acting Deputy Chief of Patient Care Services. They spoke about the

great strides VA has made in the quality of care delivery with CPRS (Computerized Patient Record System), but emphasized that this system needs enhancement to deliver patient-centered care and evidence-based chronic disease management in the long-term.

VA's new data architecture for clinical care represents a 5 -year, multi-billion dollar investment for the Office of Informatics and includes *My HealthVet* (extends CPRS from the clinician's desktop to the patient's home computer), VISTA (Veteran's Integrated Health Systems Technology and Architecture), the national Health Data Repository (integrating clinical data from all VHA sites), and CPRS-R (CPRS-Re-engineering). This will offer clinical computing that is more flexible and better aligned with the principles of patient-centered care and patient self-management. For implementation researchers, welcome enhancements include system modifications to support evidence-based practice, as well as a relational database structure to facilitate outcomes tracking across the continuum of care.

Retreat participants worked in groups to identify:

- Key care delivery principles for future data systems,
- Improvements needed to support interoperability and seamless evidence-based care, and

- Specific recommendations for collaborations to plan and evaluate future information systems.

Two recurring themes emerged across the workgroups: 1) the ongoing tension between national standardization and local innovation; and 2) the need to systematically evaluate the processes and outcomes of implementing evidence-based practice into clinical care.

For local innovations to spread across the system, implementation researchers need some understanding of the "big picture" (i.e., timelines for approval and roll-out) and must develop the best possible business case for specific IT innovations. The optimal business case balances three goals:

- Workflow efficiency from the providers' perspective,
- Improved decision-making and better outcomes from the patients' perspective, and
- Optimal health for the target population.

In the working groups, there was discussion of numerous potential IT improvements. For example, clinicians might be able to spend less time at the computer and be more efficient if IT provided quicker linked access to information from multiple sources (e.g., notes, imaging, and laboratories). Clinician-patient interactions might be enhanced by improved access to clin-

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# VA, DoD and QUERI Collaborate on Evidence-based Clinical Practice Guidelines

Clinical practice guidelines initially evolved in response to studies demonstrating significant variations in practice patterns and costs. The major pioneering effort in the development of clinical guidelines by the VA Health Administration (VHA) system was undertaken in collaboration with the Institute for Healthcare Improvement and targeted ischemic heart disease. The goal of this guideline and those that followed was to incorporate information from several existing, national consensus and evidence-based guidelines into a format that would facilitate clinical decision-making. With an increase in the quality of relevant evidence and the advent of VHA's performance measurement system of accountability, which draws upon that evidence to support the development of clinical indicators, acceptance of guidelines has increased dramatically.

In 1998, the Department of Defense (DoD) joined VA in the development effort through a formal charter of the VA/DoD Clinical Practice Guideline Working Group. This charter set the stage for a rich collaboration dedicated to:

- Identifying areas where the evidence should be reviewed and guidelines developed;
- Facilitating implementation of the guidelines into current and new information systems;
- Translating evidence into practice at the frontline provider level;
- Ensuring integration of health promotion, disease prevention, and wellness initiatives;
- Encouraging research related to guideline implementation;

- Fostering team work between care providers of varying disciplines;
- Promoting understanding of and responsiveness to patients' needs; and
- Optimizing clinical outcomes and resource utilization by reducing variation in care where appropriate.

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*The Evidence-Based Practice Work Group continues to champion the implementation of evidence-based clinical advances into routine practice.*

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Thus far, guidelines and tools to support implementation that have been published include, but are not limited to the following clinical areas: asthma, kidney disease, chronic obstructive pulmonary disease (COPD), cardiovascular disease, depression, diabetes, post deployment health, substance use disorders, stroke rehabilitation, and smoking cessation. The Working Group also completed work on guidelines for the use of opioids in the management of chronic pain, in addition to a pocket card related to combat-related blast injuries.

The Working Group has conducted joint reviewer training, three satellite broadcasts and meetings to disseminate new and updated guidelines and to facilitate implementation. In addition, guideline products have been presented at national meetings. Patient brochures, CD-ROMs, pocket cards, and other self-study continuing education materials

to support guideline implementation are available on the web at [www.oqp.med.va.gov/cpg/cpg.htm](http://www.oqp.med.va.gov/cpg/cpg.htm) for review and comment.

The Evidence-Based Practice Work Group continues to champion the implementation of evidence-based clinical advances into routine practice. Future work includes developing or updating the guidelines for tobacco use cessation, hypertension, dyslipidemia, and obesity. The Work Group is being redesigned to create a closer collaboration with VA's QUERI program, and now includes as a permanent member – the Associate Director of HSR&D for QUERI. We look forward to a closer collaboration with QUERI centers and affiliated investigators; their expertise in implementation research coupled with their ongoing work in sustaining successful clinical interventions will offer valuable contributions as we strive to improve the quality of care within the VA and DoD healthcare systems.

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# HSR&D Establishes New Centers Dedicated to Implementation Research

VA's Health Services Development and Research Service (HSR&D) has established three new Centers of Excellence dedicated to advancing the science of implementation research. The Centers will focus the integration of evidence-based practices into routine clinical and administrative operations, and/or the development, implementation, and evaluation of processes and structures, including management and organization, which are designed to improve patient and provider decisions. Following is a brief description of these new dynamic Centers.

## ***Center for Research in the Implementation of Innovative Strategies in Practice, Iowa City***

Directed by Gary E. Rosenthal, MD and Fredric D. Wolinsky, PhD, the Center for Research in the Implementation of Innovative Strategies in Practice's (CRIISP) mission is to conduct research that advances our understanding of strategies for incorporating knowl-

edge into practice and that improves veterans' well being. This work will:

- Identify fundamental barriers and facilitators to the adoption of evidence-based practices; and
- Develop, test, and disseminate novel interventions to improve quality and costs in a variety of practice settings.

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***Two areas of special research focus are identifying best clinical and implementation practices, and designing and testing health systems interventions in evidence-based practice.***

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In addition, CRIISP will stress interventions that address multiple conditions simultaneously, recognizing the large number of veterans with multiple chronic illnesses. CRIISP will also develop patient-centered interventions that address conditions most important to the patient, and that address patient

preferences for self-management. CRIISP will serve as a resource for QUERI by sponsoring several new activities, including: a website promoting implementation research that provides downloadable clinical decision aids; a web-based clearinghouse of nationally employed implementation strategies and standardized measures for research in the behavioral and organizational sciences; a biannual conference that will bring together national experts to review evolving implementation models; and a 3-day *Introduction to Implementation Research "Summer Camp"* for administrators and clinical leaders.

## ***Center on Implementing Evidence-Based Practice, Indianapolis***

Directed by Brad Doebbling, MD, the Center on Implementing Evidence-Based Practice's mission is to improve healthcare provided to veterans through discovery, evaluation, implementation, and sustained adoption of evidence-based best practices in the VA and the broader national health care system. The Center will advance the science and practice of translation by:

- Generating new knowledge about best practices through clinical and organizational research;
- Identifying contextual, provider, and patient-based dimensions of healthcare systems that influence adoption of best practices;
- Partnering with managers, clinicians, and patients to design and test health system interventions to support, expand and sustain the implementation of evidence-based practice and patient-centered care;

*QUERI Quarterly* is a quarterly publication of the Office of Research and Development's Health Services Research and Development Service. This newsletter discusses important issues and findings regarding the Quality Enhancement Research Initiative. QUERI focuses on eight conditions due to their high volume and/or high risk among VA patients: colorectal cancer, diabetes, HIV/AIDS, ischemic heart failure, mental health, spinal cord injury, stroke, and substance use disorders. *QUERI Quarterly* is available on the web at [www.hsr.d.research.va.gov/publications/queri\\_quarterly/](http://www.hsr.d.research.va.gov/publications/queri_quarterly/)

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## Clinical Care IT Strategy

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ical information, decision support, and mechanisms that support patient education and self-management skills. Tracking key indicators over time so that care managers can identify when and where patients have not received valuable services, as well as remind patients actively to receive those services, may facilitate the care of populations with chronic illness. In addition, there were many improvements suggested that could support business goals. It was recognized that the best possible balance among these goals could be achieved through better communication and stronger collaboration among content experts (end-users and clinical leaders), patients, researchers, and information specialists.

Another insight – the need for systematic evaluation – came out of dis-

cussions about the rollout of software applications across VA. Currently, we have insufficient objective data on how well those applications meet the needs of users, how they impact operations, and what they do for patient health. Evaluations need to be conducted both during the rollout and at operational maturity, and need to focus on clinical program impact rather than just the software performance. Successful collaboration demands early involvement of researchers in the process of software development and rollout. Retreat participants recognize that HSR&D and QUERI investigators, with specific knowledge of formative evaluation, quasi-experimental and qualitative methods, would be critical to the proper evaluation of high impact software projects.

The next steps involve creating a closer coalition of the Office of

Information, Patient Care Services, and QUERI. This will begin by initiating collaborations between researchers and computing specialists within existing HSR&D Centers of Excellence (including QUERI Centers) and OI Field Offices to address high priority areas for clinical care. There also is interest in seeing this collaboration grow into a sustainable effort, such as a Coordinating Center for Informatics Implementation that may be developed along the lines of existing QUERI Centers.

### *Joseph Francis, MD*

*Associate Director, Health Services Research and Development Quality Enhancement Research Initiative (QUERI)*

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## New HSR&D Centers

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- Accelerating the use of research evidence in routine care; and
- Supporting patient-centered care.

Two areas of special research focus are identifying best clinical and implementation practices, and designing and testing health systems interventions in evidence-based practice. The Center will help QUERI and VA with sustainability issues in several ways, which include partnering with managers, researchers and clinicians at other VAMCs interested in implementing evidence and by providing an ideal training environment for implementation science.

### *The Center for Organization, Leadership and Management Research, Boston*

Directed by Martin P. Charns, MBA, DBA, the Center for

Organization, Leadership and Management Research's (COLMR) mission is to develop and apply knowledge of innovative management practices to improve the effectiveness and efficiency of health care services for our nation's veterans and the larger health care community. In particular, COLMR is focusing on three areas of research:

- Management practices that result in higher quality of care,
- Management practices that promote successful organizational change, especially change to implement evidence-based clinical practices, and
- Development of leadership and workforce in health care organizations.

COLMR will contribute to QUERI's goals by helping to bridge the gap between research and practice through the discovery of new knowledge about the factors related to the successful implementation of evidence-based research into clinical

practice. COLMR will also serve as a national resource for other HSR&D Centers of Excellence regarding the study of management practice.

For more information about these and other HSR&D Centers of Excellence, visit the HSR&D website at [www.hsr.d.research.va.gov/](http://www.hsr.d.research.va.gov/).

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## **QUERI** *Submission Deadline*

QUERI Quarterly is glad to accept submissions for publication consideration. Please submit articles, updates or other information of interest to our readers by **Tuesday, February 1, 2005** for publication in our March issue. Submit to Diane Hanks at [diane.hanks@med.va.gov](mailto:diane.hanks@med.va.gov).