

5 IMPERATIVES

ADDRESSING HEALTHCARE'S
INNOVATION CHALLENGE



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For more information visit

<http://projects.iq.harvard.edu/forum-on-healthcare-innovation/>

INTRODUCTION

In healthcare, the term “innovation” has traditionally been reserved for the development of new therapies, drugs, or medical devices. As both private and public efforts to reform the American healthcare system gain momentum, it is clear that innovation must be explored in a broader context, one that examines previously underdeveloped opportunities in areas such as data analytics, consumer behavior, provider incentives, and process improvement in care delivery.

To help push the national conversation about healthcare reform beyond its usual notion of innovation, Harvard Business School (HBS) and Harvard Medical School (HMS) have formed the Forum on Healthcare Innovation, a multifaceted effort to leverage the thought leadership and convening power of the two schools to create an interdisciplinary platform with influence greater than the sum of its parts.

The Forum’s initial event was a conference entitled, *Healing Ourselves: Addressing Healthcare’s Innovation Challenge*, which was held on the HBS campus from November 14 to 15, 2012. As Richard G. Hamermesh, the MBA Class of 1961 Professor of Management Practice at Harvard Business School, noted in his introductory remarks, “We want to draw leaders from all sectors of the healthcare industry, along with academics, to develop a set of recommendations for innovative actions that could be taken to help solve our most vexing healthcare problems.”

CONFERENCE OVERVIEW

This conference, which brought together roughly 125 senior leaders from across the healthcare industry, included five panels, each moderated by a leading expert from the faculty of HBS or HMS. The conference represents the first of what HBS and HMS hope will be a series of regular events that unite leading executives, policymakers, and academics in a cross-disciplinary collaboration aimed at identifying innovative actions to improve quality, reduce costs, and, ultimately, increase value in the healthcare industry.

“Healthcare, of course, has more than its share of very complex questions. How can we reduce costs and increase value, improve patients’ experiences and outcomes, speed the translation of research into therapies and cures, make healthcare something that people can have access to here in the United States, and, ultimately, around the world? If we widen the boundaries of inquiry to address questions of this sort, we discover the importance of collaborations and partnerships across the industry and across the related academic fields. In spite of all the dramatic enhancements in digital connectivity and communication, there is something uniquely powerful and generative about bringing thinkers and doers together to interact in person.”

DREW GILPIN FAUST, President, Harvard University

2012 CONFERENCE AGENDA

INTRODUCTORY REMARKS

Jeffrey S. Flier, MD, Dean of the Faculty of Medicine, Harvard University

Richard G. Hamermesh, MBA Class of 1961 Professor of Management Practice, Harvard Business School

Robert S. Huckman, Albert J. Weatherhead III Professor of Business Administration, Harvard Business School

Nitin Nohria, Dean, Harvard Business School

KEYNOTE SPEAKERS

Donald M. Berwick, MD, President Emeritus and Senior Fellow, Institute for Healthcare Improvement

Alan M. Garber, MD, Provost, Harvard University

WELCOMING REMARKS

Drew Gilpin Faust, President, Harvard University

REDUCING EMPLOYEE HEALTHCARE COSTS: BEYOND COST SHIFTING

MODERATOR

Regina E. Herzlinger, Nancy R. McPherson Professor of Business Administration, Harvard Business School

PANELISTS

Lonny Reisman, MD, Senior Vice President and CMO, Aetna

Kenneth L. Sperling, National Health Exchange Strategy Leader, Aon Hewitt

Brad Wolfson, President, Safeway Health, Inc.

DEVELOPING MORE MEANINGFUL DRUGS, DEVICES, AND DIAGNOSTICS

MODERATOR

William W. Chin, MD, Executive Dean for Research, Bertarelli Professor of Translational Medical Science and Professor of Medicine, Harvard Medical School

PANELISTS

Alpheus Bingham, Co-founder, InnoCentive

Michael A. Mussallem, Chairman and CEO, Edwards Lifesciences

Christopher A. Viehbacher, CEO, Sanofi

TRANSLATING ACADEMIC RESEARCH INTO CLINICAL AND COMMERCIAL USE

MODERATOR

Barbara J. McNeil, MD, Ridley Watts Professor and Head of the Department of Health Care Policy, Harvard Medical School

PANELISTS

Kathryn Giusti, Founder and CEO, Multiple Myeloma Research Foundation

Eric S. Lander, President and Founding Director, The Eli and Edythe L. Broad Institute of Harvard and MIT

Terrance G. McGuire, Co-founder and Managing General Partner, Polaris Partners

IMPROVING THE PATIENT EXPERIENCE

MODERATOR

Clayton M. Christensen, Kim B. Clark Professor of Business Administration, Harvard Business School

PANELISTS

Tim Brown, President and CEO, IDEO

Andrew J. Sussman, MD, President, MinuteClinic and Senior Vice President/Associate CMO, CVS Caremark

IMPROVING THE VALUE OF CARE DELIVERY

MODERATOR

Michael E. Porter, Bishop William Lawrence University Professor, Harvard University

PANELISTS

Delos M. Cosgrove, MD, CEO and President, Cleveland Clinic

Gary L. Gottlieb, MD, President and CEO, Partners HealthCare

Nancy M. Schlichting, CEO, Henry Ford Health System

In addition to the panel participants, guest speakers, and program hosts, the Forum on Healthcare Innovation would like to express its appreciation to other contributors who helped make the survey, the conference, and this report possible, including Cara Sterling, Director of the Healthcare Initiative at Harvard Business School; P. Myer Nore and Tracy Saxton, also of the Healthcare Initiative; Jonathan Kranz, Principal of Kranz Communications; Chase Harrison, Director, Research Computing Services and Principal Survey Methodologist; and Ben Phillips of Abt SRBI.

SURVEY OVERVIEW

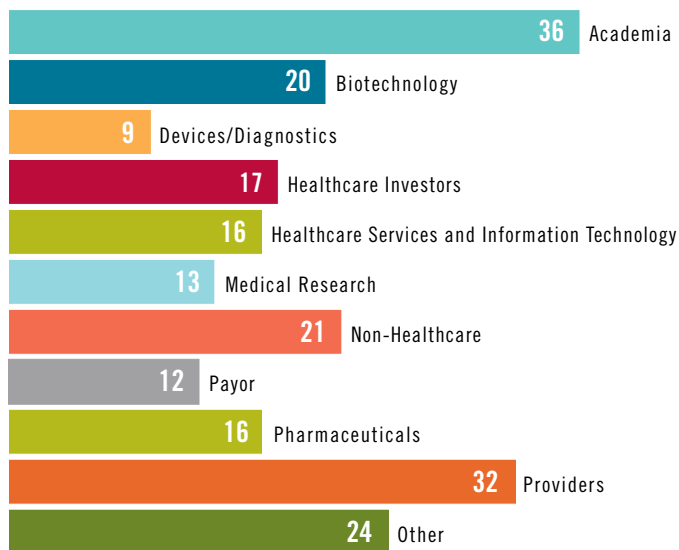
In association with the conference, the Forum developed the inaugural HBS and HMS Survey of Executive Sentiment in Healthcare, which asked all conference invitees to respond—in advance of the conference—to questions concerning cost and quality trends and the anticipated impact of various innovation opportunities across all sectors of the healthcare industry.

Notable for its scope, the survey was designed to capture executive sentiment from leaders across all key sectors of the healthcare industry. Of the 509 leaders invited to participate, 216 responded to the full survey, for a response rate of over 42 percent.

“I discovered both the enormous gratitude each one of us has as individuals for healthcare, and the equally enormous frustration any one of us has as a consumer of the healthcare system. The challenge of this conference is: How can we realize the great magic, and the great benefits, that healthcare can afford?”

NITIN NOHRIA, Dean of the Faculty, Harvard Business School, reflecting on his personal experiences with healthcare and his ambitions for the Forum.

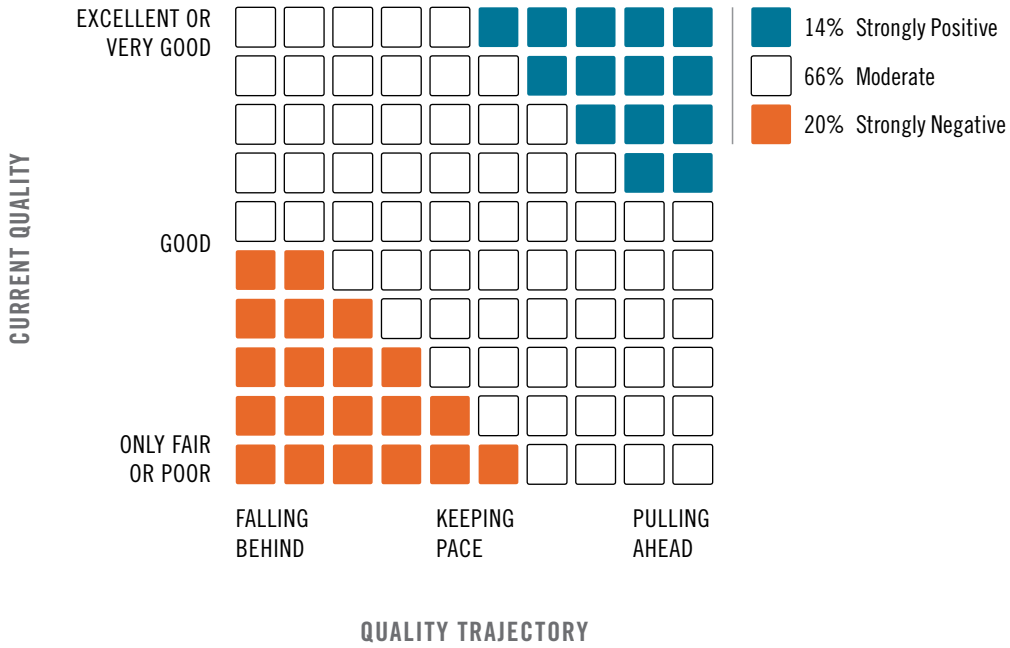
SURVEY RESPONDENTS BY SECTOR



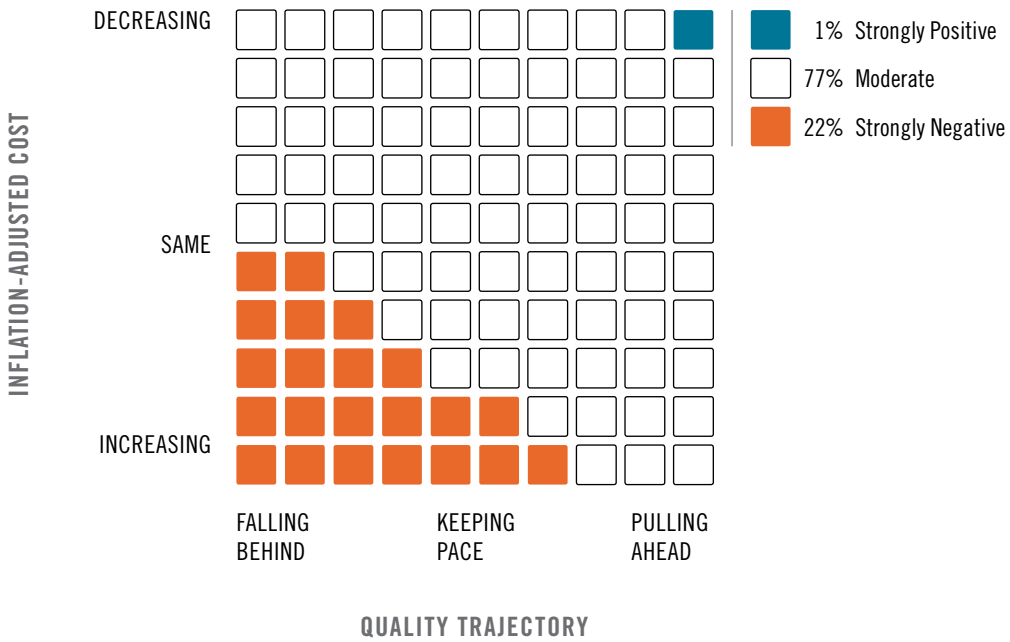
$n = 216$

NOTE: A full description of the survey and its results may be found at: <http://projects.iq.harvard.edu/forum-on-healthcare-innovation/>.

SENTIMENT ABOUT CURRENT QUALITY OF HEALTHCARE IN THE UNITED STATES



SENTIMENT ABOUT FUTURE COST AND QUALITY OF HEALTHCARE IN THE UNITED STATES



NOTE: Each square represents 1% of survey respondents.

Among other issues, the survey probed opinions regarding the source of future innovations—private sector versus government, established firms versus startups—and the relative merits of various opportunities for action, such as investments in research, diagnostics, disease management, consumer incentives, and other areas of interest. But perhaps the most salient survey revelations exposed significant concerns about the current and future *value*—the quality of outcomes relative to dollars spent—of healthcare provided in the United States. Looking at quality in isolation, senior leaders were almost evenly divided in their sentiment. While 14 percent had a strongly positive sentiment and believed care was excellent or very good and pulling ahead relative to other advanced, industrialized nations, 20 percent had a strongly negative outlook. Those with a strongly negative sentiment believed that healthcare quality in the United States was starting from only a fair or poor position and falling behind other countries.

Adding the dimension of cost, however, unearthed strong concerns about value. Most noticeably, only 1 percent of respondents held the strongly positive sentiment that the United States could significantly increase value through the combination of quality pulling ahead of other industrialized nations and healthcare costs growing more slowly than general inflation. In contrast, the strongly negative sentiment that quality would fall behind other countries while healthcare costs grew faster than general inflation was held by 22 percent of respondents. They believed relative costs would increase without improving quality, or quality would decline without a reduction in relative costs.

“We need approaches to the solutions that aren’t just arithmetic and additive, but are in some sense logarithmic. This will require us to reach across historic boundaries and unlock the potential of collaboration across the usual disciplines.”

JEFFREY S. FLIER, MD, Dean of the Faculty of Medicine, Harvard University, introducing the purpose and structure of the Forum.

SUMMARY OF KEY IMPERATIVES

The Big Idea Is That There Is No Big Idea

By design, the Forum covered a great deal of ground, encouraging numerous and sometimes contradictory perspectives on urgent areas of concern and opportunity. In fact, if one idea can be said to reflect the spirit of the whole, it is that there is no one “magic bullet” that can heroically resolve our healthcare challenges. Instead, the most intriguing ideas shared common themes of collaboration, integration, and distributed knowledge—that is, building connections among many promising approaches rather than investing our hopes in one big idea.

The Forum can be best summarized through five key imperatives around which this report is organized:

1 MAKING VALUE THE CENTRAL OBJECTIVE

In isolation, efforts to either reduce costs or improve outcomes are insufficient; we need to do both through care coordination and shared information.

2 PROMOTING NOVEL APPROACHES TO PROCESS IMPROVEMENT

Instead of largely focusing on product innovation, we also must create an environment that encourages process improvement and acknowledges that “failure” represents an important component of experimentation and learning.

3 MAKING CONSUMERISM REALLY WORK

Today, consumerism remains a strong idea with weak means of execution. We will achieve greater success when providers organize efforts around patient needs and when patients become more active agents in managing their own health.

4 DECENTRALIZING APPROACHES TO PROBLEM SOLVING

We should facilitate the movement of care delivery and healthcare innovation from centralized centers of expertise out to the periphery, where more providers, innovators, and patients can engage in collaborative improvement efforts.

5 INTEGRATING NEW APPROACHES INTO ESTABLISHED ORGANIZATIONS

Our future must build on past successes. Existing healthcare institutions must be reinforced with efforts to integrate new knowledge into established organizations and the communities they serve.

Our report does not provide conclusive answers. Instead, it serves as an invitation to consider the options, contribute to the debate, and join in our collective ambition to direct energies toward the most promising avenues of innovation in healthcare.

1 MAKING VALUE THE CENTRAL OBJECTIVE

Across sectors of the healthcare industry, increasing value must be the core objective around which all innovation efforts revolve.

ALIGNING COMPETITION WITH VALUE

As a body, conference participants concluded that healthcare does not suffer from a lack of innovative skill or expertise. The question, rather, is whether that energy and expertise are being directed to solve the right problems. The prevailing view, also observed in the survey, was that the pursuit of misguided objectives reflects a broader lack of value-based competition in healthcare.

Donald M. Berwick, MD, President Emeritus and Senior Fellow, Institute for Healthcare Improvement, asked his audience to reconsider their basic assumptions regarding healthcare delivery. As a metaphor, Berwick offered the Choluteca River Bridge in Honduras. While its construction was of sufficient strength to endure Hurricane Mitchell in 1998, its design proved irrelevant: Over time, the river shifted away from the structure, leaving it a literal bridge to nowhere. Likewise, Berwick suggested, we are currently invested in maintaining a legacy system of healthcare delivery and financing that no longer “bridges” our needs. Drawing on examples in Alaska, New Mexico, and Sweden, Berwick advocated for innovations that changed the process of distributing care, rather than on making further investments that concentrated expertise in expensive, centralized locations.

Michael E. Porter, Bishop William Lawrence University Professor, Harvard University, placed the challenge within a broader context, observing that, “Competition as it has been historically structured in most healthcare systems around the world has not really been aligned with value. What it takes to be successful for a provider is not

KEY INSIGHTS

ALIGNING COMPETITION WITH VALUE

To compete on the basis of value, organizations must take a balanced approach, both to reducing costs and to improving quality outcomes.

IMPROVING COORDINATION TO FOSTER HEALTH

Care coordination is essential for ensuring health and wellness and for achieving the overall goal of increased value.

DEVELOPING AND SHARING VALIDATED TARGETS

The industry must develop and share information about disease mechanisms and validated cellular targets to reduce redundant effort and to increase the chances of meaningful innovation.

tightly connected to what it takes to be successful for the patient.” To align provider and patient interests, Porter proposed a multipoint agenda encouraging providers to create integrated practice units organized around the needs of patients rather than specialized providers, and measure outcomes “over the cycle of care,” applying the lessons learned at specific sites to larger geographic regions.

IMPROVING COORDINATION TO FOSTER HEALTH

In a system with so many moving parts, it can be difficult to coordinate the multiple touchpoints of a patient’s experience within a more coherent approach to create or sustain wellness. Christopher A. Viehbacher, CEO, Sanofi, raised the issue of fragmentation as a way of broadening the context for drug and device development. “I think there has to be a rethinking of healthcare,” he said. “If you think about how healthcare is delivered, it’s on an ad hoc basis. Someone comes into a hospital, someone comes into a pharmacy, someone comes into a doctor. But beyond those touchpoints, the patients are on their own. There’s no real continuity of care.”

Lonny Reisman, MD, Senior Vice President and CMO at Aetna, drew attention to a shift in responsibilities that must be met with a shift in focus from discrete activities to overall results. Reisman noted that not only were healthcare costs rising three times faster than the rate of inflation, but that employees also have been absorbing a greater share of the burden. Since 2007, the annual rate of increased costs for employees has risen 50 percent faster than the rate of costs for employers.

Reisman noted that shifting financial responsibility to the consumer, in itself, fails to address the underlying cause of accelerating health costs: incentives that stimulate a growing volume of care without necessarily contributing to value. “What we cope with as an insurer,” said Reisman, “is the notion of people getting paid more for doing more ‘stuff’ whether or not that actually contributes to better clinical outcomes.”

DEVELOPING AND SHARING VALIDATED TARGETS

Reisman’s comments initiated a conversation about the need for comprehensive data about medical outcomes that could inform effective decision making by consumers. Other panelists took the idea further, arguing that high-quality outcome information was a necessity not just for healthcare consumers, but for the creators of new drugs and devices as well. The path to an innovative solution requires an understanding of disease mechanisms and validated targets.

Multiple panelists and participants expressed concern about the time and expense necessary to move promising therapies through the clinical trials process, noting that current U.S. Food and Drug Administration (FDA) regulations impose obstacles that discourage investors and innovators. Eric S. Lander, President and Founding Director, The Eli and Edythe L. Broad Institute of Harvard and MIT, asked conference participants to reconsider the entire context of life sciences development. In his presentation, Lander said, “Really efficacious drugs don’t require huge clinical trials. Why aren’t we able to make drugs that are really efficacious rather than trying to demonstrate just a couple of percent benefit?”

The group noted that basic knowledge, especially of the genome, has exploded over the previous ten years and that gene sequencing has become much cheaper as well. However, further discussion revealed that there are not good systems for developing validated targets and that targets are highly unlikely to be shared across organizations. Some suggested that in order to share targets consortia should be created, similar to what the semiconductor industry created in the 1980s and 1990s. If done correctly, this would create a critical mass of validated targets open to all, while preserving individual molecules as patentable intellectual property. The goal: an infrastructure that makes knowledge easily exchangeable.

Barbara J. McNeil, MD, Ridley Watts Professor at Harvard Medical School, underscored the important role that academic researchers can play in these collaborative efforts. “University investigators can play a key role in fostering innovation in a number of areas,” she said. “These range from developing new targets for drug discovery to working with others to develop disease-specific consortia, and finally to testing innovative products in pivotal clinical trials. Further along in the care pathway, they can use their clinical expertise to design and evaluate new approaches to the financing and delivering of healthcare, particularly coordinated care.”

“Really efficacious drugs don’t require huge clinical trials. Why aren’t we able to make drugs that are really efficacious rather than trying to demonstrate just a couple of percent benefit?”

ERIC S. LANDER, President and Founding Director, The Eli and Edythe L. Broad Institute of Harvard and MIT

2 PROMOTING NOVEL APPROACHES TO PROCESS IMPROVEMENT

Historically, efforts to innovate in healthcare have targeted the creation of new products, such as biopharmaceuticals and devices. Moving forward, the industry must develop similar capabilities with respect to continuous process improvement.

KEY INSIGHTS

RECOGNIZING THE IMPORTANCE OF PROCESS IMPROVEMENT

Healthcare leaders must recognize the significant potential of process improvement to increase value in healthcare.

CREATING INCENTIVES TO ENGAGE IN IMPROVEMENT

All parties, including providers and patients, must be incentivized to engage in improvement efforts.

FRAMING FAILURE AS AN IMPORTANT PART OF SUCCESS

“Failure” must be viewed not as an obstacle to progress, but as a critical component to the success of continuous improvement.

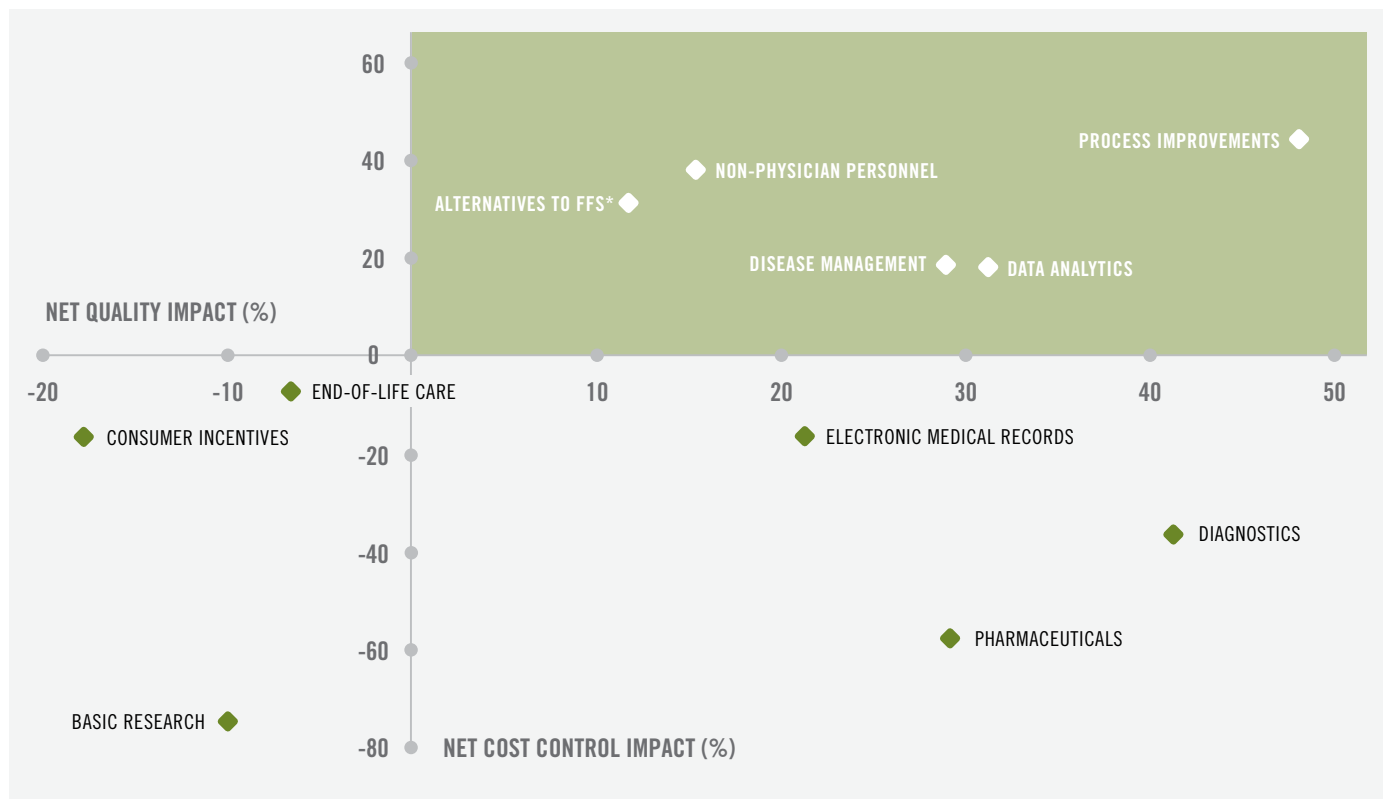
RECOGNIZING THE IMPORTANCE OF PROCESS IMPROVEMENT

In his keynote address, Berwick drew upon the work of quality management expert Noriaki Kano, who described three forms of improvement. Berwick referred to these as Kano 1, 2, and 3. Kano 1 is “defect reduction.” Kano 2 involves removing unnecessary cost from production, while fully meeting the needs of customers. Kano 3 adds new features and products and addresses the consumer appeal of a given project. Berwick noted that Kano 2 improvement merits special attention from the healthcare industry at this time, even while it continues to pursue, as it must, the other two types.

“A Kano 2 improvement is quite different and not at all understood in healthcare,” said Berwick. “That is, reduce the cost of production without hurting the customer... by making production simpler, taking a step out, doing something with different materials... figuring out a way to do the same thing—or even something better—for the customer, while reducing your cost of production. Then you can use the money or return it. That’s the kind of Kano 2 improvement we need in healthcare.”

The survey echoed Berwick’s sentiment. While it exposed a surprising lack of confidence in the innovative power of traditional areas of focus, such as “basic medical research” and “pharmaceuticals,” it also revealed an intriguing confidence in an area of innovation typically associated with non-healthcare industries: process improvement. When asked to rank eleven areas of innovation by their potential impact over the next five years, participants identified “process improvements in care delivery” as the number one opportunity for both improving quality and controlling the cost of care, with approximately 60 percent expressing “very high” or “somewhat high” confidence in its power.

OPPORTUNITIES FOR INNOVATION



NOTES: Axes show net positive (percentage positive minus percentage negative).
 *FFS is Fee for Service.

CREATING INCENTIVES TO ENGAGE IN IMPROVEMENT

Reisman noted that a key to Aetna's approach for enhancing value is the integration of multiple elements into a model centered on "accountable care." Within this model, providers are enabled with advanced technologies that help them communicate with and engage healthcare consumers. Consumers are subsequently empowered with information, which, in turn, aligns their behaviors with actions that contribute to improved care. "We are enabling providers and consumers with tools and incentives to make fundamental change," Reisman said.

Michael A. Mussallem, Chairman and CEO of Edwards Lifesciences, addressed collaboration among innovators themselves, stressing the necessity of creating the appropriate environment for innovation. "One of the things we know is that there's nothing like the collaboration of physicians, bright engineers, and scientists to solve problems," Mussallem said. "Somehow, we need to have the transparency and openness that allows and encourages rather than discourages it."

FRAMING FAILURE AS AN IMPORTANT PART OF SUCCESS

To innovate successfully, healthcare leaders need a process for continuous improvement that can accommodate what we prefer to avoid: failure. Both panelists and participants challenged the prevailing fear of failure that handicapped the exploration of new ideas. They largely agreed that the healthcare system would be better served by acknowledging failures as the necessary by-product of innovative progress.

Tackling the issue from the perspective of process design, Tim Brown, CEO and President of IDEO, a leading design firm, believed it was important to accelerate the cycle of testing, failing, and learning. "We're not very smart," he said. "So we have to learn very fast. Failure is an extremely efficient form of learning. The principle we operate under is to put yourself in the place where you can fail as fast as possible and figure that you get to learn faster."

"Failure often contains the seeds of success," said Lander. "If you are willing to look hard at a failure, you can ask why it failed. But if you just keep it internally, you don't. If you're willing to expose it to others, you may learn a lot." Terrance G. McGuire, Co-founder and Managing General Partner of Polaris, Partners concurred, noting that Polaris had learned from the digital world "where failure is not a bad thing; it's something to be learned from and brought forward." Perhaps ironically, the opinion expressed by many at the conference was that being "successful at failure" planted the crucial seeds of experimentation required for meaningful improvement.

"Failure is an extremely efficient form of learning... put yourself in the place where you can fail as fast as possible."

TIM BROWN, President and CEO of IDEO

3 MAKING CONSUMERISM REALLY WORK

In many industries, the key driver of innovation—competition to serve informed consumers—helps ensure the delivery of greater value over time. Participants noted that the healthcare industry currently falls well short of having truly informed consumers and must take steps to address that problem.

SHARING RESPONSIBILITY FOR A COMPLEX PROBLEM

As many economists have noted, the fragmented healthcare system in the United States has stymied the usual market forces that might otherwise lead to greater efficacy and efficiency. Yet, enthusiasm for greater “consumerism” in healthcare has been dampened by generally slow progress. What practical components are necessary to move consumer empowerment from an ideal to a reality?

The answers are rooted in responsibility: who has it and how it is exercised. Regina E. Herzlinger, the Nancy R. McPherson Professor of Business Administration at Harvard Business School, forestalled the temptation to point fingers by drawing an analogy to Agatha Christie’s mystery, *Murder on the Orient Express*. Herzlinger said, “Somebody on the *Orient Express* gets killed, and the question is, who killed him? The answer is, everybody on the train killed him. And the answer about who killed healthcare is: the status quo.” Everyone owns a share of the responsibility.

Every nation, too, suffers a share of the fiscal consequences. “No matter what the country, no matter what the public policy,” Herzlinger said, the rate of healthcare expense growth relative to the growth of the GDP “is very, very high.” What will happen, according to Herzlinger, is that healthcare, like other industries, will have to conform to market forces and by doing so will become more “consumerized”: Patients must assume

KEY INSIGHTS

SHARING RESPONSIBILITY FOR A COMPLEX PROBLEM

The current lack of consumerism in healthcare is a complex problem for which every sector of the industry shares responsibility.

PUTTING PATIENTS FIRST

Providers must organize themselves around the needs of consumers rather than caregivers.

TURNING PATIENTS INTO ACTIVE CONSUMERS

Consumers must be transformed from passive to active participants in managing their own health.

greater responsibility for their care and must have greater power to exercise that responsibility. She cautioned, however, that when it comes to policies and technologies intended to give consumers more control, “we’ve got a lot of hallucinations rather than visions.”

Her skepticism was echoed by the survey results. “Consumer incentives to encourage healthy behavior” ranked last among eleven possible innovations in terms of their ability to increase value, with 44.6 percent of respondents indicating that it would have only a minimal or slight impact on improving quality and 43.9 percent noting its minimal or slight potential for controlling cost.

PUTTING PATIENTS FIRST

Delos M. Cosgrove, MD, President and CEO of Cleveland Clinic, articulated the need to reconceive the way care delivery is organized if it is to be truly consumer oriented. For Cosgrove and the Cleveland Clinic, “the patient is the most important person at an institution, and it’s our job to satisfy them,” a philosophy that has made a “patients first” mantra the guiding principle for the Clinic’s reorganization. “Most organizations are organized around physicians,” he noted. “We took a different step. We said we’re going to organize around patients’ problems and around organ systems such as neurologic disease or disease systems such as cancer.” The Clinic integrated community hospitals, family health centers, and other care delivery sites into one system that connects six million patients through one electronic medical record (EMR) system. Further, Cosgrove said, the Clinic measured clinical outcomes. “This was important for us because it caused us to look at our results in a very transparent way. Every time we did this, we found issues, and we began to deal with them.”

TURNING PATIENTS INTO ACTIVE CONSUMERS

If Cleveland Clinic represents the provider’s perspective on consumerism, Safeway—the second-largest grocery chain in the United States—shows what it can look like from an employer’s point of view. Operating with very thin profit margins, Safeway has an enormous incentive to reduce healthcare costs. “For us, innovation in healthcare is a matter of necessity,” said panelist Brad Wolfsen, President of Safeway Health. “With healthcare costs increasing at 8 percent a year and being such a significant portion of our cost structure, we would suffer a significant dent in our profitability if we were to allow our healthcare costs to increase at that rate.” Safeway has responded with a two-pronged approach to reining in costs through employee incentives, the first by allowing employees to shop for care options with capped benefit amounts, and the second by rewarding better lifestyle choices. Regarding the former, Wolfsen said Safeway Health created a plan modeled on the grocery shopping experience itself. “We basically set the maximum benefit that our plan will pay for a set of therapeutic outcomes.” Noting the extraordinary variation in costs for the same procedures—as much as 8:1 for a colonoscopy or 16:1 for an abdominal computerized tomography (CT) scan—Wolsfen said the plan encourages employees to shop for the best value.

“When presented with that type of plan design,” said Wolfsen, “members can be very effective at shopping, and it can yield extraordinary savings.” He noted a 15-to-20 percent decline in pharmaceutical costs, and similar savings in imaging and lab tests. The key, Wolfsen insisted, is obtaining clear data on prices. “The real challenge in deploying a system like this more widely is opening up more categories to this type of solution where there is transparency in price,” he said. When prices are available, “members make cost-effective decisions. In our experience, members look at that information when they are provided the rules and the incentives to shop, and they make good decisions.”

The second component of the Safeway Health plan encourages employees to be healthier by providing financial incentives for hitting defined targets in categories such as blood pressure, cholesterol, and overall body mass index (BMI). “We have demonstrated the results of our health improvement program, that we can deliver positive employee motivation to improve their health. That can be seen in our overall financial results over the past six years: Safeway’s [healthcare] cost trend has been 2.2 percent, not the 8 percent that is common nationally.”

In his keynote address, Alan M. Garber, MD, Provost, Harvard University, cited the importance of Safeway’s efforts to increase consumer engagement in managing healthcare utilization. Garber noted, “The data on the role healthcare costs play in the U.S. economy are quite clear. It’s also clear that we need new approaches to dealing with cost containment—approaches like narrow networks, tiering, and reference pricing. Safeway’s early experience with reference pricing for a colonoscopy, for example, gives us hope that this method of letting consumers play a larger role in purchasing healthcare services may help control costs while not reducing quality.”

Kenneth L. Sperling, National Health Exchange Strategy Leader, Aon Hewitt, a leading human resources consulting firm, discussed an alternative approach to building consumerism in healthcare. Instead of imposing one plan, Aon Hewitt offers a private exchange that allows employees to be active decision makers in their care, thereby sharing responsibility for its cost.

Through the Aon Hewitt exchange, participating employees are presented with five standardized levels of care (ranked from “bronze” to “platinum”) to which they can apply their employer’s healthcare benefit contribution. “This is not an enrollment experience anymore,” Sperling said. “It is a shopping experience.”

As of January 1, 2013, 100,000 employees from Aon Hewitt, Sears, and Darden participate in the exchange. “The more employees we have, the more carriers we will bring,” said Sperling. “The more competition we drive, the lower the costs will be.”

The open discussion regarding consumerism was among the most vigorous of the conference. Consensus did emerge around three key requirements for achieving shared responsibility with consumers at the core. First, all participants will need better data, not just on the cost of a given procedure with a particular provider, but on overall outcomes. Second, consumers will need some mechanism for guiding their choices: Without a clear understanding of their medical issues, how can patients make informed decisions about treatment or therapy options? Finally, the alignment of consumer lifestyle choices with behaviors conducive to well-being will be critical, just as discouraging substance abuse will be conducive to good health. The consensus was that quality information and incentives would be crucial to realizing the transformative potential of consumerism in healthcare.

4 DECENTRALIZING APPROACHES TO PROBLEM SOLVING

If healthcare were to follow the trends observed in the most innovative industries, we would expect it to become more decentralized, both in the way it pursues new therapies and in the way it delivers patient care.

KEY INSIGHTS

PUSHING CARE DELIVERY OUT TO THE PATIENT

The delivery of care must be pushed out from traditional “experts” at centralized facilities to wider networks of providers and patients.

DECENTRALIZING THE INNOVATION PROCESS

As with care delivery, the process of innovation itself should be pushed out toward patients.

LEVERAGING DECENTRALIZATION WHILE CONTROLLING FRAGMENTATION

Leveraging the benefits of decentralization—without incurring the costs of fragmentation—will require broad and effective information sharing.

PUSHING CARE DELIVERY OUT TO THE PATIENT

A recurring view expressed during the conference was that healthcare delivery is becoming increasingly decentralized. More concretely, if progress in healthcare is to mirror the giant leaps we have experienced in other industries, we should expect to see technology and talent spread away from concentrated centers and toward a much broader, front-line network of patients and providers. To this point, more than 86 percent of the survey respondents believed that the use of non-physician personnel would help control the cost of care. That statistic is consistent with a number of trends discussed at the conference.

Clayton M. Christensen, the Kim B. Clark Professor of Business Administration at Harvard Business School, suggested an analogy to the information technology (IT) industry. In the digital world, the market has moved from a highly centralized platform based on mainframe computers, where problems were brought to the technology experts, to one that evolved through mini-computers to micro-computers where the technology—and its embedded expertise—was brought to the problems.

Similarly, Christensen proposed, hospitals have served as centralized repositories of specialized expertise. “Do we think that healthcare will become affordable by expecting the hospitals to be cheap?” he asked. “It just won’t happen.” He described the alternative as a decentralized model of care in which technology and expertise are pushed outward toward a broader network of caregivers

and patients. “We need to bring technology to personal physicians so that they can begin doing some of the things that today they have to refer to the specialists. The dynamics of decentralization will allow lower-cost caregivers to offer more sophisticated things. This is what will happen, and it needs to happen.”

The shift toward a broader healthcare team utilizing providers such as nurse practitioners and physician assistants can be found in new models of care delivery, such as that at MinuteClinic, a retail healthcare provider with more than 640 clinics in 25 states located within CVS pharmacies. Andrew J. Sussman, MD, President, MinuteClinic and Senior Vice President/Associate CMO, CVS Caremark, described an impressive program in which 2,000 nurse practitioners and physician assistants serve patients seven days a week in walk-in clinics with an average wait time of just 20 minutes.

“Now most of our care is for acute services: sore throat, bronchitis, ear infection,” said Sussman. “But increasingly we’re seeing patients with non-acute issues, such as monitoring of chronic diseases like diabetes, high cholesterol, and hypertension.” Patients receive printouts of their medical records, which also are faxed or electronically distributed to their primary care physicians—if they have one. “More than 50 percent,” Sussman said, “are effectively medically homeless. We give them lists of physicians in their areas who are taking new patients.”

MinuteClinic’s progress, Sussman suggested, was not just demonstrated by its 40 percent annual revenue growth rate, but also by its performance with respect to care quality and cost. “Patients at MinuteClinic did as well or better than those treated in traditional primary care settings,” said Sussman. Yet, cost was 40 to 80 percent lower than in other settings.

Sussman attributed the clinic’s success to the application of evidence-based guidelines, consistent throughout the country, and to the effective use of non-physician providers. Regarding the former, he noted, “It is absolutely essential that we practice on evidence-based guidelines where they exist for routine conditions.

“The dynamics of decentralization will allow lower-cost caregivers to offer more sophisticated things. This is what will happen, and it needs to happen.”

CLAYTON M. CHRISTENSEN, Kim B. Clark Professor of Business Administration, Harvard Business School

“Maybe the reason that people with your skills and backgrounds solve the interesting problems of the world is only because you’re first in line. It wasn’t because the questions got asked of everybody at once.”

ALPHEUS BINGHAM, Co-founder, InnoCentive

We can no longer afford a heterogeneity of practices when we all agree about what best practice represents.” On the latter issue, Sussman pressed for “the best and most meaningful use of nurse practitioners, physician assistants, pharmacists, and other healthcare providers and allowing them to practice at the top of their license.”

DECENTRALIZING THE INNOVATION PROCESS

Many conference participants suggested the decentralization of care delivery will and must occur in tandem with a decentralization of the innovative process more broadly. Like centralized providers, the traditional avenues of innovation may be too narrow, unnecessarily restricting the universe of possibilities. By opening doors for untapped talent, we might discover innovations that would otherwise be overlooked by the usual professionals.

Alpheus Bingham, Co-founder of InnoCentive—an online platform for connecting those with innovation problems with potential solvers—said that finding real innovation means tapping the expertise of “non-experts.” He cited the conference itself as an example: “There were 509 invitees, and I’m going to just guess that the total problem-solving power of the ones who weren’t invited to this conference is greater than the total solving power of those who were.” Bingham cited a collaboration among InnoCentive, Harvard University, and the Helmsley Foundation, which investigated potential hypotheses in diabetes treatment that “were not being adequately resourced.” When they looked beyond major university science initiatives to reach patients, doctors, and other caregivers, they found fruitful areas of diabetes research focused on prevention, care, and support of the patient.

Bingham suggested that “our identities as experts” have become an obstacle to broader innovation. “Maybe the reason that people with your skills and backgrounds solve the interesting problems of the world is only because you’re first in line. It wasn’t because the questions got asked of everybody at once.”

As with care delivery, the decentralization of the innovation process is increasingly relying on patients themselves. When organized into collaborative groups,

patients can be agents for accelerating the search for cures. Kathryn Giusti, Founder and CEO, Multiple Myeloma Research Foundation (MMRF), articulated a model rooted in her own personal experience. At age 37, she was diagnosed with multiple myeloma, “a 100 percent fatal blood cancer,” with a life expectancy of three years from diagnosis. Recognizing that hers was a “hugely neglected cancer,” she founded the MMRF. By combining fundraising with an open tissue bank and a unique depository of sequential patient data, the foundation was able to attract more scientists and stimulate new research.

“In the years since I was diagnosed, we have more than doubled the lifespan of our patients from three years to eight,” Giusti said. The crucial element, she suggested, was creating a patient community that developed “our own data systems and got everybody working together... the whole point of this is to make sure that we start to identify new targets and new biomarkers, with all the data being in the public domain for thousands of people to look at, instead of just having one or two or three academic centers. It’s much more about crowdsourcing and information gathering.”

LEVERAGING DECENTRALIZATION WHILE CONTROLLING FRAGMENTATION

Many participants raised concerns that decentralization would result in a scattering of the very data necessary to effectively coordinate care. If patients can receive care from a greater number of providers in a wider variety of settings, how will the subsequent clinical data be gathered and integrated?

To prevent fragmentation, successful implementation of new initiatives will require more sophisticated means of gathering and distributing information, regardless of where care is delivered. Panelists and participants agreed that for decentralized approaches to succeed, all parties— from patients and providers to payors and suppliers— would need access to data that measure the quality as well as the cost of care.

“In the years since I was diagnosed, we have more than doubled the lifespan of our patients from three years to eight. [We] got everybody working together... It’s much more about crowdsourcing and information gathering.”

KATHRYN GIUSTI, Founder and CEO, Multiple Myeloma Research Foundation

5 INTEGRATING NEW APPROACHES INTO ESTABLISHED ORGANIZATIONS

No matter how important new firms are to innovation in healthcare, much of the activity in the industry continues to flow through established firms—providers, insurers, and suppliers—that also must engage in innovation to increase value. A key question is how the benefits of new insights can be integrated into these established organizations.

KEY INSIGHTS

BRINGING NEW IDEAS INTO ESTABLISHED FIRMS

Established organizations must maintain the flexibility to acknowledge new approaches while respecting the importance of fulfilling their long-standing objectives.

LEVERAGING COMMUNITY RELATIONSHIPS

Established firms must leverage the benefit of strong relationships with customer “communities” as they innovate to improve value.

BECOMING MORE ACCOUNTABLE

Current entities must play a key role in increasing the accountability that all industry participants have for the health of the populations they serve.

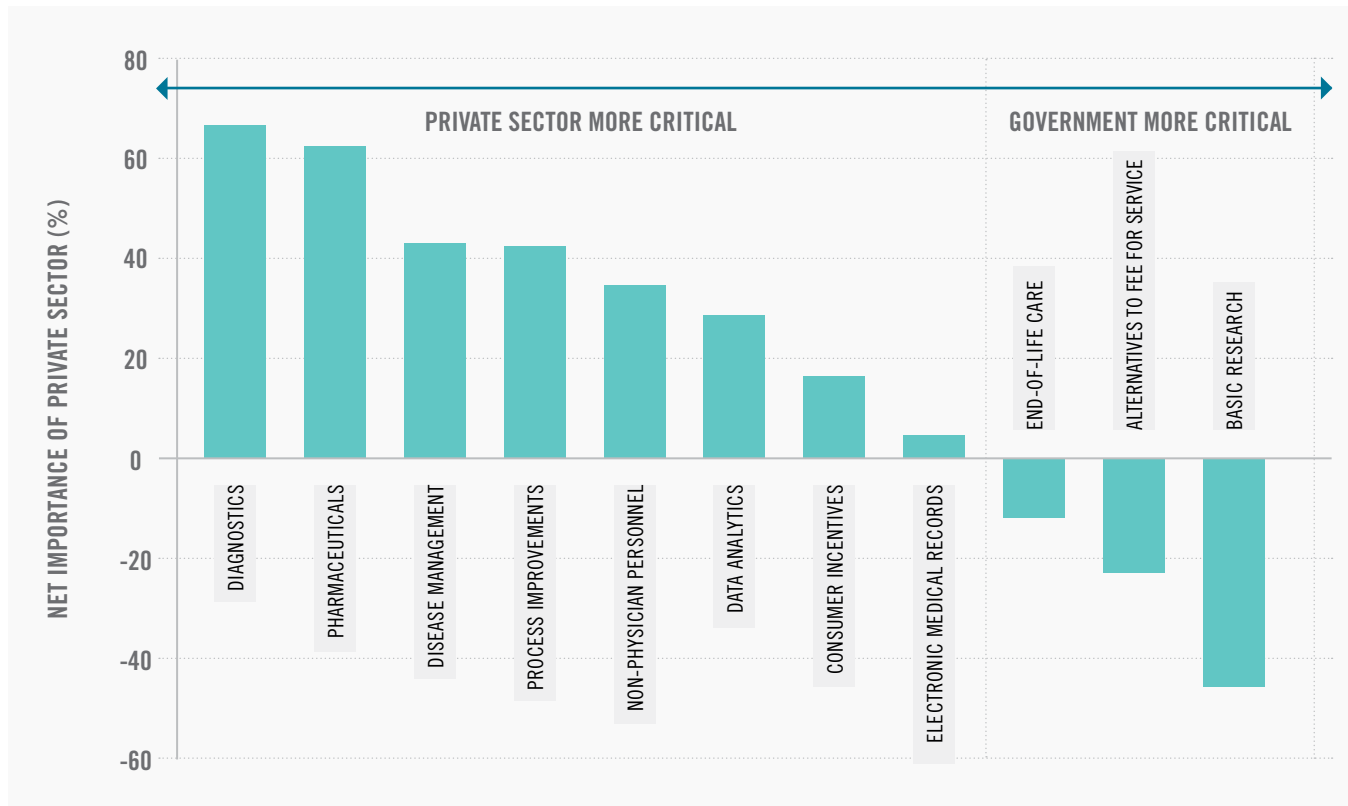
BRINGING NEW IDEAS INTO ESTABLISHED FIRMS

The survey noted that, despite the relative strength of new entrants with respect to innovation in many domains, established firms are expected to lead efforts at innovation in basic medical research, electronic medical records, and pharmaceuticals. Though responses varied with each particular area of innovation, no one source emerged as a clear champion; participants see a mixed innovation environment with two general predilections:

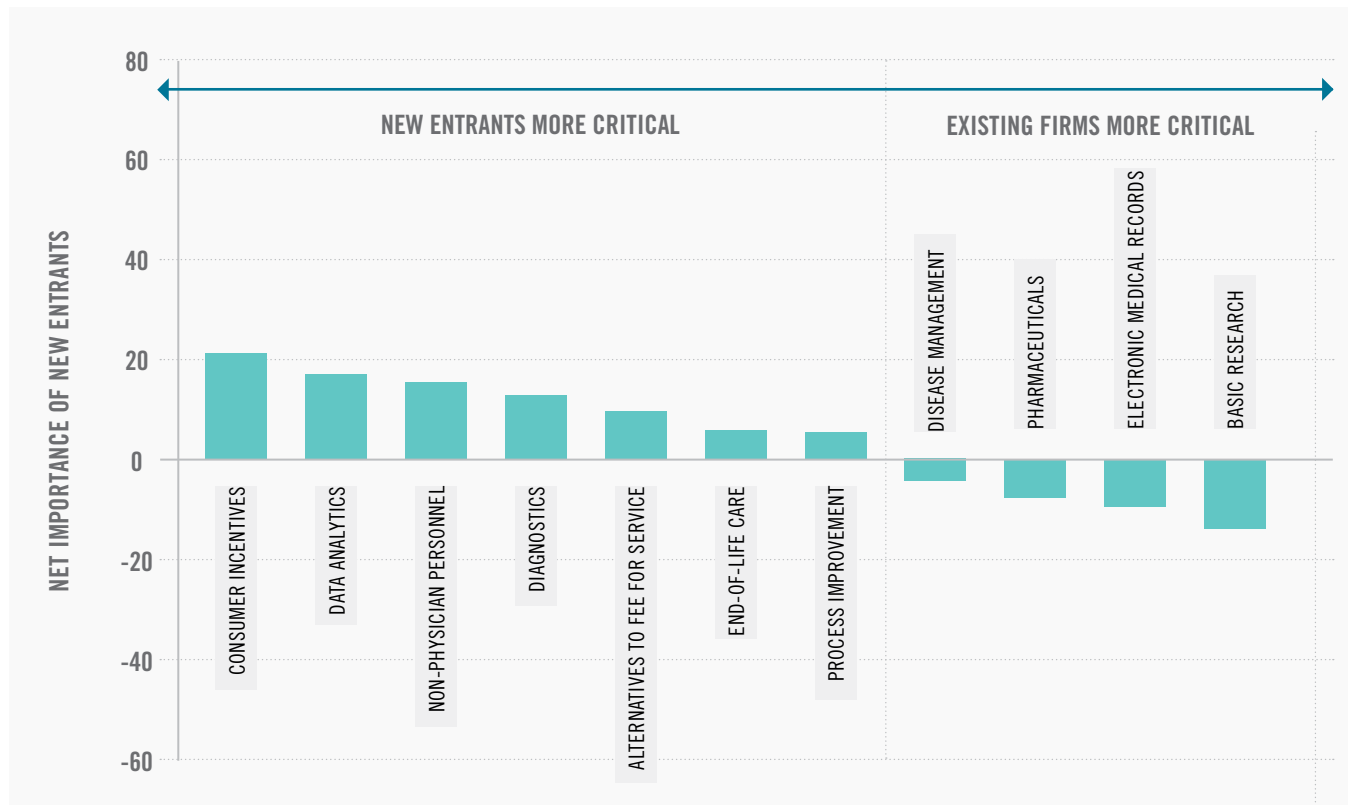
1. In general, they expressed greater confidence in the ability of the private sector, rather than the government, as a “critical” source of innovation; in eight of the eleven innovation areas, the private sector was expected to lead the way.
2. Speed-to-market has been the hallmark of disruptive technologies produced by startup companies. In seven of eleven innovation areas, survey participants believed new entrants would prove more critical than established firms.

These results highlight the fact that healthcare is characterized by numerous established organizations that cannot simply be bypassed by new entrants. Rather, we must find ways to improve established organizations by incorporating the learning that emerges from decentralized innovation. As William W. Chin, MD, Executive Dean for Research, Bertarelli Professor of Translational Medical Science and Professor of Medicine, Harvard Medical School, observed, “Product life cycles are getting shorter, but the need for new therapies remains. When our usual way of doing things costs too much and takes too long to make effective, safe therapies, we need to find alternative models for progress.”

MORE CRITICAL TO FOSTER INNOVATION: PRIVATE SECTOR OR GOVERNMENT?



MORE CRITICAL TO LEAD INNOVATION: NEW ENTRANTS OR EXISTING FIRMS?



NOTE: Axes show net positive (percentage positive minus percentage negative).

Reflecting on the limitations of current innovation models, Viehbacher noted that the old model of intensive internal research and development, focused on precise molecules, is not as effective as it used to be. “One of the things we are doing as a company is to get our scientists outside those walls and into the ecosystems” of research beyond the company’s own laboratories. The challenge is that these ecosystems of related ideas and innovations may be too broad in scope to be practically useful. He added, however, that “there are ways of filtering and synthesizing information coming from around the world, and you can direct that to ultimately finding solutions for patients.”

Mussallem highlighted the conflict between efficiency, which requires a narrowing of options, and discovery, which must open up more options. “We need some kind of harmony and a system that could do both,” he said. “It’s a challenge we struggle with broadly as a society.” Our largest delivery systems—complex networks of teaching hospitals, physician practices, and specialized care units—are not just “too big to fail”; they are too rich with talent and experience to be neglected. In his introduction to the Improving the Value of Care Delivery panel, Robert S. Huckman, Albert J. Weatherhead III Professor of Business Administration, Harvard Business School, turned the conversation from speculative potentials to present realities. “We still have to think a lot about the system we have,” he said. “How do we improve value within the existing system? What innovations are necessary so that our biggest institutional investments become, not dinosaurs, but dynamic contributors to progress?”

Gary L. Gottlieb, MD, President and CEO, Partners HealthCare, noted the unique challenges faced by tertiary teaching hospitals at the heart of many of the most advanced delivery networks. “As we focus on value in the context of shrinking resources, there is significant tension within the multifaceted mission and multiple purposes of our institutions. These institutions exist to provide extraordinary care,” Gottlieb noted, “but they also must use that care to inform science and develop science that improves and informs care. The traditional revenue streams that support these activities are intertwined,

and each of them is challenged in the public and private economies they face in the short- and long-run horizons.”

LEVERAGING COMMUNITY RELATIONSHIPS

While Gottlieb emphasized balancing commitments to care delivery and research in his approach to integration, Nancy M. Schlichting, CEO, Henry Ford Health System in Detroit, approached the issue from a different angle, proposing that community obligations are critical to the effectiveness of healthcare delivery. “Healthcare is not a level playing field,” she said, reflecting on the special challenges of coordinating care in an exceptionally difficult environment. “We are a safety net organization: Fifty percent of the population in Detroit is either on Medicaid or uninsured. Poverty levels are very high. Mental illness and substance abuse are very high. Twelve percent of Henry Ford Hospital’s revenues are uncompensated.”

Yet, Schlichting noted that community itself can be part of the solution. “We also have to have much better collaboration with community organizations,” she said. “In Detroit, food, housing, senior services, schools, and churches are also part of our patients’ lives and can be influential in the improvement of the care delivery that we provide.” In Henry Ford’s community context, non-medical solutions can be as important as or more critical than clinical care in improving overall population health. “We buy microwaves and we install ramps to make homes more accessible as much as we provide medications and other kinds of services,” Schlichting said.

BECOMING MORE ACCOUNTABLE

The future of many established organizations will hinge on their ability to absorb greater responsibility not only for providing specific products and services, such as procedures, devices, or pharmaceuticals, but also for maintaining the health of the populations they serve. As Reisman observed, “We have a completely new approach that is much more oriented for value. We’re concerned about the overall health of the population—not just the people we touch, not just the people we treat, but the entire population.”

To become more accountable, however, established organizations must become more agile and more capable of coordinating care across numerous providers and suppliers. Critical to their roles as coordinators, established firms must be key participants in identifying and refining the observable measures on which their performance will be evaluated. This process must occur in a manner that allows established firms to meet customer needs within the wider social, political, and economic contexts of their communities. “The common characteristics of all these things,” noted Schlichting, “are multidisciplinary ownership of the care experience over time, great information sharing across all dimensions of care, a focus on the patient and family, a true measurement of outcomes, and a strong focus on improvement.”

“How do we improve value within the existing system? What innovations are necessary so that our biggest institutional investments become, not dinosaurs, but dynamic contributors to progress?”

ROBERT S. HUCKMAN, Albert J. Weatherhead III Professor of Business Administration, Harvard Business School

**WHAT'S THE BIG IDEA?
AND DO WE REALLY NEED ONE?**

There's something undeniably alluring about the breakthrough innovation that suddenly changes everything. But if there is a common theme in the work of the Forum on Healthcare Innovation to date, it is the need for a collective shift of focus: In a world full of innovations we already struggle to absorb, perhaps what we need is not simply another "big idea," but rather better ways of distributing the smaller ideas—the knowledge we have now or anticipate acquiring in the near future.

In both business and medicine, the answers we find depend on the questions we ask; when we look at healthcare through this alternative perspective of distributed know-how, we see a new set of relevant questions:

Are we directing our energies at the right objectives, or basing our efforts on outdated assumptions?

Can process improvements help us achieve better health outcomes at lower costs?

Do we have the right data, tools, and incentives to make "consumerism" an effective model for healthcare delivery?

Will the decentralization trends that have had such a powerful impact in technology prove essential to healthcare reform?

How can our biggest and most-experienced institutions—the established organizations at the heart of much of current healthcare—incorporate new ideas into their systems and, in turn, develop those ideas further?

In the years ahead, the Forum on Healthcare Innovation will be examining these and similar inquiries that challenge us to reconsider who provides expertise, where it is distributed, and how it can be best applied to deliver the healthcare value we all want to achieve.