Organizational Innovation in the Health Sector: Cost and Quality Solutions for Health Policy

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ABSTRACT

Much of the health policy debate focuses on improving access to care by expanding insurance coverage. However, improving access will be difficult given the underlying problems of high costs and variable quality. In other innovation-intensive industries, new products and services introduce improvements in capability and affordability. We argue that the relative lack of organizational innovation in the health sector is one reason for difficulties in improving quality while containing costs. Policy approaches that encourage experimentation with new technologies and business models could offer creative solutions to cost and quality problems in the health care system.

INTRODUCTION

Health care is again a major domestic policy issue for the new administration. Although the U.S. health care system provides excellent care to many people, it suffers from limited access, high costs, and variable quality. Most of the current debate focuses on improving access to health care by expanding insurance coverage, but improving access will be difficult without addressing the underlying problems of cost and quality.

The health sector’s inability to address problems of cost and quality stands in stark contrast to other innovation-intensive industries, in which new generations of products and services regularly introduce dramatic improvements in capabilities and affordability. “Organizational innovation”—the creation of new management structures, processes, business models, and strategies within and across firms—is responsible for many of the most dramatic advances in technology-sensitive industries, and the relative lack of organizational innovation in the health sector is one reason for the industry’s failure to improve quality while containing costs.

Whereas recent scholarship in business strategy discusses flaws in the current structure of health care delivery—including duplication of services, limitations of the electronic medical record, fragmentation of delivery, administrative weakness among providers, regulatory burdens, and defensive medicine—we focus on the possibilities of stimulating major organizational changes in the health sector. The health delivery sector has been strikingly ossified, in contrast with dynamic industries that regularly undergo major changes, including turnover of industry leadership.

Experiences from other technology-sensitive sectors suggest how organizational innovation can introduce new delivery systems and reform dysfunctional elements of the health care system. We describe strategies that have led to successful organizational innovation in other industries, propose managerial reforms that health care providers might employ to pursue organizational innovation, and suggest policy and institutional reforms that might spur organizational innovation in the health sector.

THE VALUE OF ORGANIZATIONAL INNOVATION

Many of the economic and social benefits of competitive markets arise from organizational strategies that create and implement new business models, which often reflect the entry of innovative new firms and/or expansion of existing firms with experimental technologies. Extensive research has documented how organizational innovation can improve product and service quality while dramatically reducing costs—exactly the issues that are central concerns in the health care system. However, the concept of organizational innovation is absent from health policy debates and from most proposed solutions to health-system problems.

Organizational innovation involves discontinuous changes that differ strikingly from incremental changes that respond to well-understood needs in the marketplace and impose few disruptions on personnel, systems, and interorganizational relationships. In contrast, discontinuous innovation disrupts both organizations and markets. As Joseph Schumpeter put it, such discontinuous innovations “command a decisive cost or quality advantage that strike not at the margins of the profits and the outputs of existing firms, but at their foundations and their very lives.” Discontinuous innovation challenges firms to develop products or services that require transformations in core business skills, practices, and organizational structures. Such transformations are challenging for firms to navigate but offer the greatest opportunity for creating benefits for consumers, whether through lower cost and improved quality of existing goods and services or through new goods and services.
Recent work by Christensen and colleagues highlights a feature of discontinuous innovation that is highly relevant in the health care sector. Many discontinuous innovations yield new goods and services with dramatically lower costs than existing products but also initially offer lower initial quality or, at least, greater uncertainty about quality. Examples include inexpensive office-based photocopiers that displaced centralized professional printing centers and personal computers that disrupted the mainframe computer industry. These discontinuous innovations often expand markets to include new customers who could not afford earlier product offerings, so when established firms continue to market their current products, at current prices, to their loyal customers, they cede market growth to innovators. Christensen calls this the “innovator’s dilemma,” in which firms remain devoted to incumbent technologies, fail to capture the broader market that is now accessible through innovations, and are thus supplanted by new entrants. Such inertia is common in the health sector.

STRATEGIES FOR ORGANIZATIONAL INNOVATION BY ESTABLISHED FIRMS

Mature firms in all sectors have great difficulty changing their routines and implementing the new and unfamiliar structures that discontinuous innovations demand. As firms develop, they build information filters and rigid structures that facilitate efficient practices but typically reduce a firm’s maneuverability. Thus, organizational innovation is commonly driven by entrants that lack historical rigidities. Of course, many entrants fail, but those that survive often transform industries and markets.

Nonetheless, new entrants are not the only drivers of organizational innovation. Established firms sometimes capture value from discontinuous innovation by instituting creative frameworks that can adjust to the demands of new technologies and markets. Research in business strategy has identified four strategies that established firms can use to manage organizational innovation: (1) internal exploratory environments; (2) corporate venture capital funds; (3) exploratory acquisitions; and (4) semiautonomous business units.

First, internal exploratory environments within established firms offer safe havens to experiment with new products and services, as well as with the business models needed to manage the innovations. These havens are shielded from the firm’s mature routines so that experimenters avoid risk-averse management and other obstacles to innovation. Lockheed’s famous “Skunk Works” housed the company’s advanced research and development projects, for example, while 3M uses employee-initiated exploratory projects to generate a stream of new products.

Second, many established firms create corporate venture capital funds for investment in smaller firms that are experimenting with new technologies. These funds are often supported by “search and support committees” that dedicate research and marketing staff to identify and nurture the new technologies in the start-up companies. Some firms also invite customers and other technology users to help identify and develop new customer needs. The investing firm can then acquire the successful experiments, either by purchasing the smaller firm or hiring its employees. Such strategies enable existing firms to anticipate and plan for transformative change and to maintain positions in evolving markets.

A third and more immediate innovation strategy for adopting new organizational routines that underlie innovative goods and services is to acquire or ally with companies that have fostered those routines. Incumbent firms purchase start-ups to appropriate their new technologies and skills, while others partner with specialized providers. Although firms often struggle to integrate their acquisitions and manage their partnerships, many succeed in keeping pace of discontinuous changes in their markets. Siemens, for example, acquired several digital telecommunications companies as the industry changed from analog to digital technology.

The fourth strategy is to create semiautonomous business units that initially operate largely independently of the core business. These units design new organizational structures and business models that differ from the parent firm’s organizational structure but are tailored to the needs of new goods and services. These new units sometimes compete directly with the parent company but more often operate in new market segments. IBM’s development of the personal computer at its Boca Raton facility is an example. Semiautonomous business units can involve alliances with other companies. HP developed LaserJet technology in collaboration with Canon at sites in the Pacific Northwest, well shielded from HP’s core instruments businesses in California. Ultimately, established firms must integrate new technologies that are created in semiautonomous units either by repatriating successful new business models into existing structures or, less often, by migrating their core business to refocus themselves around the experiments. HP’s transition from a scientific instruments company to a printer company is one
such example, as is Nokia’s transition from diversified electronics to wireless communications.

Thus, organizational innovation can take several paths that lead to corporate and market transformation in which new business models replace older systems and non-adaptive firms. Along all the paths, firms must invest in new technologies and management structures and be willing to divest obsolete elements of the business as conditions change. The net result of organizational innovation is a process driven by both innovative entrants and dynamic incumbents that can dramatically transform an industry.

LESSONS FROM ORGANIZATIONAL INNOVATION FOR THE HEALTH SECTOR

The health sector has witnessed many important organizational innovations that fit into the four strategies. General Electric, for example, constructed internal exploratory structures that invested in emerging cell biology, enabling the company to become a leader in many biotechnology product markets. Wal-Mart, CVS, Kroger, and other retail chains are experimenting with internal exploratory organizations as they introduce medical clinics adjacent to their pharmacies. The Cleveland Clinic created venture capital funds to invest in new procedures and technologies, which were later reincorporated into the Clinic’s main infrastructure (though some aspects of this strategy raised public concerns about conflicts of interest from having the clinic involved in the investment and development of these technologies).20 Many hospitals pursue exploratory acquisitions and joint ventures when they purchase dynamic physician practices. And many health organizations are experimenting with new delivery systems that are structured as semiautonomous business units, such as ambulatory care centers that operate independently from anchor hospitals and freestanding nurse practitioner clinics that have the potential to revolutionize primary care services.

Despite such examples, the health sector has room for much more active engagement in organizational innovation. It is easy to list possibilities for new experiments in service innovation. Clinical practices might pursue more in-house experiments through allied health professionals. Hospitals could invest in innovative clinical practices or practice sites and could build upon the new business models, encouraging them to transform the hospital’s core structure, rather than purchasing practices to reinforce existing, ossified business models. Health systems could adopt the lessons from new businesses that are keenly aware of consumer demands, including abandoning a department-based organizational structure and pursuing instead a service line orientation for defined sets of services such as cardiac and oncology centers. Medical centers could become more dynamic organizations by focusing on key competencies in patient services and outsourcing non-core items to systems experts that could evolve on a multisite basis (e.g., real estate management, billing and finance, even information technology and supply chain management). Personal health records could be digitized and made accessible to patients from multiple sites, thus opening new avenues for preventive care. We suspect that most readers could list other examples.

The key question, therefore, is how health sector leaders can be encouraged to pursue organizational innovation as a key competency and a core value. In large part, this is a strategic issue both for leaders of health care organizations and for policy makers who shape the environments in which health care organizations operate. Major managerial steps will include investments in management capacity, board education, and organizational discipline to develop new organizational forms while divesting old forms and structures. Hospitals should consider developing internal exploratory environments and search committees that investigate alternative delivery mechanisms. Managers should consider ways to decentralize business models and devolve management decision-making so new routines and organizational structures can support discontinuous innovations. And both managers and policy makers need to understand how to use the forces of globalization to improve the efficiency of the core model of their organization. Indeed, the globalization of health technology is creating a laboratory for disruptive innovation, and the U.S. health care system may well struggle to maintain its global leadership in the face of new delivery models that result from these experiments.21 The key point here is that some current limits to organizational innovation arise from inertial managerial practices that thoughtful business strategy can remedy.

LESSONS FROM ORGANIZATIONAL INNOVATION FOR HEALTH POLICY

The lack of dynamism and organizational innovation in the health sector cannot be attributed solely to a complacency of industry leaders. Instead, many of the issues arise from a regulatory environment that constrains the possibilities of new business models. In health care, the rigidity of internal processes — common to established organizations in all industries — are compounded by
external regulatory requirements and administrative relationships that reinforce the need for standard and difficult-to-change processes.22

Many examples of regulatory constraints to organizational innovation arise. Reimbursement policies and regulations can prevent or slow payment for potentially revolutionary innovations while continuing to channel revenue to obsolete and costly services. Many new health service initiatives — such as primary care centers and disease management programs — are poorly reimbursed and thus are not pursued. More generally, services that do not have a proven record of meeting current quality standards can fail to obtain reimbursement, even if they can dramatically cut costs. Even when they do obtain reimbursement, there are few incentives to use lower-cost solutions for patient care (e.g., for obtaining imaging services at free-standing rather than provider-based sites).

Meanwhile, “any willing provider” regulations and other state mandates ensure steady reimbursement to high-cost providers who offer little or no quality advantage over lower-cost alternatives.23 Malpractice standards, which typically require the use of all practices deemed to be “medically necessary,” also keep out innovative services that are superior investments yet may initially offer slightly poorer — or simply different — quality of care. And certificate-of-need regulations create barriers to entrants that offer innovative business models, such as specialty hospitals, that have transformative potential. Well-meaning public and philanthropic efforts often generate adverse selection by protecting high-cost or failing business models, thereby supplementing a regulatory system that stifles sources of disruptive innovation and insulates providers from the pressures of consumer needs.

The themes evoked by such examples suggest policy remedies. The formal and informal administrative processes that provide oversight to the health sector should both permit and foster the entry of organizational innovations. Policy makers need to be aware of administrative requirements and incentives that prevent providers from pursuing unfamiliar organizational forms (e.g., distorted pricing for provider-based clinics, lack of reimbursement for Internet-based treatment programs). Policy makers may want to consider financing organizational transitions and changing the capital structure of existing firms to enable managers to invest in processes and people rather than just fixed capital investments. Organizational innovation and transition present great uncertainty. Financial safe harbors might be necessary to protect innovators from malpractice liability, and the standard of care for certain health services should not preclude innovative services since many of the most important innovations begin at quality levels that are lower than incumbent paradigms (e.g., nurse practitioners for primary care).24 Insurance regulators need to increase coverage for new bundles and packages of services while discontinuing coverage for obsolete services, and reimbursement calculations must prevent overpayment to practice models that could distort the trajectory of organizational innovation.

CONCLUSION

Organizational innovation is not a panacea — and some efforts, by definition, will fail. The strategy carries financial risks. Even more importantly in the health context, organizational innovation involves health service risks related to the uncertainty of new organizational models, the ability to provide services in new environments, and disruption of established providers, potentially including safety net providers. However, these risks need to be weighed against the risk of maintaining the status quo in health care. Both strategic and policy initiatives need to weigh the risks of innovation versus the risks of inertia. One means of managing such risks is build these concerns into the core strategies for organizational innovation, which typically involve experimentation in relatively small-scale and autonomous settings before undertaking large scale transitions. Thus, thoughtful implementation of organizational innovation strategy includes risk-limiting attention.

Organizational innovation has not been a strategic choice for most existing health care providers. Such inertia implies the need for active incentives. Simply waiting for the impact of traditional triggers such as technological changes that arise organically from the life sciences and information technology domains will lead to some improvements in health care practice. However, such spontaneous catalysts have often been slow to take hold and typically lead to cascading cost increases within existing organizational structures. A more active alternative would be to develop a policy approach that directly encourages organizational responses that experiment with new technologies and organizational models. Although such a policy might be difficult to initiate — and may resonate as counterintuitive to the policy and administrative communities — the approach would offer creative solutions to the underlying cost and quality problems of the U.S. health care system.
NOTES

2. K. Baicker and A. Chandra, “Medicare Spending, the Physician Workforce, and Beneficiaries’ Quality of Care,” Health Affairs 23 (2004): w184-w197 (published online 7 April 2004; 10.1377/hlthaff.w4.184).
17. Macher and Richman, “Organisational Responses to Discontinuous Innovation”
24. Christensen, Grossman, and Hwang, The Innovator’s Prescription