

McKinsey Healthcare Systems and Services Practice

# The post-reform health system

Meeting the challenges ahead



**The post-reform health system:  
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# Introduction

## Transforming provider performance in the post-reform era

The US healthcare industry is entering a period of significant turbulence and disruption. A number of underlying market forces—including shrinking group commercial risk pools, a slowing in the rate of growth in government reimbursement, and the ongoing shift from inpatient to outpatient care—are putting increasing pressure on providers to become more efficient than ever before.

In addition, competitive dynamics have engendered three “epic struggles” that could significantly reshape the US healthcare industry. These struggles will play out over the next 12 to 36 months; at present, their outcomes are largely unpredictable. The first of them is the battle for control of Medicare patients. Health insurers have been linking with primary care groups to reduce hospital utilization rates among these patients; at the same time, health systems have been launching their own plans to compete for these patients at the front end. The second struggle results from the accelerating trend toward bilateral vertical integration. Health systems and health insurers are deploying capital to acquire—and employ—large groups of physicians; health systems are also entering, or increasing their participation in, the health plan business (either explicitly or through more subtle channels, such as direct-to-employer contracting on a risk-bearing

basis). The third struggle arises from the emergence of narrow networks, which is creating a “winner-takes-all” mentality among the providers in many markets.

This combination of market and competitive forces is prompting many health system leaders to transform their organizations in fairly fundamental ways. These leaders must evaluate and select strategies, partnerships, and organizational designs that are likely to have an enduring impact on their organizations. Among the questions they are asking themselves: how big should my system be? What strategies should I use with physicians? When should I build capabilities, and when should I buy them? How should I play in Medicare? How much risk should I accept? How should I play in population health management—and how fast? How should I price for the individual exchange population?


Time to make these decisions is running out. Despite current uncertainties, health system leaders must take quick, decisive action now, before reimbursement pressures intensify in 2014 and utilization pressures become more acute. If they want to avoid strategic difficulty, health system leaders should adopt a set of sound “first principles” to guide their strategic actions. These principles should include the following ideas.

**Saumya  
Sutaria, MD**



- No matter what happens, you need to be more efficient than before. This is a dominant strategy.
- Growth and taking market share require a willingness to explore different relationships with others in the healthcare value chain—but physician alignment is the key to all of these relationships.
- Old strategies that target only patients who have commercial insurance will not work any longer. In each market, you must have deliberate strategies for the commercial, individual, and government segments.
- Complex functions tend to have natural owners, and those owners may not always include your organization. (You are not likely to be the “best in breed” at everything.) Regardless of your system’s size, you may sometimes need to find strategic partners that can help you acquire needed capabilities. You must then make sure that those partners can be integrated successfully into your organization.
- In the future, competitive advantage will come from execution and functional superiority. Just getting bigger will not make you better—or more competitive.

The articles in this publication examine these principles in greater detail; they also contain a wealth of other advice for health system leaders who want to succeed in the post-reform era. The articles cover a range of both operational and strategic topics. Some, for example, describe how health system leaders can increase physician alignment, transform their clinical operations, strengthen nursing care delivery, and optimize their revenue cycle management. Others discuss how those leaders can capture the benefits of scale without destroying value, understand the impact of coverage shifts on hospital utilization, and develop robust pricing strategies when participating in narrow network exchange offerings. In addition, one article outlines the transformational imperatives specific to academic medical centers in the post-reform era.

If you would like more information about any of these topics, please contact one of the article’s authors directly or one of the McKinsey partners you work with regularly. He or she will be happy to connect you to the right experts. 

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# Engaging physicians to transform operational and clinical performance

**Health systems (and health plans) that are serious about transforming themselves must harness the energy of their physicians. To do so, they must develop a true ability to engage physicians effectively.**

A confluence of events is advancing a “total cost of care” savings agenda in the US healthcare industry. Although the rate of growth in our healthcare spending has slowed in recent years, expenditures continue to rise. The United States now devotes almost 18 percent of its GDP—more than one in every six dollars earned—to healthcare.

A step change in operational and clinical performance across the healthcare value chain is needed. This transformation requires robust leadership, and much of that leadership must come from clinicians, especially physicians. Not only do physicians make many of the frontline decisions that determine the quality and efficiency of care, but they also have the technical knowledge to help make sound strategic choices about longer-term patterns of service delivery. Without physician engagement, even near-perfect execution on operational efficiency and utilization management will be insufficient to drive the necessary level of change and will never truly be sustainable. Thus, the active participation of physicians throughout the healthcare value chain, from individual practices to the national level, is mandatory for any provider or payor that wants to eliminate unnecessary costs or capture value from innovative partnerships (e.g., by reducing clinical variability and strengthening care coordination across settings).

To achieve a high level of engagement, both providers and payors must understand physicians’ attitudes about healthcare delivery and how those attitudes compare with their own goals and perspectives. To this end, McKinsey surveyed more than 1,400 US physicians from a range of geographies and specialties (including primary care, internal medicine subspecialties, and surgery) about a number of topics, such as readiness for reform, waste and inefficiency in healthcare, employment and alignment models, and financial risk sharing. We also conducted follow-up interviews with a subset of these physicians to understand underlying drivers and mind-sets. The survey builds on insights we developed leading large-scale clinical operations programs at more than 100 US hospitals; during those programs, we were able to find effective ways of engaging physicians to achieve sustainable improvements in the cost and quality of clinical care.<sup>1</sup>

The survey enabled us to identify four key barriers to strong physician engagement in performance transformation: First, many physicians say that they feel overwhelmed and ill-equipped to implement change, and they appear to have a limited understanding of how their behavior contributes to healthcare waste and inefficiency. Second, too many providers and payors are focusing only on employment as a way to drive physician

**Pooja Kumar, MD; Anna Sherwood; and Saumya Sutaria, MD**

<sup>1</sup>For more information about this type of program, see the accompanying article, “Clinical operations excellence: unlocking the potential within each hospital,” on p. 17.



*Of course I care about costs. And I know I need to be careful about where I send my patients. I don't know a single doctor who isn't trying to figure out how to be more efficient, or how to be better coordinated for our patients. I guess I'm just not sure exactly what it is that I would change about my day-to-day work to do that.*

—Primary care physician

alignment, instead of taking a holistic approach that combines multiple alignment levers. Third, too often these organizations over-weight the importance of compensation as a way to influence physician behaviors. Fourth, physicians' poor understanding of risk-based payment models, in combination with their risk aversion, is limiting the penetration of these models and their potential ability to drive higher-value care.

Health systems and health plans that want to deliver more cost-effective care must find ways to overcome these barriers. Both the survey results and our experience with clinical transformation programs suggest that many physicians are not only willing to change, but also excited at the possibility of leading transformation efforts. Providers and payors must therefore develop a true capability in physician engagement—something that is much broader than, and does not necessarily have to include, employment. They must also incorporate a wide range of levers in their

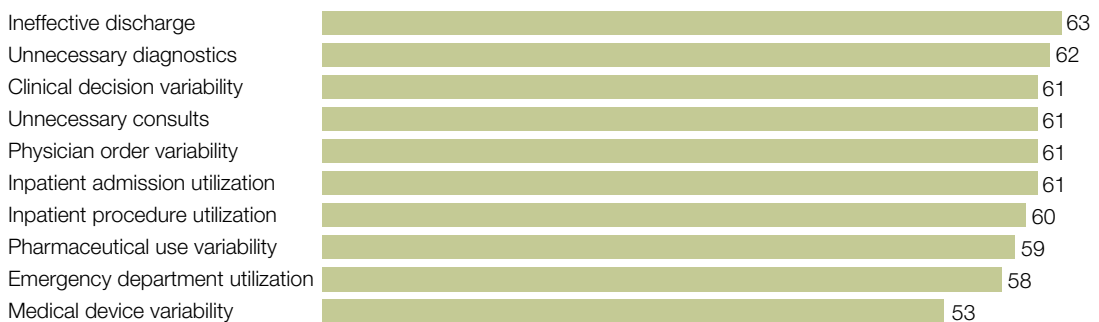
engagement strategies so that they can tailor their efforts to different types of physicians. In addition, providers and payors must think carefully about how they use risk-based models (a critical tool for aligning physician incentives with cost-reducing objectives) to encourage behavioral change.

### Physician attitudes: A broad view

Our survey revealed a fundamental disconnect between what most physicians think they should be doing in light of health reform and what they have already started to do (voluntarily or in concert with a health system or health plan). For example, more than 70 percent of physicians surveyed believe that, within the next three years, they will need to make significant changes to their clinical practices. Seventy-two percent of the respondents said that, within that time frame, they are likely to make greater use of evidence-based medicine (EBM); 74 percent predicted that their tracking

#### EXHIBIT 1 Physicians express a strong willingness to change to remove waste from the health system

% of respondents very willing or completely willing to change their practices to affect the drivers of waste and inefficiency, by type of waste<sup>1</sup>



<sup>1</sup>How willing are you to make changes in your own decisions and actions or collaborate to change other physicians' practices to affect these potential factors of healthcare waste and inefficiency? (n = 1,194–1,372, depending on factors, blanks removed).

Source: 2011 McKinsey Physician Survey



and reporting of quality and outcomes metrics would increase; and 75 percent thought that their referral practices for diagnostics, specialists, and admissions would change. In addition, 77 percent of the respondents said that they expected to be involved in more aggressive cost-saving efforts, and 74 percent thought that they were likely to change the insurance types accepted by their practices.

Furthermore, 84 percent of the physicians surveyed said they are completely or very willing to make changes in their own decisions and actions, or to collaborate to change other physicians' practices, if doing so would affect at least one of ten potential sources of health-care waste and inefficiency. These sources of waste include avoidable utilization, clinical decision variability, and ineffective discharge practices (Exhibit 1).<sup>2</sup>

Despite their willingness to change and their expectation that change was imminent, few of the physicians surveyed said that they had

already made substantive modifications to their practices to prepare for the post-reform environment. Fewer than 10 percent of the respondents reported having altered their referral patterns or the insurance types they accepted. Only 17 percent had initiated cost-saving initiatives, and only about 20 percent had increased their use of EBM or their tracking of quality metrics (Exhibit 2).

Why has so little been done, if physicians understand the need to change and express a high degree of willingness to do so? Part of the answer appears to lie within physicians themselves, but the other part seems to lie with health systems and health plans—they are not engaging physicians as effectively as they could. The following four factors appear to be the key barriers to clinically led transformation.

**Physicians' attitudes and capabilities**

Our survey showed that there is significant room to improve physicians' perception of their own

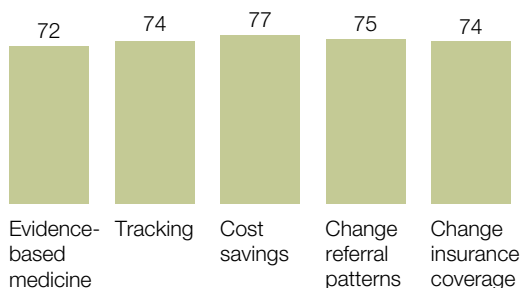


*No one teaches you about cost containment; you have to figure that out for yourself when they start complaining that you are ordering too many tests or admitting too many patients. I actually think a lot of doctors would be shocked at how much it costs for them to treat a patient. We don't even look at the numbers—we're not responsible for them. It's very easy for me to order a bunch of tests if I have no idea what they cost.*  
—Orthopedic surgeon

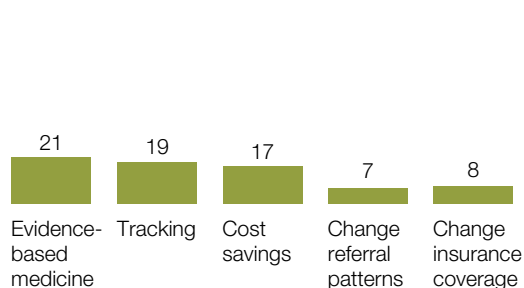
**EXHIBIT 2 Although physicians recognize that change is coming, very few have taken steps yet to prepare for reform**

% of respondents who said that

They are somewhat or very likely to change<sup>1</sup>



They have already taken these measures<sup>2</sup>



<sup>1</sup>How will your practice respond to the impact of healthcare reform? Please indicate your likelihood to prepare for healthcare reform in each of the following ways within the next three years (n = 1,402).

Source: 2011 McKinsey Physician Survey

<sup>2</sup>Follow-up interviews using controlled questioning indicated that social desirability did not appear to strongly influence the pattern of responses we observed. In other words, the physicians were not simply saying they were willing to change because they believed that that was the socially acceptable response.



*For me to even consider employment, I would need to still keep some sort of control over how I spend my time, the way I see patients, how many patients I see, how many tests I order. I don't know if this would be part of the conversation or if they would even want that. That's definitely what I would want.*

—Primary care physician

ability to control waste and inefficiency. For example, less than one-third of the respondents thought they had substantial control over “inappropriate venue” as a source of waste (Exhibit 3).<sup>3</sup> Another third of the respondents felt they had only limited control over this factor. The physicians’ belief in their ability to influence other sources of waste was somewhat stronger. Nevertheless, 25 percent of the respondents thought that they had no control over clinical variability (e.g., in physician orders and pharmaceutical/medical device use), and 18 percent felt the same about avoidable utilization (such as unnecessary diagnostics and consultations).

In follow-up interviews with physicians, we explored the underlying drivers for this perceived lack of control over the sources of waste. Some physicians said that they had limited insight into how their day-to-day clinical decisions might translate into inefficiencies in care delivery, and that they had not been trained to understand the financial conse-

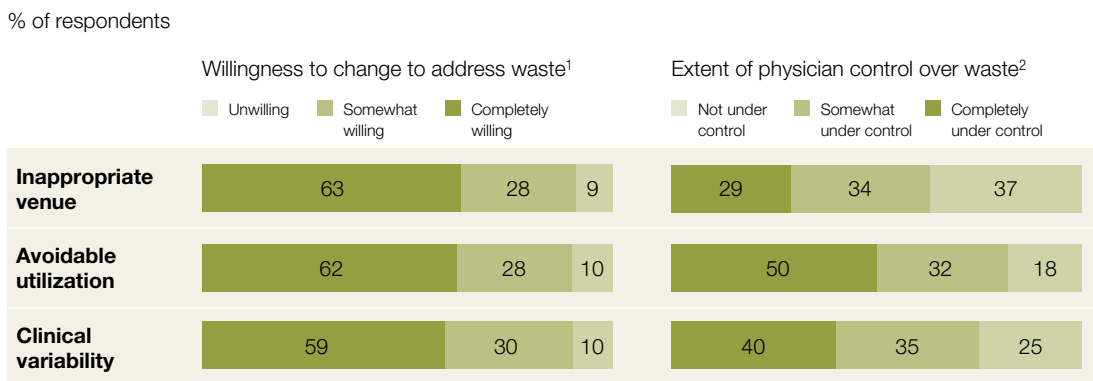
quences of their decisions for patients or the health system overall. Other physicians reported feeling ill-equipped to implement the changes they know they need to make, which often require system-level modifications.

### Employment-centric approaches to physician alignment

In our experience, many health systems have used employment as their main method for increasing physician alignment, and the physicians we surveyed expect this trend to accelerate. Among the respondents, 56 percent of those not already employed by hospitals believe that they are likely to be employed or formally aligned with a hospital (for example, through a foundation model<sup>4</sup> or other mechanism) within the next three years.

However, many physicians do not view employment as their preferred way of working. In fact, 47 percent of the respondents currently employed by hospitals said that they would rather be in private practice. Physician preference for other

**EXHIBIT 3 Despite their stated willingness to change, physicians do not perceive waste as being largely under their control**



<sup>3</sup>The examples we gave of inappropriate venues included avoidable emergency room utilization and unnecessary inpatient admissions.

<sup>4</sup>A foundation model is a corporation, usually not-for-profit, that is either a subsidiary of a hospital or an affiliate with a common parent organization. The foundation owns and operates practices, including facilities, equipment, and supplies. The foundation employs all non-physician personnel and contracts with a physician-owned entity to provide medical services for the practice.

<sup>1</sup>What degree of control do you feel physicians as a whole have over the following factors which may contribute to healthcare waste and inefficiency? (n = 1,402).

<sup>2</sup>How willing are you to make changes in your own decisions and actions or collaborate to change other physicians’ practices to affect these potential factors of healthcare waste and inefficiency? (n = 1,402).

Source: 2011 McKinsey Physician Survey

models appears to be driven largely by their perception that compensation, clinical autonomy, and, in particular, personal autonomy are higher in a private-practice setting than in a hospital or health insurance company (Exhibit 4).

An additional problem for health systems and health plans is that physician employment does not automatically translate into engaged physicians who are aligned with the clinical and business model success of their affiliated organization. Our survey showed, for example, that employed physicians are significantly less willing to change their practices to reduce medical device use variability than are non-employed physicians in multispecialty, large group practices. This difference was particularly marked among cardiologists, a core target for physician group acquisitions in recent years: in our survey, only 63 percent of hospital-employed cardiologists expressed willingness to change medical device use, compared with 78 percent of cardiologists

in multispecialty practices. Thus, there appears to be a fundamental disconnect between the goals of a health system or plan and its often singular pursuit of employment.

**Excessive focus on compensation**

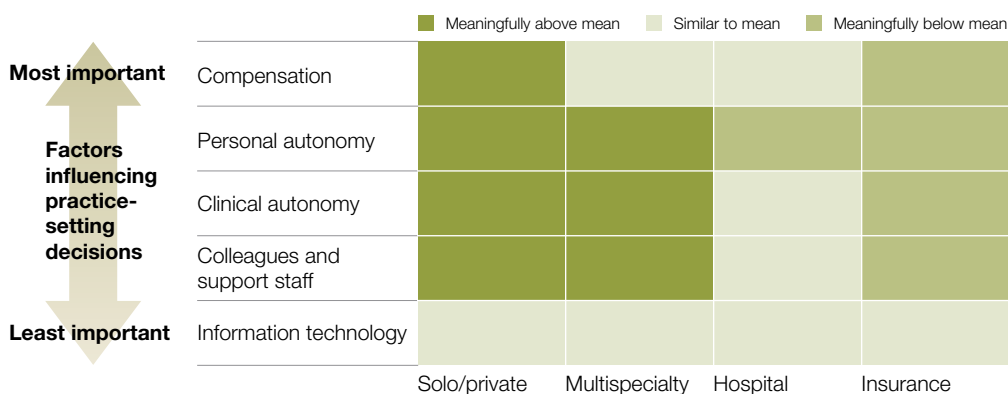
In addition to physician employment, the other element most health systems and health plans have focused on heavily to increase physician engagement is compensation. Although most physicians do rank compensation first among the factors that would influence their behavior, they do not believe it outweighs everything else. In our survey, we asked respondents to allocate 100 points among several factors that might convince them to change their practice or collaborate with others to reduce waste and inefficiency. Compensation received an aggregate score of only 29 (Exhibit 5). In other words, training and capability building, constructive feedback, effective communication, and strong role modeling by physician leaders were jointly allocated more than 70 percent of the points.



*Financial incentives aren't necessarily number one and personal choice, number two. I would be willing to take less money to have more choice and more time to spend with my family.*  
—Orthopedic surgeon

**EXHIBIT 4 Physicians expect that they will face difficult personal and professional trade-offs when considering employment**

Physician perception of practice settings<sup>1,2</sup>



<sup>1</sup>Which of the following best describes your current practice/employment? (non-hospital-employed only: n = 1,012)

<sup>2</sup>Top box summary: How much would you agree that the following dimension describes each practice?

Source: 2011 McKinsey Physician Survey



*Risk sharing is the way to change the way we practice. We need to be compensated for doing the right thing, not just for seeing more patients. You have to link who is making the decisions with who has to pay. Right now, the insurance companies and hospitals are paying, but the doctors are making the decisions.*  
 —Cardiologist

**Limited penetration of risk-based payment models**

Our survey suggests that risk-based payment models such as bundled payments can help drive changes in physician behavior. For

example, the respondents who said that they are already participating in risk-based models were twice as likely to report having increased their focus on EBM, performance tracking, and cost-reducing interventions than were the

**EXHIBIT 5 Although compensation is the most important factor in deciding where to practice, other levers account for >70% of what influences physicians**

**Importance of factors when making practice employment decisions<sup>1</sup>**

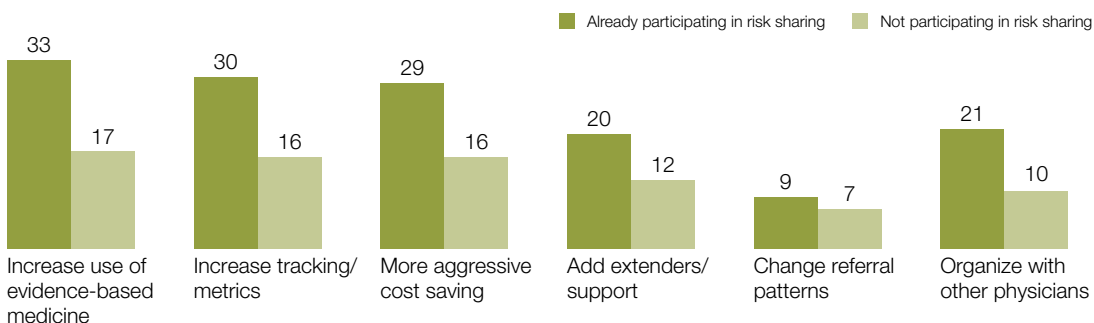
Relative importance, out of 100 points

	100% = 1,402	100% = 390	100% = 1,012
IT	11	12	11
Colleagues	17	20	16
Clinical autonomy	22	21	22
Personal autonomy	24	23	24
Compensation	26	24	27
	All physicians	Hospital-employed	Non-hospital-employed

<sup>1</sup>When making decisions on what kind of practice to be in (e.g., private practice vs. employment by a hospital or insurer), how important are each of the following elements to you? (n = 1,402, hospital-employed n = 390, non-hospital-employed n = 1,012).  
 Source: 2011 McKinsey Physician Survey

**EXHIBIT 6 Physicians already participating in bundled payments or risk sharing arrangements are taking more steps to prepare for reform**

% of respondents (excluding hospital-employed) already preparing for health reform, by preparation method<sup>1,2</sup>



<sup>1</sup>Given your level of interest, capabilities, and trends in your market, how likely are you to participate in each of these payment types in the next three years? (at risk n = 181, not at risk n = 831).

<sup>2</sup>How will your practice respond to the impact of healthcare reform? (n = 1,012).

Source: 2011 McKinsey Physician Survey

physicians not participating in such models (Exhibit 6). However, the penetration of risk-based payment models has been limited to date. Only 35 percent of the respondents who reported having been approached to partner on risk-based models said that the approaches had resulted in an agreement. The low success rate appears to be due in part to risk aversion—the proportion of approaches that resulted in an agreement drops to less than 30 percent when the physicians were exposed to downside risk.

Our survey also showed that physicians are less likely to participate in new payment models when those models are poorly understood (even if they are designed to accomplish the same goal as more conventional payment models). For example, 61 percent of the respondents said that they would be highly unlikely to participate in a novel two-sided risk model that imposes both upside and downside risk. In comparison, only 47 percent of respondents said that they would be highly

unlikely to participate in a global capitation model, even though that model presented greater risk to providers than the novel two-sided model did (Exhibit 7).

Furthermore, many current attempts to partner with physicians using risk-based payment models may be poorly targeted. In our survey, only 23 percent of the physicians whose willingness to change was above the median reported having been approached to partner on risk-based payment models, compared with 34 percent of those with below-median willingness to change. This difference was true for both upside-only and two-sided risk models.

### Variability across regions and specialties

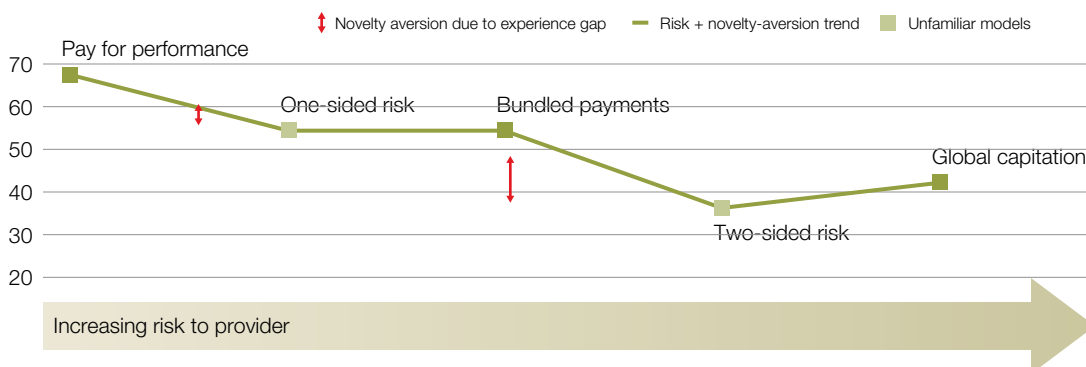
When we broke the survey data down by state, specialty, and practice setting, interesting nuances emerged. This is not surprising—physicians vary widely in their attitudes



*Why would I not want to do risk sharing?  
To me it's just too confusing...30 pages of graphs and instructions and points I would lose if my patient gets admitted... I have no idea what this all means for me. If I understood it, I would be able to take a chance to do it. The problem is the unknown.*  
—Primary care physician

## EXHIBIT 7 After adjusting for risk, physicians are more averse to novel models than more familiar ones

% of respondents likely to participate in payment models within three years, by awareness of models<sup>1</sup>



<sup>1</sup>Given your level of interest, capabilities, and trends in your market, how likely are you to participate in each of these payment types in the next three years? (n = 1,402).

Source: 2011 McKinsey Physician Survey

about reform, risk, and waste reduction; in the key factors that influence their willingness to change; and in what they look for in partnerships. For example, Michigan physicians were more likely to say that they desired hospital employment than were their counterparts in other parts of the country (20 percent, versus an overall US average of 13 percent). We found similar significant geographic differences throughout the country (Exhibit 8).

There was also considerable variability among specialties. For example, cardiologists expressed more willingness to change than other specialists did, and they also had the highest level of perceived control over sources of waste. However, we found marked differences between employed and nonemployed cardiologists (Exhibit 9). Hospital-employed cardiologists identified physician leaders as the most effective way to change physician

practices, particularly around medical device use. In contrast, cardiologists who were not hospital employees thought that compensation is the most effective lever.

## Strategic implications

Health systems and health plans that want to drive cost-effective care delivery must find ways to overcome the four barriers discussed above. Our survey results, follow-up interviews with physicians, and experience leading large-scale clinical transformation programs suggest that three approaches are needed to achieve that goal.

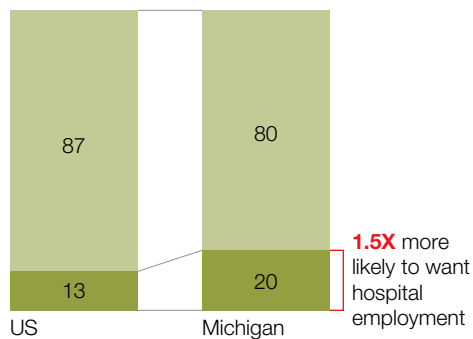
### Build a true capability in physician engagement

Health systems and health plans should develop a true capability in physician engagement, which is much broader than, and does not

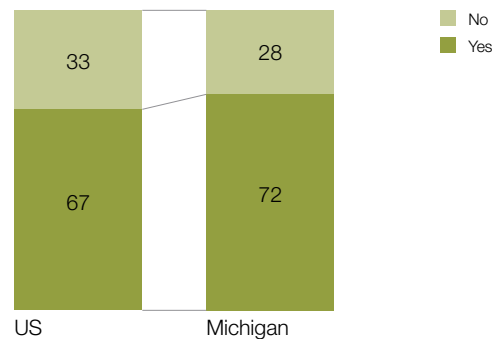
## EXHIBIT 8 Michigan physicians are significantly more likely to desire hospital employment than other US physicians

### Desired and expected employment structure among physicians not currently hospital employees

% of respondents who said they want to be employed by a hospital<sup>1</sup>



% of respondents who said they think they'll be employed by a hospital in three years<sup>2</sup>



<sup>1</sup>Summary of top rank: Regardless of what you've been doing, consider what you would most want to do and rank the following practice choices from 1 to 4, with 1 being the most appealing for you (US, n = 1,012; MI, n = 142).

<sup>2</sup>How will your practice respond to the impact of healthcare reform? (Become employed by or formally aligned [e.g., through a medical foundation] with a hospital) (US, n = 1,012; MI, n = 142).

Source: 2011 McKinsey Physician Survey

necessarily include, employment. Employing physicians is very costly, often fails to deliver the intended value, and is not crucial for achieving physician engagement. In our experience, *how* you engage physicians is more important in driving behavioral change than the contractual mechanism you put in place.

Extensive research in behavioral science suggests that four areas matter most when it comes to altering a person’s behavior.<sup>5,6</sup> These areas hold as true for physicians as for everyone else.

First, people will alter their behavior only if they understand the point of the change and agree with it (at least enough to give it a try). Physicians, for example, are highly unlikely to modify their behavior unless they understand how the changes will improve the quality or cost efficiency of care. Thus,

a health system or health plan that wants to embark on a change program must develop a compelling explanation, grounded in clinical evidence, for what the proposed changes will accomplish.

Second, physicians, like other people, are more likely to change if they see people they respect adopt the new behaviors. Our survey results confirm the importance of having physician leaders who can “role model” the desired new behavior and play an active role in any change program. The successes these leaders achieve should be publicized so that their colleagues can appreciate the impact the program is producing.

Third, physicians must have the skills needed to do what is required. Both our experience and the follow-up interviews we conducted indicate that many physicians have only limited



*If you make physicians leaders, there’s a lot more trust from their peers than in some executive who doesn’t have a clue what he’s talking about. You can change practices with effective leadership and communication, but that has to come from the doctors themselves.*

—Vascular surgeon

**EXHIBIT 9 Development of physician leaders will be especially important for influencing some groups, such as employed cardiologists**

**Best way to change willing physicians’ own practices or collaborate to change other physicians’ practices to affect medical device use variability<sup>1,2</sup>**

Relative importance out of 100 points

	100% = 27	100% = 94	100% = 390	100% = 717
Compensation	21	29	26	28
Training and resources	19	20	22	22
Physician leaders	26	20	19	18
Feedback	18	17	17	16
Communication	15	14	16	15
	Employed cardiologists	All cardiologists	All employed physicians	All physicians

<sup>1</sup>How willing are you to make changes in your own decisions and actions or collaborate to change other physicians’ practices to affect these potential factors of healthcare waste and inefficiency?

<sup>2</sup>What is the best way to get physicians to change their decisions and actions to decrease potential healthcare waste and inefficiency?

Source: 2011 McKinsey Physician Survey

<sup>5</sup>Fountain T, Wilson F, Richardson B. How to change clinical behavior in primary care. *Health International*. December 2012;6-15.

<sup>6</sup>Lawson E, Price C. The psychology of change management. *McKinsey Quarterly*. June 2003;31-41.

## About McKinsey's Physician Survey

Between June and August 2011, McKinsey conducted an online survey of more than 1,400 physicians across the United States about a number of topics, including readiness for reform, waste and inefficiency in healthcare, employment and alignment models, and financial risk sharing. In addition, we conducted follow-up interviews with a subset of these physicians to add richness to the study results and to gain greater understanding of physicians' mind-sets and the underlying factors driving their behavior.

The survey questions were developed based on insights we had gained while leading large-scale clinical operations programs in more than 100 hospitals across the country. The areas covered by the questions are listed below.

Roughly half the respondents were a representative sampling of physicians from throughout the United States. However, to better understand the differences among physicians, we over-sampled an additional 700 physicians in three regions: Dallas, Michigan (with a focus on Detroit and Lansing), and San Francisco/Sacramento.

The respondents included a wide range of specialties, including primary care (family practice, general inter-

nal medicine, and primary care-focused obstetrics and gynecology), medical specialties (hospitalists, cardiology, immunology, dermatology, endocrinology, gastroenterology, hematology/oncology, infectious disease, nephrology, neurology, pulmonary, radiation oncology, and rheumatology), and surgical specialties (general surgery, ophthalmology, orthopedic, neurological, otolaryngology, plastic, thoracic, urology, and vascular). However, we over-sampled in six specialties: family practice, internal medicine, hospitalists, cardiology, general surgery, and orthopedic surgery.

The survey consisted of 53 multiple choice or ranking questions, which covered five key areas:

### 1. Physician characteristics

- Demographic information: gender, region (zip-code level), years in practice following training
- Specialty (primary care, medical specialty, surgical specialty)
- Current practice setting (e.g., solo, two-person, multispecialty, hospital, insurance company)
- Ownership structure (e.g., sole proprietor, partner, employee, contract)
- Distribution of time by activity (e.g., patient care, teaching, administration) and care setting (hospital, clinic, ambulatory surgery center, etc.)

insight into how their day-to-day clinical decisions can translate into inefficiency in care delivery. Fortunately, most physicians recognize that they need help in this area—in our survey, training and resources ranked second only to compensation as a factor that would influence them to change their behavior. This provides an opportunity for health plans and health systems: these organizations could make selective, strategic

investments in capability-building programs to help physicians better understand the impact of their clinical decisions and give them the skills they need to ensure evidence-based clinical decision making.

Fourth, for a change program to take hold and be sustainable, it is crucial that surrounding structures reinforce the alterations in clinical behavior physicians are being asked to make.



## 2. Impact of reform

- Expected impact of reform (e.g., patient volumes, reimbursement, costs, quality, IT requirements)
- Current and planned actions to prepare for reform (e.g., use evidence-based medicine, track quality, reduce costs)
- Compensation outlook
- Current patient insurance coverage and predictions for how it will change
- Expected patient response to narrow/tiered networks

## 3. Attitude toward employment

- Satisfaction with current practice and most rewarding/frustrating aspects
- Ideal practice setting
- Elements important for making practice-setting decisions (e.g., compensation, autonomy, IT, colleagues)
- Alignment of each practice setting with elements important to satisfaction
- Benefits/pitfalls of being employed by an insurance company or hospital
- Approaches to changes in employment in last 12 months:
  - How often approached and by whom
  - Reasons for accepting/denying the formal agreement

## 4. Attitude toward waste and performance

- Importance of different sources of waste (e.g., avoidable utilization, inappropriate venue, practice variability)
- Perceived level of control and willingness to change factors influencing waste (e.g., unnecessary consults, unnecessary diagnostics, emergency department utilization, medical device variability)
- Ways to influence change (e.g., compensation, education, feedback)


## 5. Perceptions of risk-based and innovative models

- Familiarity with and participation in non-fee-for-service payment models (e.g., pay for performance, bundled payments, capitation, one-sided risk sharing, two-sided risk sharing)
- Approaches to changes in payment model in last 12 months:
  - How often approached and by whom
  - Reasons for accepting/denying the change to payment mechanism
- Likelihood of changing payment model in the next three years

These structures must, of course, include compensation, which most of the physicians surveyed ranked first among the factors that would influence their behavior. However, the reinforcing structures should also include information systems (such as tools to support evidence-based clinical decision making and performance transparency), aligned incentives (to encourage physicians to modify their behavior, lead

change programs, and engage other frontline clinicians more broadly), and governance arrangements (e.g., performance management frameworks).

In our experience, a change program achieves the best results when multiple levers are used to address all four of these areas simultaneously; the absence of any one of them decreases the chances of success.



*If I had to design some kind of program, it would have to start with the familiar. So start with pay for performance, giving an incentive if you reach certain parameters—that's the easiest way to start. And then you can slowly start to get doctors more comfortable with more complex, risky models.*

—*Internist*

### **Tailor levers to different types of physicians**

Having a wide array of levers to engage physicians is crucial for a second reason: As our survey has demonstrated, individual physicians vary widely in their willingness to change, in their attitude toward employment and risk, and in what can motivate them to alter their clinical practices. Some of these variations reflect differences in geography, specialty, and practice setting—differences that should be recognized and acted upon. Health systems and health plans should take steps to understand the differences among the physicians they work with and then target the groups they want to address first. They can then tailor the levers they use with each group to increase the probability of achieving alignment.

### **Think strategically about how to apply risk**

Finally, health systems and health plans should think strategically about how to apply risk. As our survey showed, physicians are far less likely to participate in risk-based payment models they do not understand or feel ill-equipped to manage. Thus, before a provider or payor attempts to roll out such a program broadly, it should first give physicians the training and tools they need to understand value-based models. It should then think about how it can move physicians along the risk continuum (perhaps by starting with upside-only models and then transitioning to risk-based models).

In addition, health systems and health plans should leverage their insights into physicians' attitudes so that, when they begin to roll out new risk models, they can target the physicians with a high degree of willingness

to change. This approach is likely to increase the number of formal agreements they reach, enable them to create successful change stories, and start to build momentum around the move toward value-based care delivery.



Health systems and health plans still have a long road to travel before they can effectively engage physicians to drive operational and clinical transformation and deliver the highest-value care. But the journey is essential. Although US physicians recognize the need to change and express a high willingness to do so, they do not have the capabilities today to make the required changes. Health systems and health plans have the opportunity to support and guide physicians in preparing for the future. To take advantage of this opportunity, they must understand how physicians view the world and what motivates their behavior. ○

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Displayed quotations are comments from survey respondents.

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# Clinical operations excellence: Unlocking a hospital's true potential

A multiprong approach that puts physicians—and clinical care—at the heart of performance transformation efforts can help hospitals and health systems deliver more financially sustainable, patient-oriented, and physician-friendly care.

Growing financial pressures are forcing most US hospitals to lower their total cost of care—especially for the most complicated and expensive Medicare and Medicaid patients—while simultaneously decreasing their reliance on cross-subsidization from commercially insured patients. The reasons are well-known: employers, payors, and consumers are demanding greater cost controls. Growth in Medicare and Medicaid reimbursement rates has slowed. Further pressure is being placed on hospital economics by the shift in payor mix from commercially insured patients toward more government-sponsored patients, as well as by the ongoing migration of procedures from the inpatient to the outpatient setting. In addition, there is an increasing move toward the use of innovative, value-based payment models as a way to incentivize reductions in the total cost of care. Most providers have come to accept that these trends are not transient but rather have created a “new normal.”

As a result, many hospitals (and the health systems they are often part of) have undertaken operational improvement programs, such as lean transformations, Six Sigma projects, and rapid improvement events. Although some of these programs have helped the hospitals reduce costs, few have achieved substantial or long-term impact—in large part because most of them focused

on nonclinical operations and did not seek the active involvement of physicians. Yet clinical care accounts for a significant portion of operational expenditures at most hospitals. Without significant changes to how clinical care is delivered, hospitals will not be able to achieve the 5- to 10-percent reduction in operational costs that most experts believe is needed to cope with today's economic challenges.

Involving physicians in operational performance improvement efforts is therefore crucial. A provider that wants to lower its operational costs by 5 to 10 percent would have to reduce its nonclinical variable costs by an average of about 30 percent if it left clinical operations off the table.<sup>1</sup> This level of savings is unrealistic for most hospitals. However, most providers are reluctant to address clinical operations, primarily for two reasons. First, many administrators and performance improvement staff members lack a clinical background and thus often shy away from changes that disproportionately affect clinicians and care delivery (because they either do not fully understand clinical processes or are intimidated by the clinicians who carry them out). Second, many providers believe that addressing clinical operations would alienate high-volume physicians, who might then take their patients to competing hospitals. Although this concern may once

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<sup>1</sup>This estimate is based on our experience in 150+ community and academic hospitals nationwide.

have been justified, McKinsey research suggests it is no longer valid. In a survey we recently conducted of more than 1,400 US physicians, most respondents said that they are willing to change their practice to help control costs.<sup>2</sup>

Our experience “in the field” confirms that physicians can be actively engaged in performance improvement efforts and are willing to make changes in care delivery. Their involvement increases the likelihood not only that operational performance will increase but that care quality, patients’ satisfaction, and physician/staff satisfaction will also rise.

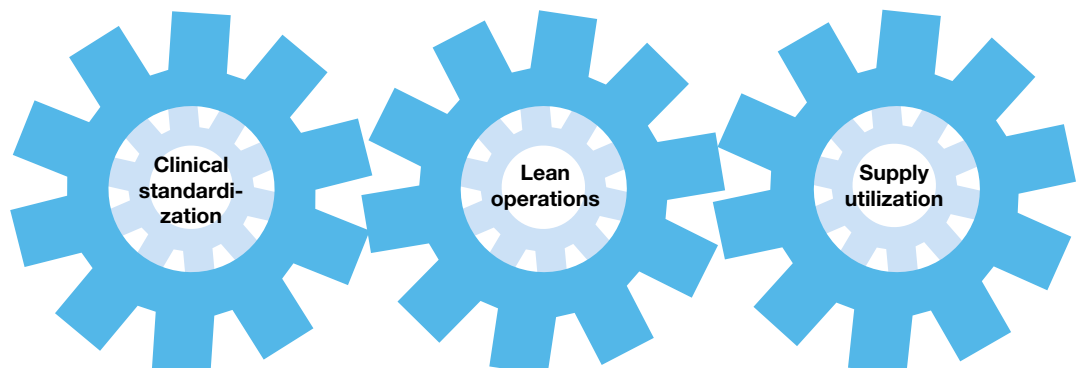
Our “clinical operations excellence” approach enables hospitals to achieve all of these goals. It is quite different from the conventional change management programs most providers have been using, because it puts physicians—and clinical care—at the heart of the change effort. By doing so, providers can make transformative changes that improve costs, quality, and satisfaction simultaneously, and ensure that those changes are sustained over the long term.

## What is clinical operations excellence?

Clinical operations excellence includes elements of traditional hospital performance improvement efforts (especially lean transformations), but it goes beyond them because of the emphasis it places on improving care delivery as well as nonclinical operations (Exhibit 1). It uses a variety of process improvement and change management concepts and approaches to increase operational efficiency and reduce clinical variability; the ultimate objective is to drive down the total cost of care while maintaining or improving care quality.

In our experience, most hospitals have significant, unintentional variability in how clinical care is delivered. Most hospital executives would agree that this variability drives up the cost of care, making hospitals less competitive and less likely to survive in a world of value-based payment. Reducing clinical variability would release working capital (e.g., through inventory reduction), lower supply costs (e.g., by shifting to one or two vendors), increase the pace of care delivery (e.g., by reducing

### EXHIBIT 1 Clinical operations excellence encapsulates a broader range of initiatives than many health systems typically use



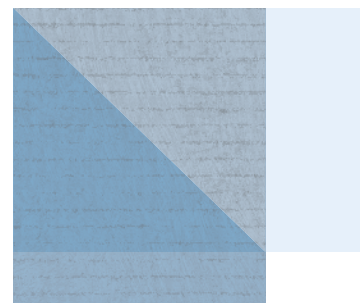
<sup>2</sup>For more information about this survey, see the accompanying article, “Engaging physicians to transform operational and clinical performance,” on p. 5.

the number of potential paths of care), shorten average length of stay (e.g., by initiating care sooner in the care pathway), and reduce the likelihood of adverse events (e.g., by standardizing and error-proofing nursing workflows).

Physicians can be convinced to reduce the amount of variability in care delivery if they understand that the changes will not only help control costs but also improve patient outcomes. By ensuring that all patients receive high-quality care in a reproducible and evidence-driven manner, a virtuous circle can be created: as the quality and efficiency of care delivery rise, per-patient costs decrease, outcomes improve, patient and staff satisfaction increase, referral streams expand, and high-volume physicians become less likely to migrate to other hospitals.

Implementing the changes necessary to reduce or eliminate unintentional variability in care delivery in a sustainable way is far from easy. It requires a complex combination of approaches to streamline processes (including those for patient admissions and discharges), standardize clinical protocols, and rationalize supply utilization. Our experience suggests, however, that this combination can have a significant impact (Exhibit 2).

After using this multiprong approach in more than 150 hospital transformations over the past few years, we have found that it can significantly improve hospital performance. On average, most hospitals see a reduction of 5 percent or more in operating costs (Exhibit 3).



**EXHIBIT 2 Achieving ‘best-in-class’ performance can have compelling value**

Lever	‘Best-in-class’ impact achieved
1 Improved patient outcomes	Improve outcomes by service line (e.g., 25% reduction in severe sepsis mortality)
2 Operational efficiency (direct variable cost reduction)	Achieve positive EBITDA across Medicare Produce 15% annual reduction in ED DVCs
3 Improved supply utilization	Achieve sustained cost trend of 3-4% annually
4 Cost and capital avoidance	Delay/avoid big capital investments to increase capacity
5 Ability to capture disproportionate payor volume and price	Capture >90% of available PFP funds
6 Increased physician retention and ability to integrate physicians	Keep site-specific physician turnover below 7%
7 Nursing satisfaction and retention	Keep site-specific nursing turnover below 10%

DVC, direct variable cost; EBITDA, earnings before interest, taxes, depreciation, and amortization; ED, emergency department; PFP, pay for performance.

## What prevents hospitals from achieving clinical operations excellence?

In our experience, five key issues have prevented many hospitals from achieving clinical operations excellence.

The first (as discussed above) is the belief that physicians, especially high-volume physicians, are not willing to engage in performance improvement efforts and will instead move their patients to other hospitals. Even if this belief were true, hospitals would have to consider whether their efforts to protect patient volumes and profitability in the short term are hindering their longer-term prospects. However, our research supports our experience that this concern is unwarranted. In late 2011, we surveyed 1,400 US physicians in a variety of specialties; 84 percent of the respondents said that they were willing to




change at least some aspects of their practice to remove waste from healthcare.<sup>3</sup> We also discovered that many physicians regard the opportunity to be involved in operational decision making and performance improvement efforts as second only to financial incentives as a way to derive satisfaction from their work. In hospitals that have achieved clinical operations excellence, strong clinician engagement is encouraged and embraced. For example, physicians from a range of departments collaborate in clinical councils to drive policy decisions and help reconcile the many different viewpoints that individual physicians may express.

A second factor that can prevent hospitals from achieving clinical operations excellence is underestimation of the magnitude of change required. Too often, hospital leaders give the change program no more time, attention, or resources than had been allocated to previous, smaller improvement efforts. These

### EXHIBIT 3 Benchmarking performance is a prerequisite for achieving the level of financial impact required

#### Examples of high-impact efforts

Average across more than 30 acute-care facilities, expressed as percentage of inpatient operating costs)<sup>1</sup>

	Improvement efforts	Impact	
	<b>Lean operations</b> <ul style="list-style-type: none"> <li>• ED throughput/registration</li> <li>• OR throughput/pre-admit testing</li> <li>• Inpatient discharge</li> </ul>	~1–3%	Combined impact for a multifaceted improvement effort should be +5–10% of operating costs  A comprehensive program will be required to achieve these results
	<b>Clinical standardization</b> <ul style="list-style-type: none"> <li>• ICU protocols</li> <li>• LOS reduction</li> <li>• IP vs. OBS determination</li> </ul>	~3–4%	
	<b>Supply utilization</b> <ul style="list-style-type: none"> <li>• OR/procedure supply use</li> </ul>	~1–3%	

<sup>1</sup>The 30 hospitals referenced here are only a fraction of the 150+ hospitals in which McKinsey has led transformation efforts. ED, emergency department; ICU, intensive care unit; IP, inpatient; LOS, length of stay; OBS, observational status; OR, operating room.

<sup>3</sup>2011 McKinsey Physician Survey.

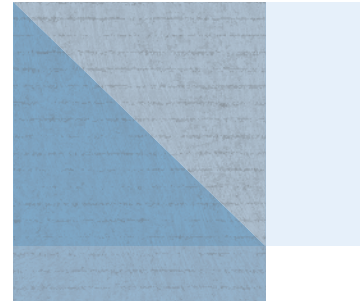
leaders fail to recognize the potential of the frontline staff to implement changes and hence do not invest sufficiently in frontline capability building. Furthermore, they do not take the steps necessary to ensure that physicians are comfortable with the proposed changes and that evidence-based medicine principles are being applied appropriately. Leaders of successful programs understand that continuous improvement efforts do not spring up across an organization overnight, nor are they self-sustaining. Instead, the efforts require constant and significant engagement from senior leaders to set expectations, nurture new ideas, and remove roadblocks (both structural and human).

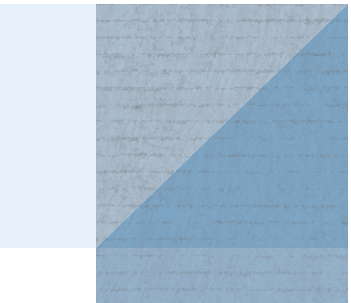
A third barrier to success is a failure to use a pragmatic, rigorously quantifiable approach to value creation in the clinical setting. Too often, the improvement efforts lack careful assessments of where the value (both clinical and financial) can be created and how feasible it will be to capture. Also absent is a cascading approach to performance management that starts with senior leadership and extends to the front line. In hospitals with best-in-class clinical operations programs, hospitals' executives ensure the sustainability of these efforts by making ongoing investments to build capabilities and strengthen performance management systems. By using these systems to closely track their performance on a range of metrics, hospital leaders can begin to quantify the value they have created through decreased supply costs, shorter length of stay, and increased payor reimbursement.

A fourth barrier centers around lack of leadership and role-modeling. Many health systems have built internal performance improvement

departments, and too often leaders devolve most or all performance improvement efforts to them. The staff in these departments are left with "accountability without authority"—they are asked to drive change and hold clinicians and departments to specific performance targets without direct line reporting authority to do so. To achieve strong results with a performance improvement program, leaders at all levels of the organization need to champion and drive the effort, "role model" the behavior they want to see, and use their performance improvement group to facilitate the program.

Fifth, many internal performance improvement groups have a tendency to "cut and paste" approaches that work in manufacturing directly into healthcare settings. However, manufacturing environments are awash with industrial engineers who are comfortable using the hardcore tools of performance improvement (e.g., variance graphs with control limits, detailed value stream maps, and fishbone diagrams). Hospitals, on the other hand, employ individuals who are very different from engineers. Physicians and other clinicians are trained differently than engineers are; they also think differently and use a different language. Physicians do not typically see process measurement or improvement as a core part of their role. If performance improvement programs are to succeed in hospitals, the concepts, approaches, and language must be tailored to the healthcare environment and the clinical staff. Although clinicians will be the critical change agents in these efforts, they are not industrial engineers, and most of them will never achieve lean or Six Sigma certification. Their training must therefore be straightforward, relevant, practical, and memorable, and the tools they are given must be simple.





## What must a change program include to achieve sustainable results?

Hospitals vary in their starting points, and thus the specific goals they want to achieve through a clinical operations excellence program can also vary. Furthermore, the approach used to transform a single hospital is somewhat different from that required for a multifacility health system. Nevertheless, a core set of tools and capabilities is required if a hospital or health system wants to reach and sustain clinical operations excellence.

### **Mind-sets and capabilities**

The performance improvement program must include a structured approach to change mind-sets and build capabilities throughout the organization, including frontline and back-office staff. Experienced trainers should be used to ensure that all staff members—both those involved in care delivery and those working in support functions—learn operational improvement principles. A core curriculum is sufficient for most staff members, but some should undergo an advanced program to become experts in continuous improvement.

Most adults learn best by doing, and thus the individuals given primary responsibility for the performance improvement effort should be given the opportunity to directly apply what they were taught in training. As soon as possible, they should begin to develop solutions and implement operational improvement techniques, including “white-board” analysis of issues, stakeholder assessment, coaching from stakeholders on solutions, and counsel from others based

on experience with similar problems encountered in other institutions.

### **Physician engagement**

Because it is virtually impossible to change clinical processes and protocols without the active participation of the medical staff, it is crucial that the physicians who work at each hospital (both employees and those who simply have admitting privileges) are engaged in and co-lead the change program. To ensure that alignment is as broad as possible, the physicians should be given ample time to ask questions about the improvement effort and share concerns with hospital leadership and other staff members before the effort formally begins.

Some physicians should then become closely involved in the effort. They should work with the non-physician staff to develop solutions and be responsible for updating hospital leadership on progress. For example, physicians from multiple disciplines should be invited to participate in the clinical councils that determine new policies and oversee the changes made over the long term. As part of this work, the physicians should help develop “best-practice bundles” that define treatment standards for common diagnoses and the procedures the hospital(s) will use to ensure patient safety. In addition, some physicians should help develop the new practices that will be used to streamline registration and collections, because it is important that they understand firsthand the interdependencies that exist within the organization.

Furthermore, the physicians closely engaged in the effort should be encouraged to speak often with their peers and hold them ac-



## Operational change in action

Over a three-year period, a large national health system with more than 25 hospitals in multiple states undertook a broad transformation program to improve quality and efficiency in its facilities. Lean improvement techniques and various other process redesign principles were applied to multiple clinical and support functions. In addition, both the frontline staff and managers (hospital and corporate) were trained in process improvement techniques. To this day, the improvement infrastructure created during the transformation continues to promote positive changes within the organization.

One of the hallmarks of the transformation was the use of multidisciplinary teams composed of frontline clinical staff members to identify the core issues that were adversely affecting the quality and efficiency of care delivery and then to act as change agents to address the opportunities identified. The use of these teams ensured that the solutions developed during the transformation were immediately compatible with the health system's work environment and that there would be a sufficient number of change agents within each hospital to champion and implement those solutions.

In parallel with the efforts of the multidisciplinary teams, key frontline staff members took part in a broad-based lean operations training program, which helped create institutional knowledge about process change within the health system. The training also empowered the staff members

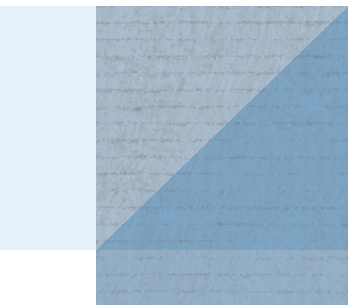
to seek additional quality and efficiency improvements in their own units.

Another hallmark of the transformation was the significant effort put into developing a robust performance tracking system. This system now generates reports that enable the frontline staff to regularly review and discuss their performance and work toward shared goals. At the same time, it gives senior leaders at both the individual hospital and organizational levels strong insight into the quality and efficiency of care delivery as well as the impact on financial performance. Results the health system has achieved to date include a 20- to 30-percent reduction in emergency department length of stay, a three- to six-hour improvement in discharge times from inpatient units, a roughly 25-percent improvement in turn-around time in the operating rooms, and a 100-percent increase in the number of first-case on-time operation starts. Patients are giving the health system higher satisfaction scores because care providers now spend more time with them and there are fewer delays till treatment begins. In addition, the satisfaction of physicians, nurses, and other staff members has risen because the level of rework has dropped significantly and there are fewer patient delays and less congestion in their departments. In addition, the performance improvement program created an average of \$4 million in value per hospital, through a combination of increased revenues and decreased variable costs. As a result, the health system's EBITDA has risen by 2 to 3 percent.

countable for their actions and performance. They should also be encouraged to alter their behavior so that they can communicate more effectively, not only with their peers but also with the other clinicians on the patient care team—communication is a critical element in making change happen and endure.

### Program management

The overall performance improvement effort should be overseen by an efficient program management office or team. Scorecards should be used to measure both baseline performance and improvement against that baseline; this approach helps ensure the



consistency of all measurements. Other management infrastructure should be used to ensure regular performance management discussions are happening on the organization's front lines.

The program management office/team will need significant assistance from IT as well as from data analysts who can pull information and evaluate it to make sure that the improvement effort remains focused on the areas with the most opportunity. At every stage of the transformation, these groups will be asked to help with performance measurement and reporting. In some cases, the reports will be needed on a daily basis.

Progress tracking should include cascading scorecards—reports with different levels of detail that are given regularly to everyone from the frontline staff and midlevel managers to the most senior leaders of the facility or system. The frontline staff is given precise performance data about the unit they work in, managers receive aggregate reports covering multiple units, and leaders are given summary metrics covering all units. (For example, the operating room staff would get a report that tracks, among other things, reductions in the use of targeted supplies, whereas senior leaders would receive a scorecard that summarizes annual savings in supply costs.)

However, the actual work required to implement changes in processes and protocols, especially those used in clinical care, will be done not by the program management office/team but by staff members working under the supervision of trained change agents. To the greatest extent possible, the change agents should be allowed to dedicate their attention to the transformation. It is

unrealistic to assume that these people can continue to perform their existing duties while devoting a significant portion of their time to the transformation. The best outcomes are achieved when the change agents feel supported because their departments have arranged to have their normal assignments covered by others—this gives them the time they need for the improvement effort and demonstrates the organization's support for that effort.

Ideally, a few of the change agents should remain focused on performance improvement even after the formal transformation program has ended. Ensuring the sustainability of change is one of the biggest challenges for any operational improvement effort; the presence of a set of dedicated staff members who feel accountable for and take ownership of the needed changes goes a long way toward maintaining and expanding the impact of the transformation.

### **Visible leadership support**

No performance improvement program can succeed unless the hospital's leaders—and, if relevant, the health system's leaders—are willing to demonstrate strong support for and involvement in it. Any organizational change involves an element of risk, not only to the organization itself but also to the people responsible for making the changes happen. Without visible, ongoing support from senior leadership, it is very hard for individuals (whether physicians, other clinicians, or non-clinical staff members) to accept that risk and continue their efforts with the needed intensity. Thus, senior leaders must go far beyond merely mouthing the right words; they must demonstrate true personal commitment to the program's success. They must also make it

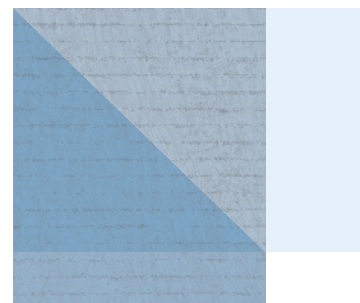
clear to everyone that they are taking a long view: they recognize that the improvement program will engender many near-term costs and operational challenges, but the long-term results will make the effort worthwhile.

In addition, senior leaders must be willing to change the organization’s incentive systems and, often, its culture and structures. They must ensure that good ideas are rewarded regardless of their origin, and that everyone views performance improvement as a valuable aspect of life within the organization. In addition, they must take steps to alter the hospital’s or health system’s culture to overcome silos so that individual pockets of excellence can rapidly spread their practices throughout the organization. This type of spread can happen only if leaders ensure that a high level of communication, unity, and common purpose is present.

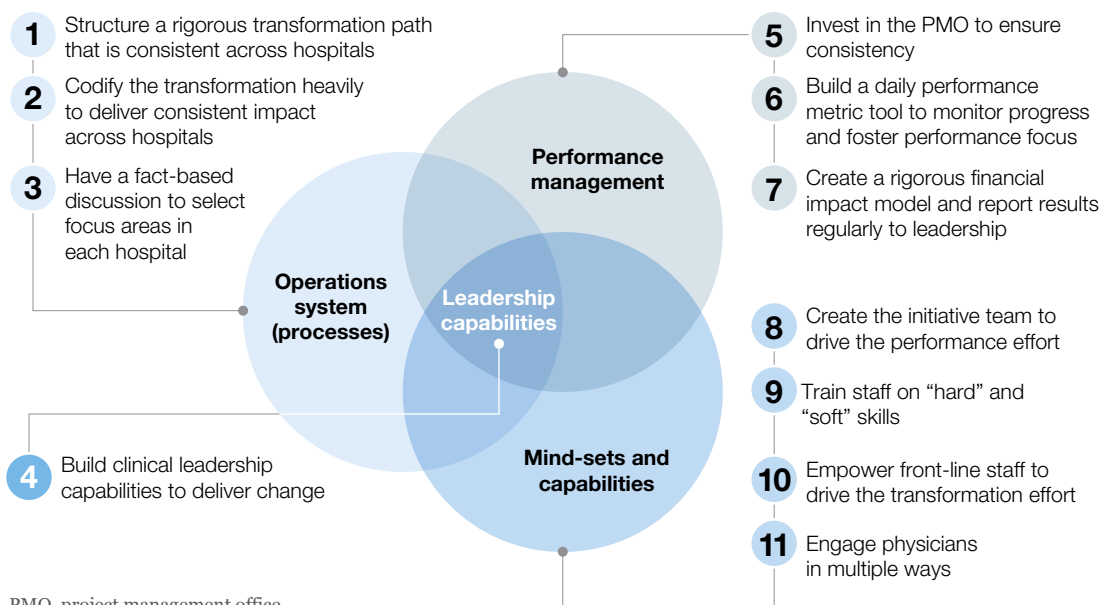
## How can a change program be scaled across a health system?

When a health system wants to scale a performance improvement program across multiple hospitals, a few extra steps are required. The key is to develop an integrated, sequenced approach through careful planning and the continuous involvement of senior leaders, and then use a set of common elements in all facilities (Exhibit 4).


In our experience, the best results are often achieved when the health system begins with a well-thought-through pilot in one or two facilities. The goal of the pilot is to evaluate areas of focus, determine what help will be required from the health system’s IT group, and establish a training infrastruc-



**EXHIBIT 4 A common set of key elements is used in any multihospital clinical operations excellence program**



PMO, project management office.



ture that can build a cadre of people prepared to scale up the improvement effort across the entire system.

The results of the pilot will enable the program management office/team to refine the improvement effort and then roll it out in waves across the organization. As the rollout occurs, it is crucial that there be consistency in the measurements used—and the messages communicated—to ensure that results across facilities can be compared fairly. As more and more hospitals are transformed, the system should find that it has developed a network of peers who can codify their experiences and share ongoing discoveries about best practices.

When such a carefully designed, purposeful approach is used to scale up a performance improvement program, most health systems find that the program becomes self-funding within about 12 months. Substantial impact on the system's financial and clinical performance should be demonstrable within 24 months.

### What are the first steps?

Taking the first steps in a clinical operations excellence improvement program can be daunting. However, several immediate, tangible steps can help minimize future risks:

- Begin by rigorously assessing your baseline performance and benchmarking the potential for improvement. Whenever possible, both internal and external benchmarks should be used for all clinical and financial metrics.
- Set bold but reasonable aspirations (related to both performance and organizational health) for the improvement program and establish time frames to achieve them.

- Convene a group of leaders who will oversee the clinical transformation. In addition, make one person accountable for the program overall and give that person the resources required to lead the program.
- Define how you want to start. Many health systems opt to launch the improvement program in a few high-impact focus areas in one or two facilities. They then roll the program out across other facilities. In some cases, however, it may make more sense to begin with a balanced representation of facilities or participants (not necessarily “the best”), or to select less specialized impact areas that are relevant to a wide array of units and facilities.

The key is to take these first steps, expecting that some mistakes will be made along the way. But by learning from the mistakes and moving forward with the improvement program, it becomes possible to make steady progress toward a more financially sustainable, patient-oriented, and physician-friendly hospital or health system. ○

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# Creating and sustaining change in nursing care delivery

By giving nurses more control over their work environment and more opportunities for professional advancement, hospitals and health systems can reduce nurse turnover, lower costs, and improve patient care.

Nursing is a crucial part of healthcare delivery. In the United States, almost three million men and women currently work as registered nurses, and another 750,000 work as licensed practical nurses, making nursing by far the country's largest healthcare occupation.<sup>1</sup>

Yet most hospitals and health systems have long found it challenging to maintain a strong and stable nursing staff. Voluntary job turnover is much higher among nurses (about 14 percent annually<sup>2</sup>) than in most other occupations, in part because job satisfaction is often low. Refilling vacant positions can be quite difficult—and expensive. Furthermore, these problems are likely to get worse in coming years because the country's need for nurses will increase considerably due to population aging and other factors. Today's US nurses have an average age of about 45 years, up to half of them expect to retire in the next 15 years, and younger nurses tend to have even higher job turnover rates than their older colleagues do.<sup>2,3</sup>

The reasons for nurses' low job satisfaction are many, and some of them, such as the physical demands of the job, are difficult to change. However, in our healthcare work with multiple clients, we have identified a number of factors that impair nurses' job satisfaction but can be corrected through a focused program. Remedying these problems should be a priority for hospitals and health systems,

because high nursing turnover rates strongly influence both their financial performance and the clinical outcomes they achieve. In most hospitals, nurses spend more time with patients than anyone else does, and thus they directly affect both the quality of care delivered and patient satisfaction with that care.

A nursing excellence program—a coordinated effort to improve the nurses' work environment and give them greater professional advancement opportunities—can achieve substantial results, as we will show. Creating sustainable change through a nursing excellence program is possible, however, only if the program aligns with the hospital or health system's nursing aspirations, targets the root causes of nurses' dissatisfaction and turnover (which can vary from facility to facility, and even from unit to unit), and includes multiple mechanisms for influencing staff members to change.

## The case for change

The absence of a strong and stable nursing staff raises a hospital or health system's care delivery costs in a number of ways. For example, high turnover rates translate to increased recruitment and training costs. (US hospitals spend an average of about \$50,000 to recruit and train each new nurse.<sup>4</sup>) Salaries must often be raised to attract new nurses. High absenteeism rates force hospitals


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<sup>1</sup>US Bureau of Labor Statistics. *Occupational Outlook Handbook*. 2012-2013 Edition.

<sup>2</sup>American Association of Colleges of Nursing. Fact sheet on the nursing shortage. August 6, 2012.

<sup>3</sup>Health Research Institute. *What Works: Healing the Healthcare Staffing Shortage*. 2007.

<sup>4</sup>Sumner J, Cornett P. RN residency: Seeking a new paradigm. *Patient Safety Quality Healthcare*, March/April 2007.



and health systems to rely on the use of overtime and/or agency nurses to fill staffing gaps. The likelihood of “nurse-sensitive” problems that can increase healthcare costs, such as medication errors, falls with harm, and pressure ulcers, increases significantly when nurses are tired, unfamiliar with the units they are working in, or just burned out. Productivity often also suffers when nurses’ morale is low.

In our experience, a nursing excellence program can decrease voluntary turnover by up to 15 percent and lower absenteeism rates by up to 25 percent. In addition, it can markedly reduce the number of patient falls, medication errors, and pressure ulcers. The result, for a 200-bed hospital, can be annual savings in the range of \$2 million to \$4 million.

The cost of implementing a nursing excellence program will vary, depending on an organization’s size and starting point. Although many of the initiatives are relatively inexpensive to undertake, the program often requires significant initial investment to ensure that the nurses who are deeply involved in it are compensated for their time and can delegate some of their regular duties to other nurses. However, the program usually produces cost savings fairly rapidly. As a result, the program can quickly become self-sustaining and produce a deeper level of nurse engagement and ongoing improvements in clinical quality.

## Designing a nursing excellence program

Any hospital or health system that wants to undertake a nursing excellence program should begin by determining what it wants to accomplish: decreasing nursing turnover, becoming the healthcare employer of choice

in its region, improving patient-centered or team-based care, increasing the nurses’ skill levels, or a combination of these goals. The chosen aspiration(s) will help determine the elements that will be included in the program.

The next step is to determine the factors that have the strongest detrimental impact on nurses’ job satisfaction, performance, or both. Studies from around the United States (and, indeed, from around the world) have identified common concerns. For example, nurses often blame their burnout on the demanding nature of the job: its long hours, physical requirements that continue to intensify (e.g., lifting patients has become more difficult as obesity levels rise), and the fact that today’s inpatients are much more acutely ill than inpatients a few decades ago were and thus require more care and assistance (but over a shorter length of stay). Underpayment is another frequently mentioned concern. These issues are very real but often not easily solvable, especially in today’s economic environment.

In our work, however, we have identified a number of other factors that impair nurses’ job satisfaction—and that are more feasible for a hospital or health system to correct. These factors include low rates of collaboration with physicians, minimal decision-making authority or control over working conditions, and an absence of training or advancement opportunities. At too many hospitals, for example, nurses are given only a brief initial orientation, little formal mentoring or ongoing educational opportunities (other than in-service programs), and no clear path for professional development.

Once the hospital or health system has determined which factors have the greatest detrimental impact on its nursing staff, it must

identify potential solutions to those problems. The solutions must then be evaluated in terms of their cost, feasibility, likely impact, and alignment with the organization's nursing aspirations. As we demonstrate below, a range of initiatives can be considered.

In addition to the initiatives selected to address specific problems, the program should include components that ensure its sustainability. After all, any change program will fail unless all staff members understand why they are being asked to change, are given the training and supporting tools required to incorporate new procedures into their daily workflow, and see the new behaviors being "role modeled" throughout the organization. It is imperative that these elements be included in the program's design.

If a nursing excellence program is to succeed, it is also crucial that frontline nurses from throughout the organization, not just nursing managers, be involved in the effort to identify problems and select solutions. Close involvement in the program's design instills commitment among these nurses and encourages them to serve as role models. It also lends the program greater credibility because it reassures the frontline staff that their concerns have been recognized. However, the best results are achieved when non-nursing colleagues from other disciplines (physicians as well as clerical staff) also participate in the program's design. A program involving only the nursing staff will often have less organizational support than one seen as having both strong nursing leadership and interdisciplinary involvement.

## Identifying specific solutions

To identify potential solutions, the program design team can draw on the clinical literature

as well as the experience of other healthcare organizations. A mix of initiatives should be selected so that the nursing excellence program can address several of the following areas simultaneously: nurse engagement, evidence-based practice, capability building, and nurse-sensitive metrics that can gauge performance improvement (Exhibit 1). Which of these areas are most important to address will, of course, depend on the program's aspirations and the hospital's or health system's starting point.

The portfolio of initiatives should be fairly broad so that the program can be tailored as needed to different units; however, it should not be so large that it becomes impossible to implement. Several of the initiatives should directly address the nursing staff's top concerns; this will help drive support for the program. (For example, if one of the nurses' chief complaints is lack of control over work schedules, the program should include a way to let them select more of their shifts.) Support for the program can be further enhanced if the initiatives include a few "quick wins"—things that are easy to implement and produce rapid results.

A caveat: the evidence base to support changes in nursing practice that improve job satisfaction is sometimes thin. As a result, it is not always possible to define what a best practice is. However, our experience has shown that the strategies outlined below are effective. Some of them have withstood the test of time, becoming accepted elements of established programs, such as the American Nurses Credentialing Center's Magnet Recognition Program (a program that rewards healthcare organizations for quality patient care, nursing excellence, and innovations in profes-



sional nursing practice). Others are newer approaches that make the change program feel fresh and new—something for the nurses to be excited about.

### Increasing nurse engagement

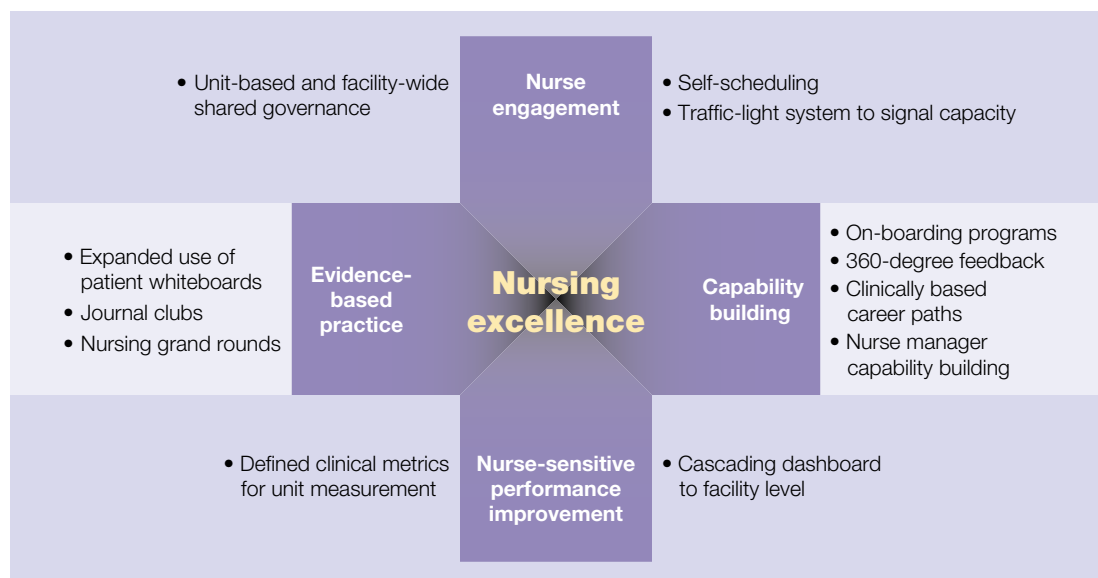
Nurses, like other professionals, are unlikely to be satisfied with their job if they do not feel engaged in it. Shared governance is one of the most powerful tools that can be used to increase nurses' engagement, because it gives them greater autonomy, a voice in their working conditions, and the opportunity to collaborate with others across a unit or area of the hospital. In essence, shared governance enables the nursing staff to have a joint say in their work environment and strengthens their ability to improve patient care.

Shared governance can take many forms, but for nurses it typically involves unit-based councils. The nurses and other staff members

on the councils are elected by their peers. The councils serve as the collective voice of the staff and give everyone the opportunity to raise issues and provide input on unit operations and other matters. The councils can also develop policies and working models for the units. In addition, the nursing members of the unit-based councils often represent their colleagues on larger, facility-level nursing governance bodies, which enables them to influence staffing policies, relevant product purchases (e.g., wound-care products), patient safety initiatives and patient education programs, and other important issues.

Nurses' engagement can also be increased by giving them greater control over their working conditions. For example, self-scheduling can improve nurses' satisfaction and decrease absenteeism by providing them with a greater say in which shifts they have to work. Self-scheduling tools can be as simple as written

## EXHIBIT 1 A nursing excellence program should include a mix of components





sign-up sheets (distributed to the nurses on a rotating basis to ensure that everyone periodically gets their first choice), or as sophisticated as a Web-based program that nurses can access from home and that gives them relatively rapid confirmation of their schedule selections.

Another example of a way to give nurses greater control over their working conditions is to implement a traffic-light system on a unit whiteboard. The nurses are allowed to assess their own capacity to take on additional patients and then use green, yellow, or red stickers to communicate that capacity to others. The traffic light system enables them to have more control over their workloads and improves the facility's ability to know when to admit and transfer patients.

### **Encouraging evidence-based practice**

Nurses, like all clinicians, should deliver evidence-based care, and tools introduced during a nursing excellence program can help them do so. Even something as simple as the enhanced use of the whiteboards in patient rooms can have dramatic impact. All too often, these boards remain unused. However, they can be easily altered so that there are specific spaces for the patient's plan of care, physician's notes, daily nursing goals (e.g., ambulation and spirometer use), care-team names, and patient and family questions. Listing this information on a whiteboard makes it easier for the nurses to deliver appropriate services and to collaborate with physicians and other members of the care team. It also increases their focus on patient-centered care. In addition, the information helps inform patients and their families about the treatments being given and engages them in the plan of care.

Journal clubs enable nurses to meet on a regular basis (perhaps monthly) to discuss changes in the evidence base and cutting-edge research relevant to the clinical care they deliver. The clubs allow nurses to learn about and share innovations, foster a nursing culture focused on evidence-based practices, and enable them to develop professionally.


In addition, hospital-wide nursing grand rounds can be held periodically to encourage the sharing of best practices. Similar to medical grand rounds, these sessions focus on specific cases presented by the facility's nurses; the presentations are followed by group discussions about the care that has been given and how changes to care delivery might have improved the outcomes achieved.

### **Building capabilities**

How new staff nurses are initially brought on board and trained can have a significant effect on patient care, nurses' satisfaction, and retention. All new hires should be given a thorough introduction to the unit they will be working in. Ideally, new graduates should also receive full-time orientation from experienced nurses (the length of which will depend on the unit) and/or take part in a one-year residency program; in addition, they should be given formal, ongoing mentoring from senior nurses during their first few years of practice. Once the initial "on-boarding" is complete, mentoring should continue on a more irregular basis, and all nurses should be offered educational programs periodically to ensure that they feel supported in their roles.

All nurses should also have the chance to participate in 360-degree feedback reviews so that they can provide anonymous input on the performance and behavior of their nursing





colleagues (at all levels) in their unit. These reviews not only enable the nurses receiving feedback to understand their strengths and where they need to build their capabilities, but also give the staff nurses a greater voice in the unit's practices and environment. The areas the feedback focuses on should be decided by the unit and can include such factors as patient focus, work ethic, teamwork, and communication. By aggregating feedback about individual nurses across the unit, nurse managers can then identify common areas in need of improvement and design appropriate capability-building programs for the group.

Developing new career paths for nurses gives them motivation to enhance their capabilities and increases their engagement. In many hospitals and health systems, nurses can advance their careers only by moving into administrative roles; as a result, many of the most skilled nurses are lost to direct patient care. Some hospitals have improved nurse retention by developing clinical ladder programs that recognize nurses for their expertise in delivering clinical care. These programs encourage bedside nurses to get deeper clinical training and then reward them (through pay increases) for doing so without requiring them to change roles. Other nonadministrative career paths for nurses can focus on patient education or clinical specialization; again, the goal is to allow nurses to advance while still involved in clinical care.

Finally, many staff nurses cite their direct superior as one of the top drivers of their overall job satisfaction. Thus, it is crucial that nurse managers receive regular training to ensure they have the appropriate skills. Capability-building programs targeting this group of nurses should cover topics such as operations, conflict resolution, and feedback deliv-

ery. The inclusion of this type of training in a nursing excellence program can have a large impact not only on managers, but also on overall nursing satisfaction and retention.

### **Improving nurse-sensitive metrics**

Defining and regularly monitoring a set of nurse-sensitive clinical metrics for each unit puts a spotlight on quality of care, encourages a culture of continuous performance improvement, and enables the hospital or health system to gauge the impact of its nursing excellence program. Some of the metrics can focus on process issues, such as labor and delivery triage turnaround time. However, most of them should assess how the nurses' efforts affect patient outcomes; these metrics include the number of pressure ulcers, falls with harm, and medication-administration errors. A few metrics should be prioritized to ensure that the unit has a clear focus for its improvement efforts; the total set should not be so large that the nursing staff feels overwhelmed.

Once the metrics are selected, a clinical dashboard should then be developed to gauge the unit's performance, especially performance against the prioritized improvement targets. Some metrics, such as the rate of patient falls and the frequency of pain reassessments, should be delivered daily, if possible. However, weekly or monthly reporting may be more appropriate for aggregate measures, such as nursing hours per bed day. The dashboard should be readily accessible to the nursing staff, but results should also be disseminated on a regular basis (via e-mail or through discussions during shift changes) to all team members. As we discuss later, the information in the dashboards of all units should also be aggregated to enable hospital or health system leaders to assess clinical

productivity, nursing performance, and patient outcomes at an organizational level.

## Testing proof of concept and scaling up

Once a nursing excellence program has been designed, it must be tested carefully and, if necessary, refined before it is rolled out across a hospital or health system. The best results are often achieved when the program is piloted in at least one representative unit and an “outlier” unit (e.g., a medical-surgical floor and a specialty outpatient clinic); this approach ensures that both the individual initiatives and overall portfolio are effective in a range of settings.

Although the program should be kept relatively consistent throughout the organization, it is often necessary to tailor the mix of solutions slightly to accommodate differences among the units. (For example, a hospital that wants to implement a shared governance model will likely be able to create a full unit council for a women’s health department with 20 nurses but may need to develop a shared council to cover outpatient clinics with two nurses each.) It is for this reason that the pilot should include different unit types.

To help with this tailoring, as well as the pilot and subsequent rollout, “nurse champions” should be selected from the staff in each unit. These nurses should be people who are viewed as leaders within the organization. They play an especially important role during the pilot—not only do they help determine which initiatives to focus on in individual units, but they can also provide valuable insights into how the initiatives should be implemented on the ground.


A sufficient number of nurse champions should be chosen to ensure that each one can focus on a few areas and no one feels overstretched across multiple initiatives. To make it as easy as possible for the chosen nurses to participate, meeting schedules should accommodate their work shifts and rotate among days, nights, and weekends. These nurses should also be given sufficient time and training to ensure that they can teach their colleagues and serve as effective role models.

It is crucial that the nurse champions include all levels of frontline nurses, including registered nurses, practical nurses, and nursing assistants. Without such broad participation, the program is unlikely to have strong credibility with staff members. However, the organization’s nurse managers must also be actively involved in the pilot to demonstrate their support for the program. In addition to modeling desired behaviors, they should visit the pilot units regularly to get a firsthand understanding of what is required for implementation, as well as what is and is not working.

Before the pilot begins, all elements of the nursing excellence program should be carefully explained to the nurses and other staff members in the selected units. Ideally, the discussion should be led by the units’ nurse champions, who can then demonstrate their commitment to the program. The discussion should carefully explain how the initiatives will improve the units’ work environment and patient care delivery.

After the program is under way, feedback should be solicited regularly from the nurses, other staff members, and patients. Something as simple as a journal at the nurses’ station





gives everyone the chance to write down comments and describe what does and does not seem to be working. As a result, successes can be celebrated and problems corrected quickly. Once implemented, the shared governance model provides another way to get feedback on the program.

As the pilot is running, a set of nurse-sensitive performance metrics should be monitored to track the program's impact. The metrics, like the initiatives, may need to be tailored to each unit as necessary. (The rate of pressure ulcers, for example, is important for intensive care units but not for most outpatient clinics.) Furthermore, some of the targets may need to be changed over time as performance improves.

Throughout the pilot, everyone involved should be kept informed of the progress being made and necessary modifications. How rapidly results can be shared, however, will depend on the sophistication of the facility's reporting systems (e.g., an automated IT dashboard will be faster than manual tracking). Once results are available, the performance improvements should also be communicated throughout the hospital or health system; this will help build support for the program as it is implemented in new units.

Once the pilot is complete and the program has been modified as necessary, the successful elements should be rolled out throughout the hospital or health system. This is usually best done in stages. One approach that can be used is to focus each stage on a different type of unit (medical-surgical units, then specialty units, and so on). Alternatively, the stages can include a mix of unit types, as in the pilot, but the numbers involved increase as the rollout progresses (stage 1

would include perhaps four new units, stage 2 would include eight units, and so on).

The steps required in each new unit are similar to those used during the pilot. Nurse champions help tailor and oversee implementation. Two-way communication with the staff remains crucial. Performance improvement must be monitored carefully. The key to long-term success, however, is to ensure that everyone comes to view nursing excellence not as a one-off effort but as a core part of care delivery.

## Ensuring sustainability

If a nursing excellence program is to produce sustainable results, the hospital or health system must make sure that it has in place a set of critical components that together can institutionalize continuous improvement. In addition to the new clinical operations system that will result from the program itself, these components must include the appropriate management infrastructure and other elements needed to support changes in the staff's mind-sets and behaviors (Exhibit 2).

### Management infrastructure

The two managerial components most important for ensuring sustainability are a system to track and report performance and a central project management office to oversee the program's implementation.

As discussed, tracking nurse-sensitive performance metrics within the units enables the staff to gauge the progress they have made and to spot new problems as they develop. However, by aggregating the results achieved in individual units, a hospital or health system can gain deeper insight into its overall performance and put in place mechanisms to

reinforce nursing excellence. The best results are usually achieved with a cascading scorecard, which reports results at the unit, department, facility, and health system level. This type of report enables leaders to compare performance across the organization. Regular reporting ensures that identified problems can be addressed swiftly and successes can be celebrated and rewarded with formal incentives. The incentives can be monetary (e.g., a bonus or gift card) or nonmonetary (public recognition, promotions, days off, or preferred shifts). Both approaches help support the change program.

Initially, the cascading scorecard may focus only on the areas of greatest concern to executives. However, once the hospital or health system has achieved sustained improvement on those metrics, it can add new ones to ensure that its most pressing needs are being addressed.

By setting up a robust, central project management office to support the nursing excellence

program, the hospital or health system can maximize the chances of long-term success. A central team is crucial for ensuring that the innovations developed and lessons learned during the pilot are incorporated into the program before it is rolled out more broadly. In addition, a central team can develop supporting tools and training programs, as well as facilitate collaboration across the organization. Once the program is fully implemented, this team can either be disbanded or remain in place to provide a continuous source of innovation ideas.

**Mind-sets and behaviors**

To ensure that changes to the staff’s mind-sets and behaviors become permanent, a holistic approach to training is required. During the nursing excellence program, training should be offered to both nurses and the non-nursing staff to make certain that everyone understands what changes are being made (and why those changes are necessary) and that the initiatives are being implemented appropriately. Training



**EXHIBIT 2 Key success factors for a nursing excellence program**

<p><b>Operating systems</b></p>	<ol style="list-style-type: none"> <li>1 <b>Set of clear, evidence-based standards for each initiative</b>, with room to tailor based on each unit’s unique circumstances</li> <li>2 <b>Nursing “change agents”</b> armed with the clinical evidence, tools, and resources needed to drive change at all levels of the organization</li> </ol>
<p><b>Management infrastructure</b></p>	<ol style="list-style-type: none"> <li>3 <b>Transparent and relevant clinical data/analyses</b> to inform all nurses and units of their performance relative to benchmarks/peers</li> <li>4 <b>Robust central project management office</b> that can identify innovations and lessons from the field, develop tools and training programs, and enable units throughout the organization to collaborate</li> </ol>
<p><b>Mind-sets and behaviors</b></p>	<ol style="list-style-type: none"> <li>5 <b>Clear strategic focus and public support provided by hospital system leadership</b> to send a message to all team members, including physicians and administration, that the nursing transformation is a top leadership priority</li> <li>6 <b>Training curriculum</b> tailored to the varied roles of the nursing staff, giving each staff member the tools to participate in and drive change</li> </ol>

## Case study: Army Nurse Corps' Patient CaringTouch System<sup>1</sup>

In 2008, the Army Nurse Corps recognized that inconsistencies in how nursing care was being delivered in their military treatment facilities (MTFs) was driving dissatisfaction and high turnover among its staff.

After researching best practices and obtaining significant input from staff across the country, the Nurse Corps developed a new program called the Patient CaringTouch System. The program's goal was to simultaneously increase nurses' engagement in practice and improve nursing-sensitive patient outcomes. The program included a number of elements, as Exhibit 3 shows.

A fairly unique challenge the Army Nurse Corps faced was its employee blend—each of its units has a mix of civilian and Army nurses, registered and licensed practical nurses, and non-nursing personnel, all of whom worked hand in hand. Thus, the Corps had to ensure that all staff types were involved in the program's design and that the views of different groups were carefully balanced.

The Patient CaringTouch System was piloted first at one MTF. One of the facility's medical-surgical units served as the initial test location before the pilot was extended to the rest of that MTF's inpatient and outpatient units. This approach enabled the Corps to develop a suitable portfolio of initiatives and then to test how to tailor those initiatives in different unit types.

After the Patient CaringTouch System was successfully implemented throughout the first hospital, it was rolled out to several other select MTFs in 2010. This phase enabled the Corps to test the program in facilities of different sizes and with various staff and patient populations, and to make small modifications as needed. The Corps then developed an Army-wide implementation plan that included strategic communications, training, and performance dashboards.

The program has now been rolled out in all of the Army's MTFs (over 40 facilities around the world) and is moving into sustainment mode, with system-

<sup>1</sup>Patient CaringTouch System, US Army Nurse Corps Web site ([armynursecorps.amedd.army.mil](http://armynursecorps.amedd.army.mil)).

can also support the needed mind-set and behavior shifts by enabling the staff to strengthen its capabilities and by ensuring that, if modifications to the program are necessary, the changes are rolled out in a consistent manner. In all training courses, the need to adhere to evidence-based standards should be emphasized continually.

Refresher courses should then be given periodically. It is particularly important that the ongoing training be offered not just to the nurses who went through the program, but also to new nursing hires and other staff members involved with clinical operations. When-

ever possible, the refresher courses should be offered as part of existing training programs to decrease the required time and cost.

If the mind-set and behavior changes—and the program's impact—are to be sustained, it is also imperative that the hospital or health system's leadership publicly demonstrate their strong support for the program and its goals. A number of mechanisms can be employed. At a minimum, the program and its importance should be discussed regularly in meetings at the unit, department, facility, and system level. In addition, all leaders should model the desired behaviors.

EXHIBIT 3 Patient CaringTouch System<sup>1</sup>



<sup>1</sup>The Patient CaringTouch System is the US Army Nurse Corps’ framework for nursing.

wide infrastructure and performance management systems. To date, the MTFs have seen patient falls decrease by up to 60 percent and medication-administration errors decline by up to 65 percent. In addition, nurse and staff engagement has increased

at all levels, likely leading to lower absenteeism and voluntary turnover. In select MTFs that have been actively monitoring their performance on an ongoing basis, the improvements have been sustained above target for at least 12 months.

Written communications—e-mails, newsletters, and printed visual cues (such as posters, banners, and name tags)—can be used to reinforce the program and leadership’s support for it. Communications should be sent not only to the staff but to patients and their families as well, for two reasons: they increase the hospital’s reputation for improving patient care, and they give the nursing staff an added impetus to continue implementing the changes. However, communication about the program should be two-way. The nurses should engage frequently with leadership to ensure that their feedback, concerns, and new ideas are heard and addressed.

• • •  
Hospitals and health systems today must find ways to lower costs while improving care quality. By giving nurses training and advancement opportunities, greater decision-making authority, and more control over their working conditions, a nursing excellence program can help them accomplish both goals. ○

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# Academic medical centers: Transformational imperatives to succeed in the new era

Operating margins at AMC's are under severe pressure, placing their tripartite mission at risk. To survive, AMC's need significant structural and cultural changes. Five steps are imperative if they are to navigate the challenges ahead.

**Raj Garg, MD,  
JD; Lucy Pérez,  
PhD; and Adesh  
Ramchandran**

Academic medical centers (AMCs) have, historically, sat atop the provider pyramid. In most communities, AMC's enjoy a distinguished brand that is associated with higher quality, diagnostic and therapeutic innovation, and the management of complex illnesses. AMC's typically attract and retain high-caliber talent so that they can fulfill their tripartite mission: treatment, teaching, and research. They then leverage their distinguished faculty, researchers, and other physicians, as well as their next-generation equipment and other advanced technologies, to become the preferred providers within their communities. AMC's have solidified their premier position by their willingness to share new methodologies and to set practice patterns and standards across communities. In addition, they frequently serve as regional trauma centers, provide much of the indigent care in their communities, and are often affiliated with and staff the local Veterans Administration health centers.

Historically, most AMC's have been able to maintain small operating margins. Their net economics results from their broad array of responsibilities. In part, their profit levels reflect their ability to focus on the high-quality, comprehensive, and very specialized services needed to diagnose and treat patients with high-acuity illnesses and other complex conditions. However, those levels also reflect the cross-subsidization that has long characterized public versus private and paid versus indigent patient care.

Evolution of the healthcare ecosystem, which reform has accelerated, is putting margins and more importantly the tripartite mission at risk. US providers are facing unprecedented margin pressures from a range of forces, including sustained economic uncertainty, changes to healthcare regulations (especially those related to reform), and reductions in government and, most likely, commercial payor reimbursement. However, many of today's AMC's must also cope with cutbacks in research funding and declining educational subsidies. In addition, many AMC's are facing challenges to their market position, relevance to local payors, and reputation.

Furthermore, most AMC's are a part of larger institutions of higher education, and many of those institutions have a long tradition of using operating cash flows from health system operations to fund academic pursuits. Mounting fiscal pressures in higher education (e.g., declining state support, federal sequestration, and disruptive digital innovation) have made the contribution of AMC's ever more important to them. Given the sheer size of health system operations (often comparable in size to the entire university) and the highly uncertain economics AMC's face once reform goes into full effect, many boards of the larger institutions are asking quite fundamental questions about the relationship between their universities and the AMC's—including whether tight affiliations with the AMC's pose an unacceptable fiduciary risk.



A few AMCs have recognized the danger ahead and have launched cost-reduction programs to protect their mission and stabilize margins. Some have even taken more aggressive steps, such as consolidation, optimization of support functions across institutional settings (medical center, schools, and research facilities), and lean transformations of their clinical operations. However, experience has shown that these approaches, although necessary, are not sufficient on their own. The savings they produce address only a small portion of the looming margin gap, and in many cases the savings materialize slowly. For example, one AMC recently undertook a large program to reduce support costs, optimize procurement, and improve revenue cycle management (RCM). It discovered that the results of this program would cover considerably less than half of its projected 4-percent operating margin gap—and those results would require more than three years to reach full impact.

What AMCs need instead is a more radical approach. To bend the cost curve, AMCs must go beyond the traditional service line or department approach and look to make structural changes and address cultural issues that hinder innovation. In addition, they must consider the consolidation of multiple services (not just support functions) and strengthen the management of all resources across institutional settings to improve decision making and implementation speed. AMCs should also alter the cultural norms within their systems so that their physicians understand the increased emphasis on alternate care sites and are more willing to travel to deliver care (e.g., in a secondary location within a system).

In this article, we will outline the scope of the challenge AMCs face and then describe what we believe are the five imperatives for

all AMCs today—steps they must take if they are to thrive in the post-reform era.

## Scope of the challenge

Our analysis of their financial position shows that AMCs have generally been able to preserve a 3- to 5-percent operating margin and a 15- to 20-percent operating cash flow margin. They then use the profits from their clinical activities to help subsidize their research activities (which are also heavily dependent on philanthropy and grants) and their educational mission. However, AMC operating margins and cash flows are now under significant pressure, not only because of the forces currently buffeting providers as a whole but also because of factors unique to these institutions.

For example, AMCs are more reliant than other providers on government subsidies (including research grants), and those subsidies are declining. In particular, growth in funding from the National Institutes of Health (NIH) has been slow in recent years. Furthermore, ongoing economic malaise has caused philanthropic contributions to many AMCs to decrease. Commercial payors are developing strategies for reducing high-cost reimbursements; in some cases, they are considering forgoing the perceived benefits of AMC care. In several cases, payors have been directing all but the most complex cases to providers that can handle more volume at lower cost. Finally, competition among providers is heating up. Many commercial providers are aggressively expanding to become stronger regional or national players. As a result, AMCs in many markets are experiencing flat-to-declining inpatient volume growth.

However, the increase in provider competition is putting more than just AMC economics at risk. Some commercial providers are now offering a



more focused portfolio of care services across the acuity spectrum, using highly efficient delivery models that achieve consistent quality. These models are encroaching on the traditional domain of AMCs—the delivery of specialized high-acuity services. Furthermore, this encroachment is likely to intensify in coming years, because the transition to greater transparency, defined quality metrics, and value-based care may well drive commercial providers to get on an equal footing with AMCs. The combination of higher quality among commercial providers and growing competition for mid- and high-acuity patients could jeopardize the clinical mission of AMCs.

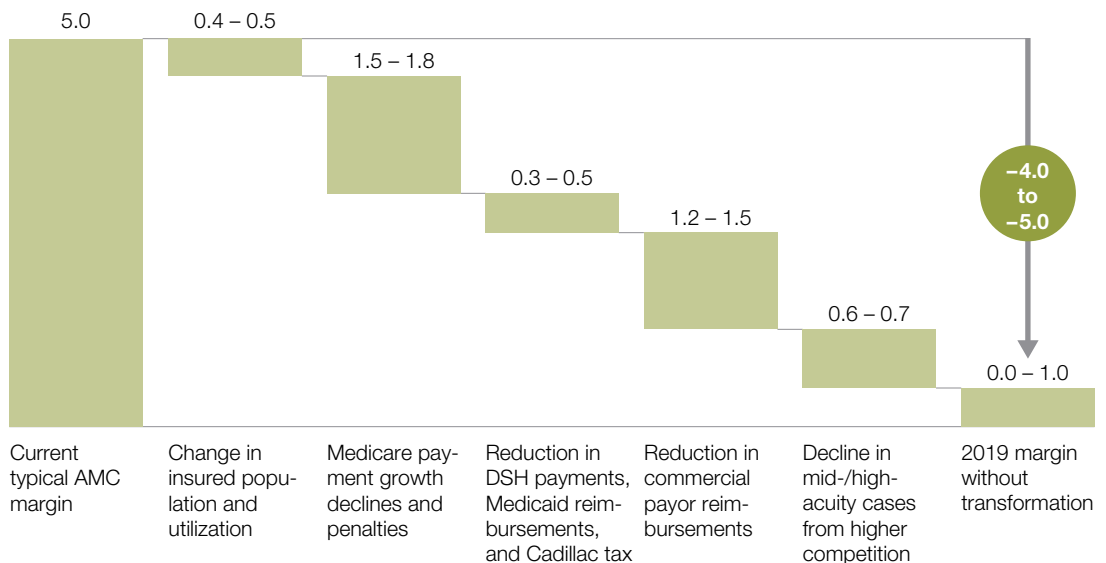
Although the forces just discussed will play out differently in different regions (depending on such factors as the dominance of a regional

payor, competitors within each region, and relative number of high-acuity cases), few AMCs are likely to escape what we believe will be a fundamental dislocation of their traditional model. Our calculations suggest that within the next few years, operating margins at most AMCs could be compressed by 4 or 5 percentage points (Exhibit 1). If their profits disappear, AMCs could find their entire tripartite mission in jeopardy.

The time to address this challenge effectively is rapidly running out. Key provisions of the Patient Protection and Affordable Care Act (ACA) go into effect within the next few months, and concerns about government deficits could lead to further cutbacks in reimbursement growth rates. Without a radical transformation, some AMCs may not survive, and in a few cases the demise of an AMC could put the university at risk.

### EXHIBIT 1 AMC operating margins could decrease by 4 to 5 percentage points because of reform, competition, and shifting demographics

Operating margin as percentage of AMC revenue



AMC, academic medical center; DSH, disproportionate share hospital.

Source: McKinsey Health Reform Team analysis, MPACT tool

## Transformational imperatives

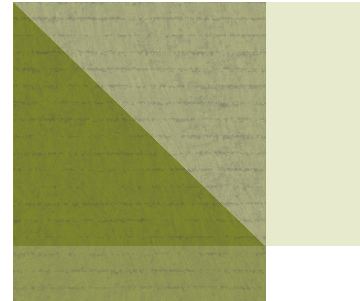
To sustain a growth platform, AMCs need to transform themselves. We have identified five imperatives that can enable them to achieve this aim. By developing a program covering all five of these imperatives (Exhibit 2), an AMC should be able to close the looming 4- to 5- percentage point operating margin gap and preserve its ability to fulfill its tripartite mission.

### 1. Strengthen the value proposition

The first step all AMCs must take is to refine their value proposition; they can then develop a strategy to support it. Only by first refining their value proposition can AMCs determine what other steps will best help them address the looming margin gap in the short time frame available to them. Each AMC must have a value proposition that makes it distinctive in its region and that can be

sustained long into the future. Having a clear value proposition that is understood by patients, payors, referring physicians, students, and researchers will allow an AMC to focus on the actions required to manage through the next few years, as reform takes hold. While an AMC's value proposition must leverage the institution's strengths (such as its differentiated clinical programs, research expertise, and educational programs), it should also reflect the local market structure. A stronger, sharper value proposition will help the AMC signal its relevance to both payors and other providers in the local market and beyond.

AMCs are currently exploring different value propositions. Some, for example, are positioning themselves as integrated community health systems that operate primarily in their local market. Their distinctiveness lies in their ability to pro-




## EXHIBIT 2 AMCs must pursue five imperatives to counter upcoming margin decline and build for the future

- 1 Strengthen the value proposition** to define a clear vision and strategy to guide the sequence and depth of the other four imperatives
- 2 Upgrade the operating model and capabilities** to generate revenue and enable the value proposition
 

<b>Protect/increase existing revenue</b> <ul style="list-style-type: none"> <li>• Service line focus and research priorities</li> <li>• Active referral flow management</li> <li>• Physician engagement</li> </ul>	<b>Key enablers</b> <ul style="list-style-type: none"> <li>• Capability to operate across care settings</li> <li>• Technology management</li> <li>• Transparency on quality and performance</li> <li>• Governance</li> </ul>
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- 3 Pursue cost reductions aggressively** to drive 10%+ savings across the cost base
 

<ul style="list-style-type: none"> <li>• Improved clinical operations cost effectiveness</li> <li>• Support service optimization</li> <li>• RCM overhaul</li> </ul>	<ul style="list-style-type: none"> <li>• EHR value capture</li> <li>• Research portfolio rationalization</li> </ul>
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- 4 Increase revenue flows** to enable 2–5% year-on-year growth, even in a post-reform environment, through volume growth (across care settings), pricing and reimbursement strategy, and participation in select risk-sharing arrangements, and (where possible) by leveraging retail options in hospitals
- 5 Develop a comprehensive partnership and acquisition approach** (beyond traditional acute-focused M&A programs) as both an opportunity to improve margins and a defensive move

AMC, academic medical center; EHR, electronic health record; RCM, revenue cycle management.



vide the full continuum of healthcare services (either directly themselves or through partnerships) with both flawless ease and uncomplicated information exchange. By successfully managing large groups of patients, these AMCs can negotiate and partner with payors to improve the health of a defined population. In contrast, other AMCs are defining their value proposition as their ability to provide highly specialized niche services, such as advanced, subspecialty care or rapid-cycle medical innovations. Their distinctiveness lies in their proficiency in offering patients access to renowned specialists and delivering cutting-edge health services early in a disease's course.

After defining their value proposition, AMCs need to build a detailed strategy to execute it. For example, an AMC that has defined itself as a provider of highly specialized niche services must ensure that it receives proper compensation for high-complexity cases; at the same time, it must mitigate the risk of being “tiered out” from most insurance plans. Furthermore, if its current catchment area contains only a limited number of patients in need of its specialized services, it should conduct targeted outreach beyond its local market to drive referrals for those services. In parallel with these efforts, the AMC should align its research activities with its clinical expertise to maximize the impact of its investment in specialized services.

The detailed strategy each AMC develops should include all four of the imperatives described below. However, the sequence in which these levers are pulled will depend on the chosen value proposition. All AMCs must carefully estimate the value they can capture with each imperative, as well as the associated execution risks, to determine where and how much to invest.

## 2. Upgrade operating model and capabilities

AMCs must tailor their operating model to ensure that it supports the chosen value proposition. As the healthcare, research, and educational environments become increasingly competitive, it will be critical for AMCs to become more effective budget administrators and to invest strategically to support long-term growth. To accomplish this, AMCs will have to make difficult choices in a number of critical areas. In addition, they will have to take steps to shore up the infrastructure needed for volume and revenue growth and the other supporting components within their operating model.

### Service lines focus and research priorities

An AMC could decide to emphasize a few specific service lines (such as cardiology and oncology) or opt for a multispecialty approach focused on a particular patient segment (e.g., by providing care for the highest-acuity patients and serving as a quaternary referral center). The choice made will determine which services are offered in the future. All AMCs should therefore review the full scope of their current services—both emergent and non-emergent care, and in- and outpatient services—and then decide which ones they will continue to provide (and, in some cases, which ones they need to add or remove). As part of this process, AMCs should reevaluate their investments in diagnostics, including imaging, and determine whether ownership of laboratories and pharmacies still makes sense. Similarly, they should reevaluate their research priorities and establish clear parameters for all projects—not only which subjects they should emphasize in the future but also where on the research spectrum (from basic science to clinical studies) they should focus their investments. The prioritization process should include an assessment of a research area's synergies with

clinical activities, potential to secure external funding, and ability to monetize intellectual property, as well as the likelihood that the AMC could become distinctive in the area (e.g., nationally ranked).

#### Active referral flow management

An AMC's value proposition and choice of service line focus should influence its referral strategy, including how it should build its affiliated physician network and footprint. Robust referral flows are necessary to ensure appropriate patient volumes, as well as the mix of patients needed for clinical and research programs. However, the approach used to ensure robust referral flows for an integrated community health system will be quite different from the broader, perhaps even national, approach required for a niche provider.

#### Physician engagement

Staff physicians drive clinical and financial performance at AMCs. Thus, it is crucial that they align around a funds-flow model that is optimized across their institution's tripartite mission. This typically requires that the physicians adopt (if they have not done so already) the mind-set of an owner rather than a business-unit customer.<sup>1</sup> The change in mind-set is necessary if an AMC hopes to lower its costs while delivering the same or better care quality, or if it plans to staff and deliver care from a broader range of facility types in a more diverse health system. The change in mind-set also highlights the need to train the next generation of physicians in the business of medicine, not just clinical care.

#### Capability to operate across care settings

In the future, most AMCs will need to be able to deliver care to lower-acuity patients in lower-cost settings while continuing to treat higher-acuity patients in higher-cost facilities. This

approach will enable the AMCs to reduce their overall costs while still providing high-quality care. An AMC could create a lower-cost setting for lower-acuity care through either partnership with or acquisition of a more cost-effective facility. (These options are explored further in the discussion below of the fifth imperative.)

#### Technology management


Most AMCs have already rolled out or are in the process of completing their rollout of electronic health records (EHRs). However, many of these institutions must still figure out how to get the most out of their technology investments. To accomplish this goal, AMCs must determine how they can build a successful informatics organization and decide who will manage it—the CIO, CMIO, CMO, or COO. Successful informatics groups can strengthen the quality and efficiency of clinical care delivery (e.g., by identifying high-risk patients and helping to reduce length of stay). They can also improve key operational processes (such as RCM) and support research platforms (such as bioinformatics). Furthermore, AMCs must determine how they can enable participation in health information exchanges and new approaches to payment, such as accountable care organizations (ACOs), which may require them to acquire additional technology capabilities. Thoughtful technology management—the ability to invest in informatics capabilities and newer technologies (such as operating room automation and physician notes digitization) while managing down the total cost of technology operations—will be a critical enabler of AMC margin protection and expansion.

#### Transparency on quality and performance

AMCs are in a unique position to take the lead in shaping which metrics are necessary to assess care quality and what approaches are best to



<sup>1</sup>For more information about how to align physicians with an institution's objectives, see "Engaging physicians to transform clinical and operational performance" on p. 5.



evaluate progress on quality and safety improvements. Assuming such a leadership role would reinforce—to patients, payors, and partners alike—that AMCs are experts in the delivery of high-quality care. At a minimum, AMCs should identify which of the performance metrics currently in use are most closely linked to their value proposition and focus on excelling on those metrics. They can then quantitatively demonstrate to their constituents their strong performance on those metrics as a way to reinforce their value proposition. It is critical that AMCs aggressively market their performance directly to constituents, since these metrics will become increasingly important in care decisions.

#### Governance

All AMCs must identify and reduce the frictional costs they incur to coordinate the activities of multiple boards and legal entities. In addition, once they have chosen their value proposition and the overall strategy to support it, AMCs must ensure that they have sufficient flexibility to make quick decisions and implement changes rapidly. At most AMCs today, organizational complexity delays decision making and slows the speed of change—all too often, AMCs miss critical financial and performance targets as a result.

### 3. Pursue cost reductions aggressively

As we have discussed, many AMCs have already undertaken programs to manage costs, but those efforts need to be strengthened and accelerated. Stronger cost-reduction programs are vital if AMCs are to create the financial cushion they need to withstand near-term pressures and the economic space they need to bridge thoughtfully to their long-term value proposition. AMCs should consider using the following levers:

#### Improved clinical operations cost effectiveness

If they have not done so already, all AMCs should launch programs to increase utilization of existing capacity, “lean out” their clinical operations, take all appropriate steps to lower supply chain costs, and carefully reduce the number of full-time-equivalent (FTE) staff per case to acceptable but lower levels.<sup>2</sup> At some AMCs, improved capacity utilization may mean that existing capacity is more fully used, but at others, a reduction in capacity may be needed. This decision will usually depend on an AMC’s choice regarding its value proposition.

#### Support service optimization

AMCs should break down the traditional boundaries between their medical centers, schools, faculty practices, and research facilities, and then consolidate common support functions (e.g., HR, finance, IT, procurement, and facilities management). One AMC recently found that it could lower its support costs by 23 percent through an organizational redesign of each function and consolidation of activities into a shared service.

#### EHR value capture

AMCs have typically spent between \$35,000 and \$70,000 per bed on EHR implementation. They must now unlock the potential of EHRs to extract more value—for example, by driving down the amount of work that must be done manually (and hence the labor costs per case), minimizing variations in performance and the number of duplicate tests ordered, and preventing adverse drug reactions and unnecessary readmissions. In addition, EHRs can be combined with other techniques (such as at-home care and telemonitoring) to improve patient compliance with post-discharge care. Our experience suggests that by optimizing their EHR

<sup>2</sup>For more information about what a holistic clinical transformation entails, see “Clinical operations excellence: Unlocking a hospital’s true potential” on p. 17.

systems, some providers may be able to lower costs by at least 5 percent through improved supply controls, better asset utilization, less clinical variability, and fewer FTEs per case. Mining EHR data also gives AMC's the opportunity to shape and advance their research priorities while supporting their clinical mission because it can provide enhanced insights into the needs and characteristics of the local patient community.

#### Research portfolio rationalization

As they are establishing clear parameters for the types of research they will prioritize, AMC's must consider the cost of each research project as well as its clinical and economic potential. For all projects, AMC's should determine the level of investment required, the type of return they can expect to receive, the timing of that return, and the appropriate milestones for gauging progress. These variables will differ depending on an institution's value proposition. (For example, the level of investment, as well as the type and timing of return, will be very different for an AMC that chooses to focus on population health than for one making a strategic bet on basic science.) All AMC's should regularly evaluate their research projects to determine which ones are not meeting the minimum thresholds established and have rigorous discipline to terminate projects that do not meet the desired criteria. To further reduce the extent to which they must cross-subsidize research, AMC's should set up processes to ensure that other revenue streams, such as industry partnerships, are cultivated.

#### RCM overhaul

As quickly as possible, AMC's must upgrade the way they manage revenue cycle operations. Too often, the RCM operations at AMC's are outmoded, inefficient, and hence overly

expensive. Furthermore, they fail to capture much of the money that AMC's could otherwise collect. By improving their RCM operations, AMC's can enhance their revenue (our fourth imperative), reduce the cost of collecting that revenue, and prepare themselves for upcoming coding changes, such as the switch from ICD-9 to ICD-10.<sup>3</sup>

#### 4. Increase revenue flows


On its own, cost-cutting will not alleviate the margin gap AMC's are facing. They also need to adopt a more comprehensive volume growth, pricing, and reimbursement strategy so that they can increase revenues.

AMC's have invested hundreds of millions of dollars in hospitals. If these assets are to be leveraged effectively, AMC's must strengthen their referral flows so that, whenever possible, they can push utilization above 70 percent. AMC's should therefore invest to increase their referral flows, especially for high-acuity cases; among the options they can consider are partnerships with regional providers who lack a subspecialty focus and the creation of free-standing emergency rooms in adjacent catchment areas. It is also crucial for most AMC's (especially those focusing on high-acuity specialized services) to improve their national brand recognition for select service lines (e.g., transplants) to increase their high-acuity market share.

Because AMC's have traditionally focused on higher-acuity and complex cases, they tend to have a higher cost-to-serve than do the other health systems in their regions, which increases the risk that they could be tiered out of some payors' networks. AMC's that deliberately align their reimbursement levels to their value proposition increase their chances of staying in those networks. For example, an AMC could become



<sup>3</sup>Specific advice on how to overhaul RCM operations can be found in "Hospital revenue cycle operations: Opportunities created by the ACA" on p. 48.



part of an ACO or other type of integrated delivery network and use its superior diagnostic capabilities to identify problems in their early stages and then ensure that patients get appropriate treatment, thus reducing the total cost of care. Before they undertake any investment-intensive programs to avoid being tiered out, however, all AMCs should determine their level of risk; among the factors they should consider are their existing government and commercial payor mix, local payor and provider density, and population demographics. Once they have identified their level of risk, AMCs should explore strategies (both offensive and defensive) to manage the risk, such as jointly creating products for the local market with payors, participating in risk-sharing programs (e.g., population management and pay for performance), and partnering with local businesses on care programs.

To increase revenue flows, AMCs should also invest in developing robust internal capabilities in payor management. In addition, they should strengthen their pricing and negotiation skills and (as discussed above) build a more distinctive and diverse set of RCM capabilities.

Finally, AMCs should consider other ways to supplement their revenues. For example, they could convert a hospital pharmacy to a more retail-like outlet, offer a broader selection of food choices in their cafeterias, or add coffee shops. Developing the necessary capabilities will likely require investment.

### **5. Develop a comprehensive partnership and acquisition approach**

Given the rapidly evolving healthcare landscape, AMCs will need to develop new capabilities and scale up existing ones quickly.

Most AMCs will also require greater flexibility so that they can respond to a dynamic regulatory environment and other forces. For example, AMCs participating in integrated community health systems will need both flexible capacity and access to diverse care settings so that they can cost effectively manage care across the acuity spectrum. Even AMCs that opt to focus on specialized niche services will need access to diverse care settings to ensure cost-effective delivery.

We believe that AMCs will need to look beyond their traditional approach (build more facilities) if they want to expand capacity and develop new capabilities. Creative partnerships, either through joint ventures, participation in ACOs, or affiliations with other academic organizations, are likely to be a better approach. Such partnerships could enable AMCs to optimize their existing assets, expand their geographic reach, build new capabilities, and/or strengthen their brand quickly—all without burdening the AMCs with additional, costly, and often underutilized infrastructure. For example, one leading AMC that wanted to develop lower-cost care venues decided to lease floors at a commercial provider (which had underutilized capacity) rather than expand its own facilities. The AMC converted the other provider's floors for low-acuity services and staffed the units with its own nurses and physicians.

While mergers and acquisitions (M&A) can be an effective long-term strategy to address capacity or capability gaps, most AMCs have not had great success acquiring or integrating assets into their existing clinical operations. Experience has shown that it takes multiple years for an AMC to integrate new physicians, other faculty and staff, and facilities successfully; tremendous leadership and significant



financial commitment are required to achieve consolidation effectively. Furthermore, the timeline is longer and the success rate lower for mergers involving AMC than for similar deals involving commercial providers or corporate entities.

Although most AMC executives are aware of the poor track record of AMC M&A, and many understand the cultural factors that have contributed to failed mergers, few know what to do about them.<sup>4</sup> We believe that two sets of actions are crucial if AMC M&A is to succeed. First, mergers involving highly skilled professionals, such as physicians, require a different set of priorities than other types of M&A do. Getting these professionals to support a merger is not a nice-to-have among other priorities, but rather an essential element for success. AMCs need a tailored roadmap and set of tools to obtain physician buy-in.

Second, alignment on a clear vision for the merged organization is critical. Achieving that alignment can be difficult, given the complexity of AMC organization and governance. But lack of alignment will delay realization of value and make executing lower-complexity actions (such as consolidation of support functions) very difficult. In most cases, more complex actions (service-line alignment and the development of new services, for example) are either substantially delayed or abandoned.

Partnerships are also playing an increasingly large role in the research arena. A growing number of NIH grants and other funding sources now require multiple principal investigators. (In the past few years, the number of multicenter grants has increased considerably.) This trend highlights the need for an AMC to be able to establish partnerships within its own facilities, with the broader university, and beyond.



Given the healthcare industry's evolution (especially the fact that many key ACA provisions soon go into effect), time is of the essence if AMCs want to survive the coming changes. Many institutions are actively exploring one or two of the imperatives outlined above, but very few have undertaken a comprehensive program to address all five of them. At a time when capital is scarce, too many AMCs are still struggling to sequence a limited number of initiatives in a way that maximizes impact and minimizes risk. If they are to survive, AMCs must pull all five levers. They must begin by carefully defining their value proposition and estimating the full value and execution risk of the other four levers. That information will enable the AMCs to decide how to sequence the other imperatives and how much emphasis should be placed on each one. In addition, it will enable them to decide which specific initiatives to undertake, how quickly those initiatives must be implemented, and how great an investment (in terms of money and human resources) should be made in each one. Those AMCs that get all five imperatives right will be poised for success. ○

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<sup>4</sup>For more information about the challenges involved in health system mergers, see "The smarter scale equation" on p. 61.

# Hospital revenue cycle operations: Opportunities created by the ACA

Although the ACA will make revenue cycle operations more complex, it also presents an opportunity for providers to improve, excel, and differentiate. By adapting their RCM operations and acquiring new capabilities, providers could open up opportunities to win.

**Matthew Bayley, MD; Sarah Calkins; Ed Levine, MD; and Monisha Machado-Pereira**

Fifteen cents of every US healthcare dollar goes toward revenue cycle inefficiencies.<sup>1</sup> Of the \$2.7 trillion the country spends annually on healthcare, \$400 billion goes to claims processing, payments, billing, revenue cycle management (RCM), and bad debt—in part, because half of all payor-provider transactions involve outdated manual methods, such as phone calls and mailings.<sup>2</sup> With passage of the Patient Protection and Affordable Care Act (ACA), the US government signaled an intent to move healthcare toward a more consumer-driven model, which will entail a corresponding evolution in hospital revenue cycles. Given the already unprecedented pressures on those cycles from recent increases in patient liability and the decreased ability of many individuals to pay even modest balances (due to ongoing economic conditions), it is clear that robust revenue cycle performance will play an increasingly important role in providers' financial health.

What does robust revenue cycle performance mean? At the highest level, revenue cycle performance should be evaluated along two dimensions: how much does the revenue cycle cost, and how much does it collect? To date, considerable emphasis has been placed on cost; however, an overall cost-to-collect number<sup>3</sup> is too blunt an instrument to reflect the true efficiency of revenue cycle performance.<sup>4</sup> More important, a focus on cost distracts attention from revenue and yield,<sup>5</sup> the second dimension along which revenue cycle performance should be evaluated.<sup>6</sup> The size of the resulting missed opportunity should not be underestimated (see the sidebar on p. 49).

Health reform will expand access to care; however, it will also add complexity, as will current market trends (e.g., more pre-authorization requirements) and other new government requirements.<sup>7</sup> These forces, along with the growing consumer-driven nature of health-

<sup>1</sup>Finn P, Pellathy T, Singhal S. US healthcare payments: Remedies for an ailing system. *McKinsey on Payments*. April 2009.

<sup>2</sup>In the retail industry, by comparison, payment transaction costs are 2 percent of every dollar, and less than 1 percent of transactions involve exceptions to the automated payment process.

<sup>3</sup>Although variations in the cost-to-collect clearly reflect differing levels of efficiency, the lack of a standard definition of what costs should be

included also contributes. For example, *Hospital Account Receivable Analysis* (Aspen Publishers) does not include health information management in its calculation of the cost-to-collect, despite the fact that health information management is widely considered to be a revenue cycle function. In fact, "most organizations only include the departmental budget of the business office in their cost to collect." (HFMA. Understanding your true cost to

collect. *Healthcare Financial Management*. January 2006).

<sup>4</sup>While the cost-to-collect is one overall measurement of efficiency, it does not address opportunities for process optimization and automation. For example, adding an FTE to audit patient registrations prior to billing would increase the cost-to-collect, yet it could also significantly decrease rework and manual intervention later in revenue cycle.

<sup>5</sup>Yield (the capture of accurate payment of amounts due to a

provider for services that were indicated and performed) should be seen as the "quality" output of revenue cycle processes.

<sup>6</sup>Yield is typically measured as "cash received as a percentage of net," yet this can be significantly affected by payor mix, limiting the ability to evaluate and compare performance. Other metrics typically focused on by hospital leadership (such as days in A/R or denials) are significantly influenced by accounting policy, payor or acuity mix, and non-

standardized definitions, which also limits the ability to benchmark performance.

<sup>7</sup>A steady stream of government compliance requirements (e.g., the new MS-DRG system, which has expanded the number and levels of codes; ICD-10 transition; and HIPAA v5010) and increased scrutiny for fraud (e.g., introduction of the Medicare Recovery Audit Contractor program) are also driving the need for more robust RCM capabilities.

care, will require that providers not only compensate for their historic underinvestment in revenue cycles,<sup>8</sup> but also identify where to invest to innovate for strategic differentiation with payors, physicians, and patients.

In this paper, we outline the key implications of US health reform for hospital revenue cycles and then discuss the associated imperatives for success.

### More complications than simplifications

Three factors related to the ACA will affect hospital revenue cycle operations: the increase in the number of patients with balance after insurance (BAI) and the introduction of both more complicated payment responsibilities and more complex payment methodologies.

#### Higher BAI volumes

The ACA is expected to provide access to health insurance to approximately 30 million previously uninsured people; this will likely slow the expansion of bad debt, which has grown at 5 to 10 percent annually over the past five years. Indeed, we estimate that by 2018 bad debt levels could be 25 percent lower than they would have been in the absence of the ACA. There is also likely to be a major shift in the mix of bad debt. At present, most bad debt is incurred by self-pay/uninsured patients, from whom the chance of collection is small. In the future, a greater per-

### Are hospitals reducing the cost-to-collect at the cost of actual collections?

Hospitals typically focus on the cost-to-collect, often at the expense of the amount of cash collected. The intensity of efforts should be reversed, because increasing yield is often easier than reducing the cost-to-collect. For example, decreasing the cost-to-collect from 4 percent to 3 percent (in absolute terms) for a hospital with \$300 million in revenue is a substantial—and painful—relative decrease of 25 percent, for \$3 million in annual savings. However, at a hospital of similar size, we saw investments in training dramatically increase registrations and point-of-sale collections, to the tune of over \$1 million annually just in the emergency department; similar efforts to reduce a 2- to 3-percent error rate in closed commercial claims achieved comparable impact.

centage of the debt will come from those with insurance coverage and, as a result, the probability of collection is potentially higher.<sup>9</sup> As Exhibit 1 shows, we estimate that, at a national level today, uninsured individuals account for more than two-thirds of hospital bad debt;<sup>10</sup> BAI and payor disputes account for approximately one-third. That ratio is likely to shift substantially—BAI alone could account for more than one-third of hospital bad debt.<sup>11</sup> This shift will require that hospitals change from a “wholesale” RCM model (which puts comparatively little emphasis on collecting from individuals) to a retail model that focuses



<sup>8</sup>Most hospital CIOs have prioritized clinical/EHR software upgrades, thus delaying the replacement of RCM systems; less than 1 percent of hospital CIOs surveyed by HIMSS named

RCM as a priority (HIMSS 2010 and 2012 leadership surveys).

<sup>9</sup>However, the newly insured population is likely to be more difficult to collect from than the “always” insured,

which may mean that hospitals will experience a higher percentage of bad debt from BAI. See also the discussion later in this paper.

<sup>10</sup>“Bad debt” as used in this paper is deemed to include

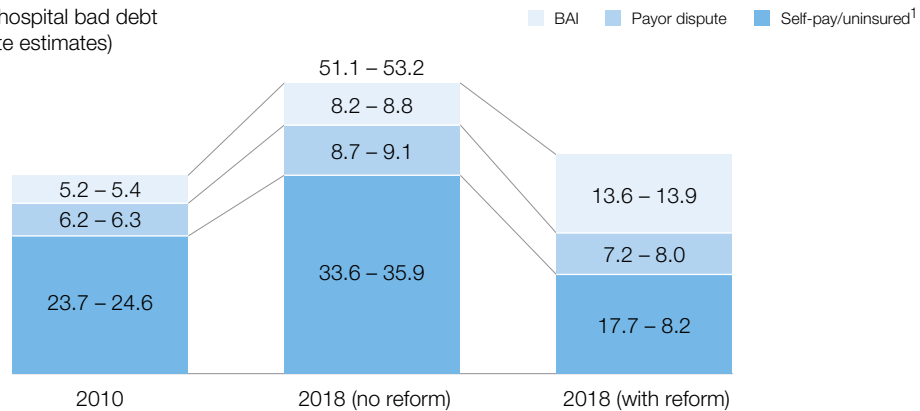
uncollected reimbursements resulting from payor disputes, BAI, or uninsured care.

<sup>11</sup>Projections take into account (1) the proportion of employers offering high-deductible health plans, which rose from

23 percent of employers with 500+ workers in 2010 to 32 percent in 2012 (Mercer Benefits surveys) and (2) the already increasing shift in cost sharing to insured individuals.

### EXHIBIT 1 Hospital revenue cycles must adjust to the shift in bad debt from the uninsured to BAI

Breakdown of US hospital bad debt (\$ billions, moderate estimates)



	2010	2018 (no reform)	2018 (with reform)
<b>Non-self-pay</b>	32 – 33%	32 – 34%	53 – 55%
BAI	15%	15 – 17%	35%
Payor dispute	17 – 18%	17%	18 – 20%
<b>Self-pay<sup>1</sup></b>	67 – 68%	66 – 68%	45 – 47%

<sup>1</sup>Post-discount for uninsured.

Note: all figures account for increased use of HDHPs (based on historical trends) and increased cost sharing for commercial plans in light of reform.

BAI, balance after insurance; HDHPs, high-deductible health plans.

Source: McKinsey MPACT and provider models; literature search; McKinsey analysis

more energy on the collection of balances from individual patients.

The increased volume of BAI transactions will require more efficient and cost-effective methods of collection. We estimate that the volume of transactions passing through hospital revenue cycles will increase by about 20 percent (Exhibit 2). Moreover, costs are likely to be significantly higher when collecting from individual patients on a per-transaction basis than when collecting from payors<sup>12</sup>—on average, healthcare consumers pay more than twice as slowly as commercial payors,<sup>13</sup> and their accounts require more manual intervention, with each rebill costing an average of \$25.<sup>14</sup> Furthermore, most BAI transactions will be for

fairly small amounts; we estimate that in 2018, the average dollar size of patient balances (excluding uninsured/self-pay balances) will range from \$20 to \$400, versus an average uninsured balance of approximately \$1,100 and an average payor balance of roughly \$2,500. Thus, as the number of individual patient BAI transactions increases, it will become increasingly important that providers be able to collect at a lower per-unit cost and decide when to write off balances below a certain threshold.

Increased effectiveness in collections may also be important because the new class of covered patients could have very different payment behavior. The future individual exchange population may be more difficult to collect from

<sup>12</sup>RelayHealth suggests that costs could be as much as three times higher.

<sup>13</sup>Improving self-pay at all points of service. McKesson/RelayHealth white paper. September 2010.

<sup>14</sup>Health Care Advisory Board.

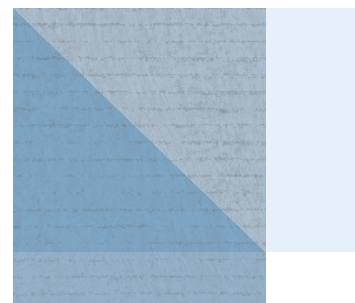
(compared with the currently insured population), given that they are apt to have lower credit scores and fewer household assets.<sup>15</sup>

**More complicated payment responsibilities**

Payment flows and calculations of both reimbursements and BAI will also become more complex as the ACA introduces cost-sharing requirements for a subset of the newly insured (those with Silver plans), and market forces result in new and innovative insurance products. Although ACA-mandated plan coverage levels appear to simplify the calculation

of patient responsibility, providers will face the same difficulties in calculating patient responsibilities as they do today, with the added component of government-mandated cost-sharing caps for those with Silver plans. These complicating factors will likely decrease existing levels of effectiveness in collecting payments not only from individuals, but also from payors, and may also extend the length of the revenue cycle.

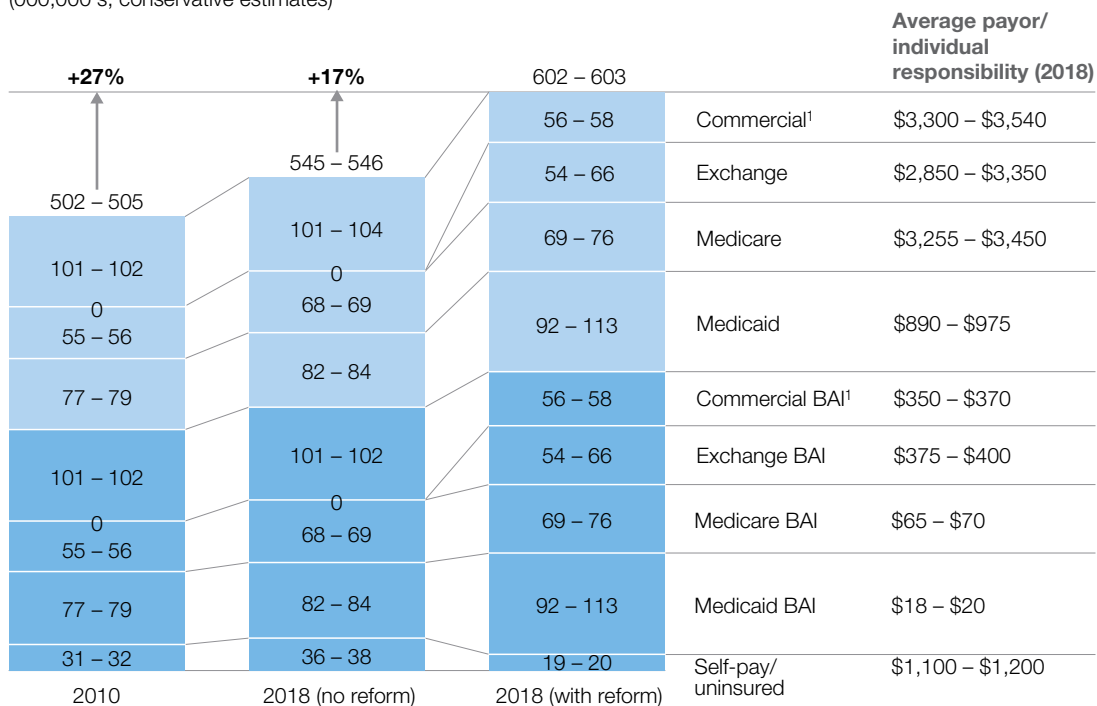
For example, although Silver exchange plans have a mandated 70-percent actuarial value, their benefit design (e.g., the split between



**EXHIBIT 2 The increase in BAI will require improved efficiency to collect many more transactions**

Number of discharges/cases/visits (000,000's, conservative estimates)

■ Commercial or government payor ■ Individual/patient



<sup>15</sup>According to McKinsey's 2011 Consumer Healthcare Survey, the mean credit score for the currently uninsured is 649 and for those likely to lose employer-sponsored insurance (ESI) is 664. These two groups will probably constitute most of the people purchasing insurance on the exchanges in the future. In contrast, the mean credit score for those currently having individual insurance is 716 and for those likely to retain ESI is 721. Similar disparities exist when one looks at the percentage of people with credit scores below 550 (uninsured: 13.9 percent; likely to lose ESI: 11.6 percent; individually insured: 4.7 percent; likely to retain ESI: 4.1 percent) and those having household assets between \$250K and \$500K (uninsured: 4.6 percent; likely to lose ESI: 6.7 percent; individually insured: 10.1 percent; likely to retain ESI: 16.7 percent).

<sup>1</sup>Includes both HDHP and traditional commercial plans; accounts for increasing use of HDHPs (based on historical trends) and increased cost sharing for commercial plans in light of reform. BAI, balance after insurance; HDHP, high-deductible health plan.

Source: McKinsey MPACT and provider models; literature search; McKinsey analysis

### EXHIBIT 3 The ACA adds upper and lower bounds on cost sharing through out-of-pocket payment caps and subsidies

Cost-sharing breakdown, assuming \$10,000 in annual medical expenses for individuals purchasing the Silver plan (\$)



<sup>16</sup>Discussions with payors confirm that future plan designs will differ significantly among Bronze, Silver, Gold, and Platinum levels to reflect the risk attraction inherent in such plans' coverage levels and the resulting likely utilization.

<sup>17</sup>In 2014, out-of-pocket payments for all plans will be limited to \$6,400 for single coverage and \$12,800 for family coverage with lower caps for those with incomes below 250 percent of the federal poverty level (FPL). For example, for those with incomes between 100 percent and 200 percent FPL, payments are capped at \$2,133 for individuals and \$4,267 for families. Actual plan design will vary.

<sup>18</sup>With cost-sharing subsidies, the Silver plan actuarial value will increase to 94 percent for those with income <150 percent FPL (\$16,755 for a single person and \$34,575 for a family of four), to 87 percent for those with incomes between 150 percent and 200 percent FPL (\$22,340/\$46,100), and to 73 percent for those with incomes between 200 percent and 250 percent FPL (\$27,925/\$57,625).

<sup>1</sup>Applies only to Silver plans purchased by individuals with income <250% FPL.

<sup>2</sup>Responsibility TBD for remaining \$25 of medical expenses, as synchronization of AV and limits/subsidies remains to be determined by DHHS.

ACA, Patient Protection and Affordable Care Act; AV, actuarial value; DHHS, Department of Health and Human Services; FPL, federal poverty level; OOP, out-of-pocket; TBD, to be determined.

Source: Team analysis

deductibles, co-payments, and co-insurance) can vary, and plan coverage beyond essential health benefits can also differ significantly.<sup>16</sup> Moreover, the ACA has capped out-of-pocket payments<sup>17</sup> (superseding contractual cost-sharing responsibilities) and subsidizes some cost sharing for Silver plans.<sup>18</sup> Exhibit 3 illustrates how responsibility varies for individuals of different income levels purchasing Silver plans.

Ideally, the caps and subsidies would reduce bad debt levels, requiring providers to collect only the cost-sharing amount from patients

and leaving payors to reconcile the subsidy amounts with the government. There is a proposed regulation to issue advance monthly payments to payors based on their member population; the payments would then be reconciled at the end of each year (similar to the approach used in the Medicare Prospective Payment Systems). How this proposed arrangement—and the potential need to then reconcile payments to providers—would work for providers is yet to be seen.

In the traditional wholesale revenue cycle, the added complexity of payment responsibilities

would be dealt with much as secondary payors are currently dealt with (usually, issues are resolved over a series of months). In a post-reform world, however, there is likely to be increasing pressure on providers for more “retail” revenue cycle measures, such as real-time adjudication and point-of-service (POS) collections, just when calculating balances due becomes more difficult.

### **More complex payment methodologies**

Some of the more attention-capturing provisions of the ACA have centered on alternatives to the traditional fee-for-service reimbursement method that currently predominates in the United States (such as accountable care organizations, or ACOs, and bundled payments). Given the significant investments potentially required for participation in these programs, the alternative reimbursement methods being tested raise a number of questions for the revenue cycle.

McKinsey has a series of separate papers devoted to the impact of innovative care and payment models,<sup>19</sup> and so we will only briefly discuss the issues that alternative reimbursement methods raise for a provider’s revenue cycle. Reimbursement is moving away from fee-for-service to payment-for-value, which requires tighter integration of clinical records and other systems with providers’ financial systems. Today, however, a key bottleneck for many hospital revenue cycles occurs in the link with the clinical side. Hospitals that want to run payment-for-value programs that increase provider integration (e.g., ACOs and patient-centered medical homes) will need to be able to answer such questions as, “How do we attribute impact and allocate payments among providers?” Hospitals that

want to implement programs that increase the spectrum of care and tie payment to more than one specific patient-provider encounter (such as pay-for-performance and bundled payments) will need to ask whether their systems can seamlessly track and report performance (on population health metrics, for example) as well as whether they really can influence the provision of out-of-hospital services (including post-acute care). To ensure that they can answer these questions affirmatively, hospitals may require significant capital investments, and so they must carefully consider the costs required against the potential benefits, especially because some of the skills they will have to develop (e.g., actuarial capabilities for capitated payments) are beyond a provider’s core competency of care provision and may affect only a small percentage of reimbursement.

Traditional fee-for-service reimbursement is changing as well. A steady stream of government compliance requirements (such as the new MS-DRG system, ICD-10 transition, and HIPAA v5010) and increased scrutiny for fraud (including introduction of the Medicare Recovery Audit Contractor, or RAC, program) are driving the need for more robust RCM capabilities. Payors are following suit on some of these compliance requirements.<sup>20</sup> Furthermore, because payors are no longer able to rely on risk selection as a lever, they are turning to utilization and care management as a key element of their business model. (For example, they are increasing their requirements that providers obtain pre-visit authorizations and clinical clearances.) Because of these changes, providers will need to invest in RCM operations just to stay even with performance today.



<sup>19</sup>Please contact the McKinsey Center for US Health System Reform to receive copies.

<sup>20</sup>One good example of this is Medicare’s focus on observation status versus inpatient status, with private insurers following suit.

### Encouragement offered by administrative simplification

As a counterpoint to some of the added complexity discussed above, the ACA does devote significant attention to administration simplification and standardization of operating rules.<sup>21</sup> Provisions include the streamlining of enrollment procedures, the standardization (in electronic format) of a number of payor-provider transactions, and the requirement that health plans have unique identifiers.

Direct savings from these provisions are likely to be limited for hospitals,<sup>22</sup> and the transition could be cumbersome. (For example, just the change from UB-92 to UB-04 claim forms caused months of billing delays for many hospitals.)

Nevertheless, the required modifications will directly enable a number of solutions to mitigate ACA-added changes. For example, standardized operating rules for eligibility will streamline processes for the newly insured—a critical advance (even today, eligibility issues are the root cause behind 30 to 40 percent of initial denials). In addition, streamlined enrollment for Medicaid, the Children’s Health Insurance Program, and exchange subsidies (via a single electronic or paper form that pulls from information already captured in government databases, such as those run by the Internal Revenue Service, Social Security, and Immigration Services) creates the opportunity to significantly decrease the amount of uncompensated care hospitals provide.

### Imperatives for success in a post-reform world

As we have discussed, the evolving health-care marketplace is likely to make RCM more

challenging for providers in the future. Providers must dedicate real effort to understanding the capabilities required to be successful and then decide how they can best acquire those capabilities (e.g., build internally, acquire, or outsource). In preparation for the impending changes, we have identified five core principles for RCM success. We discuss each of these principles below, as well as some of the key tactical levers that support them.

#### Understand your revenue cycle

Providers must understand their revenue cycle performance and identify where value creation opportunities exist, both now and post-reform. This may seem obvious, but many hospital executives today see the revenue cycle as a bit of a black box, for a variety of reasons (among them: nonstandardized definitions, siloed functions, limited usefulness of benchmarks, and lags of more than six months in measuring performance improvement). However, a deep understanding of operational performance will be critical for allocating limited resources, particularly as the “make-or-buy” decision becomes increasingly relevant, because it will enable hospital executives to determine which levers are most important to invest in first. (Among the questions the executives must consider: should they focus on Medicare processes because of anticipated volume increases, or should they emphasize commercial operations because of their higher reimbursement requirements?)

A deep understanding of operational performance is also required to determine the likely return on the many potential RCM investments that could be made in light of the ACA. (For example, should hospitals centralize

<sup>21</sup>Section 1104: Administrative simplification; Section 1413: Streamlining procedures for enrollment through an exchange and State Medicaid, CHIP, and health subsidy programs; Sec. 2201: Enrollment simplification and coordination with state Health Insurance Exchanges; Section 2202: Permitting hospitals to make presumptive eligibility determinations for all Medicaid-eligible populations.

<sup>22</sup>We estimate that administrative simplification provisions will result in about \$2 billion in annual savings for US hospitals, which is less than 5-percent savings on total transaction costs (off an estimated base of approximately \$75 billion spent by US hospitals in 2010 on billing and insurance-related activities). Physicians are expected to be the primary beneficiaries of administrative simplification because hospitals have already incorporated electronic transactions along more of their revenue cycles.



coding to more efficiently comply with new government requirements? Build in-house actuarial capabilities?) Unless hospital executives can understand their true baseline performance at a deeper level than cost-to-collect<sup>23</sup> or days in accounts receivable, even simple attempts to improve efficiency may be misdirected.

What this means is that hospitals will have to be able to track end-to-end performance at a patient level—beginning with patient access functions (such as pre-registration, POS collections), continuing to health information processing (continued stay certification, coding, the intersection with clinicians, etc.), and finally moving on to back-office operations (such as denials management and collections). As an example, the Healthcare Financial Management Association has defined a set of MAP Keys<sup>24</sup>—a common set of key performance indicators—with the goal of promoting consistent reporting and peer-to-peer comparisons. In general, providers should identify and track a number of more process-driven metrics for diagnostic purposes so that they can identify bottlenecks in operations.

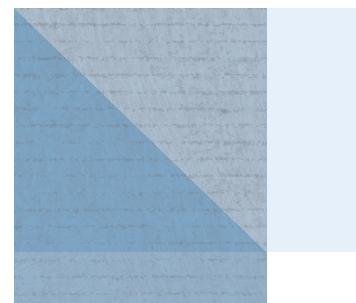
The metrics tracked should not be viewed as siloed information of interest only to the RCM group. Rather, people throughout the hospital should realize their significance. (For example, the staff in the registration department should understand how bad debt levels could rise should they begin to collect less BAI at the point of service.) By developing a deeper understanding of both operational performance and the likely local impact of health reform, hospital executives can begin to understand how they can best adapt their operations to a post-reform world.

### **Invest in the journey to an efficient revenue cycle**

Because of the lack of investment in RCM IT systems<sup>25</sup> and the focus on keeping the cost-to-collect low, provider revenue cycles are usually highly decentralized, nonstandardized, and manual. In many cases, this approach has been sufficient to deliver acceptable results in a pre-reform world. In a post-reform world, however, decentralized, nonstandardized, manual processes will not be able to meet the evolving challenges and increased need for efficiency. Unless a provider makes appropriate investments in anticipation of the increased numbers of insured lives and transactions, its financial health could be at risk. Exhibit 4 illustrates what could happen if a hospital failed to ready itself for a post-reform world.

Efficient revenue cycle operations in a post-reform world will require process standardization and optimization, specialized expertise (e.g., by payor type or complexity), and aggressive automation. For most providers, the scale required to justify the needed investments may be obtainable only through centralization, consolidation, and/or outsourcing<sup>26</sup> of key revenue cycle functions. In fact, we expect that RCM outsourcing will take off over the next several years—potentially, up to 40 percent of providers may consider end-to-end outsourcing in the near future.

Depending on a provider's starting point, a strong focus on greater operational efficiency could result in as much as a 35-percent reduction<sup>27</sup> in the cost-to-collect. However, the transformation is not easy, and the dividends are not always as great as those that can be reaped from improvements in effectiveness.



<sup>23</sup>For example, understanding what the cost-to-collect is for a clean claim that drops electronically without any human intervention versus the cost-to-collect for an account that requires manual follow-up and rebilling (including the cost of each activity along the process).

<sup>24</sup>HFMA's MAP Keys (<http://www.hfma.org/mapkeys/>), last visited 2/5/2013.

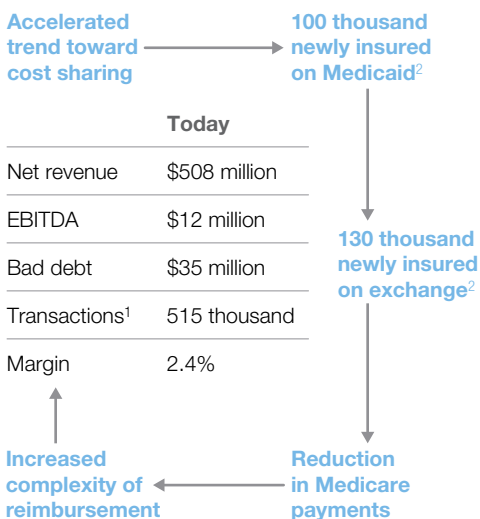
<sup>25</sup>As noted in footnote 8, hospital CIOs have prioritized clinical/EHR software upgrades, thus delaying the replacement of RCM systems. However, we expect that RCM purchases should increase in the near future as hospitals implement EHR systems and prepare for ICD-10 conversion.

<sup>26</sup>Based on interviews with about 100 CFO/CIO/RCM directors, we believe that systems with 10+ hospitals have sufficient scale to centralize on their own and do not require a third-party outsourcer.

<sup>27</sup>Based on McKinsey client experiences with similar centralization and consolidation efforts.

**EXHIBIT 4 Neglecting the impact of reform on the revenue cycle could result in significant risk to a provider’s financial health**

Assume that a hospital has \$500 million in revenue and a 30% commercial payor base...



...unless it improves cash collected, this currently financially healthy hospital could operate at a deficit

	2018	2018 without improvement
Net revenue	\$763 million	\$741 million
EBITDA	\$17 million	-\$19 million
Bad debt	\$51 million	\$35 million
Transactions <sup>1</sup>	580 thousand	610 thousand
Margin	2.3%	-2.5%

Improving RCM yield may be the most effective method of closing the gap

<sup>1</sup>Based on number of visits.

<sup>2</sup>Within the county.

EBITDA, earnings before interest, taxes, depreciation, and amortization.

Source: McKinsey MPACT model; McKinsey provider model

(Note, though, that efficiency efforts often result in, and provide the enabling infrastructure for, effectiveness gains.) Any approach to decisions about consolidation and outsourcing must be at the sub-functional level, given the range of activities that happen within the revenue cycle. (For example, patient access should be thought of not just as patient access, but also as pre-registration versus scheduling versus inpatient registration, etc.)

The hard work begins as a provider starts to make decisions about its future state: what are the optimal workflows? What governance model and structure will improve organizational performance and execution? What

coordination mechanisms and cross-functional processes will ensure control, collaboration, and knowledge sharing, and also exploit scale benefits? What kind of performance management system is required? At many providers, the lack of a single point of accountability for revenue cycle performance today, coupled with the inherent tension resulting from revenue cycle linkages to clinical care, case management, patient access, and back-office operations, can make it difficult for executives to gain agreement and collaboration across silos for a re-design of the revenue cycle, particularly on contentious issues such as governance, roles and responsibilities, decision rights, and key performance indicators. In our experience,

even the most aggressive transformations are multiyear efforts at large hospital systems.

Many providers have already centralized and optimized back-office operations, as well as some patient access functions (such as pre-registration) and some parts of the mid-revenue cycle (such as charge master maintenance). For these providers, the next critical frontier for efficiency will be the clinical revenue cycle—the process by which medical records for patient care are translated into billing and collections activity. (Greater efficiency in this area can be gained, for example, by educating staff about and then enforcing new documentation practices, and by defining responsibility for managing clinical denials.) Investments in the clinical revenue cycle will be crucial for responding to more stringent payor demands (such as for pre-authorization and medical necessity reviews) and increased reporting requirements (e.g., the need to link payments to quality).

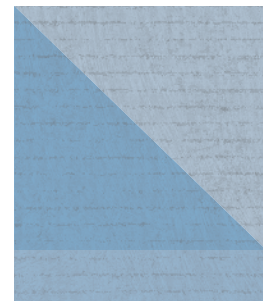
One provider's RCM group offers an example of how the clinical revenue cycle can be centralized. Instead of sending clinical denials to hospital care managers, who have competing demands for time and may be unfamiliar with contract terms and medical necessity criteria, the organization created a centralized, dedicated, virtual unit called the "clinical resource center" to manage clinical denials, pre-certifications, and pre-authorizations. The center was staffed by a small team of nurses trained in best practices and dedicated to pre-service clinical clearance and appeals; this team served all the hospitals in the provider's system. This approach enabled the provider to achieve more rapid and effective turnaround of account inquiries, thereby shortening the revenue cycle and significantly improving efficiency.<sup>28</sup>

### **Expand the ROI equation to include effectiveness**

As mentioned in the previous section, many efficiency investments can also produce significant effectiveness improvements. (Expertise, for example, increases not only speed but also quality of work). When operations are consolidated at one site rather than multiple different hospitals, it becomes much easier to implement process changes, standardize procedures, and share best practices, particularly in systems with significant variability in existing performance. Greater visibility into performance and reduced variability in the approach used for key RCM functions can also improve compliance and a provider's ability to meet regulatory and payor requirements, such as those for coding, documentation, and records management. Furthermore, efforts taken to improve efficiency that do not also consider effectiveness can be counterproductive.<sup>29</sup>

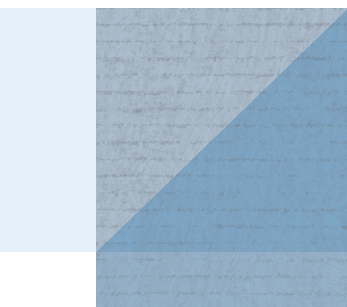
In our experience, investments to improve effectiveness also often improve efficiency and can increase cash collections and reimbursements by 3 to 6 percent (worth as much as \$18 million for a hospital with about \$300 million in net patient revenues). Investments that appear to have negative ROI based on efficiency metrics alone, such as those focused on the cost-to-collect, become no-regret moves once the benefits of increased effectiveness are added in—and this is likely to become increasingly true as the revenue cycle becomes even more complex and requires more specialized knowledge and expertise under health reform.

To prepare for a post-reform, retail healthcare world, we recommend that providers invest in upstream revenue cycle activities to enhance



<sup>28</sup>This provider's 2008 recovery rate was about 67 percent of what was determined appealable, resulting in \$56 million—a 75-percent improvement over 2007. Another example of an increasingly common investment in the clinical revenue cycle is the creation of clinical documentation specialists, who assist physicians with payor-appropriate documentation. The returns on this investment are similarly outsized.

<sup>29</sup>For example, many providers attempt to measure the efficiency of their collectors by tracking the number of "touches"; however, without understanding the effectiveness of their collection efforts (e.g., percentage of dollars collected against the target for assigned accounts), some collectors may shift their focus to touching as many accounts as possible, without regard for the effectiveness of those touches.



effectiveness. One especially critical area to invest in is frontline operations at the point of service. It is not just that individual balances can be collected much more cost effectively earlier in the revenue cycle—it is much more likely that those balances will be paid when collected at the point of service.<sup>30</sup> Real-time quality checks on registration information can reduce the need for rework and the amount of incorrect information that limits a provider's ability to collect. Expanding payment options and counseling about alternatives (such as financing programs for both uninsured patients and those with BAI) can reduce bad debt levels.

Enhancing frontline operations could also increase net revenue by reducing uncompensated care. As noted earlier, approximately 30 million previously uninsured individuals are expected to receive coverage from commercial and/or Medicaid plans. However, given the relatively modest penalties for not enrolling (e.g., \$695 in 2019), some of those individuals may not consider obtaining coverage until they present at a hospital.<sup>31</sup>

Providers must be prepared to recognize such uninsured patients rapidly, support their application for coverage, and track policy issuance. This may require the providers to overhaul some of their front-office admissions processes, add capacity in the early years of reform, and streamline the coverage search as much as possible. Moreover, as patients start to think of themselves as consumers of healthcare services, a customer-oriented approach (such as the use of POS credit card swipe machines and self-service registration kiosks) could become a significant differentiator. In fact, many providers are already investing in more efficient eligibility systems so that they can more efficiently and ef-

fectively serve their patients. (One example is a one-click system developed by the Centers for Medicare and Medicaid Services—the 270/271 HETS application—that enables hospital staff to easily and quickly view eligibility information.)

### **Invest as much in culture as you invest in technology**

Although automation and technology will be critical future RCM elements, they are not silver bullets.<sup>32</sup> The effective implementation of technology relies on staff uptake, and while RCM processes can be streamlined and automated, a number of patient-facing processes will continue to require frontline staff support for success. The whole hospital must feel responsible for the revenue cycle success, and this requires a significant shift in culture. Admissions staff and other frontline personnel need to think of themselves as having a necessary role in enabling patients to get access to healthcare and treatment, as well as in ensuring the financial health of both the hospital and the patient.

Providers will need a multipronged approach to successfully change culture, from one in which individual medical bills are low on payor, provider, and patient priority lists, to one in which hospitals seek collection prior to the provision of services and sign people up for coverage at the first encounter. Such a dramatic shift in policy will require thoughtful change management and communication of the underlying reasons to employees. Hospitals will therefore need to ensure that the appropriate incentives, training, and performance management are in place. Finally, physicians will play an increasingly important role in the ability to collect reimbursement for services indicated and rendered, and any

<sup>30</sup>McKinsey Collections Practice.

<sup>31</sup>Enrollment on commercial exchange plans may be limited by open enrollment periods (to be determined).

<sup>32</sup>One of the highest-performing hospital business offices McKinsey has observed relied heavily on manual processes and paper—and their most pressing IT demand was a request for some scanners. The group's culture, however, was one of accountability and high performance, roles were highly specialized, and significant investments had been made in process standardization. Conversely, one of the lower-performing business offices in the same health system was one of the more technology-driven offices.

incentives, training, and education efforts must engage and include them.

To facilitate the culture change, providers must ensure that their interactions with payors and patients support the change in priorities. Discussions with payors should address subscriber base contributions to bad debt levels; unless payors are willing to grant concessions (such as higher pricing or some responsibility for educating or collecting BAI), providers should ensure that their contracts with the payors allow for POS collections, and they should work with key payors to invest in real-time adjudication. As allowed by law, providers should set patient expectations about payment responsibilities from the very first interactions. (For example, they should discuss coverage and patient financial responsibilities in pre-registration and scheduling.) Providers should also educate patients about payment and alternative treatment options.

### **Think beyond the boundaries of the traditional revenue cycle**

Providers should also ensure that all key stakeholders have a “seat at the table” so that the best set of solutions can be developed. In addition to making certain that all revenue cycle functions are represented, providers should be sure to include clinicians and other groups not traditionally seen as part of the revenue cycle. Improved collaboration not only can reduce the contractual terms that often disadvantage providers in RCM collections (such as strict billing limits without corresponding prompt pay provisions), but might also re-align some of the bad-debt-related financial risk. (For example, a provider might be able to get increased reimbursement rates for a plan that has

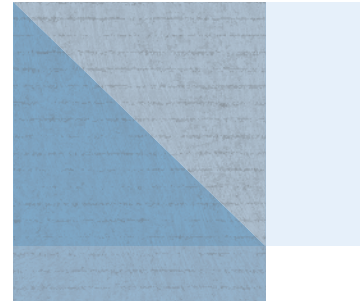
historically attracted individuals who are less likely to pay their BAI.)

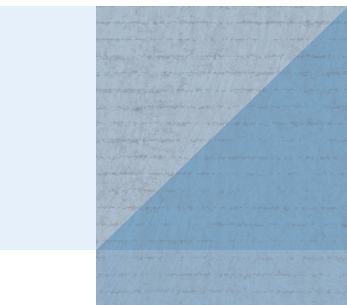
As healthcare becomes more consumer-driven, patient input becomes increasingly important. An understanding of patients and what matters to them will benefit providers as patients begin to act like consumers and take a more active role in determining their care. The revenue cycle can, in fact, be likened to a retailer’s check-out process in that it can define “moments of truth” for consumers and the likelihood of future interactions—and moments of truth are likely to be even more prevalent in the healthcare industry, given the emotion-laden patient-provider relationships. As patients become consumers, hospitals will need to develop a more integrated perspective on how to interact with them, something akin to the customer relationship management approach that businesses use.

Providers should also consider breaking down boundaries even more dramatically by reaching out to their most important payors. While the ACA does mandate some standardization that will result in cost savings, we believe the largest opportunities for savings will come from voluntary collaborations between payors and providers to eliminate redundancy. (For example, joint working teams could problem-solve opportunities to reduce system inefficiencies and RCM costs.)

One recent payor-provider collaboration anticipates savings of 10 to 20 percent by:

- Improving coding, billing, and claims practices to reduce the number of rejected claims. Representatives from both the payor and provider will work together to






determine the reasons for the rejections and identify potential process improvements.

- Decreasing eligibility errors by improving the provider staff's access to required information (e.g., through electronic systems); training them on where to find benefit, coordination-of-benefit (COB), and liability information; empowering the staff to collect COB information from patients; and working to ensure that the information in the system is up-to-date.
- Reducing late charges by reconciling the provider's guidelines on timing for documentation and coding submissions with the payor's claims submission timelines.
- Consolidating audit costs by developing a recovery rate to apply to audits based on historical performance (with a micro-audit function to ensure that the average recovery rate is not changing).

Beyond cost reduction, payors and providers can also partner to develop creative products and services for the new consumer-driven marketplace, such as products that re-align risk according to stakeholders' ability to affect risk. Although there are certainly situations in which payors and providers will—and should—continue to be adversarial, we believe that the time is right for providers to consider moving beyond their traditional relationship with payors so that both sides can share in the pool of value that could be created through joint efforts.



Although the ACA may contribute some complexity to revenue cycle operations, it also presents an opportunity for providers to improve, excel, and differentiate. Much like the evolution of payment solutions in retail, the changes providers will have to make to adapt their RCM operations to the new post-reform, consumer-driven world could open up opportunities for them to win. Electronic payments in retail paved the way for lower transaction costs, consumer loyalty programs, and new business models, such as eBay and Amazon. What will be the corollaries for the healthcare industry? How can you position your institution for success? 

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## The smarter scale equation

Given today's realities, health systems must look beyond the traditional economies of scale if they want to reap the full benefits of M&A. They must consider other economies that M&A can offer, commit themselves fully to the effort, and execute flawlessly.

During times of upheaval (regulatory, economic, or both), a knee-jerk reaction in many industries is to pursue mergers and acquisitions (M&A) in hope of achieving economies of scale through asset consolidation. Historically, the hospital industry has been no different. In 2011 alone, US health systems completed 90 deals involving more than 150 facilities; the total transaction value exceeded \$8 billion (in comparison, there were 52 deals involving 80 facilities in 2009).<sup>1</sup> The consolidation appears to signal providers' quest to achieve scale benefits, especially in the context of a recent decrease in their ability to drive pricing—the lever the industry has used for most of its growth in the past decade.

During that time, providers were able to realize value primarily through increased contracting leverage with payors. Today, this leverage is disappearing, in part because the Federal Trade Commission is scrutinizing deals more frequently and closely, and blocking some on the basis of their potential impact on price. Now that their ability to create “quick-win” value through M&A deals is limited, providers must find and exploit other economies to create value through those deals. The other economies may require greater up-front investment, however.

Thus, we believe that the current wave of M&A is fundamentally different from prior ones because the “traditional scale equation” no

longer applies. This is not to say that M&A should be avoided—it will still be the right answer in many situations. However, a smarter, more sophisticated scale equation should be used today to evaluate potential value creation. Before health system leaders rush to pursue deals, they should outline what they hope to achieve through scale and carefully weigh the risks and benefits of various strategies. In particular, they should take care to avoid overestimating the potential value creation that can be gained through M&A and underestimating the investments (in funding, leadership bandwidth, other resources, etc.) that will be required to realize value. In addition, they should expand their thinking to consider strategies other than M&A that might enable them to achieve their scale goals, because some of those strategies could entail less overall risk and require less investment than M&A.

### The resurgence in hospital M&A

The US hospital industry bears all the hallmarks of a sector in which scale should drive performance. Inherent scale advantages are usually present when a sector is fragmented and has heavy capital requirements, overcapacity in many markets, differences in execution ability that drive highly variable operating performance, and major differences in balance sheet health (rich, deep pockets

**Rupal Malani, MD; Anna Sherwood; and Saumya Sutaria, MD**

<sup>1</sup>*Health Care Services Acquisition Report*, 17th edition. Norwalk, CT: Irving Levin Publishers; 2012.

may be found down the street from institutions on the brink of bankruptcy).

Under these conditions, financial or regulatory disruptions in any sector often lead to industry consolidation; this is particularly true when an economic downturn and regulatory changes collide. In the European banking industry, for example, M&A activity has increased recently as governments have sought to divest equity stakes acquired in bailouts, banks have tried to raise additional capital in response to regulatory changes, and distressed assets have become available at attractive prices.

The US hospital industry has proved to be no exception. The past 25 years have seen several spikes in M&A activity following periods of economic downturn, regulatory changes, or both. In recent years, hospital M&A resurged as the recession, healthcare reform, and other trends (including population aging) converged to place multiple financial pressures on US hospitals. For example, population aging has been causing Medicare ranks to swell, and the elderly's higher utilization rates are significantly altering the mix of patients and having a disproportionate impact on hospital economics. Planned cuts in Medicare growth rates and proposed cuts in Medicaid growth rates are likely to intensify pressure on provider economics, requiring them to become more efficient and productive. Our research suggests that, on average, US hospitals that do not improve their operating cost structure could face an average EBITDA loss of more than \$1,500 to \$1,600 per Medicare admission by 2019.<sup>2</sup>

In addition, the recession expedited the ongoing erosion in employer-sponsored insurance (ESI) coverage. The share of the under-65

population covered by ESI decreased to 58.3 percent in 2011, falling for the eleventh year in a row (from 69.2 percent in 2000).<sup>3</sup> ESI erosion is forcing consumers to shoulder an increasing portion of each healthcare dollar, which is leading to greater price sensitivity and, often, to lower provider volumes.

However, the mix of patients hospitals see is also likely to shift away from the uninsured and those with ESI toward those with individual insurance, Medicaid, or Medicare.<sup>4</sup> We believe that this shift will, in the aggregate, put downward pressure on hospital margins; by our estimate, the shift could negatively affect hospital EBITDA by \$15 billion to \$25 billion annually by 2019.<sup>2</sup>

The pressures just described arose following years of strong commercial pricing growth for hospitals, which allowed many health systems to put minimal emphasis on operating cost discipline. Many providers were therefore unprepared for the downturn and became M&A targets. Smaller systems and community hospitals, for example, often found that their financial positions became untenable—they lacked a strong balance sheet, treated a disproportionate share of government-subsidized or uninsured patients, and were unable to cross-subsidize with higher-paying commercial volumes or a broader portfolio of care facilities. Similarly, many not-for-profit hospitals found themselves in untenable financial positions because of their dependence on endowments and philanthropy, both of which were adversely affected by the downturn.

## The traditional argument for M&A

M&A and the scale economies it can bring have often been viewed as a panacea for rising

<sup>2</sup>McKinsey Provider Reform Impact and Stress-test Model, Center for US Health Reform.

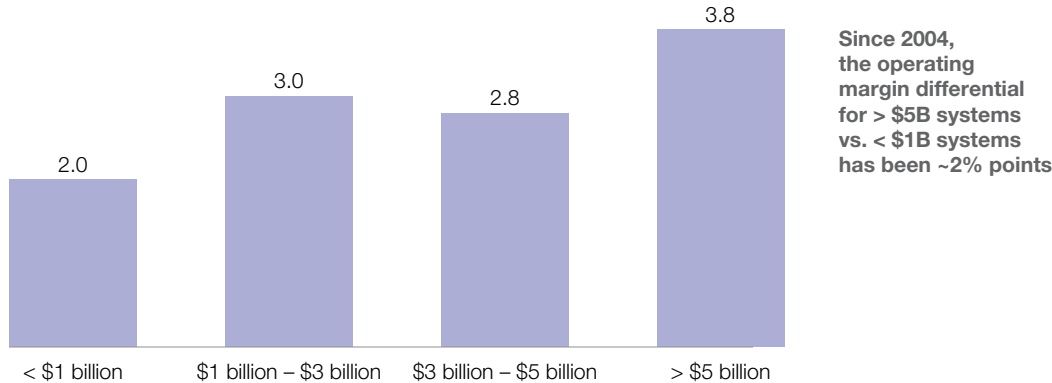
<sup>3</sup>Gould E. Employer-sponsored health insurance continues to decline in a new decade. Economic Policy Institute Briefing Paper No. 353. December 5, 2012.

<sup>4</sup>For a closer look at how healthcare reform should affect patient volumes, see "The impact of coverage shifts on hospital utilization" on p. 73.



## EXHIBIT 1 Operating margin by health system scale<sup>1</sup>

Annual revenues (% , 2010)



<sup>1</sup>Historical data based on ~245 reporting systems; comparative data from Citi Growth Study. Health system data reflects the average for that category of revenues.

Source: Citi Healthcare Investment Banking Group presentation to the Healthcare Financial Management Association (January 19, 2012)

economic pressures. Indeed, evidence suggests that scale does influence a health system's operating margins (Exhibit 1).

Once the recession began, a number of industry observers, analysts, and banks (including Moody's Investors Service, HealthLeaders Media, Noblis Center for Health Innovation, JP Morgan, and BMO Capital Markets) predicted that hospital M&A activity would increase. Several of them advocated the benefits of asset consolidation to capture scale economies. Moody's, for example, described scale as an important driver of financial success; it said that health systems earning more than \$3 billion in annual revenues experience fewer ratings downgrades than smaller systems do—and more than three times fewer downgrades than systems with less than \$500 million in annual revenues receive (Exhibit 2).<sup>5</sup> Moody's also noted that the average cost of debt is consistently lower for systems with over \$5 billion in revenues than for systems with under \$1 billion in revenues.

However, the argument for hospital M&A has focused primarily on the value that can be captured through traditional scale levers, such as additional pricing leverage, better access to capital, and classic cost economies. Historically, this rationale for asset consolidation held up well. A report by the Robert Wood Johnson Foundation, for example, found that during the consolidation wave of the 1990s, hospital mergers raised inpatient prices by at least 5 percent and by up to 40 percent when the merging hospitals were closely located.<sup>6</sup>

## Updating the traditional M&A scale equation

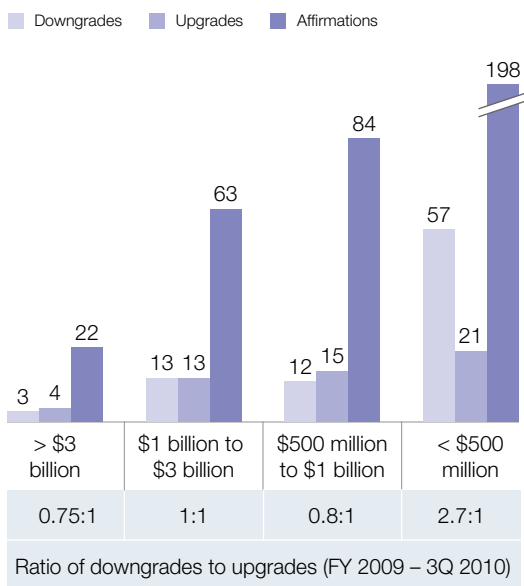
The emphasis on using asset consolidation to achieve the benefits of scale—which we call the traditional scale equation—ignores an important reality: M&A is fraught with value-creation challenges. A McKinsey analysis of healthcare M&A transactions (including pharmaceutical and medical device companies) shows that the deals created just 7-percent

<sup>5</sup>Moody's Investors Service, as cited in a Citi Healthcare Investment Banking Group presentation to the Center for Corporate Innovation (November 30, 2010).

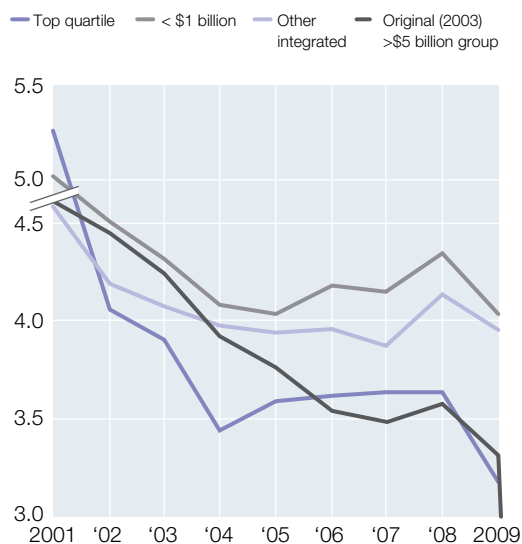
<sup>6</sup>Vogt WB, Town R. How has hospital consolidation affected the price and quality of care? Robert Wood Johnson Foundation, Research Synthesis Report No. 9. 2006.

**EXHIBIT 2 Ratings agencies agree that scale is an important determinant of success**

Number of health systems<sup>1</sup>



Average cost of debt<sup>2</sup> (%)



<sup>1</sup>In the event of an upgrade/downgrade rating action and affirmation rating action within the same year, Moody's accounted for the rating action as an upgrade/downgrade.

<sup>2</sup>Historical data based on ~245 reporting systems; comparative data from Citi Growth Study. Health system data reflects the average for that category of revenues.

Source: Moody's Investors Service; Citi Healthcare Investment Banking Group presentation to the Center for Corporate Innovation (November 30, 2010)

average added value globally over the past 15 years. In addition, the acquirer may have overpaid in about 60 percent of healthcare deals.<sup>7</sup>

The challenges to value creation are many. In any industry, pursuing M&A activity can consume the lion's share of management attention—not only during the transaction phase but also during the integration planning and implementation phases. Pursuing M&A activity also guarantees certain types of value destruction, as illustrated in Exhibit 3. In our experience, health systems often underestimate the cost of both pursuing an acquisition and managing the post-merger integration.

Analysis of the recent provider M&A environment confirms that acquisitions require substantial up-front investment. Transaction values have averaged 0.76 times revenues in recent years; EBITDA multiples have averaged 9.5.<sup>8</sup> On a per-bed basis, transaction values have averaged almost \$450,000.

Furthermore, given today's environment, providers face two other significant challenges if they pursue M&A on the basis of the traditional scale equation. First, many of the traditional scale levers, especially pricing and referral volume, are unlikely to continue to serve as strong sources of value creation. Greater consumer

<sup>7</sup>McKinsey M&A Transaction Practice. Deal value added is defined as the combined (acquirer and target) change in market capitalization, adjusted for market movements, from two days before to two days after the deal's announcement, as a percentage of the transaction's value.

<sup>8</sup>Health Care Services Acquisition Report, 17th edition. Norwalk, CT: Irving Levin Publishers; 2012.

and employer price sensitivity, increased scrutiny on industry profits, and regulatory concerns about hospital mergers are limiting health systems' ability to leverage pricing. Similarly, the increased patient volume that typically follows M&A because of larger referral networks will not be generated as easily going forward. If health systems want to generate value through greater volume, they will instead have to consider clinical network rationalization and strategies to combine service lines.

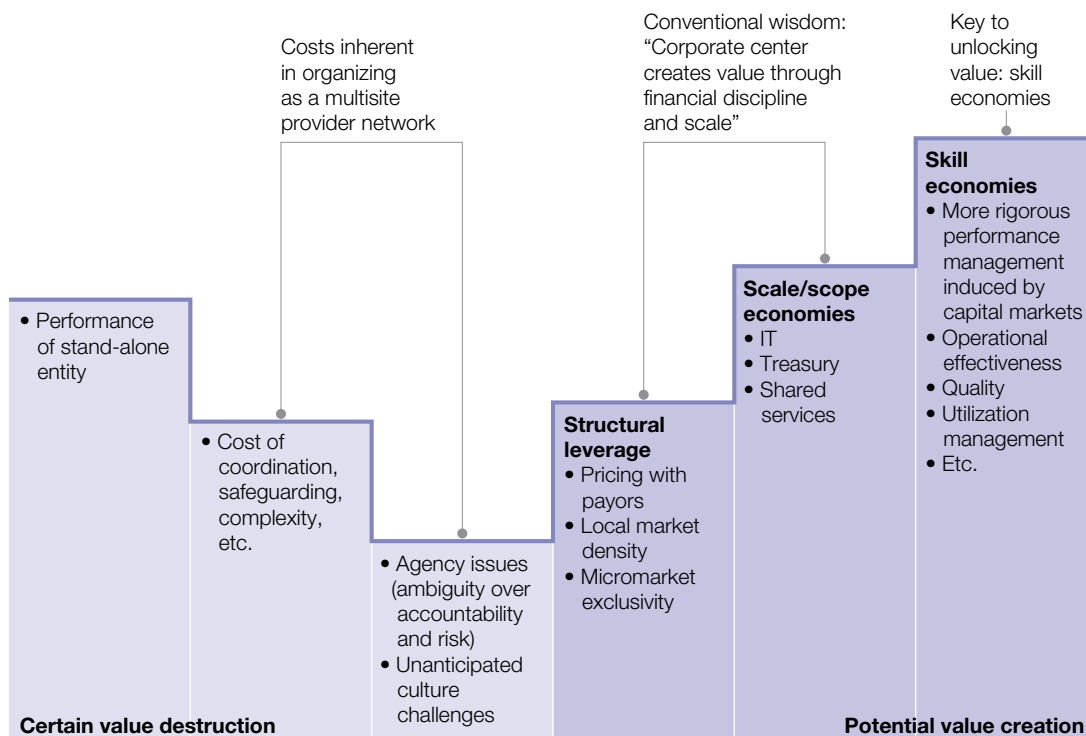
Second, scale per se is becoming less important as a source of value creation than is a disciplined operational focus applied through scale. Simply put, greater value can be created

when a system with a strongly disciplined approach to operations shares this skill with another system than when the operations of two moderately disciplined systems are merged. In the transition from volume-based to value-based reimbursement, hospitals and health systems will have to learn to operate as efficiently as possible. Simultaneously, they will have to align behaviorally with physicians to avoid waste and implement emerging care and payment models (e.g., narrow networks, medical homes, accountable care organizations, and bundled payments). Without a strongly disciplined approach to operations, health systems are unlikely to be able to achieve these aims.



**EXHIBIT 3 Building scale through M&A almost always destroys some value, and opportunities for value creation are not guaranteed**

Impact of M&A on value



## EXHIBIT 4 Shifting the scale equation

### The traditional scale equation

Asset consolidation = Pricing + Cost savings + Volume + Capital

### A smarter scale equation

Asset consolidation =  $-$  Costs of coordination, complexity, agency issues  $+$   $\frac{1}{X}$  Potential Pricing + Savings + Volume + Capital + Skills

Most health systems underestimate the costs and difficulty of successful asset consolidation

Value capture is typically less than expected, but skill economies are likely to be the most important for the future

As the sources of value creation shift from traditional scale levers (including pricing) to more complex economies, hospitals and health systems will need more than just asset consolidation. They will require true integration. However, integration in the hospital industry is especially complicated, with many unique challenges relative to other sectors. For example, key change agents—particularly physicians—are often not directly controlled by the health system. Many hospitals, especially not-for-profits, have close community ties that limit decision rights. Service delivery is typically a local game, whereas consolidation often occurs across geographies. The limited accuracy of most hospitals' cost accounting systems complicates the establishment of robust baselines (which are necessary to precisely estimate, capture, and monitor the value created).

Despite these challenges, M&A will still make sense in many situations. However, health systems must go in with eyes wide open. Asset consolidation is not a panacea that will solve the hospital industry's growing financial pressures. Furthermore, M&A may not be the only answer available to them.

Health system leaders considering M&A should therefore ask themselves: will the potential value capture from consolidation exceed the certain value destruction? Answering this question requires them to shift their thinking away from the traditional scale equation toward a more complex but smarter scale equation that recognizes the risks and costs of hospital integration, as well as the difficulty of actually capturing the potential upside value—both of which must be estimated within the context of a health system's scale goals (Exhibit 4).

## Consider alternative scale models

Given the challenges to successful M&A execution, health system leaders should consider a broader range of models for capturing scale efficiencies. Before they can choose a model, however, they first need to decide which type(s) of efficiency they want to go after. The efficiencies fall into four groups, each of which has different benefits, costs, and risks (Exhibit 5):

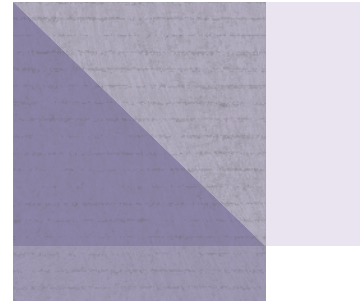
- **Classic economies of scale** focus on lowering the cost base per unit of care delivered (e.g., by spreading fixed costs across a larger

volume of patients and/or by enabling a provider to negotiate lower prices for major cost categories).

- **Economies of scope** can permit providers to leverage their scale to develop nontraditional revenue streams (e.g., direct-to-employer offerings).
- **Economies of structure** can permit providers to gain access to capital at lower cost and to leverage a stronger negotiating position with partners. However, they can also permit providers to take advantage of a broader footprint across the care continuum and to take on risk pooling for population health management.

- **Economies of skill** can enable providers to improve their capabilities and performance by allowing them to share or build best practices at comparatively low cost.

Which one (or ones) of these economies makes the most sense for a health system to pursue will depend on a candid self-assessment of the system’s objectives, strengths, and weaknesses. In many cases, providers may decide that it is skill economies that will best enable them to unlock value in the next few years. However, this is not always guaranteed, which is why a candid—and careful—self-assessment is so important.



**EXHIBIT 5 To understand potential value creation, identify the full range of possible benefits from scale**

	Benefits	Examples
<b>Economies of scale</b>	Administrative/overhead costs	<ul style="list-style-type: none"> <li>• Fixed costs spread across larger volume</li> <li>• Consolidation of functions</li> </ul>
	Supply procurement	<ul style="list-style-type: none"> <li>• Consolidation of purchasing organization</li> <li>• Development of internal PSM excellence programs</li> </ul>
<b>Economies of scope</b>	New revenue streams	<ul style="list-style-type: none"> <li>• Development of nontraditional sources of revenue</li> </ul>
<b>Economies of structure</b>	Care continuum	<ul style="list-style-type: none"> <li>• Rationalization of clinical network</li> <li>• Reduction in physician administrative costs</li> <li>• Brand recognition and customer loyalty</li> </ul>
	Capital efficiency	<ul style="list-style-type: none"> <li>• Stronger credit ratings and lower capital costs</li> <li>• More attractive return on invested capital</li> </ul>
	Partner relations	<ul style="list-style-type: none"> <li>• Fair share of new value created when engaging with payors</li> <li>• Size to assume risk for population health management</li> </ul>
<b>Economies of skill</b>	Clinical operations effectiveness	<ul style="list-style-type: none"> <li>• EHR accessible across the care continuum</li> <li>• Improved care quality, including protocols and standardization</li> </ul>
	Performance management	<ul style="list-style-type: none"> <li>• Size warrants skills specialization (e.g., reimbursement function by payor)</li> </ul>

EHR, electronic health records; PSM, purchasing and supply chain management.

Once a provider has determined which economies it wants to pursue, it can then decide which approach is best for capturing scale. At least 11 different models can be used, as detailed in Exhibit 6. These models fall into four general types:

**Inorganic scale** can be purchased through a traditional asset consolidation transaction involving the merger of two hospitals operating in the same region, the absorption of a hospital or multiple facilities into a larger health system, or the merger of two systems on a regional or national scale. Although some of these deals have been described as “mergers of equals” to protect fragile egos, the reality is that they are usually out-and-out acquisitions of small fry by larger fish.

**Virtual hospital integration** can enable a provider to capture certain benefits of scale without requiring it to directly control another organization or to commit to a long-term relationship. This type of deal may involve the co-provision or outsourcing of shared services or the joint creation of knowledge and innovation.

**Horizontal organic scale** develops when a provider extends its footprint across the care continuum (e.g., into physician practices and outpatient facilities). The extended footprint can then drive growth in the hospital setting.

**Vertical organic scale** requires a provider to build direct relationships with payors, employers, or both to enable it to capture

## EXHIBIT 6 A broad range of models can be used to build scale

### Inorganic scale

- 1 M&A with in-region hospital
- 2 M&A with in-region health system
- 3 M&A with out-of-region health system

Traditional scale models of asset consolidation offer high economies of scale and skill, but at a high cost and with significant implementation risk

### Virtual hospital integration

- 4 Knowledge-sharing with other providers
- 5 Shared services with other providers
- 6 Outsourced services

These options offer some economies of scale and/or skill, without high up-front investment or risks associated with M&A

### Horizontal organic scale

- 7 Expanded physician practices (PCP and specialty)
- 8 Expanded OP facilities

These options strengthen a provider’s community footprint, facilitate referral growth, and pave the way toward population health management, but offer limited economies of scale

### Vertical organic scale

- 9 Payor partnership – narrow networks
- 10 Payor partnership – risk sharing
- 11 Direct-to-employer strategies

These options can potentially create high value by enhancing a provider’s structural position, with potential for growth and innovation; however, they are challenging to implement because there is no established model

greater patient volume. This approach can be pursued in parallel with horizontal expansion, particularly when the payor–provider collaboration aims to establish new care or payment methods with a care management focus.

When deciding which model for capturing scale they want to use, a health system leader should consider two major questions: First, how much potential value creation is available with each model—and at what cost? Second, does the proposed model complement the system’s strengths, weaknesses, and objectives?

**What is the typical value capture potential?**


The value that any particular health system can capture will depend on its specific circumstances. Nevertheless, our experience suggests that there is a range of typical financial impact for each of the scale economies discussed earlier. In the case of administrative synergies and procurement benefits, for example, the potential financial impact increases in line with the size of the health system (Exhibit 7). McKinsey’s hospital consolidation model suggests that health systems with less than \$2 billion in revenues



**EXHIBIT 7 Potential value from certain levers can vary, based on the degree of scale achieved**

	Benefits	Savings from scale and health system integration (examples)
<b>Economies of scale</b>	Administrative/overhead costs	<ul style="list-style-type: none"> <li>• Best-practice benchmarks are typically 11–13% of NR (down to 9% for systems &gt;\$9 billion, up to 14% for systems &lt;\$2 billion), yet many health systems spend up to 20% of NR on administrative/overhead costs</li> <li>• Overall administrative cost savings of 10–40%                             <ul style="list-style-type: none"> <li>— Typically, 10–20% in savings available from removal of duplicate functions across two health systems</li> <li>— In addition, 10–25% savings from transformation to a shared service model: lean process improvements, demand management, optimized organization (e.g., centralization and consolidation into a single SSC)</li> </ul> </li> </ul>
	Supply procurement	
<b>Economies of scope</b>	New revenue streams	
<b>Economies of structure</b>	Care continuum	
	Capital efficiency	
	Partner relations	
<b>Economies of skill</b>	Clinical operations effectiveness	<ul style="list-style-type: none"> <li>• Cath lab example: minimum efficient scale of 200–400 PCI procedures per year to assure quality</li> </ul>
	Performance management	

AA, adjusted admission; NR, net revenue; SSC, shared service center; PCI, percutaneous coronary intervention; PSM, purchasing and supply chain management.



may be able to reduce total administrative and overhead costs to 14 percent of net revenues, whereas systems with revenues exceeding \$9 billion can reduce these costs to just 9 percent of net revenues. Similarly, systems with at least \$2 billion in revenues can achieve significant unit-cost purchasing savings, and those with \$5 billion or more in revenues may have additional opportunities to reduce supply spending.

The benchmark figures included in Exhibit 7 can help health system leaders assess the potential upside of each of the 11 models for capturing scale. That estimate can then be compared with the capital requirements (e.g., the acquisition price) and integration costs associated with each model. In most cases, a clear trade-off will emerge between the potential upside and the costs of implementation.

To illustrate the types of trade-offs that must be considered, we again used McKinsey's hospital consolidation model to evaluate the approximate value that a hypothetical health system could capture from six different scale models (Exhibit 8). In this example, we assumed that the health system had \$1 billion to \$2 billion in annual revenues and had merged with another hospital five years previously.

The consolidation model showed us, for example, that acquiring a local hospital would likely give the health system an additional \$400 million to \$600 million in revenues and create between \$22 million and \$30 million in run-rate value capture. However, it would also require more than \$150 million in up-front capital and an additional \$10 million to \$15 million in integration costs.

In contrast, merging with a large, out-of-region health system would likely add \$4 billion to \$9 billion in revenues. Although the up-front capital costs of such a merger would be minimal, there would likely be substantial integration costs (\$60 million to \$75 million). And while the deal would create significant value (\$50 million to \$80 million), the local system would probably lose considerable control of how that value would be allocated back to its community.

Expanding horizontally across the care continuum (e.g., by increasing the size of the employed physician base) would likely add \$100 million to \$200 million in revenues, require an initial outlay of at least \$170 million, and create \$30 million to \$40 million in value. Integrating vertically (e.g., through virtual partnerships with payors) could add anywhere from \$100 million to \$500 million in new revenues, depending on the market landscape and payor dynamics. This move would probably cost \$20 million to \$30 million to set up (assuming that the partnerships were long-term and had moderate complexity) and would generate \$35 million to \$45 million in value (e.g., by partnering with payors to capture greater care efficiencies).

In evaluating these numbers, the leaders of the hypothetical health system would also have to consider what capabilities it would need in the future and how much management bandwidth they would have to oversee the various deals. (The previous merger had consumed a considerable amount of their time.) In this case, it seemed clear that their best move was to focus on partnerships with payors and physicians, rather than other health systems. These partnerships would help the system build the capabilities it needed and provide a better base for the future than hospital asset consolidation would.



### What type of scale would complement a system's needs?

As the previous example makes clear, decisions about scale can only be made after a careful assessment of a health system's position. What advantages does it have that would enable it to derive greater value from scale? Conversely, what weaknesses does it have that could be mitigated through greater scale? An accurate

appraisal of these variables is crucial, because optimal value is created when scale-driven partnerships are symbiotic—both sides should be able to capitalize on their advantages while compensating for their weaknesses. This type of appraisal can also help a health system negotiate from a position of strength and avoid being seen as a “value-disadvantaged” partner desperately in need of scale (Exhibit 9).

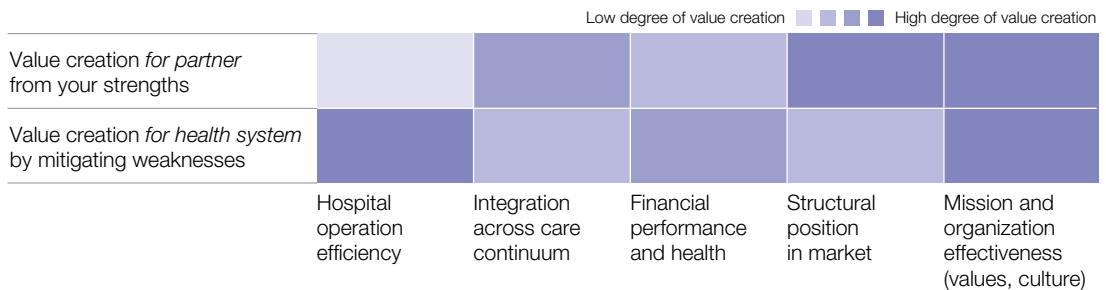


**EXHIBIT 8 Value capture (illustrative) for a small multihospital system with integrated physicians and out-of-hospital network**

	Additional scale \$ million net revenue	Value drivers	Value creation \$ million EBITDA run rate	Integration costs \$ million	Acquisition capital cost \$ million
<b>1 In-region acquisition: single hospital</b>	\$400 to \$600	<ul style="list-style-type: none"> <li>• Volume growth from referrals of 2–3%</li> <li><i>For target:</i></li> <li>• Reduced supply costs 10–12%</li> <li>• Pricing leverage of 2–3%</li> <li>• Reduced administrative expense 5–7%</li> <li>• Reduced cost of debt 5%</li> </ul>	\$22 to \$30	\$10 to \$15	\$150 to \$160
<b>2 In-region merger: health system</b>	\$1,400 to \$2,600	<ul style="list-style-type: none"> <li>• Volume growth of 3–5%</li> <li>• Reduced administrative costs 6–8%</li> <li>• Reduced supply costs 5–7%</li> <li>• Reduced clinical costs 0.2–0.3%</li> <li>• Reduced cost of debt 6–8%</li> </ul>	\$30 to \$45	\$30 to \$45	Not applicable
<b>3 Out-of-region large merger</b>	\$4,000 to \$9,000	<ul style="list-style-type: none"> <li>• Reduced administrative costs 18–22%</li> <li>• Reduced supply costs 7–9%</li> <li>• Reduced clinical costs 0.4–0.6%</li> <li>• Reduced cost of debt 20–25%</li> </ul>	\$50 to \$80	\$60 to \$75	Not applicable
<b>6 Virtual hospital integration</b>	No change	<ul style="list-style-type: none"> <li>• 15% overhead outsourced at 35–45% savings</li> <li>• 75% of labs and imaging outsourced at 35–45% savings</li> </ul>	\$15 to \$20	\$12 to \$18	Not applicable
<b>7/8 Horizontal expansion</b>	\$100 to \$200	<ul style="list-style-type: none"> <li>• Pricing increases of 13–17%</li> <li>• Reduced practice management costs 20–30%</li> </ul>	\$30 to \$40	\$10	\$170 to \$210
<b>10 Vertical relationships</b>	\$100 to \$500	<ul style="list-style-type: none"> <li>• Volume growth 6%</li> <li>• Reduced care costs 8–12%</li> <li>• 5% upside in quality bonuses</li> </ul>	\$35 to \$45	\$20 to \$30	Not applicable

## EXHIBIT 9 Value creation depends on whether the proposed scale partnership includes mutual complementarities

Each potential scale model should be evaluated based on mutual value creation



Objectives for a scale strategy should be defined by your strengths and weaknesses:

- Understand your strengths and how they can be leveraged to add value to your partner
- Understand your weaknesses/gaps and how they can be mitigated by your partner

Historically, small and midsize health systems have sought partners that could provide access to capital, payor contracting strengths, and physician alignment capabilities.<sup>9</sup> Although these factors will undoubtedly continue to be important, a new capability focused on healthcare value is likely to become top of mind for many health system leaders as the emphasis on total cost of care increases and payment models shift away from fee-for-service arrangements. All health system leaders should evaluate both their own healthcare value capabilities and those of any potential partners, and consider what sort of skill base they need to build as part of their scale strategy.



Growing financial pressures on consumers, employers, payors, and providers alike are encouraging a renewed focus on M&A as health systems seek to capture scale benefits.

Although the current trend toward consolidation is likely to continue, M&A is only one of several levers that can be used to capture the benefits of scale. Health system leaders should think through their scale goals carefully and then use a smarter scale equation to evaluate the full range of available models. This broader approach will enable them to achieve their desired outcomes at an appropriate risk and investment profile. ○

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<sup>9</sup>McKinsey interviews with CEOs of small hospital systems, midsize hospital systems, ambulatory surgery centers, physician groups, and specialty care centers.

# The impact of coverage shifts on hospital utilization

For most health systems, the one-time impact of expanded insurance coverage on utilization will be small but significant (nearly 100 basis points in margin for the average provider). Systems that can capture a substantial share of the increase in utilization may gain a competitive advantage.

Hospital utilization is under siege. Despite population growth and demographic shifts (such as the gradual increase in the number of elderly patients), hospitals have faced declining growth in inpatient utilization since 2005, driven largely by the ongoing shift of many procedures to the outpatient setting.<sup>1</sup> Although outpatient utilization has been a source of revenue for many acute hospitals, most of these facilities have found it exceedingly difficult to achieve organic growth profitably in the current environment.

In the near future, however, a new force could drive healthcare utilization upward: the one-time effect of up to 30 million people gaining insurance coverage for the first time under healthcare reform.<sup>2</sup> The newly insured will fall into two categories: those covered under the expanded Medicaid program and those who purchase commercial plans on the exchanges (whether in response to the individual mandate, market reforms, or new subsidies).

A number of previous studies have estimated how insurance coverage can affect healthcare utilization. We have found, though, that these studies have two significant shortcomings: they reached widely varying estimates of projected demand, and their results are difficult to apply in a local market context.

We therefore decided to conduct original research and supplement it with a review of the

available literature on hospital utilization. As part of this process, we developed projections to estimate growth in inpatient services, emergency room (ER) care, and outpatient elective procedures. Although we aggregated the data to reveal national patterns, we also examined the potential for regional differences. This paper describes our data-driven approach and the literature review that informed our perspectives. In addition, it presents the key findings of our research, their significance at the market level, and the strategic implications for health systems.

## Methodology

We established baseline numbers for the utilization of hospital services as a first step to estimating potential changes. To do so, we examined data from two large national surveys from the Centers for Disease Control and Prevention (CDC) and the Healthcare Cost and Utilization Project (HCUP), taking into account a number of patient demographic factors, such as gender, age, race/ethnicity, and insurance type. After establishing baseline utilization rates, we conducted three analyses to determine how the acquisition of health insurance might change:

- A multivariate regression analysis that focused on hospital utilization based on data from the Medical Expenditure Panel Survey (MEPS)<sup>3</sup>

**Edward Levine, MD; Noam Bauman; and Bowen Garrett, PhD**

<sup>1</sup>This shift has been driven primarily by evolving clinical practices and emerging technology and innovations.

<sup>2</sup>As of this writing, several states have indicated that they will not expand their Medicaid programs. Depending on the number of states who decline to expand their Medicaid programs, the expected increase in the number of people with insurance, and the corresponding decline in the number of uninsured, could be smaller than this estimate.

<sup>3</sup>The Medical Expenditure Panel Survey (MEPS) is a set of large-scale surveys of families and individuals, their medical providers, and employers across the United States. MEPS contains comprehensive information about the health services that Americans use, how frequently they use them, the cost of these services, and how they are paid for, as well as data on the cost, scope, and breadth of health insurance held by and available to workers.

- A demographic-controlled analysis of several data sets that provided information on hospital discharges, ambulatory care, and inpatient care
- A comprehensive literature review of well-respected studies focusing on hospital utilization in populations with different types of insurance coverage

### Multivariate regression analysis

This analysis, which examined MEPS data for the years 2006 through 2008, demonstrated how hospital utilization patterns vary based on demographic and other characteristics, such as age, gender, ethnicity, household income, smoking status, health status, and—most importantly for our purposes—health insurance coverage type. By comparing utilization among individuals with and without insurance (controlling for the aforementioned variables), we were able to isolate the impact of insurance status on utilization and project utilization shifts in a post-reform environment.

We applied the percentage changes in utilization rates to the baseline rates we obtained from the CDC and HCUP, since we view these sources as more comprehensive and robust. Although we controlled for the effect of many variables that influence utilization, our calculations (like other observational studies) could not control for all such factors. For instance, it is difficult to isolate the effect of gaining Medicaid coverage on hospital utilization for women between the ages of 18 and 39, because pregnancy simultaneously results in utilization of healthcare services and Medicaid eligibility, and the MEPS data did not allow us to fully control for pregnancy status.

### Demographic-controlled analysis

To gain additional perspective, we conducted a demographic-controlled analysis that focused on individual hospital services. It examined large data sets from three sources: the National Hospital Discharge Survey<sup>4</sup> (NHDS-CDC), the National Hospital Ambulatory Medical Care Survey<sup>5</sup> (NHAMCS-CDC), and the Nationwide Inpatient Sample from the HCUP<sup>6</sup> (NIS-HCUP).

In this analysis, as in the multivariate regression analyses, we were able to control for a number of patient characteristics, such as payor type, gender, age, and race/ethnicity. The HCUP data did not allow us, however, to control for underlying health status. Accordingly, we focused on comparisons between self-pay and commercially covered groups in the HCUP analysis because we expected more modest underlying health status differences in those cohorts than if we compared the uninsured to the Medicaid population. (Medicaid recipients, as a group, tend to have high levels of medical need.)

### Literature review

To supplement our data analysis, we conducted a thorough literature review of well-respected studies and experiments on healthcare utilization, looking at sources ranging from the 1980s RAND Study<sup>7</sup> to the recent Oregon Health Insurance Experiment.<sup>8</sup> The sidebar on p. 82 contains a complete list of our literature sources.

For each study, we analyzed the one-time effect of gaining insurance across a multitude of age groups, regions, and hospital channels. The study results varied widely, making it difficult to reach a definitive conclusion about impact. There were also important caveats to each study. Ultimately, however, we were able to synthesize common directional trends across the literature sources.

<sup>4</sup>The National Hospital Discharge Survey (NHDS) is a national probability survey designed to collect data on inpatients discharged from non-Federal short-stay US hospitals (those that have an average length of stay of fewer than 30 days). Sample size in 2010 was 239 hospitals.

<sup>5</sup>The National Hospital Ambulatory Medical Care Survey (NHAMCS) is designed to collect data on the utilization and provision of ambulatory care services in hospital emergency and outpatient departments. Findings are based on a national sample of visits to the emergency departments and outpatient departments of noninstitutional general and short-stay hospitals.

<sup>6</sup>The 2010 Healthcare Cost and Utilization Project (HCUP) Nationwide Inpatient Sample (NIS) contains all discharge data from 1,051 hospitals located in 45 states, approximating a 20-percent stratified sample of US community hospitals.

<sup>7</sup>Manning WG et al. Health insurance and the demand for medical care: Evidence from a randomized experiment. RAND Corporation. *Health Insurance Experiment Series*. 1988.

<sup>8</sup>Finkelstein A et al. The Oregon Health Insurance Experiment: Evidence from the first year. *National Bureau of Economic Research Working Paper No. 17190*. July 2011.

### An important caveat

Over the next few years, we expect the trend toward high-deductible health plans (HDHPs) and increased co-payments to accelerate, as payors attempt to curb costs by offering consumers incentives to reduce utilization and steering them to lower-cost care settings. This may have a significant effect on the use of hospital services—in particular, outpatient elective services (which have the highest sensitivity to greater consumer cost-sharing) and outpatient emergency services (as incentives to access lower-cost, primary care settings increase).

There is also a growing trend toward innovative, risk-sharing payor-provider partnerships, which are designed to encourage health systems and physicians to reduce their costs. These partnerships may also have a significant effect on the use of higher-cost care, such as inpatient and outpatient emergency services.

Both the MEPS regression and the HCUP/CDC demographic-controlled analysis are based on historical data reflecting the impact of gaining insurance coverage on the utilization of hospital services. Given that innovative benefit and payment designs may affect hospital utilization over the next few years, it is possible that utilization trends could be lower than one would expect based on historical data alone.

## Primary results

Four primary conclusions emerged from our investigation.

### Usage patterns and coverage type

The populations who will be newly covered under Medicaid and commercial insurance are likely to differ significantly, with those covered

under Medicaid typically having a much lower household income. The extent of a given patient's insurance coverage will also differ depending on whether Medicaid or private insurance is paying. Nevertheless, the expected changes in utilization that will result from gaining coverage are remarkably similar in both groups. The explanation for this pattern may lie in two factors that often determine whether a patient seeks treatment: access to healthcare and cost sharing.<sup>9</sup>

Patients with Medicaid face a lower degree of cost sharing than their privately insured peers. All else (including health status) being equal, it would be logical to assume that patients newly insured under Medicaid would demonstrate larger increases in health consumption because they have less of a financial incentive to curb their usage. But all factors are not equal. Our research found that Medicaid beneficiaries face many “indirect” costs, such as longer travel times, difficulty finding providers, and longer wait times.<sup>10</sup> Such problems greatly impede access to care and are likely to offset the lower cost sharing.

A 2005 study by Long et al., which showed that utilization of services is similar under Medicaid and private insurance, supports our findings.<sup>11</sup>

### Inpatient hospital utilization

Our demographic-controlled analysis of HCUP inpatient data suggested that people who transitioned from self-pay to commercial insurance would increase their inpatient utilization by 35 percent (Exhibit 1).<sup>12</sup> When we considered results from both this analysis and the literature, we concluded that insurance status could well drive an increase of about 30 percent in inpatient utilization.



<sup>9</sup>Manning WG et al. Health insurance and the demand for medical care: Evidence from a randomized experiment. RAND Corporation. *Health Insurance Experiment Series*. 1988.

<sup>10</sup>Davidoff AJ et al. Children eligible for Medicaid but not enrolled: How great a policy concern? The Urban Institute. No. A-41 in series, *New Federalism: Issues and Options for States*. September 2000.

<sup>11</sup>Long S et al. How well does Medicaid work in improving access to care? *Health Services Research*. February 2005; 40(1): 39–58.

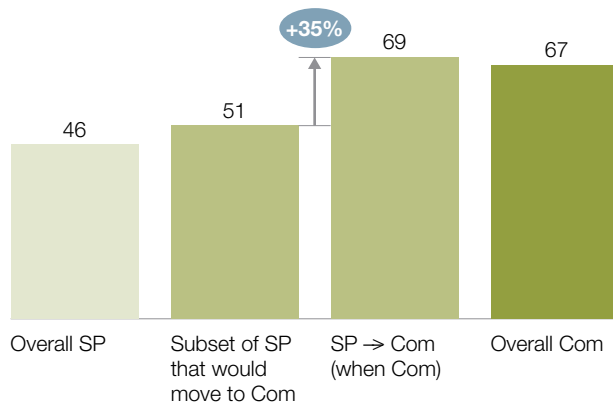
<sup>12</sup>We looked at commercially insured and Medicaid patients in the HCUP demographic analysis. Because we determined that the incremental increase in utilization is likely to be the same regardless of whether the uninsured convert to commercial or Medicaid coverage, we have focused on the commercial analysis here.

## EXHIBIT 1 Inpatient utilization will likely increase by ~30% as the uninsured gain coverage

### HCUP demographic analysis<sup>1</sup> suggests that inpatient utilization will increase as the uninsured gain coverage

Estimated annual inpatient admissions per 1,000 lives among people moving from self-pay (SP) to commercial (Com)

■ These people share the same set of demographics



<sup>1</sup>Inpatient data is based on the nationwide inpatient sample (NIS) from the Healthcare Cost and Utilization Project (HCUP). 2010 NIS contains all discharge data from 1,051 hospitals located in 45 states, approximating a 20% stratified sample of US community hospitals. The projected shift in utilization used the Medical Expenditures Panel Survey (MEPS) multiplier with the McKinsey Predictive Agent-based Coverage Tool (MPACT) version 4.9 lives to account for the shifting coverage types.

Source: CDC, HCUP, MEPS analysis using MPACT 4.9 lives

### Literature review reveals similar and consistent findings

- **Randomized experiment in Oregon** showed that as uninsured gain Medicaid coverage, there was ~30% overall increase in inpatient utilization (Finkelstein et al. 2011)
- **Study of Medicare launch** demonstrated a ~28% increase in hospitalization expenditures (proxy for percentage increase in utilization of services) between 1965 and 1970 (Finkelstein. 2005)
- **RAND study** found a ~30% increase in hospital expenses and a ~29% increase in admissions for those with "free care" (in comparison with those facing 95% cost-sharing) (Manning et al. 1988)

### Explanation of bar charts in exhibits 1 to 3

In the charts, the vertical bars represent annual utilization rates per 1,000 lives for three types of health services: inpatient (Exhibit 1), hospital emergency (Exhibit 2), and outpatient elective (Exhibit 3). In Exhibit 1, for example, the first bar, labeled "Overall SP," shows that in a given year there are, on average, 46 inpatient admissions for every 1,000 self-paying (SP) individuals.

The second bar, labeled "Subset of SP that would move to Com," isolates the probable current utilization of inpatient services by the subset of self-paying consumers who are expected to gain commercial (Com) insurance coverage in the near future. We were able to estimate this figure because we have detailed demographic information about these consumers that permits us to approximate their current use of health services. Our research suggests that this subset has a slightly higher utilization rate (51 inpatient admissions per 1,000 lives) than the overall self-paying population does.

The third bar, "SP→Com (when Com)," shows the likely future utilization of inpatient services among the same subset (self-paying consumers who are expected to gain commercial insurance coverage) *once those consumers have health insurance*. We estimated this figure by examining a comparison group: people who have the same demographic profile as those expected to move from self-paying to commercial status, but who currently have commercial insurance. We estimate that the inpatient utilization rate among self-paying consumers who gain insurance coverage is likely to be about 69 inpatient admissions per 1,000 lives (a 35% increase above their current utilization rate).

The final bar, "Overall Com," reports, for comparison, the current inpatient utilization rate among all consumers with commercial insurance (67 inpatient admissions per 1,000 lives annually). This group uses inpatient services far more frequently than the self-paying segment does.

Our results were similar to those reported in the Oregon Health Insurance Experiment, a randomized study that examined about 29,000 low-income adults who had obtained Medicaid coverage approximately one year earlier and a control group of similar size.<sup>13</sup> As the uninsured patients gained coverage, their inpatient utilization rose about 30 percent. Furthermore, a 2004 study by Finkelstein et al., which focused on the impact of acquiring Medicare coverage, detected a 28-percent increase in hospital expenditures (a proxy for increased utilization of hospital services).<sup>14</sup>

**Hospital emergency services**

People without insurance often visit ERs when they need treatment, since they lack other af-

fordable alternatives. Although it may seem logical that newly insured patients would take advantage of their improved access to physicians and clinics and thus reduce their ER utilization, our analyses suggest that increased coverage may actually cause ER utilization rates to rise. As shown in Exhibit 2, the MEPS regression revealed a 13-percent increase in the use of hospital emergency services as people move from self-pay to commercial coverage. Overall, we concluded from our analyses and literature review that an increase of about 15 percent in ER utilization could well occur.

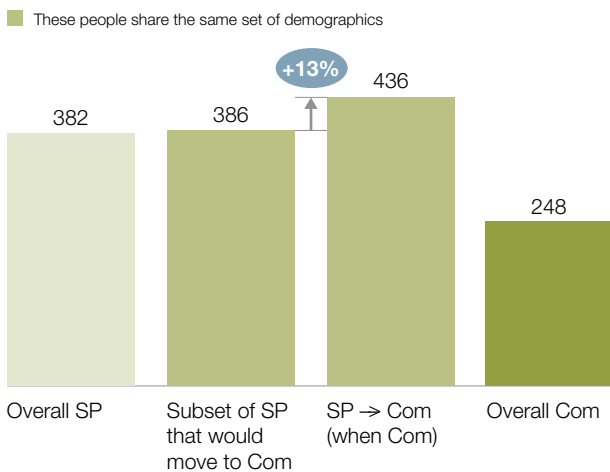
Other investigations have shown a much higher increase in ER utilization when the uninsured gain coverage. For example, a study by Ander-



**EXHIBIT 2 ER utilization will likely increase by ~15% as the uninsured gain coverage**

**MEPS regression<sup>1</sup> suggests that outpatient emergency room (ER) utilization will increase as the uninsured gain coverage**

Estimated annual inpatient admissions per 1,000 lives among people moving from self-pay (SP) to commercial (Com)



**Literature review also suggests an increase, but a much smaller one than the increases in inpatient or outpatient elective services**

- **Randomized experiment in Oregon** could not reject the null of no change in outpatient ER utilization; however, point estimates suggested that it may have increased (Finkelstein et al. 2011)
- **Study of people turning age 65** found an ~6% increase in ER utilization when they gained Medicare coverage (previously, people could have been uninsured or had commercial coverage) (Card et al. 2004)

<sup>1</sup>Original Medical Expenditure Panel Survey (MEPS) multipliers were used, except for one-off changes for smokers vs. nonsmokers and controlling for pregnancy in ages 18-39.

Source: CDC, HCUP, MEPS analysis using MPACT 4.9 lives

<sup>13</sup>Finkelstein A et al. The Oregon Health Insurance Experiment: Evidence from the first year. *National Bureau of Economic Research Working Paper No. 17190*. July 2011.

<sup>14</sup>Finkelstein A. The aggregate effects of health insurance: Evidence from the introduction of Medicare. *National Bureau of Economic Research Working Paper No. 11619*. September 2005.

son et al. examined a reverse phenomenon (when young adults lose parental insurance coverage).<sup>15</sup> Based on their results, the authors inferred that the acquisition of health insurance produces a 66-percent increase in ER use.

What explains the somewhat paradoxical situation of ER visits increasing despite better coverage? It is possible that two contrasting forces are at play. Expanded coverage is expected to increase the use of preventive services and reduce ER utilization by improving access to primary care and other channels. The likelihood of this outcome is supported by our MEPS analysis, which suggests that the uninsured are likely to make much greater use of physician visits when they gain coverage, and these visits may substitute for some ER use. At the same time, reduced out-of-pocket ER co-payments for the newly insured may drive up ER utilization. In addition, outpatient capacity constraints and expected physician shortages could make it increasingly difficult for some people to get appointments for outpatient physician visits, a problem that could be exacerbated if many of the newly insured lack a primary care provider.

### Outpatient elective services

When we tried to estimate how the acquisition of insurance coverage would increase utilization of outpatient elective services, our analyses produced very different results. The MEPS analysis suggested that there could be a 125-percent increase. Although we anticipate that outpatient elective services could be more sensitive to coverage type than other hospital services, we consider this figure to be an outlier relative to other estimates in the literature and likely an overestimate.

At the other end of the spectrum, our HCUP demographic-controlled analysis estimated

a 49-percent increase in utilization as people moved from self-pay to commercial coverage. This figure may be an underestimate, because the analysis did not control for underlying health status. However, it was more in line with other estimates in the literature (Exhibit 3).

When we considered the results of all our analyses together, we estimated that acquisition of insurance coverage could increase utilization of outpatient elective services by about 40 to 70 percent. This figure is in line with results of both the Oregon Health Insurance Experiment (which showed a 35-percent overall utilization increase in patients newly covered under Medicaid<sup>16</sup>) and the RAND study (which found that utilization of outpatient services was 66 percent higher among those with “free care” than among those with 95-percent cost sharing<sup>17</sup>). In addition, three other studies that used a two-part regression analysis to gauge the impact of gaining commercial insurance on outpatient utilization estimated that the utilization increase would average between one and two visits per person per year,<sup>18-20</sup> a rate that is equivalent to a 35- to 76-percent rise in outpatient elective utilization.

Preventative services, in particular, tend to be highly sensitive to insurance coverage. A series of studies that looked at the impact of gaining insurance coverage on the use of specific preventive services (such as flu shots, blood pressure or cholesterol checks, and physical examinations) found a strong and statistically significant effect between the two.<sup>21</sup> Over the longer term, increased access to preventive services would likely reduce utilization of higher-cost inpatient and emergency services. In the short term, however, increased use of preventive services may actually increase utilization of downstream elective outpatient (and even inpatient) services.

<sup>15</sup>Anderson M et al. The effects of health insurance coverage on the use of medical services. *National Bureau of Economic Research Working Paper No. 15823*. March 2010.

<sup>16</sup>Finkelstein A et al. The Oregon Health Insurance Experiment: Evidence from the first year. *National Bureau of Economic Research Working Paper No. 17190*. July 2011.

<sup>17</sup>Manning WG et al. Health insurance and the demand for medical care: Evidence from a randomized experiment. RAND Corporation. *Health Insurance Experiment Series*. 1988.

<sup>18</sup>Hahn B. Health care utilization: The effect of extending insurance to adults on Medicaid or uninsured. *Medical Care*. 1994;32:227-39.

<sup>19</sup>Marquis MS, Long S. The uninsured access gap: Narrowing the estimates. *Inquiry*. 1994-1995;31:405-14.

<sup>20</sup>Long SH et al. Do people shift their use of health services over time to take advantage of insurance? *Journal of Health Economics*. 1998;17:105-15.

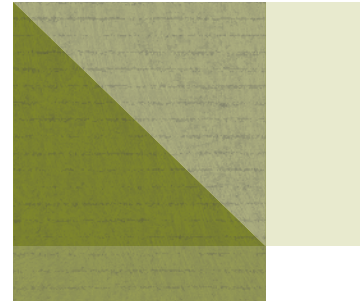
<sup>21</sup>Buchmueller TC et al. The effect of health insurance on medical care utilization and implications for insurance expansion: A review of the literature. *Medicare Care Research and Review*. 2005;62:3-30.



## The impact nationally

With the surge in insurance coverage and the accompanying increase in inpatient, ER, and outpatient utilization, it might seem reasonable to assume that the US healthcare system will face capacity challenges. But the increases in

utilization we have projected for the newly insured (approximately 30 percent for inpatient, 15 percent for ER, and 40 to 70 percent for outpatient elective) are likely to translate into relatively modest growth for overall hospital utilization at the national level, assuming that population growth and all other factors remain

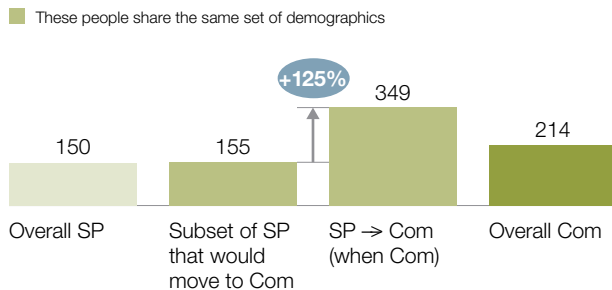


### EXHIBIT 3 The newly insured are likely to fuel the largest growth (~40–70%) in outpatient elective hospital services

**Both of our data analyses suggest that an increase in outpatient elective services will occur as the uninsured gain coverage**

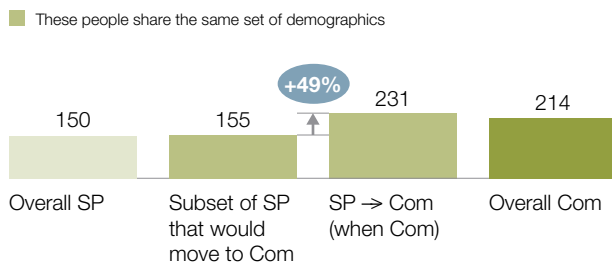
#### MEPS regression<sup>1</sup>

Estimated annual inpatient admissions per 1,000 lives among people moving from self-pay (SP) to commercial (Com)



#### HCUP demographic analysis<sup>2</sup>

Estimated annual inpatient admissions per 1,000 lives among people moving from self-pay (SP) to commercial (Com)



**Literature review indicates that growth is likely to be >30% but not more than twice the increase in inpatient utilization**

- **Randomized experiment in Oregon** showed that as uninsured gain Medicaid coverage, there was **~35%** overall increase on outpatient elective services (Finkelstein et al. 2011)
- **RAND study** found that those on “free care” had **66%** higher utilization of outpatient services (from physicians and other healthcare providers) and **~67%** higher expenses than did those with 95% cost-sharing (Manning et al. 1988)
- **Three studies** using a two-part regression model looked at the impact of commercial insurance on outpatient utilization:
  - Hahn (1995): **~60%** increase
  - Marquis and Long (1994): **~76%** increase
  - Long, Marquis, and Rogers (1998): **~35%** increase

<sup>1</sup>Original Medical Expenditure Panel Survey (MEPS) multipliers were used, except for one-off changes for smokers vs. nonsmokers and controlling for pregnancy in ages 18-39.

<sup>2</sup>Outpatient elective data in the Healthcare Cost and Utilization Project (HCUP) demographic analysis rely on CDC data from the National Hospital Ambulatory Medical Care Survey. The projected shift in utilization used the MEPS multiplier with McKinsey Predictive Agent-based Coverage Tool (MPACT) version 4.9 lives to account for the shifting coverage types.

Source: CDC, HCUP, MEPS analysis using MPACT version 4.9 lives

constant. For instance, if newly insured patients do increase their inpatient hospital utilization by 30 percent, the total number of discharges in the country would rise by only 0.6 percent, from 36.4 million to 36.7 million (Exhibit 4). The reasons: the newly insured will constitute a relatively small portion of the overall US population, and their baseline level of utilization is lower than the national average because they tend to be younger (and therefore healthier than elderly patients) and poorer, and are more likely to be members of minority groups. (The latter two segments—the poor and minority groups—tend to have less access to health services.)

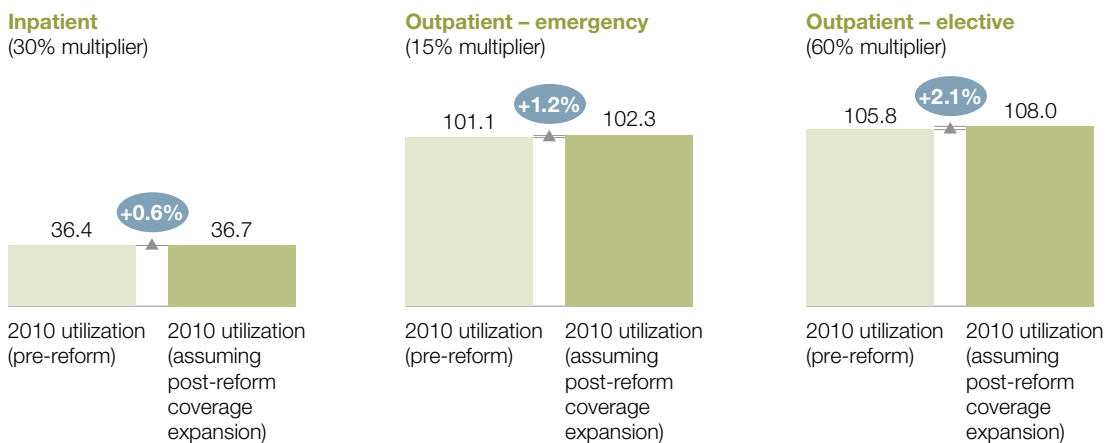
Although these increases may seem modest, combined they would drive nearly a 100-bps margin expansion for the average US hospital.<sup>22</sup>

### Local market variability

The impact of coverage shifts will vary at the local level because the number of uninsured people who will gain coverage differs by region. An examination of two counties in California illustrates the point. For a hospital in San Luis Obispo, we forecast a 0.4-percent increase in inpatient utilization when the uninsured gain coverage, whereas we forecast a 2.6-percent rise for a hospital in Los Angeles, largely because a higher percentage of people in this city currently lack health insurance.

The financial implications of treating newly insured patients will also vary by region, because some areas will see gains primarily in Medicaid patients, whereas others will see stronger growth in commercial coverage on the exchanges.

EXHIBIT 4 All channels are likely to experience an increase in overall growth because of coverage expansion and changes in utilization patterns



- Depending on a hospital’s local demographics and types of services offered, impact could differ across channels. Understanding these differences will be important for strategic planning post-reform
- Increased utilization could be the equivalent of an additional year’s worth of growth for outpatient channels and could offset a year’s decline in the inpatient channel

Source: CDC data, HCUP data, MEPS analysis using MPACT version 4.9 lives

<sup>22</sup>The roughly 100 basis-point margin expansion represents the additional utilization that will be driven by the uninsured gaining coverage, modeled using McKinsey’s Provider Reform Impact and Stress-test Model (PRISM). In contrast, in the accompanying article, “Winning strategies for participating in narrow-network exchange offerings” (p. 83), we assert that the growth in the individual exchange population could represent approximately an additional 300+ basis points in EBITDA margin for the average health system. This figure represents the additional utilization that will be driven by expanded coverage, as well as the impact of coverage shifts (i.e., health systems that are able to capture a substantial share of the growth in the individual segment may be able to derive increased revenue per patient by shifting their patient mix toward the commercially insured).

## Strategic implications

How can providers prepare for the uptick in healthcare utilization that will occur as the result of shifts in insurance coverage driven by health-care reform? We outline five winning strategies:

### Develop narrow-network exchange strategies

Payors are looking to lower the cost of the products they offer on the exchanges through limited (narrow or tiered) networks. As discussed in the accompanying article, “Winning strategies for participating in narrow-network exchange offerings” (p. 83), providers looking to capture a substantial share of the patients who will gain individual coverage through the exchanges need to carefully consider their posture toward these limited-network offerings. Providers must develop a clear perspective on how and when they will trade price for volume, how distinctive their value proposition is in the local market, when it makes sense to compete for exchange patients (and at what discount), and when it makes sense to focus their attention elsewhere.

### Build primary care capacity and alignment

A second strategy for providers that want to benefit from the increase in insurance coverage is to invest in primary care capacity and alignment. The majority of the currently uninsured who are expected to gain coverage do not have an established primary care physician today. These physicians will play a key role in which health systems these patients choose in the future.

### Enhance consumer focus and appeal

Targeted, direct-to-consumer communications are likely to be increasingly important in a future retail healthcare environment. The results can be compelling. For example, St. Anthony’s Med-

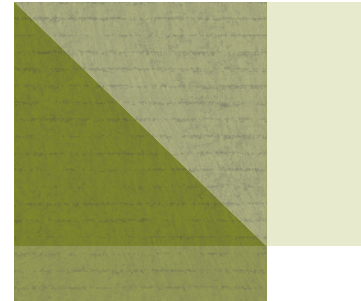
ical Center in St. Louis is using consumer data to personalize mailings with an individual’s name and a picture of someone of similar age and gender.<sup>23</sup> This approach, although expensive, produces high conversion rates. From October 2010 to July 2011, St. Anthony’s spent \$25,000 on a targeted mailing to 40,000 women about mammographic screenings. As a result, about 1,000 women came to the medical center for mammograms, which generated \$530,000 in revenue from screenings, biopsies, and related services.

### Enhance ER competitiveness

With or without an increase in utilization rates, hospital ERs may experience significantly improved profitability, because coverage shifts may drive the most pronounced payor mix changes in this channel. Among the approaches providers can use to enhance their ER offerings are operational improvements (such as decreased wait times), better customer service (e.g., phones to contact family members), pre-arrival services (such as scheduling systems), and strengthened relationships with local emergency medical services providers.

### Compete directly on the exchanges

Providers with strong brand recognition could develop highly competitive co-branded insurance products with payor partners. For example, Aetna has a co-branding arrangement with Carilion Clinic, a health system in Southwest Virginia that includes eight not-for-profit hospitals and more than 600 physicians in a multi-specialty group practice.<sup>24</sup> Aetna formed an accountable care organization with Carilion in 2011 and then created a co-branded Carilion Clinic–Aetna suite of products for the commercial market. In addition to co-branding, providers could also consider offering proprietary branded products using a white-box insurer backbone for the plan component.<sup>25</sup>



<sup>23</sup>Galewitz P. Hospitals mine personal data for customers—mail campaigns push profitable screenings. *USA Today*. February 5, 2012.

<sup>24</sup>Gamble M. Payor-provider relationships: Checking in with Aetna. *Becker’s Hospital Review*. May 22, 2012.

<sup>25</sup>In this arrangement, the product would be sold on the exchange under the provider’s brand (the payor’s brand would remain masked).

## Studies included in our literature review

Anderson M, Dobkin C, Gross T. The effects of health insurance coverage on the use of medical services. *National Bureau of Economic Research Working Paper No. 15823*. March 2010.

Buchmueller TC, Grumbach K, Kronick K, et al. The effect of health insurance on medical care utilization and implications for insurance expansion: A review of the literature. *Medical Care Research and Review*. 2005;62(1):3-30.

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Although demographic shifts and other factors will have a greater long-term effect on health-care utilization, the looming one-time coverage shifts and resulting increase in utilization are a material opportunity for health systems. To take advantage of this opportunity, providers must

understand how much utilization will shift, what channels will be most affected, and what new patients will look like. They can then craft strategies to capture a substantial share of the growth in the commercial segment, while building sustainable delivery models for the expanding government segment. ○

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# Winning strategies for participating in narrow-network exchange offerings

In the post-reform era, payors will attempt to capture savings by creating limited networks with reduced reimbursement rates. To respond, health systems need a clear understanding—market by market—of their competitive advantages and of when, if, and how to trade price for volume.

Implementation of the Patient Protection and Affordable Care Act (ACA) will usher in dramatic shifts in health insurance coverage over the next decade. For health systems, one of the most important changes will be the significant growth of the individual insurance market. In 2010, only 14 million people—about 5 percent of the US population—belonged to this segment. By 2019, this figure is likely to rise to 24 to 36 million (7 to 11 percent of the population),<sup>1</sup> primarily because of two related trends: first, many currently uninsured patients will gain coverage on the health insurance exchanges, driven by the individual mandate and federal insurance subsidies; second, some workers will likely move from employer-sponsored insurance (ESI) to individual plans on the exchanges.

Our research suggests that there are likely to be important differences between the consumers who purchase individual coverage on the exchanges and today's typical commercial population. For example, purchasers of individual exchange plans are apt to be more price-sensitive and more willing to accept network restrictions in return for more affordable premiums. To be competitive in this new price-sensitive marketplace, payors are looking to lower the cost of their individual plans through the use of limited (narrow or tiered) networks.

Many health systems believe that they will need to offer rate cuts in return for membership in these limited networks. In other words, they will have to accept a discount in order to capture additional individual commercial volume. However, health systems may find it difficult to determine how they can capture value effectively from the growing but price-sensitive individual market and, in particular, how they should respond to narrow- or tiered-network exchange offers from payors.

Why is it critical for health systems to get their exchange pricing strategies right?


First, significant value is at stake. Our reform modeling suggests that growth in the individual exchange population could represent roughly 300+ basis points in additional EBITDA margin for the average health system.<sup>2</sup> However, every 10-percent discount on exchange pricing (relative to commercial) that an average health system offers will lead to a reduction of approximately 100 basis points in overall EBITDA margin.

Second, rapid growth in the individual exchange segment will occur against a backdrop of substantial threats to health system profitability, including declining growth in government reimbursement rates, shrinking commercial risk pools, and an ongoing shift

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<sup>1</sup>This range is based on varying employer opt-out and consumer uptake assumptions.

<sup>2</sup>A roughly 300+ basis-point margin expansion represents the additional utilization driven by expanded coverage, as well as the impact of coverage shifts (i.e., health systems that are able to capture a substantial share of the growth in the individual segment may be able to drive increased revenue per patient by shifting their patient mix toward commercially insured patients). In the accompanying article, "The impact of coverage shifts on hospital utilization" (p. 73), the estimate of a 100 basis-point margin expansion represents only the additional utilization that may result from the uninsured gaining coverage.



from inpatient to outpatient care. To remain competitive in the new environment, health systems will need to implement large-scale transformation programs to significantly reduce their operating costs. However, capturing a sufficient share of the individual exchange growth could also partially offset these threats.

This article lays out three key steps that can help health systems navigate the challenging path ahead. They should evaluate local market factors influencing the magnitude of the discount required so that they can increase their share of the individual exchange segment. They should calculate a set of “break-even” price and volume points to inform their exchange pricing discussions. And they should bring to bear the full range of contracting levers at their disposal to maximize value.

## New pressures on hospital reimbursement

Implementation of the exchanges is likely to unleash new pressures on health system reimbursement rates over the next decade, pressures driven primarily by price-sensitive shopping on the exchanges and subsequent stress on payors’ cost structures. We are already seeing these trends play out in many markets, and they are expected to accelerate when the exchanges come online.

### Consumer choice: prioritizing price

Our research<sup>3</sup> suggests that many cost-conscious consumers on the exchanges will select individual plans with a comparatively low price within each tier, even if the plans include high deductibles or network restrictions. In repeated simulations of the exchange

purchasing experience, more than half (55 percent) of the participants chose lower-cost Bronze or Silver plans with narrow or tiered provider networks (Exhibit 1), while 24 percent chose a non-broad network, even within the richer Platinum and Gold tiers.<sup>4</sup>

The exchanges will facilitate price-sensitive shopping behavior by making cost data more accessible—typically, by providing standardized information about numerous plans in a centralized display that increases transparency and promotes comparison shopping on many financial features (e.g., premiums and co-pays). Consumers on the exchanges will be free to make trade-offs to suit their unique preferences, and those who prioritize cost will find numerous less-expensive options as long as they are willing to accept network restrictions and/or high deductibles. (By contrast, most commercial group plans tend to provide comprehensive, broad-network coverage because employers must accommodate their diverse employee base.)

### Pressure on payors’ cost structures

We expect many challenges to payors’ administrative and medical cost structures from the provisions of the ACA. Although most payors will probably employ a range of tactics to reduce costs—including utilization management, disease management, benefit design, and administrative cost control programs—their use of network configuration to lower both per-unit pricing and utilization is of particular relevance to health systems.

At least initially, payors are likely to use limited networks to exploit existing provider cost differentials and migrate care delivery away from especially high-cost settings. In some

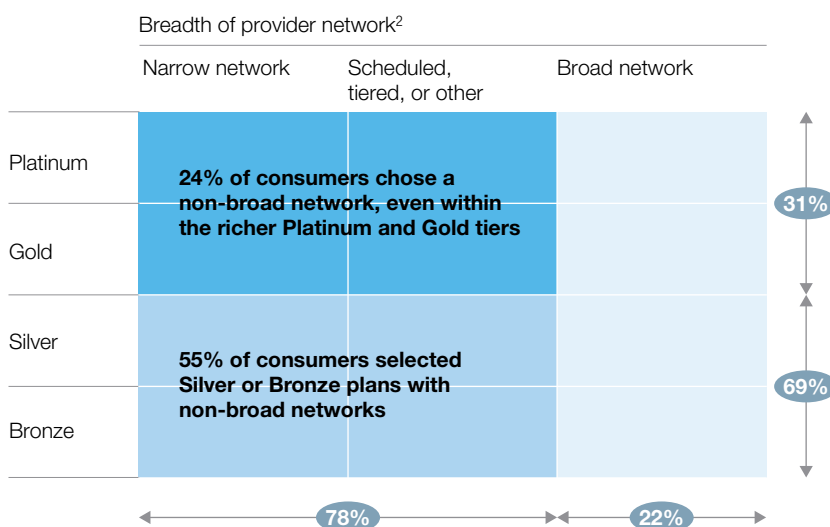
<sup>3</sup>McKinsey Exchange Simulation. See the appendix for more detail.

<sup>4</sup>The exact proportion of consumers on the Exchange Simulation willing to accept network restrictions varied with the availability of those networks, the degree to which the networks were limited, and the price savings associated with them.

### EXHIBIT 1 Among simulation participants who chose to buy, most selected lower-cost options, even with restrictions

22,000 McKinsey simulation participants, representing 46,000 covered lives

● Percentage<sup>1</sup> of consumers selecting this option



<sup>1</sup>Percentage represents averages across simulations. Individual simulation percentages varied, depending on portfolio compositions, relative pricing, and other factors.

<sup>2</sup>Breadth of provider network across primary care physicians, hospitals, and specialists. Does not pertain to pharmacy networks. Note: These figures are not meant as a prediction of the future individual market; rather, they represent consumers' stated decisions under a given set of product options across a range of simulations.

Source: McKinsey Consumer Exchange Simulation 2011-2013

situations, a payor may not be able to exclude a certain health system (to ensure sufficient network capacity, for example, or because the system provides critical service lines that are impossible to exclude from insurance plans in that market). However, in all other cases, health systems may need to consider a rate cut in exchange for inclusion in a limited network.

Over time, we expect payors to pursue more sophisticated, collaborative approaches with providers that move away from fee-for-service reimbursement and offer incentives to providers to maximize the effectiveness and efficiency of care delivered.


## Three steps to winning on the exchanges

Given the value at stake, a careful, structured approach to developing exchange pricing strategies is required:

### 1. Understand your local markets<sup>5</sup>

Health systems must carefully consider a number of difficult questions when planning their long-term exchange strategies. How price sensitive will consumers be in their local markets? How rapidly will those markets shift toward limited networks? How much reimbursement (if any) should a health sys-

<sup>5</sup>The scope of the appropriate "local market" to evaluate will, of course, differ depending on a variety of factors, including demographics, population density, how far patients travel for various services, and the proximity of other potentially competing health systems.



tem sacrifice to capture this volume? How much margin could be at stake in a given market if a health system does not participate in the limited networks—and others in that market do? To what extent are a health system's service offerings non-excludable from any network?

There is no single, correct answer to any of these questions because the healthcare landscape—including reimbursement pressures—varies. At the local market level, a number of factors, including the rate of growth in the individual market, consumer behavior and perceptions, market structures, capacity utilization, and local exchange design and regulations, could affect the growth of limited networks.

Health systems therefore need to have a strong understanding of these local market dynamics before entering into negotiations with payors and determining acceptable and/or necessary discount levels. Factors that they should consider include:

#### Growth in the individual exchange segment

The growth rate for the individual segment is apt to differ greatly by locality; some will have much higher uptake than others (Exhibit 2). Variability is likely driven by regional differences in demographic and other factors, such as the number of uninsured patients, income distribution levels, state regulations affecting individual insurance premiums, and current industry and employment mix. When estimating growth in the individual exchange population in local markets, we often use the McKinsey Predictive Agent-based Coverage Tool (MPACT) to develop a range of scenarios, based on

varying employer opt-out and consumer uptake assumptions. (See the appendix for more information about MPACT).

#### Consumer behavior

Narrow and/or tiered networks will succeed only if consumers are willing to accept them. As discussed earlier, nearly two-thirds of participants in a simulated exchange experience were willing to accept restrictions in their plan design in return for lower premiums. However, consumer willingness to accept network restrictions varies widely across providers. In repeated simulations of the exchange purchasing experience, the proportion of likely exchange participants who stated that they would either change insurance plans or pay extra to go out of network if their insurer removed their hospital from their network varied widely (Exhibit 3). Hospitals that are well known for their quality or clinical excellence, or that have a highly respected brand within their community, inspire more consumer loyalty than other facilities. The extent to which pricing will outweigh consumer loyalty is therefore likely to vary from health system to health system and from locality to locality, as well as by product tier within a given locality.

#### Market structure

Market structure is an important factor determining the degree to which payors will be able to drive discounts on exchange products. For example, a rural health system with more than a 75-percent market share would be difficult to exclude from a limited network, especially if smaller, competing hospitals have capacity restrictions. Similarly, a health system with unique offerings (such as the only facility in a region that can provide advanced oncology services) will be difficult to exclude from a limited network.

<sup>3</sup>McKinsey Exchange Simulation. See the appendix for more detail.

<sup>4</sup>The exact proportion of consumers on the Exchange Simulation willing to accept network restrictions varied with the availability of those networks, the degree to which the networks were limited, and the price savings associated with them.



However, it is important to remember that each market is different—there are no hard rules around the way each market will respond in the presence of the exchanges.

**Capacity utilization**

Hospitals that are using only a small amount of their available capacity are generally eager to capture additional volume (or defend against erosion of existing volume) so that they can spread their fixed costs over more patients. These facilities may be willing to

offer deep discounts to payors in exchange for more volume. By contrast, facilities with more balanced capacity utilization may see less value in trading price for volume.

**Local exchange design and regulation**

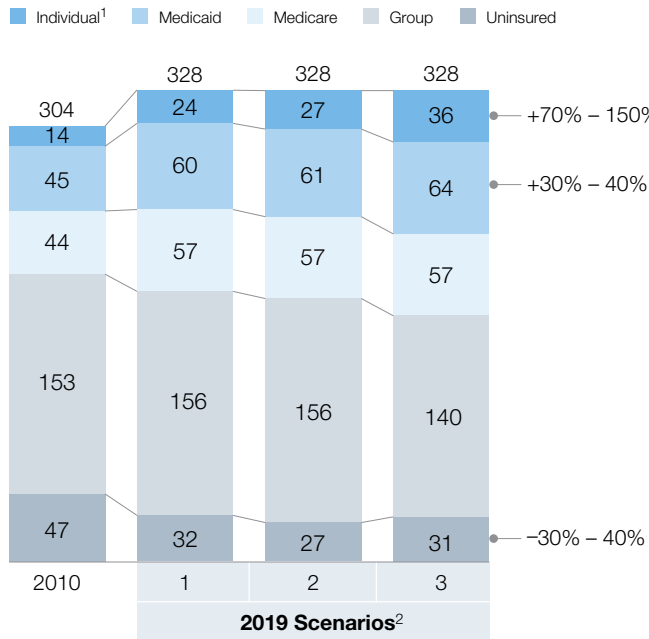
The exact designs of the federal and state exchanges will not be known until the fall of 2013. Given this uncertainty, health systems should actively track exchange development in their markets. In particular, it is important for health systems to evaluate how plan offer-



**EXHIBIT 2 Reform will dramatically increase individual consumer health coverage**

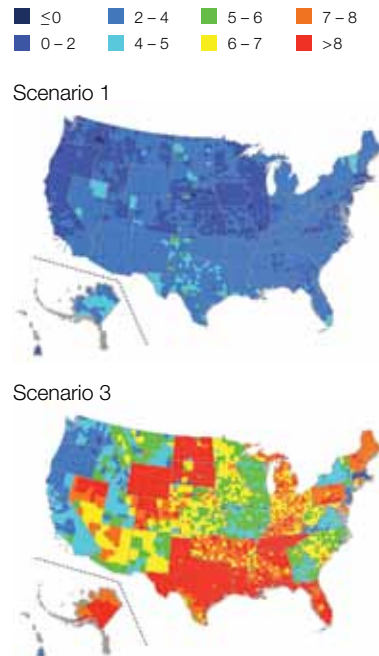
**US population by coverage type**

Millions of members, 2010 and 2019



**Increase in share of individual coverage**

Percentage points, 2010-2019



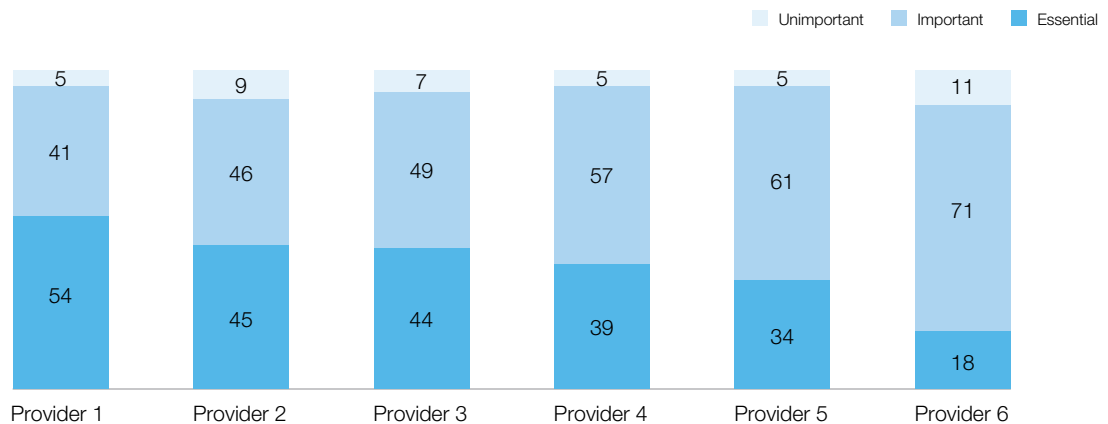
<sup>1</sup>Approximately 75% of future enrollment in the individual market nationally is likely to be through the exchanges (25% off the exchanges).

<sup>2</sup>Scenario 1: lower employer opt-out, weaker consumer uptake; scenario 2: lower opt-out, stronger uptake; scenario 3: higher opt-out, stronger uptake.

Source: MPACT version 5.0; McKinsey analysis

### EXHIBIT 3 Consumers place varying levels of importance on whether certain hospitals are included in their network (disguised state example)

Importance that a specific hospital or health system<sup>1</sup> is within a plan's network (%)



<sup>1</sup>May or may not be the "preferred hospital" to which a participant was affiliated.

Source: McKinsey Consumer Exchange Simulation 2012-2013 (state-level data)

ings will be regulated on the exchanges. For example, some states may require standardized benefit design, and the resulting competition on price would be based almost entirely on network cost and restrictions.

#### Pricing regulation

State regulations on health system pricing will also shape pricing strategy. Does the state currently have balance billing limitations? What are the usual and customary restrictions on billable charges? And based on the above, what level of reimbursement will a health system receive for patients who seek care out of their networks?

## 2. Calculate "break-even" points to inform negotiations

The next step is to calculate a series of "break-even" price and volume points that will inform exchange pricing discussions,

taking into account local market factors, current commercial and government reimbursement rates, overall health system financial and operational goals, and other effects of reform. In particular, health systems that are contemplating offering deep discounts to participate in limited networks will need to carefully quantify whether they can compensate for the discounts' impact through volume growth, pricing on the commercial book of business, and/or ongoing cost reductions.

To begin this exercise, health systems should understand the price and volume levels for the individual exchange population that would enable them to achieve their EBITDA targets for a given market, as well as the price and volume levels that would enable them to simply maintain their current EBITDA (across all lives, and across those shifting to the exchanges). In other words, health

systems should understand what the individual exchange price and volume levels will need to be (relative to commercial) to offset expected reductions in government reimbursement growth rates, potential cannibalization of patients with group commercial coverage, and any expected increases in balance after insurance, while taking into account increased revenue from the currently uninsured who will move onto the exchanges and any reduction in costs that the health system can reasonably expect to capture through operational improvements.

Next, the health systems should understand the price and volume levels at which they may be better off remaining outside the network. If a payor establishes a limited network for an individual exchange product in a market, what could happen to health systems that declined to participate in that network? The systems might lose volume in the individual segment if some of their patients bought such products and switched to in-network facilities for elective care. However, these systems would probably maintain some out-of-network (OON) individual volume through emergency department (ED) admissions. The reimbursement level for OON care (emergent or non-emergent) might be higher than current commercial rates—in some cases, even at or near charges. However, it is important to bear in mind that, in many states, payors bear no obligation to pay providers for non-emergent care if they are not in the network. Some payors may refuse to honor a patient's assignment of benefits to an OON provider, compelling the provider to chase the patient for payment instead of being paid directly by the payor.<sup>6</sup> The extent to which these billings benefit a health system will therefore depend, in part, on how

easily the health system can collect payments from the patients involved.

A health system contemplating the price–volume trade-off associated with an exchange offer will therefore need to determine what proportion of the individual exchange segment it can expect to capture, whether that volume justifies the discounts given for exchange-predominant product types, whether the discount is sustainable (relative to competitors' ability to discount), and how the exchange offer compares with staying OON.

Thus, the key price and volume variables that health systems should consider when calculating these break-even price and volume levels include:

- The potential volume to be gained by joining the limited network, including the potential size of the exchange population, the percentage of exchange patients who will buy lower-cost, limited-network plans, the expected market share capture of the payor in question, and the proportion of elective (non-ED) volume covered by the limited network that will shift to in-network health systems.
- The OON opportunity cost, including the proportion of ED volume that will continue to be captured (and remain OON) if a limited network is formed in the market and the percentage of billed charges that will be reimbursed for OON ED services.
- The potential spread of discount pressure to the small group segment.
- Expected changes in bad debt levels in comparison with current commercial bad debt projections.



<sup>6</sup>Lucas CK, Williams MA. The rights of nonparticipating providers in a managed care world: Navigating the minefields of balance billing, reasonable and customary payments and the right to control care. Presentation to the American Health Lawyers Association. January 31, 2009.

<sup>7</sup>We use the Provider Reform Impact and Stress-test Model (PRISM) to project the impact of reform on hospital economics. See the appendix for more detail.

- The impact of underlying trends on health system economics (market-by-market), including reimbursement growth rate declines, expected coverage shifts, and utilization trends.<sup>7</sup>

These variables will always be subject to some uncertainty. However, health systems can make a range of assumptions about them (from worst case to best case) and

## About the research and analysis

This article leverages proprietary research and analysis that McKinsey has conducted over the past 18 months. This appendix describes the major tools and data sources we used.

### McKinsey's Consumer Exchange Simulation

With this tool, users (typically, payors) design a suite of insurance products that can then be sold on a simulated online exchange. Consumers browse the exchange, which highlights information on premiums, deductibles, coverage tiers, and other key product attributes, before making a selection. As of the end of 2012, nearly 150,000 consumers across the United States had participated in simulations. On average, it takes each consumer about 25 minutes to complete the process.

The first round of simulation requires about five weeks and typically involves about 4,000 local consumers between the ages of 18 and 64, who have incomes above 133 percent of the federal poverty level. An additional round can be conducted for users who want to test detailed product configurations and trade-offs.

The Exchange Simulation collects a wide range of demographic data about the participating consumers, as well as information on their current coverage, health status, and prior purchase behavior. Thus, the tool allows users to:

- Assess the impact of different product attributes (including brand name, price points, network designs, and availability of dental care or other

additional services) on consumer buying preferences and choices.

- See what types of consumers purchased their products, as well as the types that preferred competitors' products.
- Estimate how their product offerings would fare in terms of revenue, margin, medical loss ratio, and market share in a real market.
- Understand local market dynamics, competitive issues, and the effect of subsidies on insurance choices.

The "real" consumer feedback gives users unique insights into consumer preferences and what their behavior on the exchanges is likely to be, information that is not available through any other source.

Several payors have already used the McKinsey Consumer Exchange Simulation to support product design, off-exchange strategies, and strategies for handling the transition of existing members from employer-sponsored insurance to individual plans.

### McKinsey's annual Consumer Health Insights (CHI) survey

This unique survey provides information on the opinions, preferences, and behaviors of more than 14,500 consumers, as well as the environmental factors that influence their healthcare choices. The survey also enables insights into the current market environment and can be used to make predictions

calculate the break-even price and volume levels for a range of scenarios. Among other advantages, this type of scenario planning enables health systems to identify the

discount level at which their participation in such a network does not confer financial benefits and forms a solid foundation for exchange pricing discussions with payors.

about the choices and trade-offs consumers are likely to make in the post-reform environment.

The CHI collects descriptive information on all individuals who participate in the survey and their households. It also assesses shopping behaviors; attitudes regarding health, healthcare, and the purchase and use of healthcare services; awareness of health reform; opinions about shopping for individual health insurance and using an insurance exchange; preferences for specific plan designs (including trade-offs among coverage features, such as benefits, network, ancillaries, service options, cost sharing, brand, and price); employee perceptions of the employer's role in healthcare coverage; attitudes about a broad range of related supplemental insurance products; opinions, use, and loyalty levels regarding healthcare providers; and attitudes and behaviors regarding pharmaceuticals and pharmacies.

We supplement the information from the CHI with data from other sources, such as information on a consumer's estimated lifetime value to a payor, consumer behavior, and marketplace conditions. This combination provides a holistic view of healthcare consumers that is not available through other means.

We have used CHI data in a range of customized analyses that address both current and post-reform healthcare issues. We expect that payors and others will primarily use the information in applications that assist with product design, marketing strategies, consumer segmentation, consumer targeting, network configuration design, and assessment of new channel opportunities.

### **McKinsey Predictive Agent-based Coverage Tool (MPACT)**

MPACT is a micro-simulation model that uses a comprehensive set of inputs and a distinctive approach to modeling consumer and employer behavior to project how health insurance coverage may change post-reform. MPACT contains 300 million "agents" representing all residents of the United States. Each agent is characterized by his or her county of residence, type of insurance coverage, and eight demographic variables. Over the course of the micro-simulation, agents in each geo-demographic segment make health insurance purchasing decisions depending on their eligibility, prior purchasing behavior, demographics (including health risk status), subsidy eligibility, and penalty impact, among other factors.

### **Provider Reform Impact and Stress-test Model (PRISM)**

McKinsey's PRISM model combines hospital financial data, MPACT county-level covered lives projections, McKinsey's national hospital operational benchmarking database, and information about the likely impact of legislated changes to project hospital performance market by market. Add-on modules enable projections of financial impact and service utilization at the level of clinical service lines (e.g., cardiology, orthopedics), bad-debt modeling, and a rapid, outside-in analysis of the projected impact of reform on hospital economics. PRISM has in-built flexibility to model a range of scenarios, based on reform and non-reform factors.

### 3. Maximize value beyond price and volume

Once health systems have established the break-even price and volume levels to inform exchange pricing discussions, they will need to bring to bear the full range of contracting levers available to maximize the value of the discount offers that come their way. Here are a few examples:

#### Contracting terms

Among the contracting terms health systems can use to mitigate the risks associated with limited-network discount offers are these:

- Volume thresholds for exchange products, associated with specific actions or payments that should occur if these thresholds are not met (e.g., an automatic price increase).
- Terms that limit the extension of exchange rates to other patient segments and/or forbid an automatic extension to new products.
- Terms that ensure the health system's inclusion in all limited-network products offered by the payor, to prevent the payor from forming exclusive relationships with other providers that might negatively affect the success of plans that include the health system.
- Bad debt protection, including a clear process for monitoring bad debt levels and provisions for any significant increases in bad debt.
- Covenants to re-open negotiations, especially if there is a high degree of cannibalization.
- Terms that ensure that the provider receives access to network performance data, including physician and hospital performance information.

#### Innovative reimbursement models

Many exchange offers will primarily be traditional fee-for-service rate agreements. However, health systems may want to consider using innovative reimbursement models (such as a performance bonus contingent on meeting agreed efficiency and quality targets) as a way to respond to payors' demands for lower fee-for-service rates. These models may be attractive to payors, since they incentivize lower-cost, higher-quality care.

#### Access

Health systems may want to consider offering payors preferential access or services for their members (e.g., dedicated private rooms or same-day appointments) in exchange for higher reimbursement rates.

#### Co-branding

Our research has shown that brand familiarity is likely to play a key role in consumer choice on the exchanges. Consumers on the exchanges will not pick their hospital, physician, and specialist to create a customized product (and price)—they will pick an insurance product. Health systems that already have strong brand recognition could develop highly competitive co-branded products with insurance partners or even their own proprietary branded products (using a white-box insurer backbone for the plan component). By offering a distinctive product on an exchange, a health system could potentially strengthen its ability to negotiate higher reimbursement rates.



Health systems that are able to capture a substantial share of the rapidly expanding individual exchange population may be able

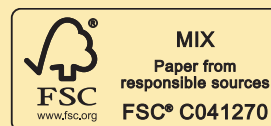
to create distinctive value. The risk, however, is that in their eagerness to capture this opportunity, they will agree to unnecessarily steep discounts. As health systems develop their exchange pricing strategies, they must therefore have a clear perspective on how and when they will trade price for volume. Among other things, they must understand how distinctive their value proposition is in the local market, when it makes sense for them to compete for exchange patients (and at what discount), and when they may be better off charging higher reimbursement rates for OON volume. Furthermore, robust exchange pricing strategies should always be combined with other levers to drive systemwide value creation, including large scale clinical operations programs to reduce costs and improve quality of care.<sup>8</sup> ○

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<sup>8</sup>For more information about such programs, see “Clinical operations excellence: Unlocking a hospital’s true potential” on p. 17.



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