

## CHAPTER 6

# Innovation Leadership

Man's mind stretched to a new idea never returns to its original dimensions.

—*Oliver Wendell Holmes*

### Chapter Objectives

*At the completion of this chapter, the reader will be able to*

- Compare and contrast the work of innovation with the work of routine operations.
- Identify the rationale for innovation in health care organizations.
- Define key concepts and related terms associated with innovation.
- Describe multiple strategies to advance the integration of innovation into the work of health care organizations.
- Evaluate multiple metrics for the measurement of innovations.

Traditionally, the emphasis in health care organizations has been on stability and goal achievement. Experimentation with patient care processes was discouraged to avoid additional expenses and to ensure safe and effective patient care processes were not compromised. Leaders tended to delay process modifications until there was significant research, documented evidence for new processes, or the process failed abruptly.

This approach is typical even when processes are known to be only marginally successful in providing safe and effective patient care. Maintaining the status quo where cost and outcome are known is preferred to taking risks in which the costs and outcomes are not clearly known. This approach is understandable but shortsighted. Adopting a leadership mindset that encompasses both innovation leadership and effective operations is important for organizations to grow, sustain new practices, and excel in the future health care marketplace.

In this chapter the concept of innovation as an essential leadership behavior, discussion of the rationale for innovation, leadership expectations, organizational structures and strategies to advance and integrate innovation, and metrics to measure innovation are presented. The 21st century leader must develop these skills to lead in a world in which innovations are the lifeblood of the organization.

The seemingly contradictory nature of health care leadership, which requires both sound business practices to create real value for the organization and a designing eye on the future, is a challenge that has become more intense with the advent of the Internet. Leaders have always been concerned about adopting new work processes, just not with the current intensity. This balancing of initiatives presents the greatest challenge to contemporary leaders: Focusing on the work that is known is much less stressful than working to modify and eliminate the known work in favor of the unknown and untested. The risk-adverse mindset of traditional organizations too often leads to continually reworking ineffective processes—much like the metaphorical rearranging of the deck chairs on the Titanic!

### Key Point

A blockbuster innovation is not a guarantee of success, just an opportunity.  
—Davila et al., 2006

The believed lower level of risk associated with traditional operations encourages leaders to focus on this work at the expense of designing the future. Innovation leadership makes it possible for the leader to address this challenge and to balance the work of sustaining current operations that result in profitability; simultaneously, the leader can work to re-create the future as new developments

emerge in the health care world. In fact, innovation leadership allows the leader to develop and present the new processes. Superior innovation, according to Davila and colleagues (2006), provides an organization with the opportunities to grow faster, better, and smarter than their competitor—and to ultimately influence the direction of their industry.

Innovation is more than just creating new technology; it is about the continual adaptation to the changing environment and available resources that includes creating new business models and strategies for the organization to survive and thrive into the future. Innovation leadership is about balancing the need for value/profit and the creation of new and improved approaches to health care. Innumerable references and resources are now available on topics of innovation (**Exhibit 6-1**).

In this chapter, the reader will gain a new appreciation and overview of innovation leadership as an essential characteristic of the quantum leader, the leader who approaches the work of health care from a systems perspective, continually recognizing the importance of sustainability, growth, and renewal for survival. The reader is encouraged to delve further into the rich and extensive writings on innovation.

## Rationale for Health Care Innovation

The rationale for innovation in health care is multifaceted but is primarily driven by the explosion of information from the Internet. Fragmented services, ineffective processes, patient safety concerns, and consumer expectations all have contributed to the need for change in the system. The transformation to a knowledge-based digital world, which includes the Internet, is demanding that leaders move faster, get optimized, and go global—all to be accomplished sooner rather than later. Contemporary leaders recognize that organizations cannot grow through cost reduction and reengineering alone. Nor can

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**Exhibit 6–1 Selected Innovation References for Health Care Leaders**

- Burns, L.R., ed. 2005. *The business of healthcare innovation*. Cambridge, MA: Cambridge University Press.
- Christensen, C.M., S.D. Anthony, and E.A. Roth. 2004. *Seeing what's next: Using the theories of innovation to predict industry change*. Boston: Harvard Business School Press.
- Davila, T., M.J. Epstein, and R. Shelton. 2006. *Making innovation work: How to manage it, measure it and profit from it*. Upper Saddle River, NJ: Wharton School Publishing.
- Gottfredson, M., and K. Aspinall. 2005. Innovation vs. complexity: What is too much of a good thing? *Harvard Business Review* 83, no. 10: 63–71.
- Hesselbein, F., M. Goldsmith, and I. Somerville, eds. 2001. *Leading for innovation and organizing for results*. San Francisco: Jossey-Bass.
- Kelly, T. 2005. *The ten faces of innovation*. New York: Doubleday.
- Pauly, M.V. 2005. Competition and new technology. *Health Affairs* 24, no. 6: 1523–1535.
- Rogers, E.M. 1995. *Diffusion of innovations* (4th ed.). New York: The Free Press.
- VonHippel, E. 2005. *Democratizing innovation*. Cambridge, MA: The MIT Press.
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they survive when there is continual chaos and changing processes at the expense of providing value-based service. Organizations of the 21st century now require focused and flexible structures to support the new demands of the technology age in a way that supports the introduction, testing, and integration of new ideas. Asking individuals to think outside the box is insufficient for integrated innovation; principles, behaviors, and metrics for success are needed to support innovative thinking. Most importantly, new leadership mindsets are needed for leaders to manage these seemingly contradictory expectations of stability and uncertainty.

Health care innovation is not limited to creating an electronic medical record. It is about rethinking and re-creating health care methods of delivery that include diagnostic approaches, communication methods with those involved in providing health care, documentation of services, and billing and payment services. Health care leaders are called to

### Group Discussion

Is there any process, product, or technology that should not be changed or viewed as an opportunity for improvement? Is there any truth to the adage, “if it’s not broken, don’t fix it?” Identify examples of areas that are believed to be immune to change. If appropriate, describe strategies to gain support to evaluate opportunities for new and better approaches.

reinvent a health care system that was neither designed with safety in mind nor designed to ensure organized and defined processes that support safety and minimize adverse patient outcomes. Innovations are needed to correct these inefficiencies. Interestingly, as leaders work to integrate the work of innovation into the organization, they are also challenged to identify those processes and treatments that lack evidence for efficacy and eliminate them.

In the last 30 years, biotechnology has transformed the health care industry and has changed the way people are treated for disease. The convergence of biotechnology, information technology, and nanotechnology has transformed the way in which health care is provided. Over 300 biologics—drugs that target specific diseases—are now available (Kimley 2006). It is now possible to improve treatment because biologics target specific diseases, turning many fatal diseases into chronic conditions. These innovations, although unequivocally beneficial for health, are not always welcomed and easily integrated into the existing health care system that was designed for different products, services, and roles. Other areas that are also changing include patient care delivery processes, technology for diagnostics, patient record keeping, information integration, and the overall business model for health care.

Health care consumers are demanding care that does not require complex invasive processes and long recovery times. Providers of health care expect computerization, Internet access, and increasingly interconnected applications that integrate best practices and alerts to identify patient risk situations. Health care leaders and policymakers continue to expect more streamlined processes and expeditious communication of costs and transactions within the system.

Herzlinger (2006) identified three general categories that need improvement: methods of patient care delivery to consumers, selection and integration of technology, and the business models that support the entire health care system. **Exhibit 6-2** lists examples of areas for health care improvement within these three categories.

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### Exhibit 6-2 Health Care Challenges

#### Patient care delivery

- Less invasive
- Less painful
- More convenient
- Less costly
- Increased consumer control

#### Technology

- Pharmaceuticals
- Diagnostic methods
- Patient record keeping
- Interconnected/Integrated information

#### Business models

- Less fragmentation of processes, providers, payers, settings, vendors, suppliers
  - Increased vertical and horizontal integration
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## Definitions and Concepts

Innovation is not a magical fog-laden concept. Because the concept of innovation is used and defined in many ways that can be confusing or misleading, clarification can assist leaders. Getting to common ground on what innovation is and what it is not serves to minimize confusion and chaos.

### Group Discussion

Often times, innovation is confused with creativity or performance improvement. In a small group, compare and contrast the definitions and expectations of each of these three concepts. Consider also the advantages and disadvantages of each. Is there a difference in sustainability for each concept? How is each of these supported and funded in your organization? Based on your discussion, what recommendations would you make to advance innovation in your organization?

Definitions and descriptions of innovation are as follows:

- The power to redefine the industry; the effort to create purposeful focused change in an enterprise's economic or social potential (Drucker 1985).
- Anything that creates new resources, processes, or values or improves a company's existing resources, processes, or values (Christensen et al. 2004, p. 293).
- The first, practical, concrete implementation of an idea done in a way that brings broad-based extrinsic recognition to an individual or organization (Plsek 1997).
- Something new or different (*Webster's* 2001).
- The conversion of knowledge and ideas into a benefit, which may be for commercial use or for the public good; the benefit may be new or improved products, processes, or services (retrieved July 29, 2006 from <http://www.hi.is/~joner/eaps/innodd.htm>).

Related concepts are as follows:

- Brainstorming: A group technique of solving problems, generating ideas, and stimulating creative thinking by unrestrained, spontaneous participation in discussion (*Webster's* 2001).
- Change: To make different in form; to transform or modify (*Webster's* 2001).
- Creative: Having the quality or power to cause something new to come into being; imaginative (*Webster's* 2001).
- Creative idea: An original, novel thought.
- Creative thinking: Thinking in a new direction, away from or beyond current mental patterns toward some new pattern (Plsek 1997).
- Directed creativity: Creativity on demand. Directed creativity involves using specific techniques that allow individuals to perceive things freshly, to break free of the current

mental models, make novel associations among concepts stored in memory, and use judgment to develop rather than reject new ideas. It is the purposeful production of creative ideas in a topic area, followed up by deliberate effort to implement some of those ideas (Plsek 1997).

- Disruptive innovation: An innovation that cannot be used by customers in mainstream markets. It defines a new performance trajectory by introducing new dimensions of performance compared to existing innovations. Disruptive innovations either create new markets by bringing new features to non-consumers or offer more convenience or lower prices to customers at the low end of an existing market (Christenson et al. 2004, p. 293).
- Entrepreneurship: A person who organizes and manages an enterprise, especially a business with considerable initiative and risk (*Webster's* 2001).
- Intrapreneur: An employee of an organization allowed to exercise some independent entrepreneurial initiative (*Webster's* 2001).
- Invention: A new process, machine, improvement that is recognized as the product of some unique intuition or genius (*Webster's* 2001).
- Process improvement: The activity of elevating the performance of a series of actions, especially that of a business process with regard to its goal (retrieved July 27, 2006 from [http://en.wikipedia.org/wiki/Process\\_improvement](http://en.wikipedia.org/wiki/Process_improvement)).
- Research: The investigation or experimentation aimed at discovery and interpretation of facts, revision of accepted theories or laws in light of new facts (*Webster's* 2001).

## Innovation and the Quantum Leader

The role of the quantum leader is to create an infrastructure that integrates innovation into the overall work of the organization. Innovation leadership is about creating conditions, securing resources, and providing rewards for innovative work. The desired culture supportive of innovation is one in which employees are encouraged and valued for both challenging existing work processes and providing services that ensure organizational viability. Innovation leadership requires continually transforming and remaking structures and processes of the current system to integrate new processes and technology so that systems do indeed perform more effectively.

The system complexity that accompanies health care innovation is a source of the accelerated uncertain expectations. Of significant concern for the contemporary leader is how to determine and manage the uncertain expectations associated with innovation, the speed at which change occurs, and how to manage the anticipated outcomes of new knowledge, technology, and process interactions with as little negative impact on the organization as possible.

By its very nature, there is no evidence for *innovations in the making*, only expectations. This reality does not deter most leaders from continuing to expect assurances and metrics for success. Risk taking is not viewed as a classical leadership behavior, and it is not traditionally welcomed and encouraged. Instead, risk taking is viewed negatively. It increases the organization's exposure to unforeseen hazards and to the loss of net income. Playing it safe and being a hardworking employee leads the organization nowhere because the intent is to live in the past, to continue the practices that have been deemed to work yesterday.

Taking the initiative to advance innovation rather than clinging to the same old routine is now the work of the contemporary leader. This requires that leaders expose themselves to failure, avoid mediocrity, and embrace opportunities rather than retreating from them. The role of the leader is to inspire creativity and hard work and to challenge the past as the means to a better future. The work of inspiration requires not just inspirational *phrases* but inspirational *behavior*. Risk-disposed leaders motivate others by showing what can be done, not merely by sermonizing about opportunities. They also need to exhibit candor and vulnerability, to identify value in marginally successful efforts, and to allow others to take risks and experience success and failure.

## Strategies to Integrate and Advance Innovation

The following considerations are suggested for leaders interested in advancing the work of innovation into the culture of the organization:

- Integrating mission, vision, and values within an innovation paradigm
- Assessing community and team needs
- Evaluating organizational structure
- Supporting organizational processes
- Measuring results

### INTEGRATING MISSION, VISION, VALUES, AND INNOVATION

The first consideration, to advance innovation, is a clear statement within the mission vision and values. It is important to formally define the organization's innovation strategy as an integral part of the work of the organization. The mission incorporates the desire to provide a service or product that is continually viable and able to meet defined goals. The vision statement continues the expression of the desired service and the level of achievement necessary to achieve the mission. The values selected are those that necessarily support behaviors necessary to achieve the mission of value and innovation. **Exhibit 6-3** is an example of innovation-based mission, vision, and values statements.

### ASSESSING COMMUNITY INNOVATION

The second consideration is the identification of the needs of the community for innovation within the confines of the mission, vision, and values. Each organization is challenged to

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#### Exhibit 6–3 Innovation-Based Mission, Vision, and Values

**Mission:** To provide excellent patient care that provides value and makes a difference in people's lives.

**Vision:** To be the market leader of quality, service, and cost-effectiveness in health care.

**Values:** Participation, multiple intelligences, creativity, risk taking, respect for chaos, vulnerability leadership, evidence-based processes, and measurement.

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identify the unmet needs of the organization and its customers, the obstacles to excellent patient care, and the bottlenecks for efficient throughput as considerations when integrating the work of innovation with operations. Each of these three areas, according to Anthony et al. (2006), can assist the organization in creating a focus for innovation and avoid the temptation to work on a great idea that is not consistent with the organization's needs.

### ASSESSING TEAM INNOVATION SKILLS

In addition to knowing community and organizational innovation needs, it is also important to know the innovation skills of team members in the organization. Knowledge of comfort levels with different innovation skills can assist leaders in the reinforcement of existing skills and the development of new skills. **Table 6-1** shows the Team Innovation Assessment that includes a list of key behaviors for teams within the organization.

### EVALUATING ORGANIZATIONAL STRUCTURE

As previously stated, it is not enough to hold a one-day retreat and ask others to think outside the box. Structure and support are needed to fully embrace and realize the work of innovation. Interestingly, some believe that structure and process are the natural foes of creativity. Leaders often treat innovation as if it were magical, not subject to guidance or nurturing, much less planning. According to Samuel Palmisano, President and CEO of IBM, that is not true. Rather, there are times, places, and conditions under which innovation does indeed flourish. Innovation and creativity require some restraint. Creativity with a vision, rules about how to get there, and deadlines support rather than hinder new ideas.

#### Key Point

The opposite of success is not failure,  
it is inertia.

—Kilts, CEO Gillette Company

The types of individuals, physical facilities, authority designations, decision-making expectations, and systems to document and measure results are essential elements of an organizational infrastructure. An organization's infrastructure is a reflection of the mission, vision, and values. Innovation leadership is about embedding support for innova-

tive thinking via the mission, vision, and values and from there throughout teams in the organization. Organizational structures are continually evaluated and reshaped to better match the work to be done. Roles are added, modified, or eliminated to improve performance and outcomes. Each change is accompanied by anticipated but unknown outcomes.

#### *Valuing Natural Tensions*

As one considers innovation structure, it is important to recognize the natural tensions and competing priorities that exist in the work to be accomplished. There is a natural tension between being creative and delivering value from being creative. Leaders are very experienced in exploiting existing and known processes and less experienced in exploiting new opportunities for growth. Both the lack of time and the intense pressures within the existing work contribute to the limited attention and effort given to innovation. O'Reilly and Tushman (2004) challenged organizations to become *ambidextrous organizations*, or those that emphasize balance between creativity and value capture so the company generates successful new ideas and gets the maximum return on investment. Balancing these two

**Table 6–1** Team Innovation Assessment

The following items can be used to identify levels of individual team members' comfort with different aspects of innovation. Ask each team member to select their level of confidence on a scale of 1 to 10 (1 = least confident, 10 = most confident) for each of the following statements. Compile and average the scores for each item. Results can be used to identify the areas of high innovation confidence and the areas of lower confidence for the team. Participants can discuss potential strategies to create the conditions and skills to increase areas of lower confidence.

How confident are you to:

1. Work with a team to define and prioritize an innovation goal?	Not at all confident	1 2 3 4 5 6 7 8 9 10	Totally confident
2. Explore mental models?	Not at all confident	1 2 3 4 5 6 7 8 9 10	Totally confident
3. Assist a team to explore and explain its values and preferences?	Not at all confident	1 2 3 4 5 6 7 8 9 10	Totally confident
4. Assist a team to examine and understand patterns and trends?	Not at all confident	1 2 3 4 5 6 7 8 9 10	Totally confident
5. Perform process mapping of a care delivery system?	Not at all confident	1 2 3 4 5 6 7 8 9 10	Totally confident
6. Lead a brainstorming session?	Not at all confident	1 2 3 4 5 6 7 8 9 10	Totally confident
7. Select an idea to test?	Not at all confident	1 2 3 4 5 6 7 8 9 10	Totally confident
8. Present ideas using a storyboard?	Not at all confident	1 2 3 4 5 6 7 8 9 10	Totally confident
9. Teach and assist others in performing innovation activities?	Not at all confident	1 2 3 4 5 6 7 8 9 10	Totally confident
10. Organize and conduct an experience prototype?	Not at all confident	1 2 3 4 5 6 7 8 9 10	Totally confident

Source: Scott Endsley, S. 2006. Clinical innovation self efficacy. Adapted with permission.

seemingly disparate processes requires leaders to think differently and to continually develop the skills of middle managers to balance these same processes.

The tension between stability and innovation is especially notable in the area of patient safety. Serious efforts are in place to support high reliability processes in which there is consistency and redundancy to ensure safe outcomes. What is also known is that many of the patient care processes do not result in safe outcomes. Patients are injured from falls, medication errors, wrong-site surgical procedures, and malfunctioning equipment. Processes to test, innovate, validate, and ensure safety can be achieved only with a clear vision and knowledge of innovation leadership, organizational resources, and a strong commitment to excellence.

There are two basic approaches for organizational structuring to support innovation. The first approach is to develop two distinct but collaborative groups in the organizational structure: one group focusing on current business value and the other group focusing on potential business. This approach deliberately secludes new ideas and intellectual property until the organization determines it is appropriate to release. With the two distinct groups, role confusion is also minimized.

The second approach is to develop leaders and managers who have the ability both to be rigorous leaders dedicated to value and to support the work of innovation. With this option the balancing of goals and priorities is much more complex than the balancing required for two distinct groups. Regardless of the approach taken by an organization, the leadership team must support operations that are multifocal in nature. The difference between the two options is in the amount of emphasis on each and the time required to support each approach. The skill to operate multifocally is necessary to effectively sustain business while exploring the future and minimizing organizational chaos at the same time. Choosing an approach is directly related to the levels of innovation anticipated by the organization and the available skill sets of employees. The integrated approach requires higher levels of leadership skills to plan, collaborate, negotiate, and synthesize when compared with distinct structures for current business and potential business.

The anticipated expectations for innovations in the future should be considered in creating the structure. Levels of innovations range from minimal innovations to entire system innovations. Lower levels of innovations are described as incremental or partial and do not completely disrupt the work of an organization. Incremental innovations are introduced using project management methods and change management principles into existing systems to achieve diffusion of the innovation into the core of the organization.

*Disruptive innovation*, a concept identified by Christenson and colleagues (2004), is a unique approach to introducing innovation. The innovation focuses on disruption to the competitive landscape rather than incremental, semiradical, and very radical innovations that impact both technology and the business model. A health care example of disruptive innovation occurs when a large system designs and builds a new health care facility that is designed to transform the health care experience. New technology, state-of-the-art technology, computerized patient records, and evidence-based architecture meld to create the backdrop for a culture revolution. Every work process and worker role is examined and remodeled to fit with the innovative health care facility. Not surprisingly, the work of design and construction is only the beginning. The work of identifying, role modeling, and sustaining new practices is the work of change management, negotiation, and teamwork.

### *Innovation Label Versus Innovation Role*

Another consideration is the use of the innovation label. The *innovation* label can have both positive and negative effects of the intended goals of the organization. Some believe that using the innovation title should be avoided because it further separates the work of innovation from the traditional work of creating value and profit for the organization. Labeling a new team, department, or individual with the innovation label separates business from design. The designers or innovators are frequently perceived as better or different from those in routine operations. In contrast, when senior leaders are able to value and function in both the business and the design worlds, the innovation label recognizes that innovation work is different, is funded differently, and is an important segment of the organization in addition to operations. The goal is to select a title that is consistent with the mission, vision, and values; does not induce hostility or divisiveness among coworkers; and invites as many as possible into the processes of innovation (**Exhibit 6-4**).

### **SUPPORTING INNOVATION PROCESSES**

Walking the talk of the innovation mission, vision, and values requires specific behaviors that reflect the value of innovation for the organization. There are several considerations to support innovation. As leaders consider innovation strategies, it is clear that although the traditional culture is one that supports stability and patient safety, this rationale cannot be used to avoid innovations. Leaders need to be aware of the culture but not blame the culture for failure to advance. These processes can assist leaders in transforming the current health care culture from a risk-averse model to one that balances both value creation for net income in the present and designing for the future. Support, measurement, and continual modifications are necessary to ensure the ultimate integration and value production. If this does not occur, the innovation dies a slow, sometimes painful, and sad process of elimination!

Interestingly, some organizations find that coming up with a great idea is the easy part; the more difficult work is selecting the right ideas and implementing them. There is no template or roadmap for innovation sustainability. What is available to leaders are the guiding principles of change management and conflict utilization, along with previous experiences

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### **Exhibit 6-4** Innovative Leader Titles

- Chief Marketing Officer
  - Director of Design and Brand Experience
  - Chief Innovation Officer
  - Champion of Innovation
  - Chief of Design
  - Director of Global Innovation
  - Director of Strategic Marketing
  - Innovation Champion
  - Vice President, Enthusiast Services
  - Vice President, Strategic Leadership and Competency Creation
  - Chief Technology Officer
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in the integration of new processes and technology. Process activities that continually link innovation to the organizational mission through appropriate metrics and rewards reaffirm the commitment of leaders. Given the complex and multifaceted nature of innovation, no two innovation integration situations are identical.

Integrating innovation behaviors into the organization does not require a revolution inside of an organization. According to Davila and colleagues (2006), what innovation does require is thoughtful construction of solid management processes and an organization that can get things done. Innovation should be routine rather than random, central rather than marginal, and exciting rather scary. Similar efforts to integrate quality assurance and performance improvement into the basic structure of the organization have occurred in health care and can be examined to assist in the integration of innovation work. Innovation leadership is about integrating two seemingly disparate worlds of business and design, and about integrating the need for patient safety and stability with the need to test innovations designed to improve patient safety and quality.

### *Democratizing Innovation*

Another consideration to integrating innovation is to democratize innovation into the work of the organization. Hippel (2005) proposed this concept in an effort to demystify innovation and to develop the skills of all individuals to respect and value innovation as a core value and process of the organization. Democratizing innovation is considered a 21st century strategy for success. It is not unlike the efforts of national quality or patient safety initiatives; the work is no longer isolated to a specific department but rather is a core competency for all employees. The diffusion of innovations process described by Rogers (1995) relies on the accountability of leaders to internally and personally *adopt* innovations before the critical mass *diffusion* processes across the organization can occur. Leaders are encouraged to identify those individuals who are innovators and early adopters (Rogers 1995) of change and to support the development of new expectations and metrics for changing work. Greater numbers of colleagues dedicated to innovation create a critical mass of energy and effort dedicated to thriving in uncertainty—uncertainty that is channeled into the productive work of confronting, monitoring, and modeling innovative behaviors whenever possible.

### *Expect Evidence-Based Processes*

Another consideration is work based on evidence. Evidence-based practice and innovation may seem contradictory on the surface. Practice based on evidence seeks consistency and standardization, whereas innovation is about creating new and different processes and products. Significant work has occurred in developing a commitment to providing patient care services based on evidence from research, the clinician's expertise and patient's values, and other recognized sources of knowledge (e.g., ethical knowing, sociopolitical knowing, and aesthetic ways of knowing) (Sanares and Hiliker 2005). The relationship between evidence-based practice and innovation is apparent when there is a gap between research evidence and patient values. The recommendations from valid randomized clinical trials are seldom appropriate for every patient; rather these recommendations are generalizable to patient clinical conditions. Implanted defibrillators, insulin pumps, and transdermal medications are specific to patient clinical conditions. When a patient is resistant of any of these treatments, opportunities for innovation exist.

### *Valuing Multiple Intelligences*

Successful innovations result from a unique combination of ideas, perceptions, beliefs, and skills. The innovation leader creates those conditions for the expression and valuing of many intelligences and wide diversity as sources of new ideas. In addition to the traditional valuing of linguistic and mathematical intelligence, additional intelligences are supported and encouraged.

Intelligence theorist Gardner (1993) posited that most theories of intelligence, singular and multiple, assume that intelligence is simply a biological entity or potential and exists in the brain distinct from context. Gardner's theory of multiple intelligences, in spite of the surrounding academic criticisms, is helpful for innovation leaders. The seven intelligences identified by Gardner recognize other spheres of knowledge and intelligence that could be supportive of creative thinking and the work of innovation (**Exhibit 6-5**). These intelligences each describe ways of knowing the world and how different individuals perceive the world. Thus, each individual's perspective is rich with perceptions, ideas, and potential ideas to transform current realities. Additional intelligences from other authors contribute further to recognizing the wide and varied perceptions from individuals that leaders can access.

### *Provide Time for Reflection and Idea Generation*

The work of the leader is to continually challenge the status quo to encourage new ideas and better ways to provide health care. Most work processes have limited effectiveness times; new technology renders them ineffective and costly. The challenge is to determine which processes are the most obsolete and in need of replacement or elimination. Idea generation requires time and an open mind. Brainstorming, mind mapping, identifying "what ifs," model building, and future state mapping are strategies to support idea generation. Plsek (1997) described *directed creativity* as one of the essential strategies to assist individuals in bringing forth their creative skills and knowledge. Innovation laboratories also serve to intensely focus efforts on product idea generation from concept to reality. Leadership innovation laboratories are less obvious and are traditionally integrated into executive leadership programs in which leaders are continually challenged to integrate new knowledge, challenge assumptions, and redesign leadership processes. Leadership of the 21st century now demands new processes and outcomes. The 21st century leader works to find the appropriate amount of time and frequency in which idea generation can occur.

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### **Exhibit 6-5** Seven Intelligences

1. Linguistic—the capacity to use language to express ideas and understand others.
2. Logical/mathematical—the capacity to analyze problems logically.
3. Spatial—the capacity to recognize and use patterns of pictures and spaces in one's mind.
4. Musical—the capacity to think in music, to hear and recognize patterns.
5. Bodily/kinesthetic—the capacity to use all or parts of one's body to solve a problem.
6. Intrapersonal—having an understanding of oneself and one's limitations.
7. Interpersonal—the capacity to understand other people.

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*Source:* Gardner, H. 1993. *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.

*Recognize the Value of the Anomaly*

Not everyone is ready and willing to explore and consider new ideas. Resistors to innovation or process modification can be hostile and totally resistant unless there is an overwhelmingly compelling reason to change. The greatest obstacle to innovation is people and their comfort with existing and known processes. Although it is unrealistic to expect all individuals to embrace innovation at the moment of introduction, the opportunity to recognize and value the anomaly is present. Innovation leaders necessarily work to neutralize the organizational resistance that kills off good ideas because they are different from the norm and work to transform the resistance into a meaningful phase of the innovation process.

New ideas are anomalous to the norm and require individuals to behave differently. The anomaly, a deviation from the common order, can be considered a potential vehicle to a better future or an aberrant event that will soon become ignored and extinct. Anomalies present both challenges that are inherent in the nature of the change process and opportunities to design and mold future systems. Innovations, in the purest notion form, represent anomalies to the individuals presented with the new idea or process. Some will embrace the novelty, whereas most will respond along the innovation adoption continuum described by Rogers (1995). When faced with an innovation, five characteristic behaviors are present in individuals: innovator, early adopter, early majority, late majority, and laggards.

**Key Point**

Be cautious that creative zeal does not crowd out the reality of organizational effectiveness and survival.

Rogers (1995) described the innovators as venturesome, educated, needing multiple sources of information, and having greater comfort with risk taking. The early adopters are social leaders, popular, and well educated. The early majority is more contemplative and has many social contacts. The late majority are typically skeptical, more tradi-

tional, and in lower socioeconomic groups. The laggards get information about innovations from friends and neighbors and worry about costs.

Providing information about the innovation is a crucial first strategy to persuading others of its value, to supporting a decision to put the innovation to use, and finally to accepting it. Resistance to anomalies is not uncommon. The digital world could be considered an anomaly as the move from paper to electronic documentation emerged. Virtual health care services, in which there is no physical contact between the patient and the provider, are another. Once the anomaly gains acceptance and is believed to be the preferred way to do work, the leader begins the adoption process, using sound change management strategies, to integrate the anomaly into the emerging paradigm.

Innovations that are associated with unknown or uncertain outcomes are considered out of the ordinary or anomalous to the existing paradigm. Leaders are expected to be open-minded, flexible, and willing to embrace and incorporate new behaviors.

*Develop Capacity for Rational Risk Taking*

Another consideration is proactive support for risk taking. Decision-making styles of leaders vary widely from very decisive to more contemplative. The risk of failure is ever-present for all leaders and manifests itself in a variety of ways. Regardless, the risk of failure must not

be paralyzing and counterproductive to organizational success. Rational risk taking is a skill to be learned and practiced within existing organizational structures.

Shifting the notion of risk taking as negative and costly to a notion of essential work in a complex and rapidly changing organization requires major organizational change in mission, role expectations, rewards and recognition, and measurement of outcomes. Traditional organizations view errors and negative outcomes as costly to the organization from both a quality and a financial perspective. Innovation leaders integrate the work of unsuccessful occurrences into the design work of the organization. These occurrences are viewed as opportunities for discussion and evaluation of the existing system structure and processes.

Rational risk taking is designed to enhance the organization, to support innovative processes, and to avoid obvious negative outcomes. Examples include advancing the organization and skill development. Adding new programs, expanding services, selecting equipment and technology, and selecting priorities are rational and minimize risk when choices are made on the basis of core values, respect for others, the safety of individuals, strategic goals of the organization, and available resources. Another example is developing the skills of employees. Gaining new knowledge and skills is considered a rational risk when those skills are needed to improve job performance or to develop new skills for anticipated opportunities. Examples include developing computer application skills, public-speaking expertise, sports, creative arts, and personal protection skills.

Risk taking is considered irrational in several situations. The first situation is when there is a history of failure and oppression. If the last attempt did not work and there is little interest, the risk should be questioned. It is important to recognize that something might not have been successful previously and could be successful in the future under the right conditions. Continuing to push an idea or product with new energy, new rationale, and new value is irrational. The second situation is poor judgment. Walking in traffic is an example where the risk of injury to oneself and to others is present and probable. This action is irrational and similar to the leader who continues to hire employees in the midst of a financial crisis. The organization incurs additional financial obligations and the positions of new employees will most likely be eliminated. The third irrational risk is in situations where there are unrealistic expectations or very little potential for success. Attempting to implement one more program when the staff is already overwhelmed and frustrated is not rational.

### Group Discussion

The ipod and personal digital assistant (PDA) have contributed to the revolution of communication across the globe. As these tools gain increasing acceptance, their utility seems obvious and irrefutable. Reflect on these innovations and identify at least five obstacles that were offered to resist the innovations. Consider the resistance from funders, policy makers, competitors, potential users, family members, and retailers.

*Form New Partnerships*

Another consideration to advance innovation is the creation of partnerships that include involved stakeholders and individuals from the global Internet community. Innovation requires teamwork and strategic partnerships that are both in-person, verbal, and virtual on-line relationships. Networks of stakeholders are the building blocks for innovation. Strategic partnerships serve to allow organizations to create value that no single individual or organization could create alone. According to Adner (2006), *innovation ecosystems* bring both new opportunities and new risks. These new partnerships include risks specific to creating an initiative, ongoing coordination of activities, and adoption strategies to ensure the initiative is fully integrated into the system.

Multiple levels of collaboration and teamwork are needed to support innovation. Internal stakeholders, those who touch the innovation in any way, and others external to the process should be considered for brainstorming and idea generation. Often times, those external to the process that could provide new insights are not easily identified. Many successful innovation leaders deliberately invite colleagues with differing viewpoints and points of reference to form a more complete approach. Examples of colleagues external to the process include stakeholders responsible for the location of services, payments, ownership and oversight of the processes, profit status, patient advocacy, technology development, legal accountability, policymaking, and quality measurement.

**MEASURING THE RESULTS: INNOVATION METRICS AND EVALUATION STRATEGIES**

New metrics are needed when innovations are introduced. In most cases, multiple interrelated metrics are required to adequately reflect the value of the innovation. Measurement

**Group Discussion****Innovations in Communication: Blogs, Wikis, and Podcasting**

Blogs, Wikis, and Podcasting are recent modes of electronic communication. The organization is looking for ideas on how to improve patient throughput in the emergency department. How could each of these modes of communication, or a combination of the modes, be used to obtain ideas and provide new strategies to improve throughput? Consider who should be involved, creating a problem statement and measures for success.

**Blog:** A weblog, usually shortened to blog, is an online publication with regular posts

**Wiki:** A website that allows users to edit or submit content (open editing) without the need to register on the site.

**Podcasting:** A method of distributing multimedia files across the Internet. A podcaster creates content for an audience that wants to listen when they want, where they want, and how they want.

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**Exhibit 6–6** Guidelines for Selection of Innovation Metrics

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1. Select metrics to assess innovation progress and costs in advance. Incremental benchmarks are especially important to track and trend progress. Different sets of funding, testing, and performance criteria for incremental, experimental, and potentially disruptive innovations are needed.
  2. Aim to identify early successes. Major initiatives often require significant time to realize the full benefits. Interim achievements are necessary to demonstrate progress and the likelihood of achieving the full potential of the innovation.
  3. Get data to back up your gut. Successful innovators begin with the “gut feeling” and must move quickly to develop the quantifiable supporting data.
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of an innovation, both qualitative and quantitative, is essential and fundamental to the work of the organization. What is different about measuring innovations is that initially only historical and anticipated metrics can be selected to examine. The innovation leader selects a group of metrics knowing that they must be routinely evaluated for comprehensiveness and sensitivity and updated as needed, as new and unexpected changes occur with an innovation (**Exhibit 6-6**).

Numerous organizational metrics specific to broad operations, human resources, supplies, technology, and patient outcomes are available. Often, single metrics are selected to evaluate effectiveness to simplify the measurement process. The disadvantage to single-metric evaluation is the loss of information specific to interim achievements that may ultimately impact the selected single metric. For example, selecting hours per patient day as the single metric to evaluate an innovative model for patient assessment would not consider the quality and completeness of the assessment data. Incomplete data could result in an extended length of stay and patient complications.

When different metrics or different groups of metrics are selected for analysis, additional uncertainty is introduced and the number of potential conclusions increases. The work of the leader is to identify the metrics that reflect the true value of the work.

The greatest difficulty is to identify and measure what really matters—which metrics are the critical variables that indicate value, service, and cost outcomes accurately and comprehensively. Multiple related metrics are required to explain the causality of relationships; seldom does one variable explain one outcome. By its very essence, the complex and dynamic nature of health care renders it resistant to simple linear cause-and-effect metrics. For example, no one intervention is accountable for the resolution of a patient’s pneumonia; diet, fluids, medications, and activity all contribute to the resolution of the chest congestion. Similarly, the hours per patient day metric cannot be linked simply and traced to the activities of a single unit leader; the competence of staff, level of illness of patients, number of interventions required, and availability of equipment and supplies all impact the level of hours per patient day used. With each modification of work, the outcome expectations change. New mindsets, new approaches, and new resources also evolve as expectations change. Consider the evolution of two processes: creating and

**Exhibit 6–7** Personal Calendar: Evolving Expectations and Metrics

<b>Innovation</b>	<b>Expectation (Intent)</b>	<b>Metric</b>
Handwritten calendar	Summary of information	Appropriate space allocation for entries
Computertized calendar	Automated, editable, accessible by multiple individuals, able to archive and retrieve information	Real-time availability, accessible to selected individuals to facilitate scheduling; decrease time in calendar management
Interconnected Internet-accessed calendar	Wireless, Internet access	Accessibility from multiple devices and multiple locations

managing one's personal calendar and the documenting process. It is important to note that as the innovation evolves and becomes more defined, expectations evolve reflecting the intent of the innovation. This evolution of expectations is an integral part of the process of adopting innovations (**Exhibit 6-7**).

Not all innovations require new metrics. Some changes in health care work result in new expectations for greater involvement of individuals or higher performance targets while the *specific metric* remains the same. For example, changing from nurse-administered pain medication to patient-controlled analgesia pumps does not change the expectation for pain control; rather, the intent of the change is to improve the level of achievement or performance of the specific metric. Patient satisfaction with pain control and comfort should be better with the patient-controlled analgesia than with nurse-administered pain interventions (**Exhibit 6-8**).

**COURSE CORRECTIONS**

Expectations for success are not realized for a variety of reasons. The wise leader works to minimize the time spent ruminating about the unsuccessful events and focuses on developing new solutions and course corrections to achieve the desired outcomes. According to

**Exhibit 6–8** Barriers to Effective Innovation Measurement

1. The business model is flawed, resulting in selection of the wrong levers of value creation.
2. Subjective measures of effectiveness are excluded.
3. Available information technology for data mining and analysis are not used.
4. Information technology replaces analysis and judgment.
5. The right question is not asked about what is being measured.

Source: Davila et al. (2006).

Rogers (1995), rejection of an innovation may occur any time along the adoption process, which includes awareness of the innovation, interest, evaluation, trial, and then adoption. *Discontinuance* is a rejection that occurs after adoption of the innovation. Further, there are two types of discontinuance:

1. *Disenchantment discontinuance*, which is a decision to reject an idea as a result of dissatisfaction with its performance
2. *Replacement discontinuance*, which is a decision to reject an idea to adopt a better idea

Given the inevitability of rejection or discontinuance of a new work process, the emphasis, first, needs to be on making course corrections with evidence and rationale and, second, to realize the information and lessons that can be learned from the experience. Before implementing course corrections or new strategies, the team must once again be sure that the values of the work continue to be congruent with the organization and then challenge the assumptions of the work processes that went awry and clarify expectations that new processes have a high degree of potential for success.

### Key Point

Perfection is the enemy of innovation.  
—Stephen J. Adler, Editor in Chief,  
*Business Week*

## Conclusion

For innovation leadership, processes that require and improve performance on the basis of defined innovation as the way of doing business are essential. An assessment of current ways of doing business, identifying the unwritten rules about how work is accomplished, and how these processes enable or inhibit innovation begins the transformation to a balanced value-innovation culture.

## References

- Adner, R. 2006. Match your innovation strategy to your innovation ecosystem. *Harvard Business Review* 83, no. 4: 98–116.
- Anthony, S.D., M. Eyring, and L. Gibson. 2006. Mapping your innovation strategy. *Harvard Business Review* 83, no. 5: 104–113.
- Christensen, C.M., E.A. Roth, and S.D. Anthony. 2004. *Seeing what's next: Using theories of innovation to predict industry change*. Boston: Harvard Business School Publishing Corporation.
- Davila, T., M.J. Epstein, and R. Shelton. 2006. *Making innovation work: How to manage it, measure it, and profit from it*. Upper Saddle River, NJ: Wharton School.
- Drucker, P.F. 1985. *Innovation and entrepreneurship*. New York: Harper & Row.
- Gardner, H. 1993. *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.
- Herzlinger, R.E. 2006. Why innovation in health care is so hard. *Harvard Business Review* 83, no. 5: 58–66.

220 CHAPTER 6 INNOVATION LEADERSHIP

- Hippel, E.V. 2005. *Democratizing innovation*. Cambridge, MA: MIT.
- Kellerman, B. 2006. When should a leader apologize and when not? *Harvard Business Review* 83, no. 4: 73–81.
- Kimley, A.W. 2006. Biotechnology leads the way. *Harvard Business Review* 83, no. 5: 51–54.
- Mockler, R., and D. Dologite. 2006. Creating the digital hospital. *Healthcare Informatics* May: 47, 50.
- O'Reilly, C.A. III, and M.L. Tushman. 2004. The ambidextrous organization. *Harvard Business Review* 82, no. 4: 74–81.
- Plsek, P. 1997. *Creativity, innovation, and quality*. Roswell, GA: Quality Press.
- Rayport, J.F., and B.J. Jaworski. 2004. Best face forward. *Harvard Business Review* 82, no. 11: 47–58.
- Rogers, E.M. 1995. *Diffusion of innovations* (4th ed.). New York: The Free Press.
- Sanares, D., and D. Hilliker. 2005. A framework for nursing clinical inquiry: Pathway toward evidence-based nursing practice. In Malloch, K., and T. Porter-O'Grady, eds. *Introduction to evidence-based practice in nursing and health care*. Sudbury, MA: Jones & Bartlett.
- Schoemaker, P.J.H., and R.E. Gunther. 2006. The wisdom of deliberate mistakes. *Harvard Business Review* 83, no. 6: 109–115.
- Webster's New Collegiate Dictionary*. 2001. New York: Random House.

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## Quiz Questions

Select the best answer for each of the following questions.

1. Which of the following best describes innovation?
  - a. Out-of-the-box thinking
  - b. Something new or different
  - c. A process that requires a laboratory for brainstorming, modeling, and testing
  - d. A new product that is successful in the first month of introduction to the marketplace
  
2. The optimal organizational structure for innovation is one that
  - a. Includes the traditional work of operations
  - b. Includes both departments of innovation and operational departments
  - c. Is complex and often confusing
  - d. Considers the innovation work to be done and the available skills of leaders.
  
3. What is the primary purpose of a department of innovation?
  - a. To support creativity as an integral part of the organization's mission
  - b. To isolate creative scientists and leaders dedicated to innovation
  - c. To create an entity that is easier to develop a budget and goals specific to innovation
  - d. All of the above
  
4. Disruptive innovation is described as
  - a. Work that does not support required health care services
  - b. Work that requires new thinking by all customers
  - c. An innovation that cannot be used by customers in mainstream markets.
  - d. Work that has been terminated due to poor outcomes
  
5. Rational risk taking is appropriate when
  - a. New skills are being developed
  - b. There is adequate insurance coverage
  - c. No obvious changes are anticipated
  - d. Team members support the risk
  
6. Opportunities for innovation are
  - a. Limited to organizations focused on technology
  - b. Found in all walks of life
  - c. Present in health care delivery systems, technology, and business models
  - d. Difficult to identify and integrate in health care systems

7. Which item best describes entrepreneurship?
  - a. Creation of a personal business using company funds
  - b. The organization and management of an enterprise or business with considerable initiative and risk
  - c. An innovation laboratory
  - d. An employee of an organization who is allowed to exercise some independent entrepreneurial initiative
  
8. Metrics for measuring innovation should include
  - a. Cost of technology and personnel
  - b. One metric at a time to determine specific impact on the organization
  - c. Goals that can be identified once the innovation is in place and functioning adequately
  - d. Multiple variables that are believed to reflect the intended goals of the innovation
  
9. Course correction for organizations committed to integrated innovation are
  - a. An effective strategy to support risk taking and open discussion of the realities of innovations
  - b. Reflections of poor planning
  - c. A strategy to cover up negative outcomes
  - d. Common for all innovations
  
10. Resistance to innovation is the result of
  - a. Personal discomfort and lack of experience with new ideas
  - b. Lack of understanding of the goals of the innovation
  - c. Excellent performance in one's current role
  - d. All of the above