Veteran Health Care: Meeting Tomorrow’s Challenges

By Jonathan B. Perlin, M.D., Ph.D., Under Secretary for Health

Ten years ago, the VA began the process of reinventing itself as a model health care provider system characterized by patient-centered, high-quality, high-value health care. Today, we are widely recognized throughout the nation and the world for the remarkable transformation we have accomplished. One nationally prominent magazine, the Washington Monthly, went so far recently as to describe VA health care as “the best care anywhere.”

At the heart of this magnificent transformation have been structural and organizational changes of a magnitude unprecedented in the long history of veterans’ health care. When we created 22 (now 21) Veterans Integrated Service Networks in 1995, we changed the way we allocated resources from individual facilities to geographic networks. This, in turn, enabled us to shift the emphasis in our care delivery from hospitals to outpatient clinics and to homes and communities. And by making every part of our system accountable for its performance through our comprehensive system of performance measures, we proved our value to Congress, the White House, and the American taxpayer, and our quality to the veterans we are privileged to serve.

A decade after the opening salvos of our revolution, we are faced with the question of how we will continue to move forward in a time of increased fiscal constraints. We face challenges on many fronts, and our ability to meet those challenges will determine the legacy we will leave for those who will assume the mantle of leadership of VA for many years to come.

For example, we must be ready to care for increasing numbers of Operation Iraqi Freedom and Operation Enduring Freedom veterans as they return from service and claim the honored title of American veteran. We must continue to modernize our inpatient and outpatient models of care, so that our health delivery system crosses generations, gender, and geography. We must create delivery models of care that account for the increasing number of women veterans we are seeing, a result of the increasing integration of women into all aspects of the military. And, just as we moved our care focus in the past 10 years from hospital-centric to outpatient-centric, in the next 10 years we must move our system to become fully patient-centric.

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How will we meet these challenges? Some of the answers are already being developed. The transformation from our VistA legacy electronic health record system to the new HealtheVet-VistA platform is an integral part of our strategy.

continued on page 2
Director’s Letter

The VA Health Services Research and Development Service congratulates Jonathan Perlin, M.D., Ph.D., on his appointment as VA’s Under Secretary for Health. Dr. Perlin has been an enthusiastic supporter of health services research and a leader in promoting the application of research into clinical practice. He continues to support the Quality Enhancement Research Initiative (QUERI) and HSR&D’s efforts to further develop the science of implementation research. We look forward to working with him to continue improving the health care we provide to veterans.

Our recent HSR&D National Meeting demonstrated the vibrancy of the research field and the breadth of research that we continue to undertake. More than 80 papers and 90 posters were presented on the meeting topic, Improving Care for Veterans with Chronic Illnesses. A highlight was the presentation of the Under Secretary’s Award for Outstanding Achievement in Health Services Research to Rodney Hayward, M.D. (see page 7 for details).

Though we have experienced a tightening of the research budget this year and expect to again next year, our Centers, career development, and merit review programs remain strong. Our portfolio management structure has been strengthened and we continue to work with our field-based science advisors to fine-tune our priorities and processes. We expect to fund 16.4 percent of the 152 Investigator Initiated Research (IIR) project proposals that were reviewed in March and 33.3 percent of the 19 QUERI/Implementation projects reviewed. We also expect to fund six new Research Career Development awards and six Advanced Research Career Development awards. We expect to receive 180 IIR proposals for the June 15 round.

With the inspiring dedication of our investigators and staff, I look forward to another year of outstanding achievements.

Shirley Meehan, M.B.A., Ph.D.
Acting Director, HSR&D

Actors and staff, I look forward to another round of proposals for the June 15 round.

When HealtheVet-Vista is up and running, our records will be interoperable with the systems of the Department of Defense, Department of Health and Human Services, and the Indian Health Service. We will have the ability to monitor trends in health care including outbreaks of infectious diseases and possible bioterrorist attacks.

Another aspect of our health information architecture is My HealtheVet, which when fully operational will provide veterans with access to their personal health records, online health assessment tools, mechanisms for prescription refills and making appointments, and access to high-quality consumer health information.

Care coordination links the special expertise on combat injuries that Military Treatment Facilities have with veterans at our Polytoma centers, with our medical centers when the veterans’ rehabilitation has progressed significantly, and with their homes when they have left treatment centers. It is an integral part of our strategy to serve our nation’s newest generation of heroes.

And care coordination enables us to provide care in a manner that builds in safety, effectiveness, efficiency, and compassion. By allowing those with frailties to succeed while aging in place or by managing chronic disease in their communities, we can preserve not only community social relationships, but also personal relationships of many years.

Care coordination and improvements to our electronic health record system are enabling us to meet our goal of extending our environment of care to the patient’s home, workplace and community. Our ultimate goal, however, can only be achieved through innovative thinking and hard work: to systematically and seamlessly provide the right care, to the right patient, at the right time. VA research, and our researchers, must play an important role in helping us reach that goal.

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Our research must be linked to better patient outcomes that mean more than improved performance data, that make tangible improvements to veterans’ health, and that affect their daily lives. Researchers must be part of the drive to turn the ideas and visions of today into the practical realities and practices of tomorrow. They must break down the barriers that have created a situation in which it still takes an average of 17 years to fully put clinical findings into practice.

By linking today’s research innovations to tomorrow’s improved patient care outcomes, we can create delivery models of care that will enable us to meet today’s health care challenges—and tomorrow’s.
Response to Commentary

VA Research: Responding to New Challenges

By Stephan D. Fihn, M.D., M.P.H., Director, Seattle HSR&D Center of Excellence
This article was written in Dr. Fihn’s recent capacity as Acting Chief Research and Development Officer.

Dr. Perlin eloquently summarizes the transformation of an agency operating a loosely organized group of inefficient, poorly regarded hospitals into a well-integrated health care system that is now setting international standards for performance and outcomes. This process of change was initiated a decade ago by then Under Secretary for Health Dr. Kenneth Kizer, who created a blueprint titled Prescription for Change. Now that much of Dr. Kizer’s vision has been realized, Dr. Perlin outlines an ambitious vision for the next phase, moving care out from the walls of our clinics and hospitals and into the homes and communities of the veterans we serve.

The foundations for this continuing transformation are information technology and new, coordinated approaches to health care. Our Computerized Patient Record System (CPRS) is so integral to the delivery of care that it is difficult to envision how we could manage patients without it. Despite these remarkable successes, VA is now undertaking an even bolder reengineering of CPRS that ultimately will permit our patients to become full participants in managing their own health care.

With regard to care coordination, VA has designed and tested innovative strategies for caring for patients with complex and multiple comorbidities, including: comprehensive geriatrics evaluation and management; home-based primary care; intensive case management for the seriously mentally ill; collaborative care for depression; disease management strategies for diabetes, heart failure, and other conditions; and telemedicine to link veterans in distant communities with specialized expertise. VA is making further investments in training and equipment to extend and tailor these care coordination models to broader segments of our target population. Despite these efforts, much work remains to design innovative approaches that maximize efficient use of the human and technical resources within our system to achieve the best possible outcomes.

In addition to medical informatics and models of care, the VA continues its strong focus on the generation and incorporation of reliable evidence about the efficacy of the care we deliver. Without such evidence, we risk not only wasting scarce resources but also needlessly harming patients. VA promotes evidence-based practice through the use of clinical practice guidelines, performance measures, and computerized reminders. More work will be required to extend these efforts into the realms of chronic disease management, specialty and surgical care, and rehabilitation medicine.

We are fortunate to work in a system that respects and supports the role of health services research in identifying new evidence and synthesizing the best available evidence into actionable guidelines. The logical progression is for QUERI and HSR&D investigators throughout the system to take their bias for action into the new territories that VA’s journey is traversing. Some of these first steps are already under way:

- VA HSR&D investigators are working with the Office of Care Coordination to develop evidence-based strategies for disease management and to evaluate the effectiveness of these new systems of care.
- VA HSR&D recently identified for priority funding several investigator-initiated and service-directed projects that focus on improving the effectiveness of VA informatics. These projects include new decision-support systems that better integrate patient-specific clinical information with evidence-based guidelines.
- A new Chronic Heart Failure QUERI center, based in Palo Alto and San Francisco, focuses on care coordination as well as appropriate use of emerging technologies (e.g., implantable cardiac resynchronization devices).
- We are establishing a Polytrauma QUERI to begin the process of identifying and implementing evidence-based practices for the challenging injury clusters and sequela that are the results of modern warfare practices. This initiative will focus on managing the transition from DoD to VA, and from facility-based to community-based care.
- QUERI groups and other HSR&D investigators have started to embark on a number of initiatives in partnership with VA’s Office of Patient Care Services and the Office of Quality and Performance, as well as with the Veterans Benefits Administration. These activities seek to reduce inappropriate variations in practice for conditions of importance to today’s returning soldier, including cancer care, cardiac care, and mental health.
- In partnership with the Office of Informatics, Patient Care Services, Operations, and the Office of Quality and Performance, the Ischemic Heart Disease QUERI has developed a new approach to employing the electronic health record to document and improve care for patients undergoing invasive cardiac procedures.

Like most of our investigators in HSR&D, I was initially attracted to VA because of its commitment to excellence in patient care, research, and education. Despite budget difficulties that all hope are merely temporary, we are facing a time of extraordinary opportunity to participate in and influence a long overdue revolution in health care in which health care providers and their patients will realize all the benefits that scientific advances have to offer. As VA prepares to embrace a new generation of veterans, the research community should eagerly embrace these new developments and become partners in this exciting venture.
Research Highlights

How Long is the Reach of Performance Measurement? Lessons from a VA-Community Comparison

By Mary M. Hogan, Ph.D., R.N., Ann Arbor HSR&D Center of Excellence, Steven M. Asch, M.D., M.P.H., Sepulveda HSR&D Center, and Eve A. Kerr, M.D., M.P.H., Ann Arbor HSR&D Center of Excellence

The VA has been a leader in establishing system-wide quality measurement and, for many areas measured, performance has improved over time. We took advantage of two ongoing studies—one involving a sample of almost 600 VA patients and the other a national sample of nearly 1,000 patients—to determine if care provided in the VA was better than care received by patients in other settings. We also sought to determine whether better care extended beyond the specific performance measures and areas monitored by the VA quality measurement system. In both studies, reviewers abstracted two years of patient medical records from all sources of care with the Quality Assessment Tools system, using 348 process-of-care indicators for 26 conditions.

VA Patients Received Higher Quality Care

We found that the VA patients were more likely than the patients in the national sample to receive needed care (67 percent vs. 51 percent). This finding was also true for chronic care (72 percent vs. 59 percent) and preventive care (64 percent vs. 44 percent), but not for acute care (53 percent vs. 55 percent). In particular, patients in the VA sample received significantly better care for depression, diabetes, hyperlipidemia, and hypertension.

Measurement Likely to Contribute to Improved Quality

These findings shed light on how performance measurement may improve quality of care. The difference between quality of care received by VA patients compared to patients in other settings was greatest for those specific processes measured by the VA (66 percent vs. 43 percent). In fact, the VA advantage extended to other indicators in the same condition or area that were not specifically measured by the VA (70 percent vs. 58 percent). For those health care areas that the VA did not measure for quality, however, the VA performance advantage was greatly reduced when compared to the national sample (55 percent vs. 50 percent).

This relationship between performance and performance measurement suggests that measurement contributed to the observed differences in the study, though no doubt other factors also contributed. Moreover, there may be a chain reaction or spillover effect such that measurement is associated with improved care in related areas, beyond those processes specifically targeted.

This finding addresses a common concern in quality measurement—that resources will be used primarily to improve the specific performance being measured at the expense of other equally beneficial areas. It is reassuring that, within profiled conditions, performance was also better for processes that were not specifically measured. This result suggests that measurement has a profound effect on quality improvement and argues for the continued spread of performance measurement both within and outside the VA.

continued on page 8
Measuring Intensity of Therapy in Patients with Diabetes

By Dan Berlowitz, M.D., M.P.H., Bedford HSR&D Center of Excellence

Health care payers, providers, and consumers increasingly rely on assessments of the quality of care in making clinical, management, or policy decisions. Yet all too often the quality measures on which these decisions are based are flawed or do not capture clinically important aspects of care. Thus, a key component of health services research at the VA is trying to improve the science of quality measurement.

Quality measurement is especially important in the management of chronic medical conditions that are common in the veteran population, such as diabetes. Randomized clinical trials in patients with diabetes have convincingly demonstrated that more intensive medication therapy results in improved metabolic control and reduces the risk of developing microvascular disease. Yet observational studies have consistently shown that many patients have poor metabolic control and that clinicians often fail to intensify therapy when indicated. This finding suggests that efforts to improve how clinicians manage medications in patients with diabetes may be particularly beneficial in improving health outcomes. Central to any such effort would be a reliable and valid measure of the intensity of therapy.

We recently set out to develop such a measure. Among the properties we desired were that: 1) this measure be based on data readily available in VA databases; 2) it be clinically credible; and 3) it be linked to patient outcomes, that is, more intensive therapy should be associated with better glycemic control. This last criterion is especially difficult to show in observational studies as elevated measures of glycemic control are both a predictor of treatment intensification and a poor outcome; this situation is known as confounding by indication.

Our study sample consisted of 23,291 patients with diabetes receiving regular medical care at 13 VA medical centers in Veterans Integrated Service Networks 1 and 8. Analyses were performed in three steps. First, we evaluated each individual visit to a medical clinic and developed a model to predict whether treatment would be intensified at that visit, either by starting a new antihyperglycemic medication or by increasing the dosage of an existing medication. Next, we developed a treatment intensity score for each patient that compares the actual number of increases in therapy over a 16-month period to that predicted by the model. Scores could range from -1 to +1 with positive numbers indicating more intensive therapy than the norm. Finally, we examined the association of this treatment intensity score with two risk-adjusted outcome measures: 1) whether the outcome visit glycosylated hemoglobin was greater than 8 percent, and 2) change in glycosylated hemoglobin levels over the 16 months.

We found that treatment intensification occurred at 9.8 percent of medical visits. Predictors of treatment intensification included a glycosylated hemoglobin greater than 8 percent, performance of this test within the past three months, a higher blood glucose level, and a longer interval between visits. Patients differed significantly in the intensity of their therapy with scores ranging from -0.32 to +0.96. More intensive therapy was significantly associated with lower odds of having an outcome glycosylated hemoglobin greater than 8 percent and a greater decrease in glycosylated hemoglobin over time. While the magnitude of the associations was not large, the fact that they were in the “right” direction suggests that we are successfully measuring treatment intensity. This finding represents one of the few successful efforts to link diabetes process and outcome measures.

While additional research is required in evaluating this measure, it could be used in a variety of future applications. Quality improvement programs in diabetes care could profile providers’ practices not only on the basis of their glycemic control but also in their pharmacological management. Providers with higher intensity scores and better glycemic control could then be used for benchmarking. Important subgroups of patients with poor glycemic control, such as ethnic minorities and individuals with mental health illnesses, could also be evaluated to determine whether differences in glycemic control reflect differences in medication management or other factors.

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Current quality measures for diabetes capture many important aspects of care. However, randomized trials clearly demonstrate that intensity of therapy is important in achieving glycemic control. Through advances in health services research, we will be better able to measure and improve this critical aspect of care.

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The VA/DoD Evidence-Based Practice Work Group


The VA National Clinical Practice Guideline (CPG) Council has a new look and a new name. In November 2004, the VA/DoD Health Executive Council (HEC) chartered the new VA/DoD Evidence-Based Practice Work Group. This work group replaces the VA National Clinical Practice Guideline Council and will advise the VA/DoD HEC on the use of clinical and epidemiological evidence to improve health care across populations served by the VA and the Military Health Care System.

Since 1998, the VA and DoD have enjoyed a meaningful partnership in developing and implementing clinical practice guidelines. Together they have developed 27 clinical practice guidelines, which are available on the VA and DoD Web sites and also the National Guideline Clearinghouse.

The new Evidence-Based Practice Work Group’s membership includes 10 representatives each from the DoD and VA. The work group’s vision is to improve the overall health of VA and DoD beneficiaries by using evidence-based practices, reducing variations in care, and optimizing patient outcomes. The work group tasked four subgroups with accomplishing this mission: 1) Clinical Guideline Portfolio Management and Development, 2) Evaluation and Analysis, 3) Decision Support for Evidence-Based Practice, and 4) Evidence-Based Knowledge Management and Transfer. Various Quality Enhancement Research Initiative (QUERI) groups are involved in both the subgroups and guideline development work groups.

This year the Evidence-Based Practice Work Group will assemble expert teams to develop a new clinical practice guideline for obesity and update four other guidelines including dyslipidemia, post-deployment with a module on traumatic amputation, chronic obstructive pulmonary disease, and psychosis with a module on bi-polar conditions. The work group also plans to update the asthma guideline. With the help of the Technology Assessment Program, an acute stroke module is being developed as an addition to the stroke rehabilitation guideline.

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Evidence-based guidelines form the backbone of any strong performance management system. At the VA, these guidelines are developed by VA/DoD clinical leaders working with multidisciplinary work groups and the Evidence-Based Practice Work Group. These guidelines provide the basis for what will be measured and targeted for improvement across the VA system. For the VA, performance measurement translates into accountability, with the ultimate goal of improved practice and decreased variability across the system. Improvement efforts focus on education, guidance, and assistance in the form of shared experiences, and dissemination of tools that enable providers and facilities to reach their performance goals.

Resources

A complete listing of available guidelines, summaries, pocket and key point cards, and VA-related performance measures can be found on vaww.oqp.med.va.gov and www.qmo.amedd.army.mil. Pharmacotherapeutic guidelines developed by the Medical Advisory Panel to the Pharmacy Benefits Program can also be accessed online at www.vaphm.org/pbm/treatment.htm.

Coming Soon: Implementation Science, A New Online Journal

VA’s HSR&D Service is supporting the launch of a new e-journal in the field of health care quality improvement and implementation research. Tentatively titled Implementation Science, the new journal will complement existing journals in this field by focusing on core research problems and issues. The journal will cover the full range of perspectives comprising implementation research by attracting authors and readers from disciplines as diverse as evidence-based medicine, knowledge utilization, the social sciences, and others.

The journal’s planning group includes researchers and representatives from VA, the Agency for Healthcare Research and Quality, and other research institutions in the United States, United Kingdom, Canada, Norway, and the Netherlands. Members of the editorial board will represent a broad range of disciplines, institutions, and countries. The journal will be published as an online, open-access journal through BioMed Central (www.biomedcentral.com).

For additional information about the journal and to access a brief survey designed to gather input into key decisions regarding the journal title, scope, and mission, visit the journal’s Web site at www.hsrd.research.va.gov/for_researchers/journal-information.cfm.
A Recap of the HSR&D National Meeting

More than 500 researchers, clinicians, and policymakers participated in VA’s Health Services Research & Development Service (HSR&D) 23rd National Meeting held February 16–18, 2005, in Baltimore. “Improving Care for Veterans with Chronic Illness” was the meeting theme, which focused on how to provide the best and most cost-effective health care for veterans living with chronic illnesses.

Hosted by HSR&D’s Houston Center for Quality of Care and Utilization Studies, the conference addressed numerous health care issues relating to quality improvement for chronic illnesses, such as chronic care models, patient-centered care, performance measurement systems, physician-patient communication, and translating research findings into practice. Researchers also addressed many chronic diseases and conditions that affect veterans, including HIV, post-traumatic stress disorder (PTSD), diabetes, chronic viral hepatitis, and heart disease.

Highlights

In his opening remarks, Stephan Fihn, M.D., M.P.H., Acting Chief Research and Development Officer, noted a few recent and significant contributions made by HSR&D investigators: improving the cost-effectiveness of routine HIV screening; increasing access to specialty care in nursing homes via interactive video; and assessing a VA bar-code medication administration system that reduces medication errors, the most common cause of adverse events in hospitals.

Dr. Fihn also discussed VA research priority areas including interventions to reduce health disparities related to ethnicity or gender, improving the continuum of care for new veterans and active duty military personnel seeking VA care, and improving the quality of care for women veterans and veterans who need long-term care. He also highlighted several patient care improvements that have resulted from VA’s Quality Enhancement Research Initiative (QUERI). Doubling flu vaccination among veterans with spinal cord injury, doubling adherence to antidepressants among patients with depressive disorders, and increasing provider adherence to guidelines for HIV treatment were offered as examples.

In the coming year, QUERI plans to expand coordination and integration with other parts of VA in applying evidence-based approaches to a broader spectrum of conditions and challenges that affect the health of veterans. Special focus will be on new veterans who may be dealing with traumatic amputations, PTSD, or other health issues related to military deployment.

Guest speaker Kenneth Dexter provided a veteran patient’s perspective when he spoke about living with chronic illness, his recuperation from stroke, and the excellent care he has received over the years from the VA. He stressed the need to improve communication between patients and providers, and emphasized the importance of research, particularly his involvement in several clinical trials that improved the quality of his health and life.

Edward Wagner, M.D., M.P.H., Director of the MacColl Institute for Healthcare Innovation in Seattle, served as this year’s keynote speaker. In his remarks, Dr. Wagner emphasized the need for collaboration across the health care continuum, including primary care providers and specialists, and communities to best serve those with chronic illnesses.

To learn more about research presented at this year’s meeting, visit www.hsrd.research.va.gov/about/national_meeting/.


Hayward Receives Under Secretary’s Award for Outstanding Achievement

Rodney A. Hayward, M.D., has received this year’s prestigious Under Secretary’s Award for Outstanding Achievement in Health Services Research. Dr. Hayward was acknowledged as an exceptional health services researcher, excellent mentor, and respected VA leader. Jonathan R. Perlin, M.D., Ph.D., Under Secretary for Health, presented the award via video at the HSR&D National Meeting.

As Director of HSR&D’s Center for Practice Management and Outcomes Research in Ann Arbor, Mich., Dr. Hayward has been instrumental in developing the Center as one of the elite health services research centers in the country. Further, his work in quality measurement and improvement, especially with regard to patient safety and in diabetes health care delivery, has been innovative and influential.

Dr. Hayward has a long and accomplished academic career at the University of Michigan, where he is currently a professor in the Division of General Medicine.
Challenges for the Future

Our study also provides lessons regarding selection of measures for performance monitoring systems. Because the act of measuring and reporting appears to be a critical motivator for health care administrators, managers, and providers to improve quality of care, performance measures should focus on those conditions and care activities that are likely to have a large impact on improving health outcomes. Covering more areas of importance with measures may spur the same sort of quality improvement that we have seen in other conditions subject to performance measures.

Future challenges for effective performance measurement and profiling include: choosing conditions and measures beyond those commonly profiled (McGlynn, 2003); constructing clinically meaningful measures that are likely to motivate quality improvement without creating perverse incentives (Kerr, 2001); understanding how to aggregate measures into composite scores; and incorporating appropriate assessments of measurement error when reporting provider profiles (Hofer, 1999).

References

