Can Applying Systems Theory Improve Quality in Healthcare Systems?

Sue Petula

The relationship between the healthcare delivery system, health promotion, and quality of care is dynamic, critical, and at times fraught with error, confusion, and frustration. The responsibility of individuals providing healthcare to promote the well-being of their patients and provide high-quality care can be undermined by the complexities of the healthcare system. This article provides a substantive answer to the question “Can the application of a systems-theory framework support quality improvement in healthcare systems?” Narrative discussion, concept mapping, and an integrative review of relevant literature demonstrate that the deliberate application of systems theory within an interdisciplinary framework supports healthcare system behaviors that can reduce error, improve quality, and promote health.

q&a: David Pryor on Ascension Health’s Commitment to Quality and Safety

Deborah Flores, Joann Genovich-Richards

David B. Pryor, MD, is the senior vice president for clinical excellence and the senior clinical officer of the Ascension Health system. He collaborates with a team of physician, nursing, and executive leaders at Ascension Health and leverages the system’s clinical expertise, resources, and information technology to advance Ascension Health in its mission to become a premier spiritually based partner for health.
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Systems theory offers a framework for quality improvement (QI) in healthcare systems because systems theory supports systems thinking. Systems thinking is a discipline that allows us to see the whole system and the relationships of the parts rather than just the isolated parts. High-quality care is more likely in systems where relationships and interrelationships are considered important. When relationships are considered important, greater emphasis is placed on effective communication, team building, conflict management, behavioral competencies and skill competencies, process management, and education, because these elements strengthen relationships. Organizational theory further substantiates the importance of systems thinking by emphasizing the synergy in individuals’ interactions, communication, and behavior (Argyris, 1957, 1964).

Current approaches to solving quality problems are not entirely working or are not achieving results quickly enough. This is evidenced in testimony given June 13, 2003, before the Committee on Governmental Affairs of the Senate Permanent Subcommittee on Investigations. Carolyn Clancy, director of the Agency for Healthcare Research and Quality (AHRQ), stated that “hospitals and other healthcare delivery systems provide millions of Americans each year with important, frequently life saving, care. But, as we all know, medical errors and patient safety issues represent a national problem of epidemic proportions. And as we have seen from recent news headlines, no institution is exempt, and everyone who uses the healthcare system is at risk” (Clancy, 2003, p. 1). Dennis O’Leary, president of the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), testified before the same committee on June 11, 2003. He stated, “We, like others, are deeply concerned that the number of medical errors remains unacceptably high, despite the focus of significant national attention on patient safety in recent years” (O’Leary, 2003, p. 1).

Abstract: The relationship between the healthcare delivery system, health promotion, and quality of care is dynamic, critical, and at times fraught with error, confusion, and frustration. The responsibility of healthcare workers to promote the well-being of their patients and provide high-quality care can be undermined by the complexities of the healthcare system. This article provides a substantive answer to the question “Can the application of a systems-theory framework support quality improvement in healthcare systems?” Narrative discussion, concept mapping, and an integrative review of relevant literature demonstrate that the deliberate application of systems theory within an interdisciplinary framework supports healthcare system behaviors that can reduce error, improve quality, and promote health.

Systems Theory Can Improve Healthcare Quality

The critical components of quality care within all healthcare systems include competent staff, well-constructed policies and procedures that guide practice, safe healthcare environments, interdisciplinary evidence-based disease management processes (JCAHO, 2002; Park & Bishop, 2003), patient involvement in the plan of care through effective communication, and specific mission-driven behaviors such as an organizational commitment to safety. These hierarchically structured components are similar to Maslow’s (1954, 1968) hierarchy of needs. Maslow arranged basic human needs in a hierarchy from primitive to advanced. The needs at each level of the hierarchy must be satisfied before the next level can be achieved. An interdisciplinary hierarchical sequence leading to health promotion within a healthcare system can be constructed in a similar fashion. This hierarchy consists of the fundamental components that provide the foundation within a healthcare system to ensure quality care and promote health (see Figure 1). Unfortunately, many components of this hierarchy of quality and health promotion receive too little or no attention. Many reasons exist for these omissions. In particular, certain aspects of the social processes of education, training, and supervision are often neglected.

Key Words

error reduction
quality improvement
systems theory
work itself (Hearn, 1969) can influence quality care and health promotion. From a social-systems perspective, boundaries and parallel functions among professions within the same institution can result in failures to develop generative and collaborative relationships, effective communication, and a healthy work environment. Many studies have suggested that collaborative interdisciplinary relationships improve outcomes and decrease mortality and morbidity (Baggs et al., 1999; Baggs, Ryan, Phelps, Richeson, & Johnson, 1992; Miller, 2001).

**Applications**

The deliberate application of systems theory can support QI in healthcare systems. When systems-like thinking that underpins systems theory is applied to healthcare systems, processes within the system are recognized as being as important as the component parts. Interdisciplinary relationships, such as those among disciplines like nursing, medicine, social work, and administration that are central to social processes in a healthcare system, cannot be taken for granted. Planning in healthcare systems often involves little attention to these relationships and frequently fails because unanticipated behaviors emerge from the unanticipated interaction of the component parts. Systems thinking helps to prevent system failure and therefore supports QI by enabling healthcare workers to:

- improve communication among subsystems within the larger system
- create and manage effective teams
- establish trust through generative relationships
- support interdisciplinary collaborative practices
- recognize the importance of conflict-management education
- focus on processes rather than staff
- reduce power differentials between groups and subsystems
- embrace ongoing education
- improve morale through autonomy and point-of-service involvement
- encourage creativity and innovative problem solving
- strengthen the hierarchical components that support quality
- emphasize behavioral competency as well as skill competency

**Examples**

Current examples of effective systems theory applications include information technology applied to key clinical systems. These systems include medication administration, electronic documentation, patient order entry, and physiological monitoring (Plsek, 1999). A few magnet hospitals in the United States have applied systems theory to facilitate staff involvement in making decisions, ensuring professional autonomy, and creating supportive environments of care. These hospitals are demonstrating best-practice quality outcomes, improved collaboration among all disciplines, and decreased vacancy rates for key healthcare positions (American Nurses Credentialing Center, 2003).

Those applying systems theory will recognize the need to see through the lens (Bem, 1993) of other disciplines and foster improved...
interdisciplinary relationships. Generative relationships improve interdisciplinary collaborative practice and diminish tensions related to practice boundaries. Healthcare system employees are generally averse to conflict and often avoid rather than seek new ways forward (P. E. Plsek, personal communication, July 21, 2003). Greater tolerance for conflict and more education regarding conflict management are needed. Conflicting viewpoints and diverse opinions need to be appropriately expressed in order to strengthen existing positions or allow people the opportunity to change their positions on a specific issue. Conflicting or controversial viewpoints must be honestly expressed in an atmosphere of cooperation that allows the flexibility and patience necessary to build new relationships. Understanding these system relationships provides insight into the subtle but powerful factors that contribute to an organization’s ability to progress or digress along the interdisciplinary quality continuum and support its respective community through health-promotion efforts.

All healthcare professionals must develop competencies in communication skills and team behaviors. The development of these competencies can serve as tipping points (Gladwell, 2000) and result in major improvements within the healthcare system. The tipping point is that one dramatic moment when everything changes. Donald Berwick, chair of the Institute for Healthcare Improvement (Berwick, 1996), also describes these singular dramatic changes and their effect on QI in healthcare systems.

The interdependence of all disciplines within the healthcare system requires organizational leaders to also develop new competencies (Dye, 2000). The demands of the 21st-century healthcare system require leaders to be systems thinkers who are visible at the front line. These leaders need to champion a supportive practice environment and foster a culture of continuous QI. This culture change must include a more acceptable balance between financial outcomes and quality outcomes (Rice, 2003; White & Hewes, 2003). Leaders need to involve all disciplines in policy and procedure development, decentralize decision making, create a culture of retention, and provide the necessary social and technological capital to support specific job functions.

A systems framework moves the organization and individuals away from a punitive model (faulting individuals) to a process model (faulting processes). This encourages the self-reporting of errors or potential errors because the fear of punishment is taken away. Systems thinking acknowledges the complexity of human behavior and welcomes alternate opinions without the fear of reprisal. If individuals do not fear reprisal, they are more inclined to report errors and faulty system processes. System redesign is enabled through rethinking these problematic processes. This happened at Duke University Hospital when a transplant mismatch occurred (Bonifazi, 2003). A safer process was designed by an interdisciplinary team to prevent similar errors from occurring.

Systems theory should be taught in all schools of higher learning for healthcare professionals. It fosters needed curriculum redesign so that principles of system theory and complexity are incorporated into healthcare.
Systems theory also recognizes that the knowledge of all healthcare professionals is abstract until they are plunged into the reality of the care delivery system. Healthcare professionals can fulfill their role successfully only when they are able to function effectively as members of interdisciplinary teams in their work environments. Healthcare professionals use systems theory constantly as it relates to the sciences, but they do not apply it in the same context to organizations. Understanding system behaviors and applying this approach to organizations is therefore a critical need for all healthcare professionals. Doing so will promote learning communities that can further enhance health promotion throughout healthcare systems (Senge, 1990).

From an operational perspective, systems thinking can be embedded in organizations through project-management techniques (Knutsen, 2001; Lientz, 2002). These techniques, introduced only recently to the field of healthcare, provide a planning and organizing framework for interdisciplinary patient-focused QI teams. They support outcome management by establishing teams with broad performance and accountability boundaries within well-defined time frames. Moreover, they allow for human factors, such as creativity and innovation (Brown & Eisenhardt, 1998).

QI Is Context Dependent

Interdisciplinary interaction within an organization, together with quality management tools (Kelly, 2003), leads to success. QI is inherently context dependent. What works in one organization may not work well in another; a best practice in one organization may fail when applied in a different organization. An example in healthcare is the lack of consistency in the management of congestive heart failure among healthcare systems (Butler, Weingarten, Weddle, & Jain, 2003). Evidence-based healthcare practices that are generalizable are a long way off and may never be possible because of diverse organizational cultures and relationships. This issue is currently being addressed by the Institute of Medicine (IOM), which has recommended 20 national priority areas for healthcare improvement (IOM, 2003). The committee developed its recommendations using an evidence-based approach for estimates of disease burden. The committee’s intent is to address unacceptable disparities in care for all Americans across healthcare systems throughout the United States.

Summary

Systems thinking allows healthcare professionals to see the entire system and recognize the importance of the relationships among its component parts. If quality-care problems exist primarily because of system problems, the deliberate application of systems thinking and systems theory is needed.

Can the application of systems theory (von Bertalanffy, 1969) support improvements in quality in healthcare systems? The answer is yes. Narrative discussion, concept mapping, and an integrative review of relevant literature demonstrate that the deliberate application of systems theory within an interdisciplinary framework supports healthcare-system behaviors that reduce error, improve quality care, and promote health.

References


Author’s Biography

Sue Petula, PhD MSN GNP RN CNAA, is associate professor at Marywood University, Scranton, PA. She is also administrator for Interim Healthcare Services of Northeastern Pennsylvania. She has advanced certification in nursing administration from the American Nurses Credentialing Corporation and is a gerontological nurse practitioner.
Editors’ Note: The Institute for Healthcare Improvement (IHI) wants to save 100,000 lives in the next year by making changes in six care areas: deploying rapid response teams to assess a patient at the first sign of deterioration, delivering evidence-based care for heart attack, preventing adverse drug events through medication reconciliation, preventing central line infections, preventing surgical site infections through the use of appropriate and timely antibiotic use, and preventing ventilator-associated pneumonia. These initiatives will conclude June 14, 2006, and are the basis of this interview with Dr. Pryor.

Why did Ascension Health decide to become involved in the IHI initiatives?

Ascension Health’s mission is to serve those who are poor and vulnerable. It is at the heart of all we do. In October 2002, Ascension Health formulated a strategy for the next 5 years. It was titled our Call to Action. The Call to Action stated, “Together We Promise Healthcare That Works, Healthcare That Is Safe, and Healthcare That Leaves No One Behind.”

We define “healthcare that works” as a healthcare delivery system transformed so that those we serve receive the service they deserve and the holistic care they need within a sustainable economic model.

We define “healthcare that is safe” as the provision by July 2008 of excellent clinical care associated with no preventable injuries or deaths. The strategy that we are using to reach this goal is the elimination of preventable injuries and deaths associated with eight priorities for action—adverse drug events, preventable mortality, the Joint Commission on Accreditation of Healthcare Organizations’ (JCAHO) National Patient Safety Goals, perinatal safety, pressure ulcers, nosocomial infections, surgical complications, and falls and fall injuries. The IHI campaign focuses on making changes in six care areas that are a subset of our eight priorities for action. As an organization, we had already committed to making the changes outlined in the IHI campaign. Supporting the IHI campaign gave us the opportunity to learn with others while reinforcing the importance of the campaign.

David B. Pryor, MD, is the senior vice president for clinical excellence and the senior clinical officer of the Ascension Health system. He collaborates with a team of physician, nursing, and executive leaders at Ascension Health and leverages the system’s clinical expertise, resources, and information technology to advance Ascension Health in its mission to become a premier spiritually based partner for health. Before joining Ascension Health, Dr. Pryor was senior vice president and chief information officer for Allina Health System in Minneapolis, MN, and earlier was president of the New England Medical Center Hospitals in Boston, MA. Dr. Pryor began his work in clinical excellence at Duke University Medical Center in Durham, NC, where he served as a practicing cardiologist and director of the cardiology consultation service, the section of clinical epidemiology and biostatistics, the Duke Database for Cardiovascular Disease, and clinical program development. Dr. Pryor currently serves on the editorial board of the American Journal of Medical Quality. He has served on the editorial boards of the American Journal of Managed Care, the International Journal of Cardiology, and Cardiology Emergency Decisions and as a reviewer for numerous other medical journals. He has authored more than 250 publications and has been the principal investigator for a number of significant research projects. In addition to his position at Ascension Health, Dr. Pryor currently holds several academic appointments, including consulting associate professor of medicine at Duke University Medical Center and adjunct professor at the St. Louis University School of Public Health.

Key Words
health education
healthcare quality
healthcare workforce
healthcare system

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©2003 National Association for Healthcare Quality
We define “healthcare that leaves no one behind” as 100% access to healthcare in the communities we serve. One hundred percent access is understood as continuous improvements of measurable, excellent health outcomes for targeted uninsured and underinsured populations throughout a community health delivery system.

Together, these initiatives of Ascension Health’s Call to Action will provide access to safe, clinically excellent, holistic care in a sustainable system. Through our Call to Action, Ascension Health will be a leader in transforming healthcare.

How did you develop a leadership strategy and commitment to these quality initiatives, and how does this strategy align with your other priorities as an organization?

The organization’s commitment begins with our mission. Ascension Health is the largest Catholic and the largest not-for-profit healthcare provider in the United States. We are a faith-based system with a healing ministry that has a particular focus on serving the poor and vulnerable. We view the provision of safe, effective care as central to that mission—nothing less is acceptable for those we serve. The Call to Action formalizes that commitment as the responsibility of all who work in Ascension Health.

Ascension Health leadership is aligned, committed, and focused. The central role of our mission enabled us to broadly engage the leadership. The clinical leadership as a whole defined the “healthcare that is safe” goal and endorsed the strategy around the eight priorities for action. The leadership within each of our hospitals helped to create the strategy and also is responsible for its execution. Although we collaborate as a system to reach our goals more quickly, the leadership within each hospital is in the best position to understand how best to implement changes to reach these goals. At Ascension Health, the strategy does not align with our organization’s priorities, it is the organization’s priority.

What impact does this initiative, in addition to those of JCAHO, the Centers for Medicare & Medicaid Services, the American Hospital Association, and other data-collection and reporting initiatives, have on your organization?

We view this initiative as complementary to many of the other ongoing initiatives. The effect has been profound. Over 100,000 associates and physicians work in our system. Nearly all of them decided on healthcare careers because they wanted to make a difference. The work that we are doing on this initiative is making a difference, and the successes that we are seeing help us sustain the momentum. By providing a clear focus that aligns with our mission and the individual motivations of those who work in our system, transformational change becomes possible.

What approach are you using to engage stakeholders in these initiatives?

Our approach is based on recognizing the commitment that our associates and physicians have toward the delivery of excellent, safe care. As a system, we can take advantage of the fact that most of the problems we are addressing are common and have been successfully addressed somewhere in the system. By using collaborative forums (both electronic and formal meetings), we’ve been able to spread the lessons learned from one place to another. Help in figuring out what to do and how to do it is available either through IHI or others, or somewhere in our system.

At Ascension Health, it’s probably more accurate to talk about how the stakeholders and leadership have jointly engaged each other in these initiatives. Leadership listens to the stakeholders who know how to improve the care we deliver. The listening occurs both formally, through the many stakeholders that populate the majority of our committee structure, and informally, through electronic exchange and other activities like “walk rounds.” Whenever conflict arises among different stakeholders, we go back to our mission for guidance. Ultimately, we exist to serve our patients. What is right for the patient must drive our decisions. Anything less is not acceptable. That principle ultimately guides our governance, leadership, and the decisions of all stakeholders.
The results that can be achieved, that have been demonstrated somewhere in the system, become compelling and persuasive. For example, when several sites can show that the number of cardiac arrests can be cut in half by rapid response teams or that ventilator-associated pneumonias can be nearly eliminated, it becomes virtually impossible for anyone to ignore the data. Successfully implementing programs often requires changes in how care is provided. Change is always resisted, but that resistance can almost always be overcome with convincing and compelling results.

Although many developments have occurred at the national level in recent years, what gaps still exist, and what would be some strategies for closing those gaps?

I would comment on four significant gaps. The first is the gap that exists because our healthcare system is so fragmented. Patients often experience their care as a series of encounters across many sites and providers. Most improvement efforts focus on a specific site or encounter that parallels the current payment methodology, yet many of the problems occur in “handoffs” or transitions across sites or providers. We hope that creating an electronic infrastructure that supports redesigned processes across sites and providers will close the gap.

The second gap is even more fundamental. Safe healthcare has been incorporated in many strategies for a long time, yet progress has been slow. One of my favorite quotations is “Culture eats strategy for lunch.” When talented people have developed sound strategies that they fail to carry out, the solution is not to create a new strategy but rather to understand what in the culture is preventing those strategies from being successfully implemented.

At Ascension Health, we have identified five challenges that must be overcome if we are to achieve safe and excellent healthcare. These challenges are not specific improvement strategies but rather key issues in our environment that must be addressed in order for us to quickly implement our eight priorities for action across the system. The challenges are changing the culture, understanding the business case for safety, attending to infrastructure, achieving standardization, and working together. We are implementing specific approaches to each of these challenges. We believe that transformational change is possible if we address these challenges.

The third gap is the difference between treating a disease and treating a patient. At the core, we are a healing organization. Not all diseases can be cured, but all patients can be healed. Think about the kind of experience you would want if you were sick. Or think about the elements of an excellent palliative care program, and then extend those principles to all patients. Healing supports the whole patient—mind, body, and spirit—yet too often our technological capabilities cause us to lose sight of this broader responsibility. This gap can be addressed only if we recognize the fundamental relationship between providers and patients.

Healing occurs in the interactions between the persons served and their providers (physicians, nurses, other allied health professionals, spiritual advisors). The health and well-being of our providers must be addressed if they are to be part of a healing relationship. Yet too often the demands and pressures in the healthcare environment make it difficult for this to occur. Nurses, for example, can be overwhelmed by the workload and pace of a modern hospital setting, where only a minority of their time is actually spent in direct patient care. Physicians face challenging environments and can feel “attacked” on multiple fronts. Our underlying mission and the faith-based nature of our organization make it easier for us to recognize the gap, but we still have a lot of work to do. Much of this work is included in the part of our Call to Action concerning “healthcare that works,” which focuses on delivering a holistic patient experience both in the current setting and in the transformational, systems-based environment of the future.

The fourth gap concerns access to care. We are fortunate to live in a country with so many advantages, but too many people in our country lack adequate access to care. This gap is the focus of the “healthcare that leaves no one behind” concept in our Call to Action.
Our audience is predominantly the quality professional in healthcare organizations. What specific opportunities do healthcare quality professionals have to address patient safety?

The healthcare quality professional is often the key resource in the organization who can provide the thought leadership on how to deliver safe and effective healthcare. Every associate contributes to the success of Ascension Health. The work of healthcare quality professionals needs to focus not only on what needs to be done but also on how they can become more effective in making it happen. Their effectiveness can be expanded by building collaborative relationships with the many individuals who are in a position to help bring about the change. In this context, the goal of the healthcare quality professional expands from doing what must be done to influencing those who are in a position to help do what must be done. When “doing what must be done” becomes the goal of many people in the organization, change is much more likely to happen.

Do you have any other suggestions for our readers?

To paraphrase another favorite quotation: “Never underestimate the power of a small committed group of people to create change.” Most of the barriers that must be overcome can be overcome. In the end, we are addressing not only the concerns of our patients but the concerns that we, our families, and our friends will face when we inevitably become patients in the system. Don’t give up—the goal is too important.

Deborah Flores, EdD MBA RN, is associate administrator of the quality division of the South Texas Health System, McAllen, TX, and JHQ’s q&a editor.

Joann Genovich-Richards, PhD MBA MSN RN, is the president of Sharendipity Enterprises, Inc., a healthcare consulting firm in Sterling Heights, MI, and JHQ’s q&a editor.
Media Reviews

Lecia A. Albright, Media Editor

Six Sigma Beyond the Factory Floor: Deployment Strategies for Financial Services, Health Care, and the Rest of the Real Economy
Ronald D. Snee, Roger W. Hoerl  

Audience: physician leaders, quality professionals, senior leaders

Key Words: data driven, healthcare, organizational assessment, outcomes focused, process oriented, quality outcomes

Six Sigma Beyond the Factory Floor describes the value and implementation of Six Sigma to healthcare, financial services, and the rest of the real economy. Snee and Hoerl discuss important topics such as deployment methods, statistical tools, project execution, and goal development. These methods help the reader understand the process and implementation of Six Sigma, including the importance of buy-in and the alignment of the organization.

The authors discuss real problems encountered in implementing Six Sigma projects and explain how these problems were addressed and resolved to achieve successful results. The roadmap for leading Six Sigma includes discussion of the major steps in the deployment stage and the transition process from a non-Six Sigma to a Six Sigma company. Successes and pitfalls are covered in detail and alert the reader to key issues that must be addressed as Six Sigma is launched.

The book’s coverage of statistical tool choice will give readers invaluable information. The rationale for tool choice, appropriate utilization, and pitfalls of choosing the inappropriate statistical tool are presented as key process steps that teams must concentrate on to maximize improvement efforts.

I have added this book to my library and strongly encourage anyone considering implementing Six Sigma, as well as anyone who has implemented Six Sigma, to read it. Fast-paced, highly energizing, and interesting, Six Sigma Beyond the Factory Floor is a must-read for quality professionals as well as executives considering implementation of Six Sigma.

Reviewed by Ann Allen, MSN RN CPHQ

Essentials of Health Care Organization Finance: A Primer for Board Members
Dennis Pointer, Dennis Stillman  

Audience: healthcare organization board members not formally trained in accounting and finance

Key Words: billing and claims, corporate compliance, cost containment, governing boards and bodies, management

This book, written with a nontechnical approach, includes only the most important basics of accounting and finance and focuses on financial activities faced by healthcare organization boards. Each chapter builds on the previous one and addresses critical areas that must be understood by those who seek to fulfill the role of a board member.

The book’s topics include
- governance
- financial responsibilities
- healthcare industry financial structure and dynamics
- accounting basics
- reading of financial statements
- analysis of financial statements and oversight of financial performance
- vision, strategies, financial plans, and budgets
- source of funds, financing use of funds, and capital investment
- financial integrity and credibility.

The initial chapters present information about board obligations and roles, factors that affect performance, and the division of functions and tasks between the finance committee and the board. Later chapters delve into the unique aspects of healthcare financing and

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accounting principles in healthcare. Detailed information about budgeting, capital investments, bond ratings, and the securing of long-term debt financing are also included. The authors conclude with education about board accountability and knowing what to look for to ensure financial fitness in a healthcare organization. They include a checklist and a list of resources for learning more about this topic.

The value of this book is that it gives you what you need to know in a concise, logical format. It is easy to follow and has numerous illustrations and recommendations.

Reviewed by Toni Layer, MHCA RN CPHQ

The Quality Handbook for Health Care Organizations: A Manager’s Guide to Tools and Programs
Yosef D. Dlugacz, Andrea Restifo, Alice Greenwood

Audience: middle managers, new quality professionals

Key Words: analysis and data management, data collection, JCAHO, indicator reporting, quality management

This book’s target audience is middle managers who are new to their position and need a basic reference or overview of quality management. As noted by the authors, “Most managers become managers because their experience, talent, and commitment to quality care are notable. However, very few managers have the opportunity to get a training course in how to do their jobs” (p. 236). The book includes key concepts and practical applications for the new manager.

The book provides examples and the basic model, structure, and approach used by North Shore–Long Island Jewish Health System. A summary of each chapter highlights major points and things to think about, often in the form of questions or action items intended to prompt the manager to address specific issues within a unit or department.

The Quality Handbook for Health Care Organizations is not geared for experienced healthcare quality professionals; the coverage is basic and gives minimal description of how to use some of the tools. The examples are primarily hospital based, though one brief mention of ambulatory care appears at the end of the book. Managers who work in settings other than a hospital may find this book of limited value because of the examples and structures it refers to.

Some materials are already becoming dated. The 2004 JCAHO National Patient Safety Goals have already been replaced by 2006 goals. These materials change very quickly, and supplementary references are needed if the resource is to remain relevant. Also, the core measures systems in hospitals should provide data at the hospital level so that managers will not have to collect it themselves; however, these systems are frequently cited as examples for managers to address with data collection and analysis.

One limitation of the book is that no rapid cycle improvement or small cycles of change are promoted. A strength of the book is that the authors consistently repeat and reinforce the book’s messages throughout.

Reviewed by Susan V. White, PhD RN CPHQ FNHAQ

To Do No Harm: Ensuring Patient Safety in Health Care Organizations
Julianne M. Morath, Joanne E. Turnbull (foreword by Lucian L. Leape)

Audience: governing board members, healthcare professionals, senior executives

Key Words: culture, patient safety, quality of care, systems

Morath and Turnbull have done a remarkable job of compiling extensive information from a wide variety of sources on patient safety into one textbook. This is a good resource for walking the uninitiated through the myriad issues related to safety and is a guide for the veteran healthcare professional. This text can be part of the foundation of any healthcare organization that wants to enhance its patient safety program and would also help lay individuals who sit on governing boards understand their role and responsibility in ensuring that their organization has a culture of safety.

Although the authors describe their experiences from the perspective of those affiliated with a children’s hospital, they use several current sources from the government and private sectors to support their statements. The numerous scenarios and input from patient safety experts reinforce the authors’ points, which
makes this particular text much more practical and relevant to the everyday practitioner. The chapters are organized in a way that guides individuals through the thought process for developing, implementing, and maintaining a patient safety program. In addition, the appendices offer extensive examples and references for those who have a need or interest in developing or improving their own programs.

This extremely important subject has been packaged into one easy-to-read text. If you are looking to improve the culture of patient safety in your organization, you need to make this book required reading for those who will be leading and participating in the development of your patient safety program. Every healthcare student, staff member, professional, and administrator should own this reference text.

Reviewed by Steve Chinn, DPM MS

**Hardwiring Excellence: Purpose, Worthwhile Work, Making a Difference**

Quint Studer  

**Audience:** change agents, healthcare quality professionals, leadership including CEOs and administrators

**Key Words:** centers of excellence, culture, organizational behavior, performance improvement

Healthcare professionals who desire a culture of excellence will find this book exciting and inspiring. It is reader friendly and motivational.

Tools and tips are given to “hardwire” specific employee communications and behaviors that lead to the creation of a culture of excellence for an organization. The author’s premise is that when employees are taught the tools and tips to achieve excellence, their passion about work is rekindled. These prescriptive actions are guided by the principles that link employees and the bottom line. By coaching and scripting communication and behaviors, employees—from senior leaders to frontline staff—are able to improve patient, employee, and physician satisfaction; turnover rates; quality; and growth. As a result of these changes, the bottom line (the finance pillar) improves, and one or more of the remaining organizational pillars (service, quality, people, and growth) is strengthened.

The author maintains that staff alignment with leaders and organizational goals is crucial in any organization’s journey to excellence. Studer describes six necessary behaviors that help with alignment: key words at key times, rounding for outcomes, discharge phone calls and postvisit calls, the hiring of the right person for the job, leader evaluation, and employee thank-you notes.

Each of these required elements, adapted to the organization, helps ensure that employees at all levels help the organization move forward on the journey to excellence.

Reviewed by Marie C. Ruckstuhl, MBA BSN CPHQ CHCRM

**The Quality Minutes**

Juran Institute Staff  
Juran Institute, Health Care Library, digitized in 2004, $195.00

**Audience:** healthcare quality improvement professionals, managers, nurses

**Key Words:** collaboration, communication, cost containment, decision making, performance improvement, quality tools, teams

*The Quality Minutes* is a multimedia product containing a DVD with 21 video segments, each of which provides examples of key quality concepts. The product also contains a CD with a brief description of the video segments, a list of learning points, and a discussion guide on how to conduct a question-and-answer session for the topics.

These materials are intended to help a facilitator prepare to work with a team. The individual vignettes last about one minute each and are pertinent to various healthcare environments. Several of these vignettes provide examples of how to utilize quality tools such as charts, diagrams, and surveys.

Each of the topics can be introduced independently. Participants begin by reviewing the video. The facilitator can then lead a group discussion that more thoroughly examines the topic, using the guide provided for questions and answers. This process encourages communication and collaboration in evaluating the performance improvement opportunities and decision-making options presented in the vignettes.
All 21 segments can be used individually; each one promotes the learning of quality concepts and tools. The manner in which this product is structured, however, allows the organization or individual to offer the education in one comprehensive overview session or deliver it in shorter, regularly scheduled sessions. In the latter approach, the entire content can be delivered over time. One suggested use for Quality Minutes is to present them during regularly scheduled staff or department meetings. The concise packaging of the information is ideal for settings in which staff education is a value but time is at a premium.

Reviewed by Geraldine C. Glenn

Lecia A. Albright, CPHQ, is the principal and owner of LARA Consulting, LLC, in Fredericksburg, VA. Her e-mail address is laraconsulting@adelphia.net.
“Quality NETwork” offers reviews of selected Web sites relevant to healthcare quality professionals. The editors welcome comments and feedback on the column as well as suggestions for further reviews. To read previous reviews that have appeared in the journal, visit www.NAHQPplus.org, the Web site exclusively for NAHQ members.

**AHRQ Web M&M**  
www.webmm.ahrq.gov

**Key Words:** case studies, decision making, education, evidence-based medicine

AHRQ Web M&M is a Web-based patient-safety resource that presents monthly case studies of medical errors or patient safety issues. The cases are submitted anonymously by users, who receive an honorarium if their case is published. Each case is followed by commentary from content experts in the field. The commentary is usually presented by two physicians who discuss the main points in detail with references to current literature and studies as well as their own experience. The site also includes a forum where registered users can review readers’ commentary and submit comments on particular cases or content areas. Physicians who register and complete a brief set of questions receive continuing medical education credits.

The site is sponsored by the Agency for Healthcare Research and Quality (AHRQ) but is prepared by editors at the University of California, San Francisco. The site is particularly easy to navigate. A brief highlight of the current cases appears on the main page with links to the full cases. The main page also contains links to AHRQ’s Patient Safety Network (PSNet) and a quick fact section called “Did You Know?” The information presented is useful for all healthcare professionals, particularly those in hospital practice.

There is no need to bookmark because registered users receive an e-mail alert when new cases are posted to the site. I would encourage all healthcare professionals to visit the site, register, and submit cases. Stories are powerful learning tools.

Reviewed by Sue Boisvert, MHSA BSN

**Institute of Medicine of the National Academies—Reports**  
www.iom.edu/reports.asp

**Key Words:** prevention, primary care, public health, public policy issues

Reports from the Institute of Medicine (IOM) of the National Academies that have been released since 1998 are available on its Web site at www.iom.edu/reports.asp. The report topics are broad in scope. Seventeen report topics are available for viewing, with public health and prevention accounting for the largest number of reports in 2005. Viewing reports is made efficient by the option to select by date, topic, board, or title. Links from each report take you to the National Academies Press site (www.nap.edu), where you can read synopses and order reports in PDF and paperback (fees apply). IOM reports may also be ordered over the phone. IOM contacts (postal address, e-mail, telephone, and fax) are also provided.

Healthcare professionals benefiting most from use of the IOM site include those whose expertise is related to the report topics provided. The topics covered in 2005 are mental health, child health, food and nutrition, aging women’s health, education, public policy, healthcare and quality diseases, global health, workplace, military and veterans health sciences, environment, treatment, public health and prevention, and minority health.

I added this site to my list of favorites.

Reviewed by Carlo Teano, BA CHCA
American Society for Quality (ASQ)
www.asq.org

**Key Words:** CQI, data collection, education quality processes, international quality, international quality education, management and analysis, performance, professional development, quality improvement and management, redesign and reengineering, teams (quality, process), TQM

The ASQ site has recently been redesigned and is an excellent site to bookmark for all quality professionals. The site trademark is “make good great.” The site has members-only portions for members of the American Society for Quality, but even nonmembers have access to a wealth of information and links concerning quality systems and processes. ASQ membership fees for 2005 vary on the basis of a menu of services requested; the regular annual membership fee is $119 and includes a paper copy and an electronic copy of the magazine *Quality Progress*. Navigation ease is exceptional, and page loading time is minimal. I frequently go to this site and was pleased with the redesign; a great site is now even better. Novices and experts will find quality information in the following major categories: education, government, healthcare, manufacturing, and service. The healthcare section has links to ASQ partners, the Institute for Healthcare Improvement, and the American Hospital Association. The only limitation of the site was that the news articles cited only the source of the article; dates of the news articles were not given. I added this site to my list of favorites.

*Reviewed by Deborah A. Dowling, MPH BSN CPHQ*

Lean Enterprise Institute
www.lean.org

**Key Words:** data collection, international quality education, management and analysis, performance, professional development, quality education, redesign and reengineering, systems

The Lean Enterprise Institute (LEI) was founded by Jim Womack as a resource to “describe in plain language fundamental lean thinking ideas.” This site is designed to sell LEI products—training seminars, international summits, textbooks, and workbooks. The news articles and press releases, although interesting and informative to someone who has limited knowledge about the topic of lean, were essentially sales pitches for the LEI products written by LEI staff. This site has multiple international links for individuals in Australia, Brazil, Germany, the Netherlands, and the United Kingdom. To access additional Web site resources, register for a workshop or summit, or make purchases from the store, the user must log in or create an LEI customer profile. It is stated that the information provided is never sold, shared, or swapped. If background about lean is needed, this is a comprehensive site, especially if you are willing to pay for information. I did not bookmark this Web site because it is too commercial. Its topics are limited, but the site is an excellent resource for those exploring or using lean methods.

*Reviewed by Deborah A. Dowling, MPH BSN CPHQ*

Medicare Payment Advisory Commission (MedPAC)

**Key Words:** consumer advocacy, healthcare settings and delivery systems, legislative issues, Medicare, public policy issues

The Medicare Payment Advisory Commission (MedPAC) is an independent federal body established by the Balanced Budget Act of 1997 to advise the U.S. Congress on issues affecting the Medicare program. MedPAC’s statutory mandate is quite broad. It advises Congress on payments to private health plans participating as Medicare providers in Medicare’s traditional fee-for-service program. MedPAC also has the task of analyzing access to care, quality of care, and other issues affecting Medicare. MedPAC comprises 17 members having diverse expertise in the financing and delivery of healthcare services. The commission meets publicly in Washington, DC, to discuss policy issues and formulate its recommendations to Congress. Two reports, released annually in March and June, are the primary outlet for the commission’s recommendations.
The Web site includes menus for selection of topics under research, publications, meetings, and a databook. The publications drop-down menu includes the two annual reports, Congressional testimony, contractor reports, and other documents. By following links to other government agencies and organizations, the user may find answers to questions and gain an understanding of the Medicare program. The Web site is free, easy to navigate, and user friendly. It includes a mailing list feature. The Web site is updated regularly, and, with the exception of some links that do not function, it provides a wealth of information that affects the Medicare program and is being analyzed and assessed by Congress. I added this site to my list of favorites.

Reviewed by J. Deborah Cicero, MPM RN CPHQ CMSC

Help Identify and Review Sites

The JHQ team invites you to help identify and review Web sites. A review consists of the name of the site or sponsoring organization, a URL reference, key words, the intent of the site, and comments about ease of navigation, value, pertinence to the healthcare quality professional, timeliness, and cost, if any.

Please forward—via e-mail—questions, sites for review, or, better yet, sites with reviews, to Quality NETwork co-editor Robert Rosati at robert.rosati@vnsny.org.

Robert J. Rosati, PhD, is director of outcomes analysis and research at the Center for Home Care Policy and Research, Visiting Nurse Service of New York, New York, NY. His e-mail address is robert.rosati@vnsny.org.

Daniel van Leeuwen, MPH RN CPHQ CHE, is director of professional and community standards at St. Peter’s Addiction Recovery Center in Guilderland, NY.
This JHQ feature provides members with up-to-the-minute, interesting resources that will help them navigate the constant flood of healthcare quality information. Brief descriptions of recently released media are provided, as well as ordering and Internet access information. New product announcements and company contact information are also provided.

**Products**

**Krames Launches Consumer-Friendly Web-Content Package**

More than 80% of American adults who go online—approximately 110 million people—use the Internet to search for healthcare information, according to a recent Harris Poll. As more Americans turn to the Internet as a primary source for health information, the demand for accredited health institutions to offer accurate and patient-friendly Web content will continue to grow. Krames, a leading provider of patient education materials, recently unveiled Krames Online (KOL), a new Web resource designed to bring best-of-class health content to Internet users through hospital and other healthcare-related Web sites.

KOL is a companion to Krames On-Demand (KOD), the print-on-demand electronic patient education system used by thousands of clinicians at leading hospitals and healthcare facilities. KOL serves as an online library designed for patients visiting hospital or other healthcare organizations’ Web sites.

KOL comprises more than 4,300 health and medication titles that address common issues such as asthma, diabetes, and prenatal care and offer descriptions of commonly prescribed medications. Every KOL title is available in English and Spanish. The library is organized alphabetically for convenient browsing or can be navigated by a keyword search option. The KOL library allows patients to view, print, and e-mail Krames content directly from the Web. KOL is available both as an add-on to current KOD subscriptions or as a stand-alone package.

Krames is a leader in producing award-winning health information that adheres to the principles of health literacy. All of its content is written at a fundamental reading level in both English and Spanish, and its materials are used by more than 80% of American hospitals and more than 300,000 physicians and nurses in hospitals and private practices.

For more information, visit www.krames.com.

**TapRooT Software Improves Performance with Enhanced Investigation Management**

System Improvements, Inc. has announced the completion of its new TapRooT® Software. From reporting an incident to validating the effectiveness of corrective action, the new software provides one suite of tools to manage investigation. Investigators can use one program to report incidents, analyze root causes, develop corrective actions, write and approve reports, track fixes, validate the effectiveness of the fixes, and track performance in a secure, password-protected environment.

The new software is written with a structured query language (SQL) database that allows the program to be set up as a single-user database on a local hard drive, a workgroup database with 8–10 simultaneous users across a local area network, or an enterprise database that allows for unlimited simultaneous users across a wide-area network. It can be linked to other databases including SQL, Access, SAP, and Oracle. System Improvements can supply programming support to help link an organization’s databases to the TapRooT Software.

Now investigators have the power to manage and control access to investigation information, reports, and the TapRooT techniques. With built-in security and multilevel password protection (multi-user versions only), advanced searching and sorting features for incidents and audits, and integrated e-mail support (multi-user versions only), communication is fast and easy. Productivity will thus be increased, and the level of communication within an organization will be improved.

For more information, visit www.taproot.com.
Resources

California HealthCare Foundation Releases New Patient-Safety Resources
The California HealthCare Foundation has launched three new patient safety–related resources on its Web site: Helping Patients Manage Their Chronic Conditions, Patient Self-Management Tools, and Using Telephone Support to Manage Chronic Disease.

Helping Patients Manage Their Chronic Conditions addresses a clinical approach to collaborative decision making and information giving and provides useful information on assessing a patient's willingness to change. An assessment tool, in the form of a scale, is part of the resource package. The document is a PDF and is therefore easily downloadable and printable. Abundant references and statements support the benefits of patients' participation in their own care.

The second report, Patient Self-Management Tools, categorizes the tools as subordinate, structured, collaborative, and autonomous. Subordinate tools involve minimal patient discretion; an example is video monitoring. Structured tools require patient participation and frequently involve a device that in some cases may be used to transmit data such as blood-pressure readings. Collaborative tools appear to be the most common tool set and enlist the use of decision-support and patient education materials. Autonomous tools require little support from clinicians.

According to the Web site, the third report, Using Telephone Support to Manage Chronic Disease, is “aimed at clinicians and health care managers [and] describes the benefits and challenges of telephone care programs.” The resource discusses how telephone care services can contribute to improved patient care, what the characteristics of effective programs are, how to discern which patients are most likely to benefit from telephone care, how to integrate telephone care services into systems of care, and how to evaluate programs and identify areas for improvement.

The information in all three reports is timely and relevant across the healthcare continuum, particularly for organizations focused on improving patient outcomes.

Wisconsin Collaborative for Healthcare Quality Releases Data on Three Conditions
The Wisconsin Collaborative for Healthcare Quality released its first version of a comparison measure that combines quality processes and outcomes data with severity-adjusted data for charges and length of stay. Six measures are given for three conditions—heart attack, heart failure, and pneumonia.

The Wisconsin Collaborative for Healthcare Quality consists of multispecialty physician groups, hospitals, health plans, employers, and labor organizations from different areas of the state that have come together to develop and share best practices and quality outcomes. The collaborative was founded in 2003 on the principle that a focus on improving quality results in better care for patients and lower, more rational costs.

Although this site pertains to Wisconsin, it provides an example of public reporting for physician groups, hospitals, and health plans in a framework that is easy to navigate. Reports are arranged by clinical topic (including access, critical care, diabetes, health information technology, heart care, patient satisfaction, pneumonia, surgery, and women's health) and also according to the Institute of Medicine's six aims for an effective healthcare system: safety, timeliness, effectiveness, efficiency, patient-centeredness, and equity.

For more information, visit www.chq.org.

National Patient Safety Foundation Highlights Current Literature
The National Patient Safety Foundation contains a current literature awareness alert on its Web site. The list contains a synopsis of current literature regarding patient safety, along with a brief description of the article or publication.

For more information, visit www.npsf.org/html/current.html.

Lenard L. Parisi, MA RN CPHQ FNAHQ, is vice president for quality management and performance improvement at Metropolitan Jewish Health System, Brooklyn, NY, and a member of JHQ's review panel.