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## Reinventing VA Health Care Systematizing Quality Improvement and Quality Innovation

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The Veterans Health Administration (VHA) in the US Department of Veterans Affairs (VA) manages the largest fully integrated health care system in the United States. In 1995, the VHA initiated a reinvention effort that included the most radical redesign of VA health care to occur since the veterans health care system was formally established in 1946. The 2 paramount goals of this reinvention effort were to ensure the predictable and consistent provision of high-quality care everywhere in the system and to optimize the value of VA health care. Although still a work in progress, dramatic results have been achieved toward these ends during the past 5 years.

The quality of health care in the United States presents a paradox. On the one hand, the generally high level of training of US health care practitioners, our extensive and highly sophisticated biomedical research program, the rapid dissemination of new medical knowledge, the extent of government funding for health care and medical research, and the widespread ready availability of state-of-the-art diagnostic and treatment technology have made modern medical treatment available to more Americans than ever before. These things are the envy of much of the world. On the other hand, a number of studies in recent years have documented serious and widespread quality-of-care problems in US health care.<sup>1-11</sup> Overuse, underuse, and misuse of medical care occur too frequently in all types of health

This article provides an overview of the veterans health care system, and it highlights selected aspects of the system's reengineering. It also describes various steps that have been taken to better manage performance and to systematize quality improvement and quality innovation. This information provides a global context that should facilitate understanding of the genesis and purposes of the Quality Enhancement Research Initiative that is described in other articles in this issue of *Medical Care*.

**Key words:** health care; veterans; performance; quality improvement; Veterans Health Administration; quality management. (*Med Care* 2000;38[suppl I]:I-7-I-16)

care delivery systems and with all types of health care financing.<sup>4-6</sup>

Although tens of millions of Americans reap the benefits of modern medicine each year, millions of others are exposed to unnecessary risks or are denied opportunities for improved health. Likewise, too many patients are injured, disabled, or killed as a result of medical errors and treatment-related mishaps.<sup>7-11</sup> Quite simply, as good as American health care is, it could be markedly better.

The veterans health care system is the largest fully integrated health care system in the United States, and despite its centralized management, it appears to be a microcosm of American health care with respect to quality of care. Consequently, one of the overarching goals of the reinvention effort initiated by the Veterans Health Administra-

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tion (VHA) in 1995 was to systematize quality management to ensure the provision of consistent and predictable high-quality care across the entire system.<sup>12-19</sup> Because health care quality management is still an immature science having significant knowledge gaps, and since no "best practices" have yet been identified for deploying quality improvement across large health care systems,<sup>4</sup> the VHA's approach to systematizing quality improvement and quality innovation should be viewed as a work in progress.

The Quality Enhancement Research Initiative (QUERI) is a prime example of how the VHA is quickly building an infrastructure to systematize quality while also establishing a national model for ongoing quality improvement. To fully appreciate QUERI, it is necessary to understand some of the VHA's history and organizational context. This article provides an overview of the VHA health care system, its missions, the need for change, the VHA transformation, and efforts to systematize quality improvement and innovation. The other articles in this supplement review the QUERI philosophy, process, data management, and change issues, as well as work being done in each of the 8 diseases that are the focus of QUERI.

### **An Overview of the Veterans Health Care System**

The United States has provided special benefits to veterans of its armed forces since colonial days. In 1636, the Plymouth Colony passed a law that provided lifetime support for any soldier disabled while defending the colony against the Indians. In 1778, the first national pension law was enacted for soldiers who fought in the American Revolution. President Lincoln signed legislation authorizing the National Cemeteries in 1862, and later, in 1865, legislation creating the National Home for Volunteer Soldiers in Togus, Maine. Homes for disabled Civil War veterans were subsequently opened in numerous sites throughout the country. In 1917, the United States Government Life Insurance program was established, and in 1930, President Herbert Hoover signed legislation consolidating the many disparate veteran programs into an independent federal agency known as the Veterans Administration (VA).

The most far-reaching program ever designed for veterans was established by the Servicemen's Readjustment Act of 1944, which is more com-

monly known as the "GI Bill of Rights." This landmark legislation offered low-interest loans for veterans to purchase homes, farms, or small businesses; unemployment benefits; financial assistance for education; and health care and rehabilitation services.

In March 1988, President Ronald Reagan established a new cabinet position responsible for coordinating the full range of services for veterans and thereby created the Department of Veterans Affairs (still abbreviated VA). The VA is now the second-largest cabinet-level agency in the federal government, next to the Department of Defense (DOD).

Although veterans benefits always included some health care, these benefits initially were limited to infirmary-type services, and they were provided by the US Public Health Service (USPHS) until after World War I, when Congress authorized hospital inpatient care as a veterans benefit and transferred several USPHS hospitals to the then Veterans Bureau. Subsequently, the beginnings of a veterans health care system began to form within the VA. However, the massive numbers of World War II veterans needing medical care rapidly overwhelmed the VA's nascent health care capabilities, leading Congress to authorize the creation of a new VA Department of Medicine and Surgery and a formal veterans health care system in 1946.

### **Missions of Today's Veterans Health Care System**

Now managed by the VHA in the Department of Veterans Affairs, the veterans health care system is both one of the largest and one of the oldest formally organized health care systems in the world. In federal fiscal year (FY) 1999, VA provided "hands-on" health care to >3.6 million persons at >1,100 sites of care located in all 50 states, as well as in Puerto Rico, the US Virgin Islands, Guam, Samoa, and the Philippine Islands, operating with a combined medical care, research, and construction budget of >\$20 billion and ~182,000 staff. In FY 1999, the VA's principal physical assets included 172 hospitals, >600 ambulatory and community-based clinics, 132 nursing homes, 206 counseling centers, 40 domiciliaries (residential care facilities), 73 home health care programs, and various contract care programs. Among the VHA's staff that year were nearly 13,000 physicians, some

53,000 nursing personnel, >3,500 pharmacists, and thousands of other health care professionals.

Although originally created to treat combat-related injuries and to help rehabilitate veterans with service-connected disabilities, the veterans health care system has expanded in both size and responsibility over the years. The VHA is now one of the most managerially complex health care systems in the world, having 5 principal missions.

### **Provision of Medical Care**

By law, the primary mission of the veterans health care system is to improve the health and functioning of America's veterans and to reduce the impact and burden of illness, injury, and disability of those conditions related to their service in the armed forces of the United States, especially those conditions related to combat. Whereas all veterans were originally eligible for VA health care, such eligibility was increasingly limited by Congress over the years, so that VA health care had essentially become a safety-net system by the 1990s.<sup>20</sup> Unlike Medicare and Medicaid, VA health care is not an entitlement program; the number of persons VA is able to serve each year is limited primarily by the amount of funding provided by Congress. Of note, in FY 1999, VA health care was opened up to all veterans, but now according to a new enrollment system established as part of the VA's transformation and encoded as part of the 1996 landmark eligibility reform legislation.<sup>21</sup>

### **Education and Training**

The VHA's second statutory mission is to conduct education and training programs that enhance the quality of care provided to veterans. In FY 1999, the VHA provided clinical training to ~112,000 students and trainees in >45 health care disciplines through affiliations with >1,200 universities, colleges, and other institutions of higher education. Almost two thirds of physicians in the United States have received at least some of their training through the VA, and the VA health care system has become an essential component of health care higher education in the United States.

### **Research**

The VHA's third statutory mission is to conduct research that will enhance health care for veterans.

Over the years, the VHA's research program has been exceptionally productive, and its investigative portfolio has become quite diverse, encompassing a wide array of projects ranging from basic science studies and multi-institutional clinical trials to health services delivery and clinical outcomes projects. Currently, the VHA has combined intramural and extramural research funding of ~\$1.1 billion per year. Being nested in a fully integrated health care delivery system with a stable patient population that has an exceptionally high prevalence of chronic conditions provides VA investigators with unparalleled opportunities to translate research questions into studies and research findings into clinical action.

### **Contingency Support and Emergency Management**

The VHA is mandated by law to be the primary backup to the DOD medical care system during times of war and to assist the USPHS and National Disaster Medical System in providing emergency medical care to victims of natural and other disasters.<sup>22</sup> Because of the devolution of the DOD and USPHS health care systems in recent years, the veterans health care system has become, in many ways, the federal government's primary asset to actualize disaster plans that require a medical care response.

### **Provision of Services to Homeless Persons**

Because some 35% to 40% of homeless adults are veterans, the VA has become the nation's largest direct provider of services for homeless persons, providing medical care to >65,000 homeless persons a year and providing other services to many more. The VA is the only federal agency providing substantial assistance directly to homeless persons.

### **Reasons for Change**

Powerful societal, demographic, and industry-wide forces of change have been rapidly transforming American health care in recent years. VA health care has been buffeted by those same forces of change.

Most prominent among these forces of change are the market-based restructuring of health care

in general and the rise of managed care in particular; the explosion of scientific and biomedical knowledge, with concomitant technological advances that are dramatically expanding the ability to treat illness and injury; unprecedented developments in information management; and the changing demographics and aging of America. In addition, the veterans health care system is affected by the public's changing views about the role and size of government in general and the federal government in particular.

When created, and as it developed in the 1950s and 1960s, the veterans health care system was patterned after the best of American health care at the time. It emphasized hospital inpatient care, medical specialization, and high technology. During those early years, the VA established a distinguished record of providing the specialized medical care that was needed by veterans and that was often not available in the community (eg, rehabilitation of the blind, psychiatric care, prosthetics, and care for spinal cord injuries, to name some), as well as for educating physicians and conducting cutting-edge research.

Unfortunately, over the years, some VA hospitals suffered from quality-of-care problems that received considerable media attention because of the system's exceptional degree of oversight and its public nature. A few of these situations were dramatized in movies such as *Born on the Fourth of July* and had an especially damaging effect on the system's image.

The VA was also slow to change with the times, and it was especially tardy in engaging in the American health care revolution ignited in the 1980s by the explosion of biomedical knowledge and medical technology, medical care cost increases, and other factors. Unfortunately, the system's exceptionally political nature, its many special interest groups, its highly centralized and hierarchical management structure, inconsistent leadership, and the inertia innately inherent to large organizations all combined to suppress innovation, cause decision making to be painfully slow, and make change very difficult to achieve for those who tried to introduce new ways of doing things into the VA.

By the early 1990s, a number of internal and external reports identified serious operational and managerial problems in the veterans health care system.<sup>23-29</sup> VA health care was criticized for being too hospital focused and specialist based, resulting in uncoordinated and episodic treatment of illness.

Instead of functioning as a health care system that provided a coordinated continuum of care, the VA operated as a collage of independent and competing medical centers, much as their private sector counterparts did. VA health care was too difficult to access, both geographically and temporally, with patients sometimes traveling hundreds of miles for routine care and there often being a backlog of months for a routine appointment. There was marked, unexplainable interfacility and interphysician variation in how care was provided (again, not unlike the private sector). Congressionally appropriated medical care funds were distributed to facilities by a highly complex and poorly understood process that perpetuated unnecessary inpatient care and other inefficiencies. Likewise, the rules governing veteran eligibility for care had become anachronistic, at best, often requiring hospitalization for simple procedures done routinely on an outpatient basis in the private sector. These rules were encoded in statute, however, requiring an act of Congress to change them—something that key congressional leaders had resisted doing for many years out of fear that rationalizing the eligibility rules would result in more persons using the system and, thus, increased expenditures.

## VHA Transformation

After several months of preparatory work and consensus building after I joined the VHA in late 1994, I proposed a plan to fundamentally transform VA health care using population health and managed care principles tailored to the complex needs of the VA's service population of older, sicker, and socioeconomically disadvantaged persons.<sup>12</sup>

Space here does not allow for a detailed description of the plan or the principles upon which it was based, so the reader is referred to the original documents and other publications for such details.<sup>12-19</sup> However, to better understand the environment in which QUERI was conceived and launched, it is useful to highlight some of the radical system-wide changes that occurred during the 5-year period FY 1995 through FY 1999.

## Implementation of Integrated Service Networks

A key element of the "new VA" health care system was the creation of integrated service networks. In

the fall of 1995, the VHA's myriad sites of service delivery (eg, its hospitals, clinics, nursing facilities, and counseling centers) were organized into 22 Veterans Integrated Service Networks or VISNs (pronounced "visions") according to the then-prevailing patient-referral patterns, aggregation of clinical care assets and beneficiaries in each VISN sufficient to provide a continuum of primary to tertiary care, and, to some extent, political jurisdictional boundaries like state and county lines.

A typical VISN encompasses 7 to 10 VA medical centers, 25 to 30 ambulatory care clinics, 4 to 7 nursing homes, 1 to 2 domiciliaries, and 10 to 15 counseling centers and provides "hands-on" care to ~150,000 to 200,000 persons each year.

The VISN has become the veterans health care system's basic budgetary and management unit. It provides a structural imperative for pooling and aligning resources to meet local needs, coordinating services, reducing service duplication and administrative redundancies, improving the consistency and predictability of receiving high-quality care, and, overall, optimizing health care value. The VISN is designed to promote both vertical and "virtual" integration.

Concomitant with the implementation of VISNs, a number of other steps were taken to better coordinate and integrate care. For example, universal primary care was implemented, largely patterned after the British firm model, because this model of primary care better serves the VA patient population of primarily older males with a high prevalence of chronic illness than does the family-practitioner model prevalent in the United States. When the primary care initiative was launched in FY 1995, ~10% of VA patients were assigned to primary care. Four years later, essentially all patients in the system were assigned to a primary care team, and >80% of patients queried could name their primary caregiver.

In a further effort toward promoting integrated service delivery, between September 1995 and September 1999, 52 VA medical centers were merged into 25 locally integrated care networks, again stressing quality and value. Likewise, both single and multi-institutional service lines (eg, primary care and mental health) were implemented in several VISNs.

### **Eligibility Reform**

Another key underpinning of the new VA is being able to treat the entire patient instead of just

his or her service-connected disability (as had largely been the case in previous years) and being able to do so in the most medically appropriate setting. However, in 1995, the prevailing statutory eligibility rules were a major barrier to approaching care in such a rational manner.

Although attempts to change the eligibility rules governing veterans health care had been made for many years, such proposals were consistently derailed. Working behind the scenes with key members of Congress, I employed some different lines of reasoning than had been used before, focusing more on accountability and system-management needs than on expanding access to care, and I promoted the concept of formal enrollment as a way to control growth of the system, should such be necessary. The combination of the concepts of enrollment and greater system accountability appeared to sway the opinion of certain Senators and seemingly helped secure passage of the landmark Veterans Eligibility Reform Act of 1996.<sup>26</sup>

This new law substantially revised the statutes governing veteran care, putting inpatient and ambulatory care on the same statutory footing so that the VA can now provide whatever care a patient needs in whatever is the most medically appropriate setting. The law also gave the VA broad authority to contract with private practitioners, health plans, or other entities to provide care for VA patients (ie, to integrate "virtually"); this had not been allowed previously.

### **Capitation-Based Resource Allocation**

Still another key feature of the new VA was the creation of a predictable, fair, and easy-to-understand methodology for allocating congressionally appropriated funds, which also took into account the national demographic shifts that had occurred in the 1970s and 1980s, as well as the high degree of illness and disability prevalent in the VA's service population. To this end, a new capitation-based resource-allocation system known as the Veterans Equitable Resource Allocation (VERA) methodology was implemented in 1997.<sup>30,31</sup>

In brief, under VERA, patients are divided into 2 categories based on the type of service they require, and each category is given a national price. This national price is adjusted at the VISN level for the cost of labor and 5 other variables. For FY 1997 through FY 1999, 96% of patients, accounting for

62% of expenditures, fell into the "basic care" category, whereas the remaining 4% of patients (38% of expenditures) fell into what is considered "complex care." VERA basic care provides a scope of benefits slightly broader than what is offered by Medicare managed care plans, whereas complex care includes things not well covered under Medicare (eg, long-term care).

Interestingly, although VA's basic-care benefit package is slightly more generous than Medicare, its annual capitation rate is between a third and half of what Medicare pays health maintenance organizations (HMOs) to care for Medicare beneficiaries (eg, in FY 1998, the VERA national price for basic care was \$2,804 before local adjustment, whereas Medicare's annual rate to private HMOs was between \$5,000 and \$9,000, depending on geographic location).

VERA markedly simplified the VHA budgetary process while also ensuring that resources would be allocated equitably. VERA provides strong incentives for managers to ensure that care is being provided in the most appropriate setting. In brief, VERA introduced unprecedented financial discipline into the VA health care system. Of note, the system-wide average annual expenditure per patient in constant dollars decreased from \$5,479 in FY 1994 to \$4,105 in FY 1999, a 25.1% decrease.

### **Expanding Access by Shifting to Ambulatory Care**

Concomitant with implementation of integrated service networks, eligibility reform, and VERA, another key feature of the VHA's transformation was an effort to expand access by emphasizing ambulatory care whenever medically appropriate. This approach was visibly manifested by the institution of universal preadmission screening, rigorous admission and discharge planning, system-wide primary care, and universal telephone-linked care, as well as the creation in all facilities of "hoptel" beds for patients needing lodging but not hospital care.

As tangible evidence of the shift to ambulatory care, the VHA closed 28,886 (55%) of its 52,315 acute-care hospital beds between September 1994 and September 1999, and bed-days of care per 1,000 patients dropped from 3,530 to 1,136 (a 68% decrease) while ambulatory care visits per annum increased by >11 million (ie, from 25 to 37 million per year, a 35% increase). In comparison, the number of VA nursing home beds decreased <3%

during this 5-year period, and the number of domiciliary beds decreased ~15%.

Compared with FY 1994, inpatient admissions to VA hospitals in FY 1999 had decreased by almost 350,000 (36%), even though the number of patients being cared for by the system during this time had increased 24%. (Approximately 700,000 more patients were provided hands-on care in FY 1999 than in FY 1994.) Likewise, the percentage of surgeries performed on an ambulatory basis increased from 35% of all VA surgeries in FY 1995 to >75% in FY 1999. Total surgical productivity increased ~5% with the shift to more ambulatory procedures, even though surgical staffing decreased ~10%. Similarly dramatic changes in inpatient capacity were made in substance abuse, posttraumatic stress disorder, and other mental health programs, while concomitantly, the number of these patients cared for was increased.

To make care even more accessible, 302 new community-based outpatient clinics were established during these years with the savings achieved in other areas (eg, VA's Pharmacy Benefits Management Group with its National Formulary documented >\$654 million in savings on the cost of drug purchases alone from FY 1995 to FY 1999.). No new funds were appropriated for these new clinics. In association with these new approaches to providing care, system-wide staffing decreased by >25,867 full-time employees (12%) between September 1995 and September 1999.

### **New Performance Management Program**

A further central aspect of the VA's transformation was a new approach to performance management that would support its strategic goals of providing consistent and predictable high-quality care and optimal health care value. A Performance Management Program instituted in 1995 was premised on quality improvement and quality innovation being key strategic goals. Toward this end, a 10-dimension, process- and outcome-focused quality-of-care accountability framework was detailed; performance measures were identified for a broad range of clinical and administrative processes; clinical performance measures were designed to support systemization of the best research and best practices in the provision of health care services; and numerous new quality-management tactics were implemented (eg, marked expansion of the use of clinical guidelines

and care management, establishment of "Clinical Programs of Excellence," and development of new indices of best practices of care).<sup>15</sup> Likewise, a new mental health performance measurement system was instituted; the VA's National Surgical Quality Improvement Program was fully implemented<sup>32,33</sup>; the most comprehensive longitudinal and cross-sectional program for assessment of patient functional status ever performed anywhere was implemented; and benchmark initiatives were launched in end-of-life care, pain management, HIV/AIDS care, cancer treatment, care management, and patient safety.

Accountability was introduced into the process by having clinical experts and managers track performance measures indicative of guideline adherence and progress toward strategic goals. Explicit performance contracts (which are, so far, unique to VHA in the federal government) were used to hold managers specifically accountable for achieving challenging but realistic performance targets within defined timeframes.

Since the inception of these efforts, substantial improvement in the quality of VA care has been documented by multiple methods. For example, the risk-adjusted 1-year survival rate of some of the VA's most vulnerable patient cohorts notably improved (Table); in other cohorts already having risk-adjusted 1-year survival rates >95%, there was either no change or slight improvement despite all the tumult in the system. Similarly, from FY 1994 through FY 1997, 30-day postsurgical morbidity and mortality decreased 30% and 9%, respectively, and VHA's surgical morbidity and mortality rates were the lowest reported for several high-volume procedures, including those for colectomy, cholecystectomy, abdominal aortic aneurysm repair, carotid endarterectomy, and total hip arthroplasty.<sup>33</sup>

The VHA's newly implemented prevention index (PI) and chronic disease care index (CDCI) also documented marked improvement in adherence to established clinical best practices. The PI consists of 9 clinical interventions that measure how well VHA practitioners follow nationally recognized primary prevention and early detection recommendations for 8 diseases with major social consequences: influenza and pneumococcal diseases; tobacco consumption; alcohol abuse; and cancer of the breast, cervix, colon, and prostate.<sup>15</sup> (Many of these measures are the same as in the Health Plan Employer Data and Information Set [HEDIS].) In the aggregate, from FY 1995 through

FY 1999, the PI rose from 34% to 81% (a 138% increase). Illustrative of these changes, the percentage of at-risk patients with documentation of current influenza and pneumococcal vaccination increased from 28% to 76% (a 171% increase) and from 26% to 77% (a 196% increase), respectively, and the number of at-risk veterans appropriately screened for colorectal and breast cancer increased from 34% to 74% (a 131% increase) and from 68% to 91% (a 34% increase), respectively.

The CDCI consists of 14 clinical interventions that assess how well VHA practitioners follow nationally recognized guidelines for 5 high-volume diagnoses: ischemic heart disease, hypertension, chronic obstructive pulmonary disease, diabetes mellitus, and obesity.<sup>15</sup> (Again, many of these measures are the same as in HEDIS.) In the aggregate, this index increased from 44% to 89% (a 102% increase) from FY 1995 to FY 1999. Illustrative of the changes, the number of post-myocardial infarction patients taking  $\beta$ -blockers increased from 77% to 94% (a 22% increase); the percentage of diabetic patients having  $\geq 1$  annual hemoglobin A<sub>1c</sub> measurement and a retinal eye exam increased from 51% to 93% (a 82% increase) and from 47% to 67% (a 43% increase), respectively; and the percentage of hypertensive patients having documented blood pressure control of <140/90 mm Hg increased from 25% to 45% (an 80% increase).

Improved quality of care also was demonstrated by use of a new palliative care index,<sup>15</sup> whose score rose from 54% in FY 1997 when it was implemented to 96% in FY 1999; in accreditation scores from the Joint Commission on Accreditation of Healthcare Organizations; in customer satisfaction survey results; and by various other methods. Of note, these improvements in quality were also accompanied by improvements in service satisfaction. Beginning in FY 1995, customer service standards were implemented in VA health care, and management was held accountable for making improvement. Using the patient service satisfaction instrument promulgated by the Picker Institute for Patient Centered Care, statistically significant improvements in patient satisfaction were observed between FY 1995 and FY 1999 in essentially all areas.

Similarly, in 1999, a national survey of veterans commissioned by the National Partnership for Re-inventing Government (NPRG) using the American Customer Satisfaction Index (ACSI) found that veterans who used VA health care were



TABLE 1. One-Year Risk-Adjusted System-Wide Survival Rates for 9 VA Patient Cohorts

Patient Cohort	FY 1992	FY 1998	% Change
Chronic renal failure	74.4%	81.4%	9.4%
Congestive heart failure	76.7%	83.1%	8.3%
Chronic obstructive pulmonary disease	85.0%	88.5%	4.1%
Pneumonia	82.6%	89.3%	8.1%
Diabetes mellitus	94.7%	94.8%	<0.01%
Angina pectoris	96.0%	96.8%	<0.01%
Major depressive disorder	98.1%	98.3%	<0.01%
Schizophrenia	98.2%	98.2%	0.0%
Bipolar disorder	98.0%	98.5%	<0.01%

increasingly satisfied with VA health care. The ACSI is routinely used in the private sector. This specific NPRG study of 30 federal agencies was conducted by Arthur Anderson in collaboration with the American Society for Quality. In this study, 80% of veterans said care had improved in the previous 2 years, and they gave an overall satisfaction rating of 79 (on a scale of 0 to 100). The latter was significantly higher than the score of 72 recorded by the general public for all industry sectors or the score of 70 for private hospitals.

### Other Transformation Strategies

Space does not allow me to detail several other important transformation strategies, but these included improving information management and data integrity; increasing partnerships and other external relationships; restructuring both the research and education programs; decentralizing decision making; launching QUERI; and starting to diversify the sources of funding. The results achieved in these areas have been dramatic as well.

### Systematizing Quality Improvement and Quality Innovation

As noted above, the VHA's new performance-management program aligns organizational vision and mission with quantifiable strategic goals, defines measures to track progress in meeting those goals, holds management accountable through prospective performance agreements for results achieved, and advances quality within the context of patient-centered care across the continuum of

care while maintaining sound resource management.

Although the VHA's experience in implementing and institutionalizing quality-management technologies appears to be similar to that of the private sector, it is also unique in some respects. For example, the VHA's extensive involvement with health professional training and research provides unique opportunities for increasing the knowledge base about and encouraging innovation in quality improvement. It was with this in mind that the VA National Quality Scholars Fellowship Program was launched in 1998, and the VA Faculty Fellows Program for Improved Care for Patients at the End of Life (funded by the Robert Wood Johnson Foundation) was initiated in the same year.

Another example of the VHA's efforts to systematize quality innovation is QUERI, which was also implemented in 1998. The VHA's unique portfolio of providing patient care, teaching, conducting research, and continuously measuring outcomes, combined with its large size and national presence, provides for a broad and stable patient base for taking research discoveries and quickly putting them to work, either to improve patient care or to enhance system efficiency. QUERI attempts to purposely link research activities (which generate scientific evidence) to clinical care in as close to real time as possible, thereby leading to rapid adoption of best clinical practices and improvement in patient outcomes.

To accomplish its goals for system-wide quality improvement, the VHA has used an operational strategy that combines central direction or "regulation" (eg, directives from VHA headquarters that define and set standards or expectations for qual-

ity or efficiency), and close monitoring of performance to determine whether expectations are being met, with competition and rewards that build on the professionalism and passion of health care workers to do what is best for patients.<sup>15</sup> This blended strategy is conceptually similar to the approach used to improve cardiac surgery outcomes in New York State,<sup>34–36</sup> although the nature of the regulation and competition in this case are primarily internal to the organization.

## Conclusions

Although linked exclusively to veterans in the minds of most Americans, today's veterans health care system provides many services that benefit the entire US population, and it offers the potential to serve as a national laboratory for solving many important health care questions now before the nation. QUERI, the focus of the remainder of this supplement, is rapidly evolving into a national model for systematic quality improvement. As this occurs, information about what works and does not work should quickly become available to the public. During the 5-year period FY 1995 through FY 1999, the veterans health care system underwent a radical transformation. Although the transformation continues to be a work in progress, the results so far have demonstrated unequivocally higher quality of care, improved access to care, and greater patient satisfaction, while at the same time documenting a 25% reduction in per-patient costs. QUERI will continue to document additional improvement in patient outcomes and system-wide efficiencies.

The VHA's goal is to have a quality-management system that ensures veterans that they will receive the highest-quality health care possible everywhere in the VA health care system "first time, every time." By systematizing quality improvement and quality innovation, the VHA intends to eliminate inappropriate or unnecessary overutilization and underutilization and reduce misuse and medical errors to the fewest possible, and continually fewer.

## References

1. **Wennberg JE, McAndrews M, eds.** The Dartmouth atlas of healthcare in the United States. Chicago, Ill: American Hospital Publishing; 1998.

2. Institute of Medicine. America's health in transition: Protecting and improving quality. Washington, DC: National Academy Press; 1994.

3. **Schuster MA, McGlynn EA, Brook RH.** How good is the quality of healthcare in the United States. *Milbank Quart* 1998;76:517–567.

4. **Chassin MR, Galvin WR, and the IOM National Roundtable on Healthcare Quality.** The urgent need to improve healthcare quality. *JAMA* 1998;280:1000–1005.

5. Advisory Commission on Consumer Protection and Quality in the Healthcare Industry. Quality first: Better healthcare for all Americans. Washington, DC: US Department of Health and Human Services; 1998.

6. **Sisk JE.** Increased competition and the quality of healthcare. *Milbank Quart* 1998;76:687–707.

7. Institute of Medicine. To err is human: Building a safer health system. Washington, DC: National Academy Press; 1999.

8. **Leape LL.** Error in medicine. *JAMA* 1994;272:1851–1857.

9. **Brennan TA, Leape LL, Laird NM, Hebert L, Localio AR, Lawthers AG, et al.** Incidence of adverse events and negligence in hospitalized patients: Results of the Harvard Medical Practice Study I. *N Engl J Med* 1991;324:370–376.

10. **Leape LL, Brennan TA, Laird N, Lawthers AG, Localio AR, Barnes BA, et al.** The nature of adverse events in hospitalized patients: Results of the Harvard Medical Practice Study II. *N Engl J Med* 1991;324:377–384.

11. **Brennan TA, Hebert LE, Laird N, Lawthers A, Thorpe KE, Leape LL, et al.** Hospital characteristics associated with adverse events and substandard care. *JAMA* 1991;265:3265–3269.

12. **Kizer KW, ed.** Vision for change: A plan to restructure the Veterans Health Administration. Washington, DC: Department of Veterans Affairs; 1995.

13. **Kizer KW.** Prescription for change: The guiding principles and strategic objectives underlying the transformation of the Veterans Healthcare System. Washington, DC: Department of Veterans Affairs; 1996.

14. **Kizer KW.** Healthcare, not hospitals: transforming the Veterans' Health Administration. In: Dauphinais GW, Price C, eds. Straight from the CEO: The world's top business leaders reveal ideas that every manager can use. New York, NY: Simon & Schuster; 1998:112–120.

15. **Kizer KW.** The "new VA": A national laboratory for healthcare quality management. *Am J Med Qual* 1999;14:3–20.

16. **Kizer KW, Garthwaite TL.** Vision for change: an integrated service network. In: Kolodner RM, ed. Computerizing large integrated health networks: The VA success. New York, NY: Springer-Verlag; 1997:3–13.

17. **Kizer KW, Pane GA.** The "new VA": Delivering healthcare value through integrated service networks. *Ann Emerg Med* 1997;30:804–807.
18. **Kizer KW, Fonseca ML, Long LM.** The Veterans Healthcare System: preparing for the twenty-first century. *Hosp Health Serv Adm* 1997;42:283–298.
19. The National Patient Safety Partnership and the VHA's patient safety improvement initiative. Joint Commission Benchmark 1999;1(June):8–9.
20. **Wilson NJ, Kizer KW.** The VA healthcare system: an unrecognized national healthcare safety net. *Health Aff* 1997;16:200–204.
21. Public Law No. 104-262, 110 Stat 3177-3211.
22. **Kizer KW, Cushing TS, Nishimi RY.** The VA's role in federal emergency management. *Ann Emerg Med* (In press).
23. **Booth BM, Ludke RL, Wakefield DS, et al.** Non-acute days of care within Department of Veterans Affairs medical centers. *Med Care* 1991;29S:AS51–AS63.
24. VA healthcare: Opportunities for service delivery efficiencies within existing resources. Washington, DC: General Accounting Office, 1996. Report GAO/HEHS-96-121.
25. VA healthcare: Variabilities in outpatient care eligibility and rationing decisions. Washington, DC: General Accounting Office, 1993. Report GAO/HRD-93-106.
26. Mission Commission. Report of the Commission on the future structure of veterans healthcare. Washington, DC: Department of Veterans Affairs, 1991.
27. **Smith CB, Goldman RL, Martin DC, Williamson J, Weir C, Beauchamp C, et al.** Overutilization of acute-care beds in Veterans Affairs hospitals. *Med Care* 1996;34:85–96.
28. Veterans Health Administration. Report of the Task Force on the Reorganization of VHA Central Office. Washington, DC: Department of Veterans Affairs, 1994.
29. Veterans Health Administration. Report of the Task Group on Veterans Health Administration-Field Reorganization. Washington, DC: Department of Veterans Affairs, 1994.
30. Veterans Health Administration. VERA: Veterans Equitable Resource Allocation. Washington, DC: Department of Veterans Affairs, 1997.
31. Veterans Health Administration. VERA: Veterans Equitable Resource Allocation. Washington, DC: Department of Veterans Affairs, 1998.
32. **Khuri SF, Daley J, Henderson W, Barbour G, Lowry P, Irvin G, et al.** The National Veterans Administration Surgical Risk Study: risk adjustment for the comparative assessment of the quality of surgical care. *J Am Coll Surg* 1995;180:519–531.
33. **Khuri SF, Daley J, Henderson W, Hur K, Demakis J, Aust JB, et al.** The Department of Veterans Affairs' NSQIP: the first national, validated, outcome-based, risk-adjusted and peer-controlled program for the measurement and enhancement of the quality of surgical care. *Ann Surg* 1998;228:491–507.
34. **Chassin MR, Hannan EL, Debuono BA.** Benefits and hazards of reporting medical outcomes publicly. *N Engl J Med* 1996;334:394–398.
35. **Chassin MR.** Improving the quality of healthcare: What strategy works? *Bull NY Acad Med* 1996;73:81–91.
36. **Hannan EL, Kilburn H, Racz M, Shields E, Chassin MR.** Improving the outcomes of coronary artery bypass surgery in New York State. *JAMA* 1994;271:761–766.