ORYX AND THE VHA

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The JCAHO's ORYX initiative promises to support health care quality improvement by integrating outcome data into the accreditation process. Here's how the program works—and how it's being incorporated into the VHA's own performance monitoring systems.

The U.S. health care system is in the midst of a rapid evolution—due, in large part, to the public outcry over the 40-fold increase in health care expenditures over the last four decades of the 20th century. From 1980 to 1996 alone, U.S. health care costs, figured as a percentage of the gross domestic product, rose from 9% to 14%.[1] Reasons for this dramatic increase include such government programs as Medicare and Medicaid, the development of costly new technologies, and the aging population.

The rise in health care costs, however, has not improved the health status of the population in comparison to other countries that spend far less per capita. As a result, the public has demanded—and their representatives in government have begun legislating—a variety of measures to contain costs and improve quality. Health care leaders, in turn, have begun to respond by adopting the tenets of total quality management, long used by other industries. These include the integration of quality ethics and mechanisms systemwide; a focus on the needs of the customer; and an understanding of the partnership between quality and cost, the importance of both strong leadership and teamwork, the need for innovation of products and processes, and the continuous nature of quality improvements.[2]

In accordance with these principles, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) developed its latest initiative for supporting health care quality improvement efforts and increasing the value of accreditation. This initiative, named ORYX, is notable for its integration of outcomes and other performance measurement data into the accreditation process.[3] Implementation of ORYX among JCAHO-accredited hospitals already is well underway, and eventually, all types of health care organizations accredited by this body will be affected. Since the JCAHO is the nation's premiere health care accreditation institution, regulating over 16,000 organizations and programs,[4] the impact of this initiative on U.S. health care is likely to be substantial.

In this article, we review the evolution of the ORYX initiative, describe its potential for improving health care, and discuss the steps the VHA has taken to integrate ORYX requirements into its existing systems for monitoring quality of care.

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THE CHALLENGE OF MEASURING QUALITY

Any quality management system must incorporate mechanisms for measuring quality in order for improvement efforts to be meaningful. One of the greatest difficulties in measuring quality, however, is defining it in the first place. The Institute of Medicine defines quality of health care as "…the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge."[5] The key term in this definition is health outcomes.

Although high quality health care does not guarantee desired patient outcomes (some patients do well despite suboptimal care, and vice versa), the subject of quality must address both processes and outcomes because the two are inevitably linked. For example, a 1990 RAND study revealed that Medicare patients treated for congestive heart failure who received treatment deemed to be of poor quality had a 74% greater chance of mortality within 30 days of hospital admission compared with those who received good quality care.[5] The ORYX initiative recognizes and, in fact, is built upon this link.

ORYX: WHAT IT'S ALL ABOUT

The ORYX program has its roots in the Agenda for Change that began in the mid 1980s.[6] Its goal is to work with health care organizations to develop a more continuous, comprehensive, data-driven accreditation process. In so doing, those organizations should be able to strengthen their quality improvement efforts by identifying issues that require improvement and verifying the effectiveness of corrective measures.[3]

Phase one

ORYX implementation encompasses two phases. The first, already completed, required accredited organizations to select a performance measurement system as well as the specific measures on which data would be collected and reported periodically to the JCAHO. With more than 8,000 measures and over 200 performance measurement systems from which to choose,[6] the program offered organizations considerable flexibility and ease of transition. Hospitals and long-term care facilities, the first organizations targeted, were required to complete this initial step by the end of 1997. Data collection was set to begin in 1998, with quarterly submission of data to the JCAHO starting no later than the first quarter of 1999.[7]

Initially, the data collection was to cover two performance measures and at least 20% of the patient population. The intent was that over the next several years, data collection would expand to include potentially all available indicators and 100% of the patient population.[8] In 2000, however, the JCAHO scaled back the degree to which ORYX will be implemented, capping the number of measures at six (depending on size and utilization rates at the facility) and eliminating the requirement for measures to cover a certain percentage of patients.[3]

Most recently, the phase one requirements for long-term care, behavioral health care, and home care organizations were effectively suspended, with participation in a listed performance measurement system encouraged but no longer required. These organizations still must report performance measurement data to the JCAHO during the on-site survey, but not continuously—until the core performance measures that comprise phase two of ORYX are finalized.[9]

Phase two

The second phase of ORYX, currently being implemented, involves the identification of specific core performance measures and the integration of these measures into the data reporting system. These measures should be standardized and scientifically reliable and valid. They must pertain to areas of the health care organization that have significant potential for improvement, high priority, high volume, high risk, high cost, or significant stakeholder interest.[10] The standardization of the measures allows for comparison of processes and patient outcomes between organizations nationwide.

The JCAHO has identified four categories for its core performance measures. The first, clinical performance measures, evaluate the processes or outcomes of direct patient care. They allow for comparisons both within and between organizations, which help in continuous improvement of patient outcomes. Patient perception measures evaluate patient satisfaction regarding clinical aspects of health care delivery, such as physician communication, patient education, prevention, and health improvement. Health status measures evaluate the well-being of patient populations and emphasize temporal improvement. Administrative/financial measures evaluate the organization's ability to coordinate and integrate services across the spectrum of the organization.[10]

In identifying sets for the core measures, the JCAHO Board of Commissioners solicited input from clinical professionals, health care provider organizations, consumers,

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performance measurement experts, and other stakeholders and considered such factors as disease prevalence, volume, risk, and problem prone areas.[9,11] To date, the board has approved the following five core measure sets, which relate to hospitals only:

- acute myocardial infarction,
- heart failure,
- community-acquired pneumonia,
- surgical procedures and complications, and
- pregnancy and related conditions (including newborn and maternal care).

Implementation of the surgical core measure set has been delayed, as the JCAHO continues to work with the Centers for Medicare and Medicaid Services to assure consistency between the surgical performance measures required by the two organizations. For the remaining four, however, hospitals began collecting patient discharge data on July 1, 2002.[9]

Initially, hospitals were required to choose two core measure sets that reflected provided services. If they were unable to select two core sets based on their services, three noncore measures could be used to replace one core set. (If none of the core sets applied to the hospital's services, six noncore measures would be needed to replace the two required core sets.) Starting in January 2004, however, hospitals will have to add a third core measure set (or another three noncore measures) to their total.[12]

Other hospital core measure sets in development address surgical infection prevention, intensive care, pain management, and pediatric asthma care. For long-term care facilities, the board is considering the following 10 core measure focus areas:

- activities of daily living,
- cognitive impairment,
- decubitus ulcers,
- depression,
- diabetes,
- falls,
- incontinence,
- indwelling catheters,
- medication errors, and
- restraint/seclusion.[13]

Eventually, core measures will be identified and implemented for all types of health care organizations accredited by the JCAHO—including health plans, integrated delivery systems, and provider-sponsored organizations.[8,9] Data collected on these core measures will be used by both the JCAHO and the health care organization. For the organization, the data facilitates continuous benchmarking of performance improvement efforts against those of similar organizations. During the JCAHO's triennial on-site surveys, core performance measurement data helps the surveyor focus on identified problem areas and probe the organization's use of data in its quality improvement activities.[14]

In addition, periodic reporting of the core performance measurement data to the JCAHO allows for monitoring of the organization's performance between on-site surveys. The data is monitored primarily through the use of control and comparison charts, following established principles of statistical process control.[14] (For an overview of statistical control charts, see Donald Lighter and Douglas Fair's *Principles and Methods of Quality Management in Health Care*.[15]) Between surveys, organizations meeting outlier criteria on a control or comparison chart trigger the first level in a sequence of standardized responses by the JCAHO. These responses are designed to encourage organizations to examine their data closely and act on opportunities for improvement. The level of response escalates until the issue is resolved.

VHA PERFORMANCE MEASURES

Even before the JCAHO launched its ORYX initiative, the VHA had systems in place to monitor performance and improve quality. Performance monitoring of a large system such as the VHA requires neither a large number of measures nor a large volume of repeated measurements for patient subpopulations. Many large organizations, including private health care systems similar to the VHA, monitor and manage their systems effectively using a modest number of key measures.[16] Important features of these key measures are that they be aligned closely with the organization's goals and its strategic plan for meeting those goals, clearly understood throughout the organization, and related to aspects or activities that can be changed.[17] Since it's often been observed that people and systems pay attention to what is measured,[17] linking measures to desired outcomes can help the organization focus its improvement efforts appropriately.

In 1995, evaluation of the VHA's Veterans Integrated Service Network (VISN) directors and medical center chief executive officers (CEOs) began to take into account the measurement of patient care indexes. These indexes are used to establish a desired level of patient care, based on national standards, and to make comparisons with private sector health care entities. They have been integrated into VHA culture and are becoming well known in VHA facilities for their

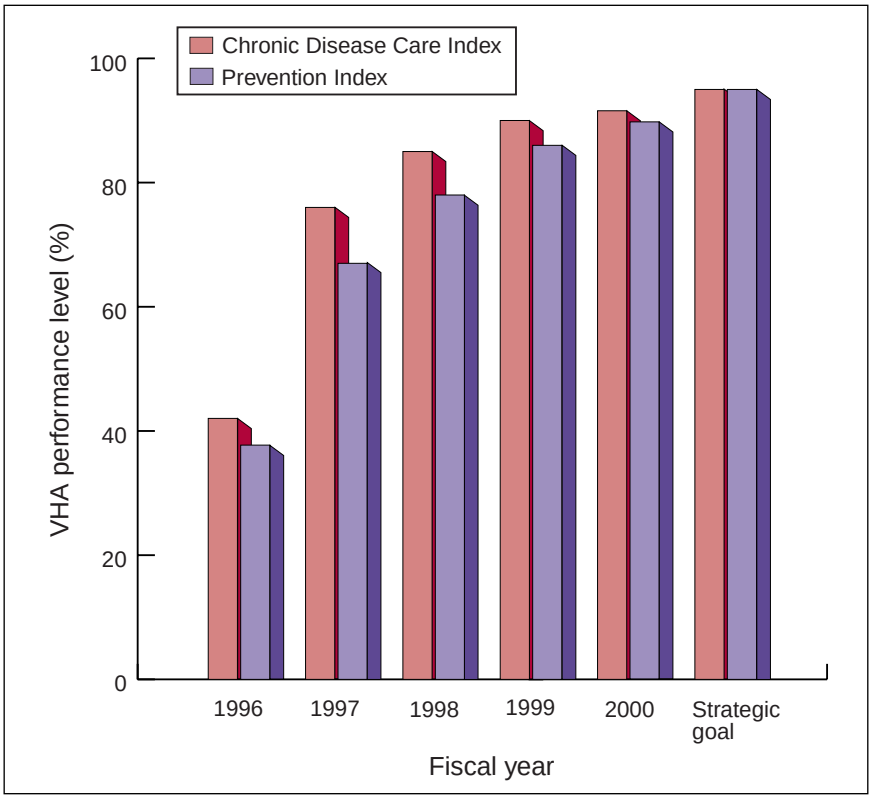

Figure. The VHA's performance on the Chronic Disease Care and Prevention Indexes between fiscal years 1996 and 2000.[17]

ease of use and clarity. Today, failure of a VISN director or medical center CEO to measure and meet these performance indicators can result in the individual's contract not being renewed.

THE PATIENT CARE INDEXES

The first VHA patient care index is the Prevention Index (PI). It assesses the VHA's efforts to apply preventive measures in the primary care setting. It includes interventions that are relatively simple but have demonstrated efficacy, such as immunization, cancer screening, tobacco cessation counseling, and alcohol consumption screening.[18] Between fiscal year (FY) 1996 and FY 2000, the VHA's PI performance increased from 37% to 90% (Figure).[18] Where comparable data exist, the VHA exceeded private sector performance.[19] Although the overall improvement in health outcomes may not be evident for a number of years, if these quality assurance indicators are met consistently and revised with current medical knowledge, patients' health should improve.

The second VHA patient care index is the Chronic Disease Care Index (CDCI). This index measures the VHA's effectiveness in providing basic, but essential, care to veterans with such high volume diagnoses as ischemic heart disease, hypertension, diabetes, and chronic obstructive pulmonary disease (COPD).[18]

CDCI measures cover somewhat simple procedures that often are overlooked or taken for granted. These include aspirin administration and a cholesterol management plan for patients with ischemic heart disease, the completion of nutrition and exercise counseling for patients with hypertension, instruction about and observation of proper inhaler use for patients with COPD, and annual foot and retinal exams for patients with diabetes. Between FY 1996 and FY 2000 the VHA raised its CDCI performance from 43% to 92%.[18] If these types of interventions enable patients to use less medication, reduce their hospital stays, and self-manage their conditions effectively, then not only should patients' quality of life improve but the cost of managing these frequently resource-intensive conditions should decline.

A third index is the Palliative Care Index (PCI), which measures quality of end-of-life care.[18] Although the PCI is fairly new, with no data yet available, it already has been recognized for its attention to the needs of this often underserved population.[19] Specific measures include discussion of resuscitation status, assessment of nutritional needs, psychosocial support, and pain management planning.

WORKING WITH THE JCAHO

To satisfy phase one of the JCAHO's ORYX requirements, the VHA has adopted 18 performance measures from four categories—hospital, long-term care, home care, and women's health—into its existing performance improvement systems (Table).[20] Data collection on these ORYX measures only recently began and, thus, is incomplete. Already, however, preliminary analyses indicate that depression guidelines and tobacco use screening need to be improved.

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Table. Performance measures incorporated by the VHA to align with the ORYX requirements of the Joint Commission on Accreditation of Healthcare Organizations (JCAHO)[19]

ORYX measures	Initiation of data collection	First report due to JCAHO
Hospital		
Counseling regarding risks and benefits of prostate cancer screening	07/01/1998	05/31/1999
Alcohol screening	07/01/1998	05/31/1999
Pneumococcal immunization	01/01/1999	07/31/1999
Influenza immunization	01/01/1999	07/31/1999
Prostate cancer screening	01/01/2000	07/31/2000
Colorectal cancer screening	01/01/2000	07/31/2000
Long-term care		
Geriatric screening for depression	07/01/1998	05/31/1999
Influenza immunization	07/01/1998	05/31/1999
Pneumococcal immunization	01/01/1999	07/31/1999
Rate of glycosylated hemoglobin (HBA_{1C}) testing	01/01/1999	07/31/1999
Palliative care—Psychosocial planning	01/01/2000	07/31/2000
Palliative care—End-of-life planning	01/01/2000	07/31/2000
Home care		
Pneumococcal immunization*	01/01/2000	07/31/2000
Influenza immunization*	01/01/2000	07/31/2000
Palliative care—Psychosocial planning	01/01/2000	07/31/2000
Palliative care—End-of-life planning	01/01/2000	07/31/2000
Women's health		
Breast cancer screening	07/01/1999	01/31/2000
Cervical cancer screening	07/01/1999	01/31/2000

*These two home care measures were selected in 1998, but the JCAHO postponed the data collection start date until January 1, 2000.

ORYX is designed to enable the JCAHO to monitor quality and assess improvements regularly, and each VA medical center provides data to JCAHO on a quarterly basis. The VHA and JCAHO also are discussing the possibility of developing an electronic link that would allow the JCAHO to access the VHA's database directly—which would facilitate continuous performance monitoring to a greater degree.[20]

The VHA has selected, from the JCAHO's listed performance management systems, an outside contractor to perform semiannual audits of the accuracy of reported data. This external audit, called the External Peer Review Program (EPRP), consists of an on-site review of selected patient records and provides the data for the CDCI and the PI. In addition, quarterly inter-rater reliability assessments are performed for each abstractor in the review process. In this way, the EPRP serves as a functional component of the VHA's quality management program.

During the audit, the contractor uses a random sampling protocol to look at individual patient charts, abstract the appropriate data, and calculate the patient care indexes. A random sample of outpatient charts for each diagnosis is culled to establish a denominator for each intervention measured. The num-

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ber of patients within this random sample who received the desired intervention constitutes the numerator. Quarterly reports produced through this process are reviewed by the VISN directors, who use them to identify changes necessary for improving quality.[20]

A PROMISING PARTNERSHIP

Health care quality improvement efforts—and the systems used to measure them—are here to stay. Government regulations and the desire among organizations to control costs have served as the impetus for the development of existing programs.

In particular, the JCAHO's ORYX initiative has demonstrated great practical applicability in the VHA. ORYX relies on evidenced-based measurements and benchmarking of key parameters to provide guidelines for assessing performance improvement. Since the measures are quantifiable, the results can be used to mark progress in meeting organizational goals and can serve as a marketing tool to enhance public perception of the organization. The results at the VHA indicate great potential for using ORYX in a host of health care delivery systems. Quality is a must for success—from both a clinical and a financial perspective—and ORYX promises to help health care organizations attain such success.

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