From Front Office to Front Line

Essential Issues for Health Care Leaders

Improving Health Care Quality and Safety

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Leading the Macrosystem and Mesosystem for Microsystem Peak Performance

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"Health system leaders need to learn that the only way to get quality and value and flexibility—both to innovate and to meet a unique patient's needs as they evolve—is to organize the front line using microsystem methods that have been developed in the world's most successful service organizations."

– James Brian Quinn, Ph.D., Professor Emeritus, Tuck School of Business Administration, Dartmouth College, December 2004[1]

Health care leaders must nurture their organization's capability to continuously improve the quality, reliability, and value of care by engaging and energizing all the people involved in the fundamental goal of providing high-quality services that meet patients' health needs. They need different ways of thinking, learning, and working to meet the three formidable challenges of today and tomorrow:

- Provide safe, effective, and efficient care
- Attract and retain talented professionals and staff
- Thrive in a new payment environment that rewards the higher-quality, lower-cost providers

The chapter begins with a brief case study to frame the issues and a panoramic view of the challenges confronting today's health system leaders. We then review

some relevant leadership frameworks and point out some of the unique features of the structure of the health care system that make it difficult for health care leaders to easily adopt these frameworks. Next we introduce some additional ways for health care leaders to learn and gain a deep understanding of microsystems. We discuss what health care leaders can do to create the conditions for success, to execute strategic plans, and to create operational excellence at the front lines of care and throughout the organization. We conclude with a summary of take-home points and the real challenge for health care leaders—to adapt these ideas and approaches to the realities of their personal style and unique circumstances for the purpose of attaining peak reliable performance throughout the entire enterprise.

Case Study: A True Story with Names Changed to Protect the Innocent

The following case is, in essence, true. It happened in the summer of 2004. The names and facts have been slightly altered to make it apply to the conditions faced by many senior leaders of hospitals and health systems in the United States.

Jack Candoo, CEO of Memorial Hospital and Health System (MHHS), returned from his summer vacation and received some very bad news from his chief financial officer (CFO). While Candoo had been enjoying a much-needed beach holiday with his family, MHHS had been informed by its largest purchaser that they were a "Tier 2" health system and that reimbursement levels would be cut to reflect their "suboptimal performance."

Initially, Candoo felt that the decision had come out of the blue and that the data were wrong. On further reflection, however, he roughly confirmed that the data were right. He started to think that this "Tier 2" placement by one purchaser posed a much greater problem for the long-term future of MHHS than it did for the next fiscal year. His reasoning behind this conclusion developed into the following internal monologue:

1. Looking at data from the core measures from the Joint Commission on Accreditation of Healthcare Organizations—and being honest about them—I realize that some of our numbers are excellent, some are average, and some are, frankly, shameful.

2. Patient satisfaction scores reflect a successful service excellence campaign—we now consistently rank above the 80th percentile, way up from the 45th percentile attained three years ago—but improving satisfaction has done nothing to improve clinical quality, costs per discharge, or costs per visit.

3. There is an aggravating and large gap—the Institute of Medicine (IOM) even called it a "chasm"—between the MHHS mission, vision, and rhetoric and actual, honest-to-goodness, measured performance.

4. The performance gap is not just embarrassing and aggravating but has financial implications as well. Now the public can view this gap because both the Joint Commission and the Centers for Medicare & Medicaid Services (CMS) publish our results, along with everybody else's in the United States, in the name of transparency. Our purchasers, who are getting serious about pay-for-performance and value-based purchasing programs, also use those results.

5. Today's gap could cause us huge problems tomorrow with the ever-increasing number of gold-standard quality measures being published by the National Quality Forum (NQF)—hundreds of very specific quality measures are currently in development—and CMS leading the charge for all of the pay-for-performance schemes. Unless things change for the better and for real at MHHS, I could be out of a job, MHHS's bond rating could plummet, and the survival of our whole organization that we have worked so hard to build up during the past decade could be mortally threatened.

Candoo thought that his reflections on current reality and future trends were fundamentally correct and deeply disturbing. He began to think what he needed was a whole new way of thinking, acting, and leading. He knew from experience that MHHS could run a quality improvement project on this or that condition or item. Recently, it had been successful in improving emergency department (ED) and inpatient satisfaction, decreasing length of stay, and improving clinical quality for pneumonia and heart failure patients.

But his general observation was that MHHS's work to improve quality and cut costs had been based on carrying out *projects*. These projects often succeeded in the short run but sometimes failed to hold the gains in the long run—and never did spread to other clinical areas or give rise to new, collateral improvements in other areas that also needed work. There just didn't seem to be fundamental improvement in the organization's capability to continually improve and adapt. He concluded that he needed a new and fresh way of leading his organization to improve in all the ways that the future demanded. But he was wary of the management fads that he had seen come and go—continuous quality improvement, then total quality management, then reengineering, then Six Sigma, now lean thinking, and who knows what idea will be next.

Candoo felt that he needed not a new management craze but a durable and practical approach that (a) fit the special realities of health care, (b) was based on observations of what actually works, and (c) fit the health care system of the future. It was at this point that Candoo started to think more seriously about some conversations he had had with some friends at Dartmouth, a few articles he had read, and an intriguing book by Dartmouth professor James Brian Quinn, titled *Intelligent Enterprise*.[2] Candoo started to feel a bit less glum and to think that maybe he could blaze a new path forward toward peak performance that would take his organization where it needed to go in executing strategic imperatives to meet staff needs and to exceed patient expectations.

Framing the Challenge

The situation facing Jack Candoo and MHHS is not unique. In fact, it is quite common today and will likely become the dominant reality tomorrow. The nation's health system is undergoing major changes. We seem to be entering an era that will be characterized by three new features:

- A new payment method: value-based, or pay-for-performance, purchasing

- A new paradigm: patient-centered care

- A new information environment that provides high-exposure, transparent outcomes data on quality and cost

This new era will demand new adaptive responses from health care; organizations will need to change and evolve or they will fail. Peter Drucker, a leader in modern management thinking, has said about the need for change, "Every organization has to prepare for the abandonment of everything it does."[3]

Figure 1.1, page 5, which is based on work done in Jönköping, Sweden, and at Dartmouth-Hitchcock Medical Center in northern New England, provides a glimpse of the complicated, multilayered, and multifaceted job of senior, midlevel, and front-line leaders in health care. The figure represents the three levels of a typical integrated delivery system.

- The highest level can be referred to as the *macrosystem,* which represents the whole of the enterprise led by senior leaders such as the CEO, chief operations officer (COO), CFO, chief medical officer (CMO), chief nursing officer (CNO), and chief information officer (CIO).

FIGURE 1.1

A View of the Health System

System Levels   *Example*

Nursing
Services

Macrosystem

Nursing
Divisions

Mesosystem

Front-line
Nursing
Units
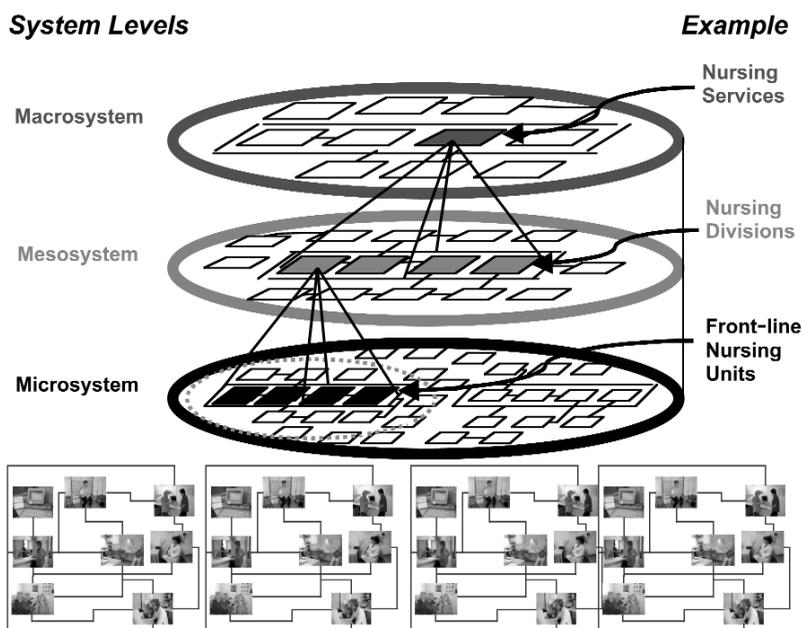
Microsystem

This figure shows a view of a health system from "30,000 feet," illustrating how macrosystems link to mesosystems link to microsystems.

Source: Göran Henriks, M.A., Chief of Learning and Innovation, and Mats Bojestig, M.D., Chief, Department of Medicine, County Council of Jönköping, Sweden. Presented at the First European Clinical Microsystem Network Meeting, Mar. 1, 2004. Used with permission.

- The second level may be termed the *mesosystem,* representing major divisions of the health enterprise such as the department of medicine, department of nursing, and information services, as well as clinical service lines such as the oncology program, cardiovascular program, and women's health.

- The third level, populated by clinical *microsystems,* represents the front-line places where patients and families and caregivers meet. They are the small functional units where staff actually provide clinical care.

In this model, the highest level of the system, sometimes called the *blunt end* of the delivery system, contrasts with the lowest level, called the *sharp end,* because it

is the point where the patient directly contacts with the system. The view shown in Figure 1.1 reflects a system of delivery that is exceedingly complex, which makes clear the need for a fresh approach that will reflect the intricacies of today's health care system while still focusing primary attention on the front lines of care where patients, families, and caregivers meet.

Figure 1.2 (page 7) provides another way to frame the challenge faced by health care leaders. It retains the macro-/meso-/microsystem format shown in the first figure but turns the image upside down. This diagram is based on the idea of the inverted pyramid and on Quinn's observations of the requirements needed to become a world-class leader in the service sector.[2] The inverted pyramid representation of a health care organization puts the patients and front-line staff at the top of the system and suggests that the rest of the enterprise really exists to support the important interaction that takes place at the front line of care.

Clinical microsystems are the naturally occurring building blocks that form the front line of all health systems. These small systems form around the patient to provide care for short or long periods of time as health needs evolve. For example, if a person has an acute myocardial infarction (AMI) and survives, the patient will typically receive care in a series of clinical microsystems: Paramedics stabilize, transport, and begin treatment; the ED diagnoses and treats; the catheterization lab assesses and treats as indicated; the cardiac care unit assesses and treats; the inpatient telemetry unit assesses, treats, and discharges; cardiac rehabilitation services assists with the full recovery; and the cardiology practice follows the patient over time to minimize risk of a new cardiac event, with or without the assistance of home health services in the community. All these microsystems act as the front line of care for that individual patient.

The quality and value of care for any single patient, or for a cohort of patients such as people who have an AMI, fully depends on the quality of the health system. The quality of the health system (Q_{HS}) is a function of the quality of care provided *within* each contributing microsystem (represented as Q_{m1}, Q_{m2}, Q_{m3}, and so forth) plus the handoffs that occur *between* different microsystems (for example, handoffs of the patient, information and data about the patient, services needed for the patient).

Clinical microsystems form the front line of the system—they represent the place where quality is made and costs are incurred. The special knowledge,

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FIGURE 1.2

The Health Care System as an Inverted Pyramid
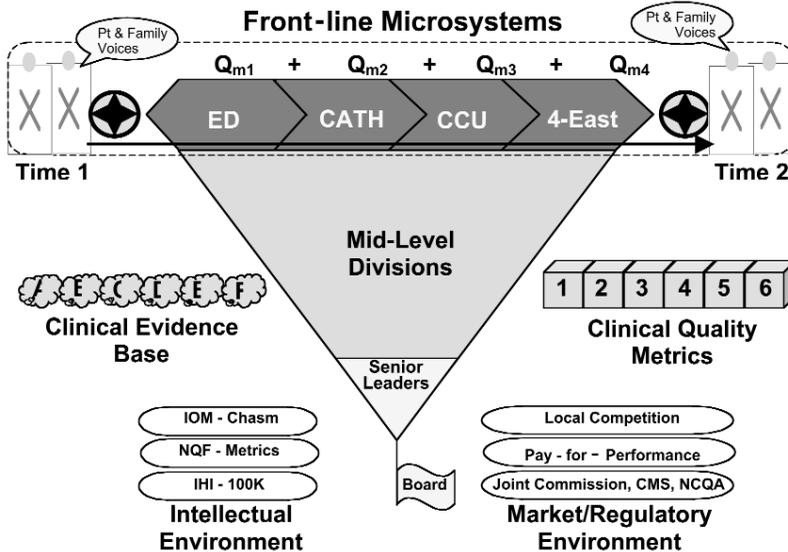
This figure shows the microsystem at the base (top) of the organization's pyramid. The mesosytems are at the middle of the pyramid and connect the front-line microsystems (including interactions with patients and families) with the senior-level, macrosystem leaders of the entire enterprise who are at the bottom (tip) of the pyramid. These leaders are responsible for the whole organization, that is, the macrosystem. The quality of the macrosystem is a function of the quality of each microsystem (Q_{m1}, Q_{m2}, and so forth).

Legend: CATH, catheterization lab; CCU, cardiac care unit; CMS, Centers for Medicare & Medicaid; ED, emergency department; IHI, Institute for Healthcare Improvement; IOM, Institute of Medicine; NCQA, National Committee for Quality Assurance; NQF, National Quality Forum.

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skills, and resources of the clinical staff can be used in the clinical microsystem to meet the special needs of an individual patient. It is the place where innovation opportunities are most often uncovered. It is the place where, with discretion, things that should be flexible can be customized and the place where, with discipline, things that should be standardized can be made routine.

The inverted pyramid goes from the level of microsystem to the mesosystem and the macrosystem respectively. The mesosystem includes the areas that contribute to the care of the patient, such as the following:

- Clinical departments (for example, medicine, nursing, surgery)

- Clinical support departments (for example, radiology, pathology, anesthesiology, pharmacy, medical information, care management)

- Critical midlevel structures (such as specific service lines for oncology, cardiovascular health, or women's health)

Senior leaders (for example, CEO, CFO, CMO, CNO, CIO) populate the bottom of the inverted pyramid. The peak also includes a flag representing a board of trustees that works with (and oversees) senior leaders on core areas such as vision, mission, values, guiding principles, strategy, and finance. Working down through the inverted pyramid can be compared with working through a root cause analysis that moves progressively away from the sharp end to the blunt end of the system as staff ask the "why" question repeatedly.

Implications for Health Care Leaders

Thus, we have a complex organization with three fundamentally important and different levels of systems: microsystem, mesosystem, and macrosystem. The inverted pyramid framework challenges leaders and leadership to act in a coordinated way at all levels to deliver high-quality and high-value care to succeed today and to find ways to innovate and improve to excel tomorrow. The inverted pyramid provides a panoramic viewpoint to frame the leadership challenge for macrosystem (or senior) leaders, mesosystem (or midlevel) leaders and microsystem (or front-line) leaders.

The board of trustees and macrosystem senior leaders at the pointed end of the inverted pyramid must work together to establish the mission, vision, values, guiding principles, and strategy, all of which form the organizational context for the work of health care. They do this vital work looking inside the organization to assess both current and needed capabilities and by looking outside the organization to understand and react to major trends and issues in their organization's environment.

As an example, the board and senior leaders become aware that there is a clinical evidence base on best practices for AMI that may or may not be designed into the patterns of care produced by the contributing clinical microsystems. At the same time, they uncover gold standard evidence-based clinical quality metrics that are generated by the patterns of AMI care and that emanate from the involved clinical microsystems. They are cognizant of their local and regional competition, of the trend toward pay-for-performance reimbursement, and of the special requirements imposed by outside agencies such as the Joint Commission (www.jcaho.org), CMS (www.cms.hhs.gov), and the National Committee for Quality Assurance (www.ncqa.org). They are also scanning the environment for powerful emerging forces that will shape the industry such as the IOM (www.iom.edu) and their special reports on quality and safety, the coming avalanche of gold-standard quality metrics promulgated by the NQF (www.qualityforum.org), and the work of high-profile health care organizations such as the Institute for Healthcare Improvement (IHI; www.ihi.org) that launched a campaign in December 2004 to save 100,000 lives and developed a new way to measure the quality of an entire health system, called *whole system metrics*.

Leadership Frameworks: Some of the Best Approaches

Most successful macrosystem leaders know that the patient care their system provides is only as good as the clinical microsystems that make the care. Macrosystem leaders help create the environment inside the organization that enables, or diminishes, the work of the mesosystems and microsystems. Macrosystem leaders know that improvement means change.

What is the work of senior leaders and how might it be done? Many general leadership frameworks have been developed and popularized. Some of these explore challenges commonly found in health care and are described in the following sections. Although other frameworks are available, these frameworks illustrate some of the best approaches. Table 1.1 on page 10 provides an overview of these frameworks and the relevant challenges.

Bossidy and Charan

According to Larry Bossidy and Ram Charan, the job of macrosystem leaders is to establish a planning framework that confronts the reality of the situation they face and answers the following questions:

TABLE 1.1

Leadership Frameworks and Challenges

Framework Author	Common Challenge
Bossidy and Charan	Making things happen amidst current realities
Malcolm Baldrige National Quality Award	Assessing world-class levels of quality
Bolman and Deal	Framing leaders' work flexibly
Greenleaf	Being servant leaders
Kotter	Leading change
Weick	Improving reliability
Toyota	Linking work process, leadership development, and learning

- What's the nature of the game we're in?

- Where is it going?

- How do we make money in it?[4,5]

Figure 1.3 on page 11 represents their model. Unless the internal "fundamentals" connect to the "external realities" facing the organization, and appropriate connections are made to the enterprise's financial targets, the creation of a sustainable, high-performing enterprise is doubtful.

What might this mean for change and improvement at the level of the clinical microsystem? At a minimum, it means that senior leaders have worked this out for the macrosystem and can share how the work of the microsystem connects and contributes to the performance of the whole enterprise. Leaders must help the microsystem address the current reality, create a sustainable proposition for its work, and initiate the necessary changes and improvement. The Bossidy and

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FIGURE 1.3

Bossidy and Charan's Framework for Execution

External Realities
- Financial history of your industry
- Overall business environment
- Customer base
- Root cause analysis

Internal Fundamentals
- Strategy
- Operations
- People
- Organization

Financial Targets
- Operating margins
- Cash flow
- Capital intensity
- Revenue growth
- Return on investment

Iteration
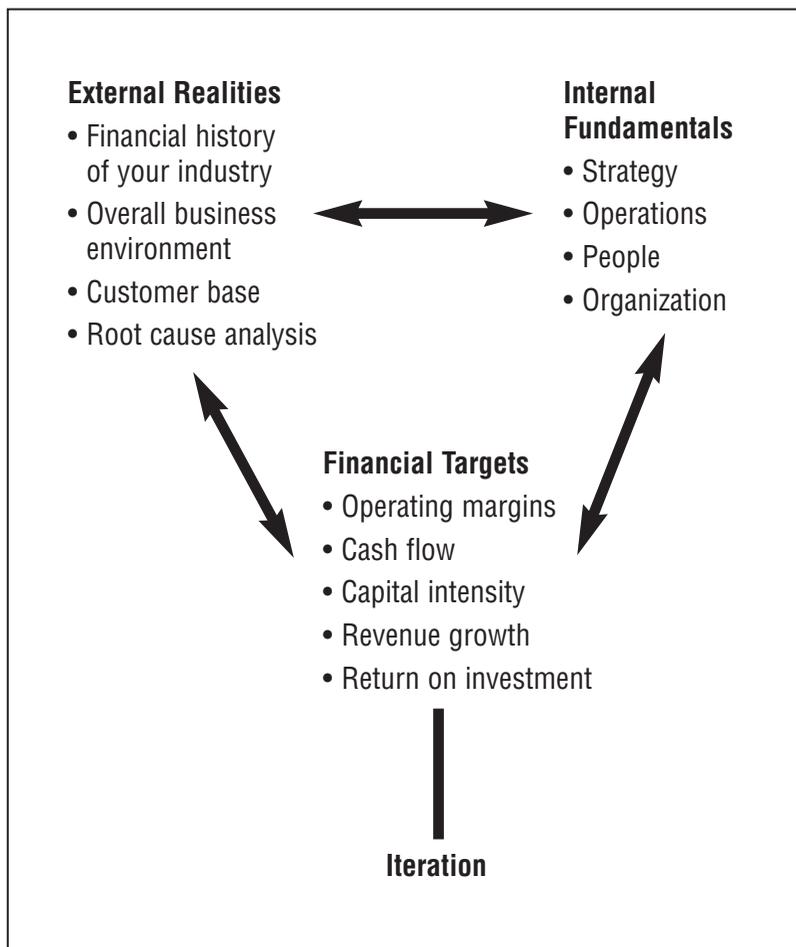
Bossidy and Charan provide this framework, which depicts the external, internal, and financial challenges leaders face.

Source: Bossidy L., Charan R., Burck C.: *Execution: The Discipline of Getting Things Done.* New York: Crown Business, 2002.

Charan model can help connect the real work of the microsystem within the macrosystem environment. Absent this explicit awareness, leaders are challenged in fully aligning their efforts for the microsystem and macrosystem.

Malcolm Baldrige National Quality Award

The framework of the Malcolm Baldrige National Quality Award and process (www.quality.nist.gov) reflects how leaders create conditions across the macrosystem for continuing improvement of daily work. The Baldrige model makes assumptions about what elements are needed to attain excellence and uses an assessment framework for the design, deployment, and results of each element. Figure 1.4, below, illustrates the general model.

FIGURE 1.4

The Baldrige Process of Improvement

Organizational Profile:
Environment, Relationships, and Challenges

2 Strategic Planning

5 Staff Focus

1 Leadership

3 Focus on Patients, Other Customers, and Markets

6 Process Management

7 Organizational Performance Results

4 Measurement, Analysis, and Knowledge Management

The Baldrige process for improving the performance of a health care organization uses seven criteria to design, deploy, and continuously improve results. The assessment process falls under the framework of the organization's profile, including the environment, relationships, and challenges that exist within the organization.

Source: Baldrige National Quality Program: *2005 Health Care Criteria for Performance Excellence.* National Institute of Standards and Technology. http://www.quality.nist.gov/PDF_files/2005_HealthCare_Criteria.pdf (accessed Jul. 19, 2005).

A set of values that macrosystem leadership must understand, embody, and establish throughout the organization supports performance excellence. The 11 values are as follows:

1. Visionary leadership

2. Patient-focused excellence

3. Organization and personal learning

4. Valuing staff and partners

5. Agility

6. Focus on the future

7. Managing for innovation

8. Management by fact

9. Social responsibility and community health

10. Focus on results and creating value

11. Systems perspective

The values and performance elements illustrate the channels of interaction within an organization that the senior leaders use to have good conversations and to promote continually improving results at the microsystem level.

Bolman and Deal

Lee Bolman and Terrence Deal assert that the job of macrosystem leaders begins by recognizing the uncertain and ambiguous nature of work today.[6] Leaders must take a flexible approach to learning and taking action. Bolman and Deal use four frameworks—structure, human resource, political, and symbolic—to illustrate different ways of leading. Each framework has a unique set of assumptions and each offers approaches for learning about performance and forming action strategies. Table 1.2 (page 14) defines the four frameworks and outlines the differences in the frameworks as senior leaders address organization change.

Greenleaf

In the middle of the twentieth century, Robert Greenleaf began leadership training under the auspices of AT&T. Over time, he worked with many different organizations. In 1969 he gave a series of lectures at Dartmouth College, which

TABLE 1.2

Bolman and Deal's Four Complementary Leadership Frameworks with Barriers and Strategies

Frame	Frame Effective Roles for Leaders	Effective Processes	Ineffective Roles for Leaders	Ineffective Processes	Barriers to Change	Essential Change Strategies
Structural	Analyst Architect	Analysis Design	Petty Tyrant	Management by Detail Arbitrary Decrees	• Loss of clarity and stability • Confusion • Chaos	• Communicate • Realign • Renegotiate formal patterns and policies
Human Resource	Catalyst Servant	Support Empowerment	Weakling Pushover	Abdication	• Anxiety and uncertainty • People feel incompetent and needy	• Train to develop new skills • Encourage participation and involvement • Provide psychological support
Political	Advocate Negotiator	Advocacy Coalition Building	Con Artist Thug	Manipulation Fraud	• Disempowerment • Conflict between winners and losers	• Create arenas where issues can be renegotiated and new coalitions formed
Symbolic	Prophet Poet	Inspiration Framing Experience	Fanatic Fool	Mirage	• Loss of meaning and purpose • Clinging to the past	• Create transition rituals • Mourn the past, celebrate the future

formed the basis of his later work on servant leadership and the view of a leader who encourages the whole person—head, hand, and heart—to show up for work. In those lectures he identified a number of personal attributes, strategies, themes, and approaches that leaders might take within their own organizations.[7] Table 1.3 on pages 16–17 briefly recounts the themes from these lectures. These decades-old points still offer helpful counsel to leaders today.

Kotter

John Kotter developed a powerful method for leading change based on his study of successful and unsuccessful efforts to transform organizations. His model offers a change process comprising sequential steps, which he says often overlap, run in parallel, and interact with one another.[8] Table 1.4, page 18, lists these steps.

In 1999 Kotter assembled several of his previous writings and made some reflective comments on the differences in managing and leading change.[9] He stated that leaders (1) set a direction, (2) align people, and (3) motivate and inspire people. Kotter noted that the powerful path of "see-feel-change" works more often than "analysis-think-change," and he goes on to suggest ways leaders can vividly speak to the feelings of those they seek to lead.[10] Many health care leaders have found these suggestions to be very helpful.

Weick

A renowned expert on the psychology of organizations, Karl Weick urges leaders to consider their assumptions when trying to foster change.[11,12] Weick believes that when leaders seek to make intentional change, they should assume that any model of change will do, as long as it accomplishes the following:

- Animates people and gets them moving and generating experiments that uncover opportunities

- Provides a direction

- Encourages updating through improved situational awareness and closer attention to what's actually happening

- Facilitates respectful interaction in which trust, trustworthiness, and self-respect all develop equally and allow people to build a stable rendition of what they face

TABLE 1.3

Highlights of Greenleaf's Dartmouth College Lectures

Theme	Description
Goal Setting	Know what you are trying to do: the overarching purpose, the big dream, the visionary concept, the ultimate achievement that one approaches but never quite achieves. Its purpose is to excite the imagination. The right goal helps the rest of leadership strategy fall into place naturally.
Principle of Systematic Neglect	It is just as important to know what to neglect as to know what to do.
Listening	Listeners learn about people in ways that modify—first the listener's attitude, then his or her behavior toward others, and finally the attitudes and behavior of others.
Language as a Leadership Strategy	A leader must articulate the goal. The effective use of language includes some estimate of what the listener's fund of experience is plus the art of tempting the listener into that leap of imagination that connects the verbal concept to the listener's own experience. One of the great communicating arts is to say just enough to make that leap of the imagination feasible. In this process, one must not be afraid of a little silence. In fact, it is important to ask oneself, "In saying what I have in mind, will I really improve on the silence?" Recall that most of us don't like to be lectured to, but we all like to eavesdrop.
Values	We want a leader to be honest, loving, and responsible. Leaders are moved by the heart; compassion stands ahead of justice.
Personal Growth	The leader must be a growing person.

(continued)

TABLE 1.3 *(continued)*

Highlights of Greenleaf's Dartmouth College Lectures

Theme	Description
Withdrawal	The best defense is to be able to withdraw, cast off the burden for a while, and relax. Optimum function includes carrying an unused reserve of energy in all periods of normal demand so that one has the resilience to cope with emergency.
Tolerance of Imperfection	We must have a view, rooted deep in our interior, that people can be immature and ineffectual. Even imperfect people are capable of great dedication and heroism. A lot of people are, in fact, disqualified to lead because they cannot work through and with the people who are available to work with them.
Being Your Own Person	Be the "natural" person you are and realize that you own yourself.
Acceptance	When followers feel accepted, they tend to perform beyond their limits.
Foresight	What will happen in the future begins with a state of mind about "now." The prudent person constantly thinks of now as the moving concept…past, present moment, and future as one organic unity. This requires living by a sort of rhythm that encourages a high level of insight about the whole span of events, from the definite past through the present moment to the indefinite future. Leadership depends on intuiting the gap between the limit of the solid information and what is in fact needed for a dependable decision.

Source: Created from Frick D.M., Spears L.C. (eds.): *On Becoming a Servant-Leader: The Private Writings of Robert K. Greenleaf*. San Francisco: Jossey-Bass, 1996.

TABLE 1.4

Kotter's Eight-Step Process for Leading Large-Scale Change

1. **Tension for Change.** Establishing a sense of urgency based on an understanding of realities of the market, crises, opportunities, and so forth

2. **Coalition.** Creating a guiding coalition with enough power to lead the change

3. **Vision.** Developing a vision and strategy that can direct the change effort together with strategies for achieving that vision

4. **Communication.** Communicating the change vision using multiple modalities and vehicles for communication and having the guiding coalition model the behaviors sought

5. **Empowerment.** Empowering broad-based action while encouraging risk-taking and removing the barriers, obstacles, and undermining forces

6. **Early Success.** Generating short-term wins and recognizing the wins and the people that contributed to making them

7. **Expanding Change.** Consolidating gains and producing more change to extend the vision for change to even more than the initial targets and people

8. **Grounding.** Anchoring the new approaches in the culture of the setting

Source: Kotter, J.P.: Winning at change. *Leader to Leader* 10:27–33, Fall 1998. http://leadertoleader.org/leaderbooks/L2L/fall98/kotter.html (accessed Jul. 2, 2005). Copyright © 1998 J.P. Kotter. Reprinted with permission of Jossey-Bass, a subsidiary of John Wiley & Sons, Inc.

Weick observes that as leaders seek to change their organizations, they can assume that their organization will observe the "either–or" states listed in Table 1.5 on page 19. A model closer to the left-hand "either" side might drive a leader to carefully design and plan a change. If the reality facing the leader looks more like the right-hand "or" side, the leader must recognize that the primary job will be to certify the goodness of the changes actually made.[12]

Further, Weick and Scott note that settings in organizations vary in the degree to which they manifest tight or loose coupling, as shown in Table 1.6 (page 20).[13,14] The job of the leader seeking to foster change varies depending on the coupling phenomena present, as illustrated by the change strategies shown in Table 1.7, page 21. Weick notes that systems with loose coupling (high differentiation and

TABLE 1.5

Either-Or States of Organizational Change

Either	**Or**
• Move from one state to another in a forward direction through time.	• Have repetitive periods of ebb and flow and unraveling processes that then need to be re-accomplished.
• Move from a less-developed state to a better developed state.	• Move in an orderly sequence through cycles whose disruption creates a crisis: Try various strategies, remember, and repeat those that seem to work.
• Move toward a specific end state, often articulated in a statement of vision.	• Be preoccupied with journeys and directions rather than destinations and end states.
• Move only when there is disruption and disequilibrium.	• Consider change effective when change restores balance and adaptive sequences.
• Move only in response to forces planned and managed by people apart from the system.	• Accept the reality that nothing stays the same forever.

Source: Created from Weick K.E.: Emergent change as a universal in organizations. In Beer M., Nohria N. (eds.): *Breaking the Code.* Boston: Harvard Business School Press, 2000., pp. 223–241.

low integration) may appear ineffective when assessed by criteria tied to efficiency but may be more effective when assessed against criteria that index flexibility, ability to improvise, and capability for self-design.[14]

Improving these loosely coupled systems does not necessarily require making them into more tightly coupled systems. Indeed, as Weick suggests, "the loosely coupled system may be thought of as the social and cognitive solution to constant environmental change, to the impossibility of knowing another mind, and to limited information processing capacities."[14(p. 401)]

When seeking high-reliability performance, such as in the organizations that Weick has studied in the nuclear power industry or on aircraft carriers, leaders

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TABLE 1.6

System Examples Associated with Loose and Tight Coupling

System Characteristic	Loose Coupling	Tight Coupling
Interdependence of System Elements	• Parts capable of semiautonomous action.	• Parts not capable of semiautonomous action.
Leadership	• System has many "heads."	• System has one or few "heads."
Stability of Coalitions	• Individuals and subgroups form and leave coalitions.	• Individuals and subgroups form and maintain stable coalitions.
Role of Coordination and Control	• Coordination and control are problematic.	• Coordination and control are emblematic.
Boundaries	• System boundaries are often amorphous.	• System boundaries are pretty clear.
Operational Alignments	• Assignments of actors or actions to the organization or environment seems arbitrary.	• Assignments of actors or actions to the organization or environment fit a rationale.
Role of Structure and Process	• Shift in view from structure to process.	• Focus on the structure, using the process to understand interdependencies.

Source: Created from Weick K.E.: *Making Sense of the Organization*. Malden, MA: Blackwell Publishers, 2001.

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have different concerns and often focus on what Weick and Sutcliffe call *mindfulness*.[12] Leaders in high-reliability organizations share several characteristics, including the following:

- Preoccupation with failure

- Reluctance to simplify interpretations

- Sensitivity to operations

- Commitment to resilience

- Deference to expertise

TABLE 1.7

Matching Change Strategies to the Coupling Situation

System Characteristic	Loose Coupling	Tight Coupling
Interdependence of System Elements	• Work on logic, purpose, socialization.	• Change "parts."
Leadership	• Work via influence, charter, data.	• Change leader's mind or change leader.
Stability of Coalitions	• Focus on orientation and roles of participants.	• Pick participants well.
Role of Coordination and Control	• Use data, shared reviews.	• Establish clear accountability.
Boundaries	• Work on purpose.	• Change the "next" systems or create a different context.
Operational Alignments	• Focus on "effects."	• Explore the role-rationale connection.
Role of Structure and Process	• Focus on the paths of interaction with the STAR (**s**eparateness or differences, **t**alking and listening, **a**ction opportunities, **r**eason to work together) model.*	• Work on structure and function.

* Zimmerman B.J., Hayday B.: A board's journey into complexity science: Lessons from (and for) staff and board members. *Group Decision and Negotiation* 8:281–303, Jul. 1999.

Source: Created from Weick K.E.: *Making Sense of the Organization*. Malden, MA: Blackwell Publishers, 2001.

Weick offers a vision of what the leader's work might be in complex organizations seeking highly reliable performance. Amalberti et al. note that in health care, some clinical microsystems operate in the zone of "highly safe, reliable" systems such as blood banking or anesthesia for not at–high–risk patients. However, most clinical medicine operates at much lower levels of reliability, with failure rates in parts per 10 or 100.[15] Weick offers leaders insight into the challenges of guiding high–reliability systems and into the process(es) of leading complex, adaptive systems.

Toyota Approach

Dr. Donald Berwick, president and CEO of IHI, has often said, "What we need in health care is a Toyota!" Because Toyota has had such profound worldwide influence on quality thinking and techniques, we will finish our brief review of leadership frameworks with this approach and will cover it in somewhat greater detail than those reviewed up until now. Three threads seem to contribute to the tapestry of Toyota's identity:

- The way of work or management philosophy that the founders and their successors modeled

- The tools and methods of change, often described as the Toyota production system or lean manufacturing

- The emergent learning process, which—over time—has allowed deep organization learning to occur[16–22]

Each is discussed in the following sections.

Way of Work. For more than 20 years, professor Jeffrey Liker of the University of Michigan (Ann Arbor) has studied the Toyota way of work.[23] He suggests that the Toyota way of work and the Toyota production system function as twin strands in Toyota's "DNA."[19,20] Liker illustrates his accumulated learning about Toyota using a pyramid (shown as Figure 1.5, page 23) and 14 management principles. He groups the 14 principles, as illustrated in Table 1.8 (page 24), into four segments:

- Long-term philosophy

- The right process will produce the right results

- Add value to the organization by developing your people and partners

- Continuously solving root problems drives organizational learning

Liker cautions, "Lean is not about imitating the tools used by Toyota in a particular manufacturing process. Lean is about developing principles that are right for your organization and diligently practicing them to achieve high performance that continues to add value to customers and society."[23(p. 41)]

Tools and Methods of Change. Table 1.9 on page 25 lists many of the numerous approaches to the reduction of waste in an organization, including methods such

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FIGURE 1.5

The Toyota Pyramid

Toyota's Terms

Genchi Genbutsu

Kaizen *Respect and Teamwork*

Challenge

Problem Solving
(Continuous Improvement & Learning)

People & Partners
(Respect, Challenge & Grow Them)

Process
(Eliminating Waste)

Philosophy
(Long-term thinking)

This figure portrays Liker's observations of the elements of Toyota's way of work and production systems.

Source: Liker J.K.: *The Toyota Way: 14 Management Principles from the World's Greatest Manufacturer.* New York: McGraw-Hill. Copyright © 2004. Used with permission of The McGraw-Hill Companies.

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as smoothing of work flow, getting quality right, and the standardization of work routinely employed in the Toyota production system.[17,22–24] Many persons have worked hard to adapt these approaches to health care. Some lead adopters of Toyota methods in health care include the Pittsburgh Regional Healthcare Initiative (www.prhi.org), Virginia Mason Medical Center (www.virginiamason.org), ThedaCare (www.thedacare.org), and IHI.

Emergent Learning Process. Fujimoto notes that the Toyota manufacturing system today is not the result of a "grand design." Rather, he suggests that several

TABLE 1.8

Toyota's 14 Principles

Philosophy

1. Base your management decisions on a long-term philosophy, even at the expense of short-term financial goals.

Process

2. Create continuous process flow to bring problems to the surface.
3. Use "pull" systems to avoid overproduction.
4. Level out the workload.
5. Build a culture of stopping to fix problems, to get quality right the first time.
6. Make standardized tasks the foundation for continuous improvement and employee empowerment.
7. Use visual control so no problems are hidden.
8. Use only reliable, thoroughly tested technology that serves your people and processes.

People and Partners

9. Grow leaders who thoroughly understand the work, live the philosophy, and teach it to others.
10. Develop exceptional people and teams who follow your company's philosophy.
11. Respect your extended network of partners and suppliers by challenging them and helping them improve.

Problem Solving

12. Go and see for yourself to thoroughly understand the situation.
13. Make decisions slowly by consensus, thoroughly considering all options; implement decisions rapidly.
14. Become a learning organization through relentless reflection and continuous improvement.

Source: Liker J.K.: *The Toyota Way: 14 Management Principles from the World's Greatest Manufacturer.* New York: McGraw-Hill. Copyright © 2004. Used with permission of The McGraw-Hill Companies.

manufacturing process elements have been adopted from other settings and combined with relentless reflection on the efforts to change, improve, and standardize work—yielding new forms of insight into the process of system development.[17]

TABLE 1.9

Toyota Production System Waste Reduction Methods

- Reducing non-value–adding activities

- Foolproof prevention of defects

- Reducing uneven pace of production

- Assembly line stop cord

- Reducing excessive workload

- Real-time feedback of production troubles

- Reducing inventory by kanban system (a form of replenishment signal used to transmit information generally regarding the movement or production of products)

- On-the-spot inspection by direct workers

- Leveling production volume and reducing product mix

- Building-in quality

- Making production plans based on order volume

- Cleanliness, order, discipline on the shop floor

- Reducing set-up change time and lot size

- Visual management

- Piece-by-piece transfer of parts between machines

- Frequent revision of standard operating procedures by supervisors

- Flexible task assignment for volume changes

- Quality circles

- Multitask job assignment along the process flow

- Standardized tools for quality improvement

- U-shape machine layout that facilitates flexible and multiple task assignment

- Worker involvement in preventive maintenance

- Automatic detection of defects

- Low-cost automation or semi-automation with just enough functions

- Automatic shutdown of machines

This *emergent learning* fuses learning with continually improving operations and resembles Argyris's concept of *double loop learning*—the means of learning coupled with learning about learning.[25] Fujimoto suggests that the simple principle that permeates the complex structure is the shared aim of "outperforming rivals in attracting and satisfying customers by all employees."[23(p. 124)] He claims that it is a key to maintaining the overall integrity of manufacturing routines.[17] The comparable operating principle for health care might look something like the following:

> Improve patient outcomes by inviting health professionals to
> establish and maintain reliable and efficient systems…relentlessly
> reflected upon and iteratively and continuously redesigned.[23(p. 124)]

What might the tapestry look like for health care leaders seeking organizationwide
structures and processes with Toyota-like capability? Adopting "Toyota ways" is
not the answer.[22] Rather, it may involve the following tasks:

• Identifying the roots of a local operating and learning culture that makes sense

• Demonstrating a theory of health care work that pursues never-ending
  improved patient outcomes by professionals in reliable and efficient systems

• Securing a relentless commitment by all involved to reflect on the work and
  on the learning that arises from successful efforts to change and improve the
  work

• Using those insights for the never-ending redesign of patient care

Toyota has been an important contributor to some of the currently popular
improvement methods such as lean design[23,24] and Six Sigma.[26] It was and still
remains true that the examples set by its founders guide the way work gets done.
They modeled the improving/learning way of work at the local work site. Senior
leaders have an opportunity to model these practices and to create human
resources systems that promote these actions throughout the organization. Macro-
and mesosystem leaders (using Toyota as the exemplar) would need to be able to
teach these practices by sharing their own experiences and practicing them in
ways that are visible to all.

A Synopsis of Leadership Frameworks

The aforementioned experts who have written volumes on leadership and leading
change offer a rich set of insights and possible paths of action. The following eight
practices are particularly noteworthy for health care leaders:

1. Be clear about the current realities facing you now, including the assessments
   you make of your own organization's reliability

2. Be prepared to use different and complementary frameworks for building
   knowledge, taking action, reviewing, and reflecting

3. Link operations and learning at the site where the work is done

4. Use balanced measures of outcome that reflect multiple, important dimensions of performance and visually display the measures

5. Infuse a coherent, understandable, dynamic, and uniting aim through the entire organization, forming a common interest around that aim

6. Test change, learn from the effort(s), and engage the leaders in visibly leading the change

7. Invite the whole person—cognitive ability, technical skill, values—to show up for work

8. Practice vigilant, mindful operations

Some Unique Features of the Health Care System

The leadership frameworks, which have much to offer health care leaders, have things in common as well as points of difference. For example, they are all based on observations of business and industry in general and are not grounded in the health care sector. Before presenting our suggestions for health care leaders, it is important to recognize what is different about health care and factors that affect the challenges faced by its leaders. What might work perfectly for General Electric might fail miserably at General Hospital because of fundamental differences in the two different sectors. That is not to say that health care leaders cannot learn from business leaders. Rather, these approaches will need to be thoughtfully adapted to the special circumstances of today's world of health care delivery.

A short list of special features follows:

Role of Health Professionals in the Health Care System. The change and improvement of health care services and health systems is inextricably connected with health care professionals. Changes must take into account the professional formation and professional identity of the persons who patients depend on to provide needed care. **Patient-Centered and/or Provider-Centered.** In the past, care systems were often provider-centric. In the future, the health system will become more visibly patient-centric. The reality is that patients and caregivers are part of the same system, as Lawrence Henderson observed in 1935.[27] Health care is about relationships between patients and clinicians, between families and caregivers, who share a common aim.

Endless Need. Good health care is a societal goal and, many would say, a human right. Health care represents the conjunction of deep human needs, never-ending advancements in technology and science, plus intelligent, creative people. The combination leads to the potential for both unlimited costs and growth.

Payment Mechanisms. Attempts to contain health care growth and costs have been made using various reimbursement strategies to modify financial incentives—and more attempts will likely be devised. The United States, which has gone from cost plus reimbursement to price controls to managed care, now seems ready to move to pay-for-performance and value-based purchasing. We are entering a major change in the health care marketplace. Pay-for-performance represents a dramatic change in reimbursement in which payment becomes contingent on quality and cost outcomes.

External Agents. A diverse collection of accreditors, licensors, and regulators create an environment of rules, requirements, and measurements that exert a profound shaping effect on health care professionals and organizations.

Leading Large Health Systems to Peak Performance Using Microsystem Thinking

"I prefer self-executing or self-implementing systems"
　　　　　　　　　　　　　—Robert Galvin, former CEO of Motorola[28]

In this section we provide our own framework for leaders of mesosystems and macrosystems. The framework is based on our reflections on the general leadership frameworks and on our own experiences in working with hundreds of health care leaders who wish to make all the care provided by all parts of their systems excellent with respect to quality, safety, reliability, and costs. We first touch on the leadership process and then turn our attention to two facets of leadership—learning and doing.

Health care systems at all levels benefit from leadership because the work of health care at every system level is often ambiguous and uncertain.[12,29] Steadfast aims and values that promote better quality, value, and flexibility to meet a particular patient's special needs, as well as better work settings for professionals to experience growth and a sense of accomplishment, are necessary but not sufficient to achieve those outcomes. A leader is confronted with more invitations to act, more frustrations to address, more questions to answer, more information and measurement to interpret, and more problems to solve than available time allows.

Three fundamental processes seem to characterize the work of leaders at all system levels:

1. Building knowledge, or learning

2. Taking action, or doing

3. Reviewing and reflecting, or connecting[30]

Learning: Understanding Microsystems Through Different Frames

In performing these three fundamental processes leaders use *frames,* that is, a set of assumptions or certain mental models, to help them understand the work of the microsystem—the place where patients and caregivers come together. All leaders know that they need to have a deep understanding of that which they wish to change. Leaders can gain a deeper understanding of microsystems by using the eight frames discussed below.

The literature describes the many ways in which assumptions and paradigms shape what we think we know and what we do.[6,31–35] Leaders with multiple ways of framing what they are trying to understand or improve have the benefit of increased versatility and empirically have been shown to be more effective in their work.[36–44] A leader might use the eight frames discussed below, as illustrated in Figure 1.6 (page 30), in exploring the work of a clinical microsystem to inquire into what is happening and to construct options for action.

Biologic System Frame. This frame enables the leader to "see" evidences of vitality looking through this lens.[45] The clinical microsystem seems to be a living, adaptive entity with the properties that complex adaptive systems have. It engages in generative work. It has emergent properties. It has structures, processes, and patterns, as do all other living systems.

Sociologic System Frame. Using this frame, the leader might examine the relationships, the conversations, the interdependencies, the coupling, and the efforts to make sense and take meaning from the work of the clinical microsystem.[6,13,46]

Mechanical/Physical System Frame. With this frame the leader might look for the flow of the work, the temporal sequencing of the work, the spatial relationships involved in the people and equipment, and the integration of operations and logistics.[47–52]

Psychologic System Frame. Adopting this frame, the leader sees the clinical microsystem as a setting for behaviors, the interplay of the forces operating in a

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FIGURE 1.6

Frames for Exploring Microsystems
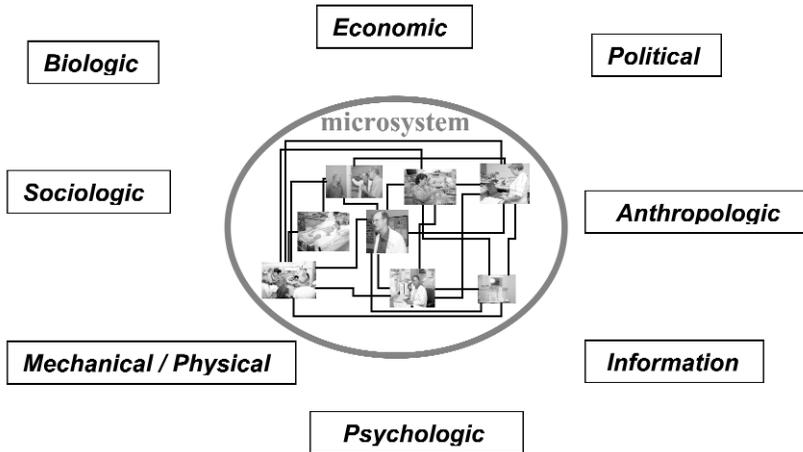
This figure represents eight different lenses or frames through which one might view the microsystem (center). Exploring the microsystem through these different perspectives allows leaders to make thoughtful, effective, and sustainable change within an organization.

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specific "field," the motivation behind the behaviors, and the personal and professional development of individuals.[53–56]

Information System Frame. Using this frame, the leader can inquire into the flow and obstructions-to-flow of information, the cycle times of information and measurement, the ways measures reflect the work, the ways in which information is stored, the ways in which data are handled, and the ways in which information is displayed, analyzed, and used to inform the daily work.[57–59]

Anthropologic System Frame. This frame facilitates leaders' efforts to explore the cultural milieu, the values, the symbols and artifacts, the rituals and ceremonies, the celebrations, and the way learning occurs.[6,60–63]

Political System Frame. The leader can use this frame to inquire into the citizenship and equity, the coalitions, the power dynamics, the conflict and negotiating, the governance, and the way control operates in the daily work of the clinical microsystem.[6,64]

Economic System Frame. With this frame, the leader assumes that what is "real" in the clinical microsystem is to be found in understanding the customers and suppliers, the inputs and outputs, and the costs, waste, and benefits of the work.[19–23,65,66]

Examining the same clinical microsystem using different frames allows the leader to understand more deeply and to more effectively formulate action strategies. Further, by making the assumptions and frames explicit, the leader can invite others to a shared sense of the work and change. It helps remind us of the following truths of Kofman and Senge's observations:

- Life (the clinical microsystem) cannot be condensed.

- We make models (our understanding of the microsystem) of what is not condensable for our convenience and understanding.

- We attach measures to our models to assist us in conducting tests of change for improvement.

- In doing so, we must avoid confusing our measures and models for the clinical microsystem itself, for to do that would be to confuse the map for the territory.[67]

Doing: Leading Macrosystems by Deploying and Executing the Plan

So what might senior leaders *do* to lead macrosystems for microsystem peak performance? Leaders can use many useful frameworks, such as those listed earlier, to guide their mission critical work, that is, to take their system someplace else, to raise it to the next level of performance. The goal is to make lasting changes in the capability of the health care systems that they lead—to improve health outcomes by fostering safe, reliable, efficient, and flexible systems of care. Leaders could start in many ways using a plethora of approaches but we believe that it is wise to begin with the six action steps outlined below.[68]

It would be smart and effective for Jack Candoo and his senior leadership team, described in the case study beginning on page 2, to reflect on each of these six actions and to act on them in a way that fits the local culture. This would provide a sound path forward toward making deep and lasting systemic changes that could profoundly affect the quality, reliability, and efficiency of this particular health system. But to do so requires linking the front office with the front line by working through the mesosystem as discussed in the following section, which begins on page 35.

Action Step 1. Bring Meaning to the Work. Show front-line, midlevel, and senior leaders why the work they do makes a difference. Provide a worthy patient-centered aim that provides genuine meaning. Promote the worthy aim to animate and energize all of the organization's staff to wish to excel because, in the end, their excellence benefits the people, patients, and families that the organization exists to serve. Recognize that staff allegiance will naturally and more powerfully gravitate toward achieving a worthy patient-centered aim than to an organization's request for loyalty. Connect the organization's work to the aim by focusing on meeting the health needs of individual patients and families and to the needs of communities. Create a simple, compelling story of a memorable fictional patient to describe what ideal patient-centered care looks like in a thoughtful, compassionate, and reliable environment. Tell the story at all levels of the organization to develop exemplary care, processes, and systems.

Connect the organization's work to core staff values, professional development, and the formation and personal growth of all staff. Challenge everyone to become personally engaged in safeguarding care and in improving care. Good people respond positively to worthwhile challenges. Recognize that challenges arising from the external environment (for example, public reporting of quality metrics, shift to pay-for-performance, new regulatory requirements) act as secondary motivators for most staff.

Action Step 2. Create the Context of the Whole. Establish a simple vision and strategy for the whole system that can be understood by all stakeholders and can be carried into every organizational unit. Consider using the image of the inverted pyramid (Figure 1.2), which puts the patients and those caring for patients at the top, highlights the handoffs between units and small systems, and recognizes the critical supporting roles played by the midlevel departments. Foster inquiry, learning, and change within, between, and across microsystems and mesosystems to achieve the worthy aims of the whole organization. Seek to engage every person—at the level and place of their own work—in the two fundamental tasks of (1) doing their work and (2) improving patient outcomes.

Action Step 3. Define Possibilities and Limitations. Share your views on the realities that the organization currently faces and make the connection to the daily work of front-line microsystems. Make a distinction between what the system will do and what it will not do. Be clear about the contributions that the clinical microsystem

can make to both advancing the worthy aim and enhancing the whole enterprise's well-being. Help create an appreciation for the health care regulatory environment and the reimbursement mechanisms and how these external forces influence all levels of the health care system—micro-, meso-, and macrosystem.

Action Step 4. Create Supportive Infrastructures for Health Information and Human Resources. Recognize that though the decisions about information technology and human resources policy are often made at the macrosystem level, they are acutely felt and have profound effects at the microsystem level. Take action to optimize their ability to support front-line work.

Excellent health care requires excellent information. Information is at the heart of health care work. Making information readily accessible and helping it contribute to the flow of good work in the clinical microsystem involves knowing the following:

- What the microsystem is trying to do

- How information helps or hinders doing what is needed at the point of care

- How information supports or limits efforts to improve care

- How information technology can help to take work out of the clinical microsystem's daily functioning

Support doing the right thing at the right time by creating real-time, *feed forward* data flows—a method to collect and use information as soon as it is needed and reuse it later in the process as needed. Create informative feedback data displays by developing a method of analyzing and displaying data to provide insight on past performance and the relationship between processes and outcomes. Provide insight on performance and use data as a basis for maintaining quality or improving it with feedback that uses balanced metrics—a well-rounded set of measures that reflect important dimensions of quality and performance.

Not only does health care require excellent information, but excellent health care requires excellent staff. Creating a human resources value chain that will attract, select, orient, develop, and retain staff is essential to high performance. Align recognition, incentives, and rewards for individuals and groups to foster accountability for improving and maintaining quality, efficiency, and flexibility. Attaining the requisite alignment of incentives is complex and fraught with difficulties;

therefore, the senior leaders will need to take the time to examine and understand how incentives currently influence attitudes and behaviors versus how they could be working and make adjustments appropriate for the culture of the enterprise.

Again, human resources policies set at the level of the macrosystem have great impact at the microsystem level. These policies contribute to (or conflict with) the creation of a work environment in which every staff member can say he or she agrees with each of these challenges offered by Paul O'Neill, past CEO of Alcoa:

- I'm treated with dignity and respect everyday by everyone I encounter… and it doesn't have anything to do with hierarchy.

- I'm given the opportunity and tools that I need to make a contribution and this gives meaning to my life.

- Someone noticed that I did it.[69]

O'Neill indicated that a high level of worklife satisfaction is present when every employee can "strongly agree" with these three statements.

Action Step 5. Stay Connected. Stay connected to the clinical microsystem and create conditions to grow capability from the inside out. Show up at the site where the work is done and where learning and change must happen. Macrosystem leaders can offer their curiosity and their questions, encourage and develop staff, and recognize and celebrate gains. Foster and ensure good leadership in each and every microsystem. Create the conditions that bring action learning and reflection into the daily work environments of all staff. Promote the growth of the microsystems and the people that staff those systems.

Action Step 6. Drive Out the Fear of Change. Encourage staff to improve and innovate constantly. Challenge microsystem leaders and staff to both learn how to change and to actually make lasting change that optimizes performance. Promote frequent and rapid tests of change at all levels of the organization. Celebrate successful tests of change as well as *learning failures,* the unsuccessful tests of change that nevertheless provide valuable learning. Encourage inquiry and learning for improvement while diminishing the justifying and rationalizing behaviors that commonly limit learning and often lead to trapped thinking.[70] Remind all staff at all levels that they have two jobs—to do their work and to improve the way they do their work—with a constant focus on best patient outcomes and greatest real value.

Connecting: Leading Mesosystems by Connecting the Front Office with the Front Line

In the image of the inverted pyramid, a large space separates senior leaders from the front line. This midlevel space conveys the intermediate levels of the system, or the mesosystem. Health care systems have many midlevel structures and leaders. As previously noted, examples include supporting functions (for example, human resources, information systems, medical records), as well as clinical departments (for example, nursing, medicine, surgery, pharmacy, care management), and service lines (for example, oncology, women's health, primary care). Macrosystem leaders know that this level of their organization is critical to move the organization's message, and the mesosystem must be taken into full account to create the conditions needed to generate high performance at the front line. The leaders of these vital midlevel systems face a wide variety of challenges and opportunities to improve the quality and value of patient care.

When a health care system seeks to execute its quality improvement strategy it has to work through the midlevel systems to have the desired effect on the front-line microsystems. Although direct communication between the front office and the front line is desirable and often occurs, the mesosystem leaders need to buy into the strategic plan and carry the strategic message to the front-line leaders, as well as carry responses and concerns from front-line leaders back to senior leaders. To be done well, this important linking function needs to be performed with attention to fidelity of the message while also adapting it to the recipients. Midlevel leaders require an understanding of and firm commitment to the strategic plan. They also must understand and support the microsystems to achieve success in the short run or sustain it in the long run.

The mesosystem leaders play a vital role in making the Bossidy–Charan connection (that is, the link between strategy, operations, and people) needed for successful execution. Midlevel leaders, in essence, mediate the cultural supports and the cultural changes required to move from being a health care system that has erratic quality to becoming a health care system capable of measurably improving the quality and value of care at the front lines. Midlevel leaders usually select the microsystem leaders, orient them, set their expectations, review their performance, and demand (or avoid) accountability for microsystem performance. The midlevel leader's personal style of work often speaks more convincingly about the way of work than any amount of words may.

Any work undertaken by mesosystems requires clarity of the general aim to improve patient care outcomes with more reliable and more efficient systems that are regularly reflected on and redesigned. Absent such a focus, these conversations easily degrade into conversations about workload equity and problems of the past. Table 1.10, page 37, shows commonly occurring needs, related skills, and helpful tips for mesosystem leaders.

Final Thoughts

Patients and payers demand better quality, better safety, and better value for the money. This pressure will likely intensify, which generates the widespread need to transform health systems, which in turn requires excellent leadership at all levels of the system—the macro, meso, and micro levels. System thinking at all levels can help leaders make this transformation. Using the image of the inverted pyramid, which places patients and front-line staff at the apex of the pyramid, leaders can communicate that systemic change runs top-to-bottom and side-to-side.

Changing large health care systems is a tall order. Fortunately, many thoughtful scholars and many renowned organizations provide useful frameworks that can be used to better understand the work of leading change in large, complex health care systems, such as those reviewed in the section on leadership frameworks beginning on page 9. Because health care is unique, we leaders can gain an even better understanding of clinical microsystems by using complementary frames to analyze the current reality and take action to lead their macrosystems to microsystem peak performance.

The real challenge for leaders at all levels of the system is to make sense of the task by understanding the current reality, understanding the nature and magnitude of the changes that are taking place in the health care environment, adapting these and other ideas to their own settings, and getting on with the main work to ensure that every patient gets the best possible care for the best possible outcomes in the most efficient way every time. This will occur only if senior leaders critically analyze and design the systems and processes that support and nurture the engagement of clinical microsystems within their organizations. To be successful, this commitment must be reflected in the active and ongoing involvement of individual senior leaders.

TABLE 1.10

Leading the Mesosystem

Commonly Occurring Needs

- Develop vision for the desired micro-/ mesosystem future.

- Identify resource allocation strategies that address the functioning of the clinical microsystem and the optimal functioning of the whole meso-/ macrosystem.

- Connect desired future to the current reality.

- Advocate for the microsystem within the macrosystem.

- Clarify implications of change(s).

- Develop measures of clinical microsystem performance.

- Generate ideas and options.

- Identify microsystem staffing and professional development needs.

- Design and conduct pilot tests of change.

- Integrate professional educational function with daily patient care realities.

- Balance local innovation, creativity, and the needs of the whole organization.

- Receive and process complaints.

- Standardize the work and work flow appropriately.

- Execute plans.

- Respond to signals that "all is not well."

- Convene microsystems and macrosystems.

Helpful Knowledge and Skills

- Develop knowledge of health care as a system and a process.

- Attract cooperation across health professional disciplinary traditions.

- Understand patient need and illness burden.

- Plan and work in a socially accountable way.

- Measure, display, and analyze variation in the daily processes of health care.

- Design and test change.

- Lead and follow.

- Link evidence to the processes and systems of a local context.

Helpful Tips

- Follow the patient's journey— especially between and into the other department(s).

- Establish ownership of the leverage processes in the space between microsystems.

- Look for ways interaction in the process could automatically throw off data.

- Establish process of review of shared care.

- Use data to understand unreliable, poor quality.

- Focus on flow of care, information, and patient need.

- Test changes in the process(es) of interaction together.

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