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Although the Patient Protection and Affordable Care Act (PPACA) of 2010 is the law of the land, much of what lies ahead from a regulatory and administrative standpoint is yet to be defined. That should not surprise us. Almost always when a new law is passed, says New York Times columnist David Brooks (2010), “it’s very hard to tell who is responsible for executing it because there is a profusion of agencies and bureaucratic levels all with some share of the pie.”

Consider, for example, just one component of the legislation: accountable care organizations (ACOs), which are identified in Section 3022 of PPACA and which many providers are rushing to create. The legislation does not address a number of critical issues that could profoundly impact providers. These issues include:

- Final determinations regarding the calculation of cost savings and the potential level of reward to providers.
- Legal issues regarding antitrust law, Stark and anti-kickback prohibitions, community benefit, and risk assumption.
- Opportunities to participate in bundled payment, value-based purchasing, and gain sharing. All are under analysis, the results of which are not expected until 2013.

A number of other important provisions have been left to the future determination of the secretary of Health and Human Services. Yet, it seems clear to many providers that regardless of the current lack of legislative and regulatory specificity, payment will be used as a blunt-force instrument to bludgeon providers into containing costs. It is clear, too, that quality outcomes and patient safety (however crudely measured) will trump cost and service as comparative criteria for provider selection. Given those assumptions, strategic and tactical clarity can still be distilled in the midst of the regulatory ambiguity.

Strategy

Recognizing the ambiguity in the legislation (and the certainty of continued political debate), Jeff Bauer encourages us to consider the futures of health reform—futures, plural, because history tells us that PPACA is just one of a number of important steps on the journey to reform.
During 2011, Bauer says, we should expect major legislative initiatives that may profoundly impact PPACA. We should not expect health reform to be a one-size-fits-all model; implementation will vary “dramatically across the country” and will be affected by state politics, economic circumstances, and other factors. Alternative scenarios should be evaluated, and contingency plans will be required, Bauer tells us. But that should not stop providers from developing and pursuing a strategy for success. Innovative leaders aren’t waiting for Washington to act but are already moving on a path to conserve and properly allocate resources, align economic incentives, and build collaborative approaches to providing care.

In his essay on payment reform, Paul Ginsburg sounds a cautionary note regarding the formation of ACOs. Picking up on his comments, there is an important underpinning to the ACO concept providers would do well to keep in mind. In their book Partners in Health, Crosson and Tollen (2010) tell us that the case for ACOs was based on analyses of 34 integrated delivery networks (IDNs) such as Kaiser, Mayo, Henry Ford, and Geisinger; identification of “natural referral networks” by health policy researchers; the reasonable assumption that these “natural referral networks” could be held accountable for the quality and cost of care provided to Medicare beneficiaries; and the exponential leap of faith that, by being held accountable, fragmented providers across the United States would suddenly morph into IDNs.

While Ginsburg expresses some skepticism regarding provider enthusiasm for ACOs, he reinforces the strategic imperative to focus on quality and efficiency outcomes. He closes his essay with the admonition, “Those clinging to the current system will face lower payment as their rates are squeezed to pay for the rewards for better quality and efficiency.”

It could be argued that integration with physicians is a tactical challenge for hospitals, not a strategic one. The distinction may be academic, but I’ll argue the opportunity and the challenges are so great that physician–hospital integration is really a strategic, bet-the-business issue. Get it right, and a lot of other things (e.g., quality, cost) will follow more easily. Get it wrong, and your hospital may be looking at a fire sale.

In their essay, Pankaj Patel and Mark Shields advise: “Hospitals will need to transition away from the constraints of the traditional voluntary medical staff toward committed physicians who will partner with the hospital and lead priorities around more standardized measures of quality performance, patient safety, efficiency, and patient satisfaction. Such physician commitment does not necessarily mean employment and may be established through other forms of alignment.”

All of us need to listen to them. As representatives of Advocate Health Partners, Patel and Shields have been to the mountain—in fact, they are the mountain—when it comes to the integration of independent physicians.

In their essay on primary care and primary caregivers, Victor Dzau and Alex Cho write about the rising prominence of primary care and the patient-centered medical home (PCMH) while reminding us that PCMHs are in some important respects “still theoretical” (there’s that ambiguity again). Of course, hospitals have to have physicians before integrating or building PCMHs with them. Dzau and Cho highlight the factors underpinning the growing shortage of primary care physicians and suggest opportunities to alleviate the problem, such as greater use of physician assistants and nurse practitioners and more employment of information technology.

Tactics
In his essay on process improvement, Mark Chassin encourages hospital leaders to focus on quality as the driver for their organizations’ cost containment initiatives. Many healthcare providers have taken admirable and substantial steps toward process improvement but all too often have failed to hold the gains achieved. Chassin tells us incremental approaches will be insufficient in the future. Process improvement must become robust by incorporating a mix of technical (e.g., Lean Six Sigma) and cultural (e.g., change management) tools. Using hand hygiene as an illustration, he identifies a number of practical and sometimes counterintuitive reasons process improvement sometimes fails. And he outlines an approach to developing an improved methodology.

Paul Tang’s essay delivers the message that information technology will be critical to support process improvement, the redesign of patient care, and communication and collaboration among providers. While the Health Information Technology for Economic and Clinical Health Act provides financial support to hospitals and physicians to develop and implement electronic health records, the money will be available only to those organizations meeting “meaningful use” criteria, which include demonstrated quality improvement.

HIMSS Analytics (2010) estimates that approximately 85 percent of US hospitals were at Stage 3 or below on the eight-stage journey to a paperless patient record environment at the end of the second quarter of 2010. Clearly, many providers have a long way to go,
supporting Tang’s assertion that healthcare leaders “must activate or accelerate plans to put in place…the essential infrastructure needed to meet the objectives of health reform.”

Just what constitutes “essential infrastructure” will be a moving target. In addition to the legacy hardware and software systems required for an electronic health record, Eric Topol writes that “in the coming decade, we are poised to see digital wireless medical devices have a radical, transformative effect on the future of healthcare.” Besides being wireless, these devices will also be smaller and lighter—that is, miniaturized—and therefore highly mobile. Topol predicts that the use of noninvasive, wireless, and ubiquitous sensors to monitor vital signs continuously, even in ambulatory settings, will improve the quality of patient care and patient safety. Medication tracking will improve, and the ability to monitor compliance with such seemingly mundane policies as hand hygiene procedures will be enhanced. Wireless technologies will also disrupt traditional diagnostic technologies such as Holter monitors and ultrasound.

Field experience indicates that communication is almost always among physicians’ top complaints about hospitals, and it’s one of the most vexing issues hospital executives have to deal with. Ed Bennett tells us that help may be on the way in the form of social media, which he defines as “online applications and services used by individuals, groups, and formal organizations to develop and sustain interactions among constituents.” Bennett provides descriptions and potential applications for eight different types of social media, including Twitter, Facebook, and YouTube, and outlines the potential uses of social media for crisis management, brand monitoring and customer service, and patient education and recruitment.

As always, Futurescan’s intent is to serve as a catalyst for the strategic planning discussion among senior leaders in hospitals, systems, and physician groups. In addition to the specific implications the authors have drawn, healthcare leaders will want to undertake their own assessments of these and other trends to develop assumptions about their collective impact—and the imperative to make strategic and tactical decisions in an environment full of regulatory ambiguity.

References


Health reform in the United States can reasonably be expected to move in several different directions—simultaneously—over the next five years. Therefore, industry leaders and strategists should approach evolution of the medical care system not as a discrete trend to be rationally discerned and carefully followed, but as an array of possibilities to be enthusiastically harnessed and creatively shaped. A variety of transformational successes will be achieved by stakeholders who collaborate to build better mechanisms for delivering and financing health care, acting independently of (but not oblivious to) health reform laws that generate uncertainty and promote regression to the mean.

The Lessons of History
The recent history of health reform in the United States suggests one clear lesson: Congress and the policy-making apparatus have only enough political capital to invest in major health reform efforts every five years or so. (A summary of reform laws for the past three decades is presented in Table 1.) Barring an unprecedented change in political and economic circumstances, the probability of a significant push to reshape health care within the next few years is low, because Congress just enacted two major laws in 2010. History suggests that the next political opening for reform legislation will be associated with the presidential election of 2016.

Consistent with George Santayana’s time-tested observation that “those who cannot remember the past are condemned to repeat it,” the next two to three years are much more likely to be devoted to efforts to repeal the 2010 reforms than to move in new directions. The Medicare Catastrophic Coverage Act of 1988 is a strong precedent for this forecast. Pushed to passage during a period of serious economic instability by a president (Reagan) with power to influence Congress, the law created major changes in health insurance without adequate consideration of their economic impact on beneficiaries. Public backlash consequently caused Congress to repeal the law the year after it was passed. All things considered, 2011 looks a lot more like 1989 than any other year following...
### FUTURESCAN SURVEY RESULTS: Healthcare Policy

#### How likely is it that the following will be seen in your hospital’s area or, if in bold print, your hospital specifically, by 2016?

<table>
<thead>
<tr>
<th>Event</th>
<th>Very Likely (%)</th>
<th>Somewhat Likely (%)</th>
<th>Somewhat Unlikely (%)</th>
<th>Very Unlikely (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least half of your hospital’s income will be derived from “at risk” payments, such as bundled payments for episodes of illness, per member per month capitation payments, or some other means of global payment from insurers or other purchasers.</td>
<td>46</td>
<td>41</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>Accountable care organizations (ACOs) are organizational structures within which hospitals, physicians, and others can work together to provide more cost-effective care and be held accountable for the results achieved. How likely is it that your hospital will participate in an ACO in 2016?</td>
<td>16</td>
<td>54</td>
<td>27</td>
<td>3</td>
</tr>
<tr>
<td>States will use cost-effectiveness analyses to set benefits packages for those who will rely on governmental insurance. This plan will include first-dollar coverage for preventive care, which can reduce downstream costs and adverse outcomes.</td>
<td>32</td>
<td>48</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>Comparative effectiveness research is a research method that compares different interventions’ outcomes, taking into account specific information about patients and circumstances. Such research will be widely used as a tool to inform clinical decisions.</td>
<td>12</td>
<td>46</td>
<td>36</td>
<td>6</td>
</tr>
<tr>
<td>Comparative effectiveness research will reduce the rate of increase in healthcare spending.</td>
<td>9</td>
<td>30</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>By 2016, a US agency equivalent to the United Kingdom’s National Institute for Health and Clinical Excellence (NICE) will be formed. NICE can ration access to healthcare services based on cost-effectiveness limits.</td>
<td>19</td>
<td>44</td>
<td>30</td>
<td>7</td>
</tr>
<tr>
<td>National and state health policy decisions in the United States will be made much like the Oregon Health Plan principle: “When funds are limited, the state should deliver fewer services to more people rather than more services to fewer people.” Thus, rising costs or lowered revenues will be accompanied by cuts to lower-priority services rather than by cuts to the number of people covered.</td>
<td>8</td>
<td>35</td>
<td>47</td>
<td>10</td>
</tr>
</tbody>
</table>

8. Policies of medical specialty societies will be instituted that will prevent marketing messages from being integrated into clinical education programs.

**Note:** Percentages in each row may not sum to 100% due to rounding.
What Practitioners Predict

Hospitals will be at risk and accountable. Nearly 70 percent of practitioners agreed that by 2016 at least half of their hospitals’ income will be derived from “at risk” payments such as bundled payments for episodes of illness. An even higher proportion, 87 percent, thought it likely their hospitals would participate in an accountable care organization by 2016.

Research will be conducted to support effective care. States will use cost-effectiveness analyses to set benefits packages for those relying on government insurance, and thus such packages are likely to include first-dollar coverage for preventive care, according to 70 percent of respondents. Eighty percent agreed that comparative effectiveness research, where outcomes of different interventions are compared, will be widely used to inform clinical decisions. But fewer (58 percent) thought such research will slow the rate of increase in healthcare spending.

UK-style rationing is unlikely. Practitioners rejected the idea, by a 60:40 margin, that the United States will form an agency like one in the United Kingdom that can ration access to health services on the basis of cost-effectiveness. Rather, 63 percent of respondents agreed that the United States is likely to adopt the Oregon Health Plan principle that when funds are limited, states should deliver fewer services to more people rather than more services to fewer people. In this scenario, cutting lower-priority services rather than cutting beneficiaries is a more likely modus operandi.

Marketing messages will persist. Finally, practitioners were largely skeptical (57 percent thought it unlikely) that medical specialty societies will institute policies preventing marketing messages from being integrated into clinical education programs.

Unpredictable Trends

With good reasons to doubt that last year’s reform laws will be implemented as enacted, healthcare executives and strategists need to evaluate current reform trends with a corresponding degree of skepticism. Organizational plans for responding to the Affordable Care Act and the Reconciliation Act should incorporate uncertainty that the programs will ever become fully operational.

For example, providers should not assume their operating income will rise when the insurance mandate becomes effective in 2014. The government’s estimates of increases in insurance coverage are unjustifiably optimistic. Many Americans will not buy insurance because they cannot afford it or simply do not want it. (Sadly, the prospects for reducing the proportion of uninsured Americans from 17 percent in 2010 to the legislative goal of 6 percent by 2019 [Congressional Budget Office 2010] are no better than the odds that the Chicago Cubs will win the World Series in the same period.) Because of economic constraints and reform’s budget neutrality, any increases in the number of insured Americans will be compensated for by corresponding decreases in the portion of total bills paid by insurance.

Trends in health reform are unpredictable for other reasons, too. The Department of Health and Human Services is responsible for developing regulations to implement more than 1,400 provisions in the laws, arguably an impossible assignment. Significant responsibilities for accomplishing major goals of the laws, particularly insurance overhaul, are delegated to the states. The results will vary dramatically across the country because of differences in states’ economic circumstances, political orientations, and administrative capacities.

Last, and definitely not least, the future of the economy is anyone’s guess. Even if the health reforms of 2010 survive legislative and judicial challenges, implementation will be hindered by serious economic problems that are generally expected to last several more years. Indeed, unprecedented uncertainty casts doubt on the evolution of all trends being monitored by healthcare decision makers.

Looking for Reform in All the Right Places

A print by Honoré Daumier (Figure 1), the nineteenth century French artist famous for irreverent political caricatures, is worth a thousand words concerning the future of health reform. Like the gentleman at the telescope, Americans confronted with questions about reform immediately focus their attention on one place: Washington, DC. Systemic changes in the medical marketplace are presumed to be directed from the nation’s capital. Predictions about the outcome of battles over reform are made in context of the interplay between political parties and their
leaders, lobbyists and other special interests, policy wonks, and media pundits within the Beltway.

The conventional wisdom embedded in our Washington-centric view of reform is misguided. Very few of the enduring improvements in cost or quality of healthcare in the United States have originated in the nation’s capital. Like the woman in the Daumier print, we need to look elsewhere to see the meteoric progress on healthcare’s horizons. Desirable trends are being established on a daily basis by a small but powerful cadre of creative providers, purchasers, payers, and their business partners who are willing to try new and different combinations of resources and then incorporate successful experiments into daily operations.

Spread across the country, the real reformers have learned how to improve healthcare by identifying and reallocating wasted resources. These innovators are a growing group of health systems and health plans that have aligned economic incentives to eliminate wasteful competition, embraced modern technologies (e.g., electronic records, telemedicine) to provide top-quality care as inexpensively as possible, and shifted focus from episodic care of acute conditions to cost-effective management of chronic disease. They have instituted multipractitioner team approaches to patient care and adopted standards-based performance improvement methods across the enterprise.

The trend-setting systems have broken away from the bonds of tradition. Their leaders have a galvanizing vision of a better way to do business and the courage to make difficult decisions. They have not waited for directions or approval from Washington.

Implications for Hospital Leaders
The real health reformers were intensively studied during the last session of Congress, but their successful creations figure only peripherally, as demonstration projects and pilot programs, in the reform laws of 2010. However, their accomplishments are widely recognized and validated. They are proof that healthcare can head in new directions—toward reform that is partnership-based, market-driven, results-oriented, impatient with the status quo, and independent of national directives. To position their organizations for comparable success, health system leaders and strategists who find more questions than answers in Washington’s 2010 reforms should undertake three strategic actions.

Plan for contingencies. First, healthcare businesses should pursue a flexible, contingency approach to planning. Preparing for only one outcome is risky, because the future cannot be predicted with a reasonable level of confidence. No one can know for certain whether the 2010 reform laws will be implemented as enacted, nor can anyone safely assume that forthcoming regulations to implement the reforms will reflect the intent of the legislation when it was passed. Economic uncertainty and changes in political power will produce many unexpected outcomes and unintended consequences.

Proceed cautiously. Second, executives should carefully evaluate the net impact of seeking grants or incentives provided by the 2010 laws. Making necessary changes independent of reform programs merits serious consideration. Many providers and payers will need to develop new business models (e.g., integrated delivery systems, bundled payment mechanisms) much faster than the statutory timetable for federally funded pilots and demonstrations. Also, for many organizations, the compliance costs of participating in federal programs will exceed the subsidies.

Develop partnerships. Third, creative organizations should develop
partnerships with other stakeholders in the medical marketplace. No provider, payer, or purchaser has the resources to solve the problems of healthcare by itself. For example, health systems, health plans, and their business partners need to eliminate the counterproductive aspects of their traditional relationships and work together to improve quality and reduce costs (being careful to avoid anticompetitive actions).

In conclusion, the futures of reform are not predetermined, nor are they controlled by Washington—as long as healthcare’s local leaders and strategists come up with good solutions. Creative partnerships around the country have already proved medical care can be reformed locally, independently, and collaboratively. Today’s challenge is for results-oriented partnerships to become efficient and effective as quickly as possible—much faster than the timetable recently adopted in Washington.

The latest push for reform began with a bipartisan belief that healthcare could not continue on its current course. Leaders and strategists of tomorrow’s successful medical enterprises will answer this call and not let partisan politics get in the way.

Reference
Although relatively little has changed in hospital payment in recent years, with the exception of efforts to improve payment accuracy through the creation of the Medicare Severity Diagnostic-Related Groups (MS-DRGs) and new techniques to calculate relative weights, greater changes over the next five years are highly likely. A key catalyst will be the wide range of Medicare payment reforms authorized by the Patient Protection and Affordable Care Act (health reform). Not only will the law lead to important Medicare payment changes, but Medicaid programs and private payers will follow suit to varying degrees.

Today’s methods of inpatient hospital payment—a mixture of DRGs, per diem, and discounts from charges—foster only the narrowest aspects of efficiency, with few rewards for better quality. Many hospitals deal with conflicting incentives from different payers, such as shorter lengths of stay for Medicare and Medicaid patients but often not for privately insured patients. Payment for hospital outpatient services, an increasingly important component of revenue, is also a mixed bag, with ambulatory payment classification (APC) for Medicare but mostly discounted charges for private payers.

The most notable change in the payment landscape in recent years has been hospitals’ increasing leverage with private health plans (Berenson, Ginsburg, and Kemper 2010). The combination of provider consolidation and customer pressure on insurers to offer broad provider choice has increased the leverage of some—but not all—hospitals. Although most in the industry describe this as part of a cost-shifting process, with hospitals raising rates to private payers to offset growing shortfalls in public program payment rates, the Medicare Payment Advisory Commission (MedPAC) has found that many hospitals with negative Medicare margins have healthy overall operating margins. This indicates that some hospitals have sufficient leverage to allow unit costs to rise—for example, by investing in expensive new technology—with higher private rates offsetting negative Medicare margins (MedPAC 2009).

Hospitals without the clout to command higher private payment rates must work harder to control costs to keep Medicare margins positive.

Medicare provider payment reform is a key aspect of the Affordable Care Act. Rather than specifying a new payment system, as was the case with inpatient prospective payment in 1983, the law creates the political and legal infrastructure to adopt new payment systems. It gives the secretary of Health and...
Human Services important new authority to develop and implement new payment methods, such as shared savings arrangements with accountable care organizations (ACOs), and to pilot other payment methods, such as bundled payment. This piloting authority includes the ability to expand a promising pilot and implement it nationally without seeking further authorization from Congress.

Value-Based Purchasing
While the new piloting authority has been widely noted, less attention has been given to provisions in the legislation that mandate a value-based purchasing (VBP) program for hospitals starting in fiscal year 2013. The program will reward hospitals on the basis of a number of to-be-determined value metrics and will fund the bonuses through a phased-in 2 percent reduction in hospital payment rates. A parallel reform in physician payment mandates a value modifier in the physician fee schedule that will be based on broad measures of quality and costs for an episode of care. In development over a number of years, starting with incentives to voluntarily report measures of quality, VBP is likely to develop into a fundamental Medicare payment change.

Accountable Care Organizations
Hospitals appear to be paying the most attention to the ACO provisions in the health reform law. Hospital leaders focusing on their community mission see ACOs as an opportunity to concentrate on population health needs and potentially achieve broader aspects of quality and efficiency. But it will require a sea change in perspective and far more productive relationships with physicians.

In communities with large multispecialty medical groups, ACO development could move relatively quickly through contracts between one or more groups and a hospital, or even by a medical group forming its own ACO. Many areas, however, do not have the physician infrastructure to engage in this activity, leaving the hospital as the sole entity with the ability to organize an ACO. On the other hand, independent practice associations (IPAs), which have become important in areas of the country where capital is extensive, such as California, might develop in response to new payment mechanisms in some areas lacking physician infrastructure, unless the bulk of physicians are already employed by hospitals. Physicians may prefer partnering with a hospital through a group or an IPA to having the hospital completely in charge.

Because the Medicare program has many different strategies for payment reform that it can or must pursue, it is difficult to predict which will have the most influence five years from now. Some believe that the lower-key strategies, such as value-based payment and penalties for excessive rates of readmissions, will have a more important impact than others. Given the limited experience with provider payment reforms to date, Congress was wise to authorize many approaches rather than mandate a specific approach.

Changes in Private Payer Contracting
These Medicare strategies will open many opportunities for private payers to contract with providers in different ways. These opportunities are arising because of two likely trends. First, hospitals will invest in adapting to Medicare payment reforms, which will encourage them to contract with private payers in a similar fashion. Second, the technical work that Medicare will conduct to support payment reform will make some approaches more feasible for private payers. For example, to prepare for the value modifier in physician payment, Medicare will develop a public domain episode grouper—an algorithm to sort an enrollee’s claims between a specified episode of care and other care. Physician organizations have been highly critical of the proprietary groupers used by private health plans; the public domain grouper will make it easier for private payers to incorporate costs per episode into their payment systems in ways that are more acceptable to physicians.

Provider Leverage: Increasing or Decreasing?
A major unknown for the future is whether provider leverage with private payers will increase, stay the same, or decrease. Given the direction of recent trends and the development of ACOs, payers expect provider leverage to stay the same or increase. They believe that ACOs, formed to contract with Medicare, will spur already growing hospital–physician alignment, creating even more powerful entities with greater negotiating leverage. In contrast, Futurescan 2011 survey respondents are projecting decreasing hospital leverage, perhaps because they anticipate the increased pressure that insurance premiums are likely to face.

My perspective is that hospital leverage will remain strong for some time, until enough insured people are either in narrow-network plans—which limit enrollees to a subset of hospitals—or in plans with tiered designs that give patients incentives to choose hospitals on the basis of value. So far, these conditions have developed very slowly. However, continued weakness in the economy could accelerate the development of such plans, and more sophisticated Medicare tools to measure quality and efficiency will make them an easier sell. A related unknown is the nature of the private health plans purchased through insurance exchanges with
FUTURESCAN SURVEY RESULTS: Payment

How likely is it that the following will be seen in your hospital’s area or, if in bold print, your hospital specifically, by 2016?

<table>
<thead>
<tr>
<th></th>
<th>Very Likely (%)</th>
<th>Somewhat Likely (%)</th>
<th>Somewhat Unlikely (%)</th>
<th>Very Unlikely (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Private purchasers will build on the past decade’s trend to demand value from health plans and providers. For example, under the newly enacted reform legislation, Medicare will establish penalties for excessive readmissions. Such penalties for readmissions will be adopted by the majority of private payers by 2016.</td>
<td>71</td>
<td>26</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>2. By 2016, hospitals will have greater bargaining power vis-à-vis private insurers. Thus, hospitals will be able, when needed, to raise rates more rapidly than the trend in unit costs.</td>
<td>59</td>
<td>34</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>3. Recovery audit contractors (RACs) allow third-party auditors hired by the Centers for Medicare &amp; Medicaid Services (CMS) to keep 9 percent to 12.5 percent of provider payments they identify as improper. Such audits will continue and become more pervasive by 2016.</td>
<td>15</td>
<td>43</td>
<td>36</td>
<td>6</td>
</tr>
<tr>
<td>4. By 2016, your state will intervene in private insurers’ payments to hospitals by requiring them to employ a specific method of provider payment, such as global payment or bundled payment.</td>
<td>51</td>
<td>41</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>5. According to the Center for Studying Health System Change, fewer than 20 percent of US physicians have a financial connection with any hospital. The demands on private practice physicians today and the uncertainty about future payments for their services will drive the majority of physicians to choose hospital employment.</td>
<td>36</td>
<td>54</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>6. Physicians and hospitals participating in an accountable care organization (ACO) will have cost savings benchmarks based on historical cost trends and care improvement targets. ACOs that achieve quality and cost goals will receive from payers a portion of the savings resulting from the ACOs’ efforts.</td>
<td>27</td>
<td>54</td>
<td>18</td>
<td>2</td>
</tr>
<tr>
<td>7. Some employers are currently working with their health plans to reimburse for telephone visits or e-visits—an important component of twenty-first-century healthcare that may lower cost. Such reimbursement will be widely adopted by insurers by 2016.</td>
<td>38</td>
<td>49</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>8. Primary care physicians whose practices are set up to coordinate preventive and chronic care for patients will be paid additional fees under the umbrella of medical home payments.</td>
<td></td>
<td></td>
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</tbody>
</table>

Note: Percentages in each row may not sum to 100% due to rounding.
What Practitioners Predict

**Payers trump hospitals.** Practitioners think that the power of payers, be they government or private insurers, will prevail for the foreseeable future. For example, nearly all respondents agree that the majority of private payers will adopt Medicare’s penalties for excessive readmissions. They also reject the premise that hospitals will have greater bargaining power vis-à-vis private insurers and will be able to raise rates more rapidly than trends in unit costs. Moreover, respondents predict that RAC (recovery audit contractor) audits of hospitals to recover improper payments will become more pervasive by 2016. In a countervailing trend, 58 percent think their states will require private insurers to employ a specific method of provider payment, such as global or bundled payment.

**Links between hospitals and physicians will be stronger.** Although fewer than 20 percent of US physicians today have a financial connection with a hospital, nearly all respondents agreed that the demands of private practice and uncertain future payments for physicians’ services will drive a majority of physicians to choose hospital employment. Likewise, 90 percent of practitioners thought it likely that physicians and hospitals that are part of an accountable care organization will receive from payers a portion of the savings for achieving quality and cost goals.

**More caregiver activities will be reimbursed.** More than 80 percent of respondents predict that more activities of individual caregivers will be reimbursed by 2016. For example, reimbursement for telephone visits or e-visits will be likely, as will payment to primary care physicians who coordinate preventive and chronic care, under the umbrella of medical home payments.

subsides for low-income individuals or families. Will these plans be like commercial insurance today, with broad provider networks, or more like Medicaid managed care plans, with narrow networks and much lower provider payment rates?

I expect substantial acceleration in the growth of network and tiered health plans around 2018, when the “Cadillac tax” on high-cost health plans in the Affordable Care Act takes effect. Another factor that could speed up this trend is serious attention to reducing the nation’s ballooning debt, which could move up the start date for the Cadillac tax or cut back on subsidies for insurance for those with higher incomes. The jury is out on whether employers that provide health coverage will embrace this market approach or call instead for regulation of provider payment rates, such as through an all-payer rate-setting program resembling the one that has operated in Maryland since the 1970s (Murray 2009).

**Implications for Hospital Leaders**

Not since the early 1980s, when Medicare inpatient prospective payment was developed, have people focused more on how best to pay hospitals than on how much to pay. Reforming provider payment will change the incentives faced by hospitals, which in turn will develop strategies to respond to them. Opportunities to be paid for improving quality and obtaining better outcomes for chronically ill persons will be exciting for many. Those clinging to the current system will face lower payment as their rates are squeezed to pay for the rewards for better quality and efficiency.

**Responding to the ACO opportunity.** The enthusiasm I hear in interviews with hospital executives about plans for developing ACOs, also reflected in the Futurescan 2011 survey, makes me wonder if they appreciate the challenges involved. For example, while a successful ACO is likely to reduce hospital admissions, the shared savings is likely to be less than the revenue loss from lower volume; however, the increased demand for hospital care resulting from the expansion of coverage under health reform might diminish this challenge. A hospital can more easily face the risks of fewer admissions because of more effective management of chronic disease when it is simultaneously striving to meet the additional demands from more insured patients.

Perhaps hospital executives are responding to the potential “shared savings” of ACOs. It may strike them as a free lottery ticket—either there will be savings to share or there will not. Large hospitals’ interest in ACOs may lead to shared savings being replaced by shared risk. Greater risk (and potential for reward) could be a real asset for hospitals that fully embrace the ACO vision.

**Physician employment.** Employing physicians may be an important foundation for hospitals seeking to integrate care in communities that lack viable physician organizations. The powerful current trend toward physician employment by hospitals dovetails with traditional hospital initiatives to align more closely with physicians to obtain patient referrals and with many physicians’ desire to practice in a salaried environment, which can be made more attractive than...
small physician practices by hospitals’ ability to use their leverage to obtain higher payment rates. Those participating in the current wave of increased employment of physicians need to prepare for a transition from the current employment incentives designed to generate volume to incentives designed to promote efficiency per patient or per case.

References


Existing market trends and recently passed healthcare reforms are coming together to create new forces for change in the way healthcare is delivered. This essay describes key market and health reform trends and their consequences. It emphasizes the growing importance of physician–hospital integration for success in the new environment and offers specific actions hospital leaders should consider.

**Market Trends**

**An aging population.** Boomers moving to Medicare and an aging population with complex chronic diseases will result in changes in payer mix and migration to Medicare rates. By 2020 the over-65-year cohort will make up 17 percent of the population (Day 1996) and by 2030 is projected to account for 56 percent of hospital admissions (First Consulting Group 2007). These epidemiological changes will dramatically increase utilization of inpatient services as well as costs of care because of higher acuity, while changes in payer mix will reduce reimbursement for most providers.

**A changing insurance market.** Trends in the insurance market—including a new rate review process, increasing cost pressures on employers, and growth of the individual insurance market through health exchanges—will drive price control in the commercial insurance industry. This will further reduce the potential for reimbursement growth. The net effect will be a strong downward pressure on the bottom line for many hospitals and healthcare systems and an intense effort to remove waste and improve efficiencies.

**Greater provider accountability.** Medicare penalties for healthcare delivery system failures will begin with avoidable readmissions in 2012 and expand to hospital-acquired conditions in 2015 (Commonwealth Fund 2010). These, together with growth of shared savings and bundled payment models, will shift more clinical and financial accountability to providers and will drive a greater focus on patient safety and coordination of inpatient and outpatient care.

**Focus on value.** The increased expectation of higher healthcare value through lower cost per health outcome will drive lower tolerance for provider variation in care, overutilization, and cost differences. This intolerance will be reinforced by higher consumer out-of-pocket costs driven by health plan deductibles that are higher than most outpatient claims and the anticipated growth of individual markets through health reform exchanges.

**Shift to outpatient care.** Ongoing shifts of profitable inpatient services to outpatient care will further strain hospitals and drive more vertical and horizontal integration. This will take the form of highly specialized service lines; regional consolidation to achieve scale needed to drive

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1. A key divisive force between hospitals and physicians is the hospital’s inability to broaden its mission to prehospital and posthospital care settings over which it has little control. To bridge the gap, your hospital will adopt a more expansive mission by 2016.

2. Hospital boards have the same legal oversight responsibility for the office practice of employed physicians as they do for physicians practicing in the hospital. By **2016**, most hospitals will have developed the equivalent of a medical executive committee to assist the board in overseeing office practices.

3. A problem with medical staff bylaws is that they are developed in reaction to adverse court rulings. A more productive tool to govern the medical staff is a well-structured personnel manual that shows how practitioners are integrated into the hospital’s mission. Such a manual will have been adopted by your hospital by **2016**.

4. To achieve greater collaboration between hospitals and physicians, current barriers like Federal Trade Commission regulations and Stark and anti-kickback laws will be modified.

5. Bundling of payments or providing global payments will pose a major challenge to your hospital because of the need to negotiate terms of payment with private practice physicians.

6. More than three out of four hospitals will compensate physicians for additional services, such as ensuring emergency department call or contributing to a clinical service line.

7. Physicians will be recruited to your hospital’s medical staff through a screening process that will include psychological tests to help determine “fit” with the organization’s culture.

8. To improve hospital–physician relationships, special self-appreciation meetings will be held by executives and physicians separately. These meetings will emphasize the group’s value to the hospital and not focus on the negative features of the other group. As a result, when negotiations take place between the two groups, their enhanced self-regard will enable each group to compromise with the other group more readily.

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**FUTURESCAN SURVEY RESULTS: Physician–Hospital Integration**

<table>
<thead>
<tr>
<th>How likely is it that the following will be seen in your hospital's area or, if in bold print, your hospital specifically, by 2016?</th>
<th>Very Likely (%)</th>
<th>Somewhat Likely (%)</th>
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<td>1. A key divisive force between hospitals and physicians is the hospital’s inability to broaden its mission to prehospital and posthospital care settings over which it has little control. To bridge the gap, your hospital will adopt a more expansive mission by 2016.</td>
<td>27</td>
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<td>16</td>
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<td>4. To achieve greater collaboration between hospitals and physicians, current barriers like Federal Trade Commission regulations and Stark and anti-kickback laws will be modified.</td>
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<td>5. Bundling of payments or providing global payments will pose a major challenge to your hospital because of the need to negotiate terms of payment with private practice physicians.</td>
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<td>6. More than three out of four hospitals will compensate physicians for additional services, such as ensuring emergency department call or contributing to a clinical service line.</td>
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<td>7. Physicians will be recruited to your hospital’s medical staff through a screening process that will include psychological tests to help determine “fit” with the organization’s culture.</td>
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**Note:** Percentages in each row may not sum to 100% due to rounding.
What Practitioners Predict
Hospitals will expand their mission statements and develop more oversight mechanisms. To help overcome the divisions between hospitals and physicians, 72 percent of respondents predicted, their hospitals will broaden their missions to include prehospital and posthospital care settings by 2016. Another key governance issue is the legal responsibility of hospital governing boards for the office practices of employed physicians. To help boards in this oversight function, almost three-quarters of respondents say, it is likely most hospitals will develop the equivalent of a medical executive committee governing office practices. However, respondents were split as to whether their own hospitals would develop a personnel manual to govern the medical staff, replacing the current medical staff bylaws.

Physician compensation will increase as a result of legislative and regulatory reforms, bundling of payments, and demands for services to the hospital. Two-thirds of respondents predicted that current barriers to hospital and physician collaboration such as Federal Trade Commission regulations and Stark and anti-kickback laws will be modified by 2016. Over half of respondents thought it “very likely” and an additional 32 percent “somewhat likely” that bundled or global payments will seriously challenge their hospitals because of the need to negotiate terms of payment with private practice physicians. An even higher proportion—fully 94 percent—predict that more than three out of four hospitals will compensate physicians for additional services such as ensuring emergency department call or contributing to a clinical service line.

The prospect for innovations in recruiting and negotiating with physicians is unclear. Respondents were evenly split on the likelihood that their own hospitals’ screening process for physician recruitment will include psychological testing to help determine a physician’s “fit” with the organization’s culture. Similarly, 57 percent thought it unlikely that executives and physicians will hold separate “self-appreciation” meetings to enhance their self-regard. Such self-appreciation meetings prior to negotiations are thought to enable each group to compromise with the other group more readily.

Health Reform Trends
New payment models. The recently passed Patient Protection and Affordable Care Act (PPACA, available at www.ncsl.org/documents/health/ppaca-consolidated.pdf) provides for demonstrations of accountable care organizations (ACOs); these, together with new bundled reimbursements, will change many hospital profit centers into cost centers. In both models of reimbursement, hospitals and physicians are codependent, and optimal profitability for both is based on savings derived by reducing avoidable healthcare costs that do not contribute to health outcomes. In this context, avoidable admissions will be “failures” and will accrue to the medical cost side of the ledger. Similarly, some Previously profitable specialty care and ancillary services will become cost centers that deplete the bottom line.

Ascendence of primary care. Primary care physicians will be the gateway to patients as well as the primary revenue source for hospitals. The primary source of revenue will shift from the inpatient to the outpatient setting.

More market regulation. Health reform will touch almost all aspects of healthcare financing and delivery and the associated $2.3 trillion US healthcare budget (KaiserEDU.org 2010). The magnitude of the impact of health reform will drive intense lobbying efforts to define the “new” rules. As cost containment efforts accelerate, the government will increase regulatory scrutiny and oversight. In general, healthcare reform will intensify current trends toward a more regulated market, with intense pressures on costs.

Challenges for Hospitals
Hospitals will need to transition away from the constraints of the traditional voluntary medical staff toward committed physicians who will partner with the hospital and lead hospital priorities around more standardized measures of quality performance, patient safety, efficiency, and patient satisfaction. Such physician commitment does not necessarily mean employment and may be established through other forms of alignment. It may at the same time secure referral streams while avoiding anti-kickback violations.

Challenges for Physicians
Physicians will require capital to adopt new technologies that will drive higher levels of performance and quality improvement. They also will need expertise to reengineer practices and help to implement
team care. They will seek financial stability as growth in costs outweighs growth in reimbursement.

**Consequences**

As a result of the challenges described above, more physicians will enter the ranks of employment. Independent physicians will seek links with larger health systems to gain access to capital and reap the infrastructure and management benefits of larger multispecialty medical groups.

More hospitals will consolidate with larger systems to diversify services, gain access to capital and expertise, and integrate providers of inpatient and outpatient care. Hospitals and physicians will jointly pursue clinical integration contracts with aligned incentives that reward collaboration and higher-value healthcare.

Capital will shift toward IT and expertise in managing the total cost of care and away from building bed capacity. Intense efforts will be made to pursue innovations in operational excellence to reduce cost per discharge, coupled with disruptive innovations in new, more efficient care models. Expansion of the number of aligned primary care physicians and specialists will serve to backfill hospital beds as admissions of ambulatory-sensitive conditions and readmissions are reduced.

**Implications for Hospital Leaders**

In light of the trends described above, hospital leaders should:

**Meet with major payers and employers** to determine key initiatives to improve the value of healthcare in the community from their perspectives.

**Engage the board of directors** in discussion about serving populations across the continuum of care, not just inpatient care. Seventy-two percent of practitioners responding to the Futurescan survey predicted that to overcome the division between hospitals and physicians, their hospitals will need to broaden their missions to include pre- and posthospital settings.

**Evaluate the hospital’s readiness to be an ACO.** Minimally, this should include a critical assessment of:

- The organization’s ability to develop a physician–hospital organization (PHO) or become part of an integrated delivery system.
- The numbers of physicians and patient volume required to manage clinical and financial risk.
- The governance and management capability to be accountable across the continuum of care.
- The capacity to manage total costs across episodes of care and decouple reimbursement from volume and intensity of services.
- The level of incentive alignment between hospital management and physicians to drive the goals of both.
- The ability and desire to be transparent and report performance publicly.

**Start to build the structure and function for an ACO** by developing the capability to do clinical integration or accept bundled payments, with sharing of rewards with physicians for improved quality and cost-effectiveness (Shields, Sacks, and Patel 2008). Key strategies would include:

- Establishing a legal entity for collaboration, including joint negotiation with physicians for fee-for-service contracts, to ensure coordination of care across care settings. The US Federal Trade Commission and Department of Justice (2004)

have established guidelines to avoid antitrust violations, and several organizations have received regulatory approval.

- Establishing physician membership criteria to ensure physicians’ full commitment.
- Developing a common set of standardized performance measures with major payers in the local market to create a clear focus and the ability to assess performance across physicians’ practices.
- Creating a measurement system to track performance and provide ongoing feedback.
- Establishing an incentive system to promote collaboration, create individual and peer pressure to improve performance, and reward better quality and higher efficiency. Such a system could provide the structure to distribute shared savings in a future ACO.
- Developing an infrastructure to help drive clinical performance, using physician-led committees and system capabilities such as disease registries to manage population health.

**Establish or expand physician leadership training opportunities.** Good clinicians do not necessarily make good administrators. Developing physician leaders will require an explicit program to identify potential leaders, provide formal training in governance, and mentor new leaders with tools that enable objective management of peers toward common agreed-upon goals.

**Conclusion**

Ongoing market trends and recently passed health reform will drive a higher level of provider accountability for value. ACOs and bundled payments will shift the current focus on volume and unit cost per service toward total cost per health outcome. Success in this environment will require hospitals and physicians...
to work together closely. Although the physician–hospital relationship may take different forms, clinical integration can be an effective chassis on which accountability for value can be built.

References


The most important primary care–related development of 2010 has to be the new healthcare reform law. While both welcome and overdue, the increase in real coverage options brought about by the law—and the requirement that people who can afford it take personal responsibility for purchasing health insurance, with subsidies for those who cannot—mean that demand for primary care will dramatically increase beginning in 2014, the year the health insurance exchanges begin operating and expanded eligibility for Medicaid goes into effect. We as a nation have at most a couple of years to figure out how to meet this coming need.

Drivers of Change
The law’s importance as a driver of change for primary care is not just because it represents the largest expansion of coverage since Medicare. The law also increases primary care payment under Medicare, and it provides more money for workforce development, federally qualified health centers (FQHCs), and other innovations, such as primary care extension agents, nurse-managed clinics, and co-location of mental health services in primary care settings. Also important is unprecedented funding for chronic disease prevention.

The recent recession and protracted recovery is another driver of change, but one with mixed effects for primary care. In the near term, high unemployment has increased the number of uninsured. A national survey of family physicians conducted during the recession found that financial obstacles were causing many patients to defer needed preventive care, resulting in more health problems (American Academy of Family Physicians 2009). But the economic downturn has also affected physicians and hospitals that are dependent on volume, particularly of more lucrative elective procedures, making strong ties to primary care even more essential to maintaining the specialty referral base.

A third development underscoring the rising prominence of primary care is the growing interest in the patient-centered medical home (PCMH), an approach to providing primary care that facilitates partnerships between patients and their personal physicians. Although the concept is still theoretical, in that no commercial payers actually pay more for PCMH care on a broad scale, a consensus is emerging on the key characteristics of the PCMH, and the National Committee for Quality Assurance (NCQA) has established voluntary standards for the recognition of physician practices as medical homes. Also related is the emergence of “accountable care” and the accountable care organization (ACO). Pilots for both the PCMH

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and ACO models are authorized in the new healthcare law.

**Trends**

**A continuing primary care supply gap.** Even with the growth in midlevels, provider supply will continue to be a challenge. Medical student entry into primary care is at a nadir. A 2008 study of 1,177 fourth-year medical students found that 2 percent were planning to go into general internal medicine, 5 percent into family medicine, and 12 percent into pediatrics (fewer than half of whom go into primary care). Reasons include the salary gap vis-à-vis specialists, a low quality of work life, and a perceived lack of prestige (Hauer et al. 2008). The Macy Foundation’s recent conference report on the future of primary care concluded that low student interest in primary care is not just about money, but also reflects the fact that students and trainees do not like what they see in their clinical training (Cronenwett and Dzau 2010).

We cannot simply count on training more physicians to fill the primary care gap. Despite recent growth in the number of medical schools, most dedicated to producing primary care physicians, and expanded class sizes, the increase in the supply of new primary care physicians is likely to be incremental. Brook and Young (2010) have argued that over half of all medical students would have to enter primary care to begin to close the gap in provider supply. It will be interesting to see if the new healthcare law and the changes stemming from it increase interest in primary care careers, much as managed care did in the early 1990s.

The quality of their training experiences also affects the career choices of physician assistants (PAs) and nurse practitioners (NPs). Duke University started the first PA program in 1965. Today, the number of PAs and NPs is at an all-time high and rising. PAs in practice numbered 74,000 in 2008, and physician assistants are projected to be the second-fastest-growing health profession, after home health aides, in the coming decade. As of 2010, there were 135,000 practicing NPs, with 8,000 more being added each year (Rovner 2010).

However, even as the logic of using PAs and NPs for primary care becomes more self-evident, the same trend toward specialization is being seen. For example, over half of all new PAs are going into specialties. The proportion of PAs entering primary care declined from 54 percent in 1996 to 41 percent in 2005 and has declined still further since then; this is offset by a doubling in the absolute number of PAs over the same period (Morgan and Hooker 2010). Incongruously, part of this trend may be demand-related. Our experience has been that many patients and even physicians remain ambivalent about PAs and NPs—particularly in primary care—and thus they are not always used to the fullest extent of their abilities. PAs in the specialties are likely to be more valued.

**The changing economics of primary care.** The next few years will see hospitals and health systems investing in primary care to an extent not seen since the early 1990s. Unaffiliated primary care providers may find the going increasingly tough because of unfavorable contracts, but they may also find surprising new opportunities.

Another economic change taking place is the gradual carving out of primary care revenue streams at the upper-middle and top tiers, with 24/7 concierge service, same-day scheduling, and other “premium” conveniences. As demand for primary care grows, one might expect this trend to accelerate.

“Lean” primary care—a bare-bones mix of urgent care and low-overhead primary care business, sometimes with ancillaries (X-ray, lab) that keep additional revenue coming into the practice—is yet another change, one that has the potential to deliver primary care at a price point even cash-paying, uninsured patients can afford. This is the direction in which retail-store-based franchise operations like MinuteClinic appear to be moving.

**A move to greater accountability and with it greater clinical and financial integration.** The chief medical officer of our primary care network has asked, Is the rush to “accountable care” simply new wine in old bottles? That is, are we seeing the second coming of capitation and managed care for providers not touched by it now? To some extent, probably yes.

But there are at least three major differences between the early 1990s and now. In these new ACO-type arrangements, any “shared savings” risk sharing is spread across an entity that spans the entire healthcare spectrum. Thus, by design, primary care providers would not solely bear the risk for utilization they have no reasonable way of controlling.

The second major difference, where it exists, is collaboration. ACOs will require participation by primary care, both legislatively and functionally. Tighter clinical integration—between primary care and specialists, between physicians and hospitals—is likely to be needed to overcome legal and antitrust concerns. This means primary care providers could receive financial support from other actors in the healthcare delivery chain for essential but unreimbursed activities such as care coordination, and would no longer be solely dependent on payers. Even outside a formal ACO context, rationales for such integration exist, including the penalties on hospitals for...
1. A survey of hospital CEOs released in November 2009 by the national Council on Physician and Nurse Supply reported an 11 percent vacancy rate for physician jobs, a 6 percent rate for nursing jobs, and a 5 percent rate for allied health professionals. By 2016, these vacancy rates will have doubled.

2. Interest in family medicine has been declining recently. For example, 75 fewer positions in family medicine residency programs were filled in 2009 than 2008 through the National Resident Matching Program. Hospitals will help to foster interest in this specialty by offering more family medicine clinical clerkships to medical students.

3. An unintended consequence of clinical guidelines is that the art of doctoring is diminished in favor of formulaic tasks that are easily codified and performed by nonphysician clinicians (e.g., advanced practice nurses, physician assistants, pharmacists; also called clinical extenders). In 2016, most primary care will be provided by nonphysician clinicians.

4. In response to crushing patient demands for service, physicians who have opposed enlarging clinical extenders’ roles will reverse their stand.

5. Nonphysician clinicians without prescribing rights currently must have their prescriptions signed by a physician—a practice that interrupts service delivery, irritates patients, and reduces healthcare efficiency. By 2016, these rules will be revised in your state.

6. Nonphysician clinicians cost less to employ than physicians, but their lower productivity and less efficient use of resources will result in no cost savings.

7. One constraint to nonphysician clinicians’ role enlargement has been insurers’ prohibiting charges for services provided by them. In response to pressing patient care demands, health insurers will alter their stand.

8. General surgeons are increasingly subspecializing in bariatric, breast, and colorectal surgery and other surgical areas. By 2016, there will be no such thing as a “general” general surgeon.

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**Note:** Percentages in each row may not sum to 100% due to rounding.
**What Practitioners Predict**

**Hospitals expect more clinical vacancies and will offer family practice clerkships.** Nearly three-quarters of respondents agreed that current vacancy rates for physician, nursing, and allied health professional jobs will double by 2016. Moreover, in response to declining interest in family medicine residencies, 82 percent of practitioners predict that hospitals will help to foster interest in the specialty by offering more family medicine clinical clerkships to medical students.

**Clinical extenders will provide the bulk of primary care.** Two factors will expand the clinical extender role: (1) the development of clinical guidelines and (2) pressing patient care demands. According to two-thirds of practitioner respondents, it is likely clinical extenders—advanced practice nurses, physician assistants, and pharmacists—will provide most primary care in 2016. In response to pressing patient care demands, 82 percent think physicians who have opposed enlarging clinical extenders’ roles will reverse their stand. Two-thirds agreed that regulations in their states will be revised to allow nonphysician clinicians to prescribe without a physician’s countersignature. A third factor driving expansion of the clinical extender role may be the potential for cost savings. Seventy-one percent of respondents rejected the premise that nonphysician clinicians’ lower productivity and less efficient use of resources will balance out the cost savings of employing these physician extenders.

**Insurers will pay for services of nonphysician clinicians.** In response to pressing patient care demands, health insurers will begin reimbursing for nonphysician clinicians’ services, according to 82 percent of respondents.

**Views are mixed on the outlook for general surgery.** Although general surgeons are increasingly subspecializing in bariatric, breast, colorectal, and other surgical areas, a majority (56 percent) of respondents thought it unlikely the “general” general surgeon will disappear by 2016.

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excessive 30-day readmits in Medicare scheduled to begin in 2012.

The third difference is an improved ability to manage—in real time—patients who are struggling, using improved health IT support (data capture, sharing, and decision support). The major obstacles to realizing this ability are operational: antiquated workflows built around face-to-face encounters and continuing overreliance on the current model of individual, clinic-based providers, who are disproportionally physicians.

**Implications for Hospital Leaders**

**Hospital and health system leaders should proactively grow new models of primary care.** Conversely, unaffiliated primary care providers should look for novel opportunities to craft new relationships with hospitals and health systems. Not enough primary care physicians can be trained to meet the demand 30 million new insured patients will generate, certainly not in the next two years. New models will have to be embraced to avoid long wait times for primary care. As noted above, new relationships between hospitals and primary care providers are likely to emerge.

What could these new models look like? Picture physician-to-extender ratios in the 1:3–4 range, borrowing a page from the anesthesiology playbook. Certified registered nurse anesthetists (CRNAs) have transformed anesthesia care and the specialty of anesthesiology, elevating the latter into a mixed supervisory and direct care role. Primary care could use a similar transformation.

**Differentiation in primary care will result from superior service** in three areas: convenience, care management, and cost-consciousness (on behalf of patients trying to control out-of-pocket costs). As demand for primary care grows, making a quantum leap in 2014, providers will find it difficult to maintain even their current level of service. Care coordination in the near term is likely to be more fractured, not less, at least until there is ongoing financial support for needed personnel, which will take time. Primary care providers and networks that are able to elevate customer service and manage care through the use of multiple channels (in addition to face-to-face visits) to maintain efficient, continuous healing relationships with patients will stand above the rest. Such networks will be a source of real competitive advantage to hospitals and health systems that have them as part of their referral base.

Related to improving service, the focus of health IT investments needs to move from the capture and presentation of static data toward dynamic, back-and-forth electronic communication among members of a care team, between primary care and specialists,
between hospital and clinic, and between providers and patients. Decision support technology should expand beyond the physician to support the work of other members of the care team—in real time—and even to automate patient-direct reminders (e.g., for preventive services). Finally, a much greater investment is needed in the analytics that will help us all make sense of our data—that is, business intelligence tied to outcomes, not just volumes and throughputs. Current patient safety and quality measurements are definitely a start but by no means represent all we could be doing to understand which services improve the health of patients in a cost-effective manner.

Helping patients navigate care-related financial issues will become a third source of competitive advantage for providers. High-deductible plans figure to be the cheapest in the health insurance exchanges. But unlike the car owner with cheap auto insurance, who may find that nobody will repair his damaged car, a patient with a high-deductible plan who has a costly but preventable hospitalization (or ER visit) or a costlier-than-necessary elective procedure becomes a potential source of “preventable” bad debt for the hospital.

Rural and underserved areas will continue to struggle, but opportunities exist there, too. Rural hospitals and primary care providers should continue to develop training relationships with medical schools, residencies, and NP and PA programs to help draw learners into their communities, and they should work hard to create superior training experiences. FQHCs can be a focus for efforts to recruit and retain talent as well as a source of funding for new construction. Billions of dollars will be available to establish new FQHCs, and the various pilots authorized by the new healthcare law are potential sources of revenue.

Conclusions
Leaders of hospitals and other healthcare institutions should not only consider creative partnerships with primary care providers in care delivery, but also should engage medical and other health professional schools in education, training, and leadership development. Look at building primary care–like capabilities in new areas, such as the prehospital and posthospital stages of care. Invest in health IT not just for data exchange but to improve communication, particularly with patients, and provide decision support for the entire care team, not exclusively for already stretched physicians. Embrace new supervisory arrangements that increase the ratio of PAs and NPs to physicians. Finally, a number of provisions in the new healthcare law seek to increase primary care capacity through both established and novel approaches. These should not go unnoticed, particularly by providers in underserved areas.

If things do not change, the primary care experience risks continuing to deteriorate as demand increases. As substitutes such as DIY (do-it-yourself) care and direct-to-specialist self-referrals become more prevalent, hospitals could see their referral bases erode further. By 2020 today’s hospitals could resemble legacy airlines, as Southwest Airlines–type entrants (e.g., a reinvented MinuteClinic) poach younger, healthier, and ultimately more profitable patients.

The good news? There is no shortage of opportunities to avoid such a fate—for the prepared.

References


With the passage of the Patient Protection and Affordable Care Act in 2010, better known as healthcare reform, it is clear that substantial changes are afoot for healthcare organizations over the next five years. The innovations in healthcare delivery and payment that reform calls for are premised on the perceptions that US healthcare is too costly, too variable, and of insufficient quality. Public stakeholders are clamoring for improvement. Healthcare leaders, too, are unsatisfied with the pace of change.

No matter which delivery and payment models—accountable care organizations, primary care medical homes, bundled payment, value-based purchasing—rise to the top out of the legislated demonstration projects, healthcare organizations must meet the twin challenges of reducing costs and improving quality. To accomplish this, healthcare organizations must make process improvement work in a substantial and sustainable way.

Current Conditions
Nuclear reactors do not routinely spill their toxic contents. Jet airplanes do not routinely fall from the sky. Yet, in healthcare, another notable high-risk industry, patients are harmed with alarming frequency. Identifying and acknowledging that frequency has perhaps been one of the primary accomplishments toward improving healthcare quality and safety in the past ten years.

Of course, gains have been made in ameliorating certain risks to patient safety and improving quality as well. The removal of concentrated potassium chloride from nursing units has virtually eliminated it as a source of lethal medication errors (Joint Commission 1998, 1999, 2009; Leape and Berwick 2005). Joint Commission–accredited hospitals have achieved a rate of consistent excellence (98 percent) on administering aspirin on arrival and beta blockers on discharge for acute myocardial infarction patients (Joint Commission 2010). Indeed, accredited hospitals have shown remarkable gains across all of The Joint Commission’s “accountability measures,” which are those that most closely embody specific elements of evidence-based care (Chassin et al. 2010).

On the other hand, little headway has been made in combating some of healthcare’s most prevalent and preventable patient safety problems, such as healthcare-associated infections and the profusion of harmful medication errors (Joint Commission 2009). In addition, new risks have emerged, such as overexposure to radiation, and still others will emerge that healthcare organizations will have to address.

What has come before in process improvement will be insufficient going forward. Incremental improvements that are often unsustainable will not quiet the public clamor for increased quality and reduced costs. Instead, healthcare organizations will need to focus on a robust and systematic approach to process improvement—the kind of process improvement undertaken by other industries to achieve highly reliable...
levels of quality and safety. Such an approach will help to eliminate:

- Overuse of health services
- Waste and risk inherent in needlessly complex care processes
- Preventable complications

**Old Habits Die Hard**

In the wake of the Institute of Medicine reports *To Err Is Human* (1999) and *Crossing the Quality Chasm* (2001), a thousand flowers bloomed in an effort to improve quality. Any one of those flowers tended to look like this: A problem is identified, and a small team is formed to address the problem using such tools as PDSA (plan, do, study, act). While the team is focused on the problem, some measure of success is achieved. With success in hand, the team is disbanded or moves on to another priority. The improvements then unwind, either slowly or rapidly, while no one is watching.

Another widespread practice has been to adopt quality improvement interventions as if they are magic bullets that can obliterate a problem, even though they are of insufficient caliber to do the job. For example, if a hospital decides it has inadequate hand hygiene among its nurses, it may decide to install more hand cleanser dispensers. If the only problem is too few dispensers, this will be helpful. But if another problem is that nurses are entering patient rooms with their hands full and have no place to set things, they will often walk right past the dispensers, no matter how many there are.

Where rigor is required, healthcare organizations have too often relied on intuitive notions and anecdotal accounts of problems and solutions. To reap best results, healthcare organizations should rely on a method of process improvement that truly defines what the problem is, applies effective metrics to accurately gauge performance, identifies specific underlying causes of the problem, targets solutions to those causes, and integrates improved processes into routine work in order to sustain improvement. Such rigor is provided through the adoption of robust process improvement (RPI).

**Robust Process Improvement**

RPI is an umbrella term to describe a systematic, data-driven approach to problem solving. Among the tools of RPI are Lean Six Sigma (combining the Lean Manufacturing methodology and the Six Sigma business management methodology), change management processes, and other methods that have proven effective in other industries. To truly achieve sustainable improvement, no RPI tool can stand alone. A technical solution may be reached through the use of Six Sigma, for instance, but unless the people required to implement the solution are fully committed, it will not be successful. That is where change management tools are essential.

In healthcare, RPI can be highly effective when applied to the toughest safety and quality problems. In fact, The Joint Commission is applying RPI to improve its own processes internally as well as externally through its newly created Center for Transforming Healthcare. The Center works in conjunction with a cadre of leading hospitals and health systems to address safety and quality problems and develop solutions for public use.

The Center’s first project, conducted with eight hospitals, addressed failures in hand hygiene. Using the Six Sigma DMAIC (define, measure, analyze, improve, control) framework, the eight hospitals were able to accurately measure their hand hygiene compliance at the outset of the project—which in aggregate was at 48 percent—determine the underlying causes of failures, and develop targeted solutions for each of those causes. Among the more than 20 causes of hand hygiene failures the hospitals found were the following:

- Reliance on faulty performance data
- Inconvenient location of sinks or hand cleanser dispensers
- No place for healthcare workers to set items being carried
- Ineffective education of caregivers
- Lack of accountability

Resolving each cause of hand hygiene failure requires a different tactic. Approximately one year after the project was begun, the hospitals’ aggregate rate of hand hygiene compliance was at 82 percent (Figure 1), and it continues to trend upward.

The Center also is using RPI tools to develop targeted solutions for poor hand-off communications, wrong-site surgery, and surgical-site infections. Other opportunities to mitigate preventable complications in healthcare will continually be added.

**Choose Wisely**

Most assuredly, in the coming years healthcare organizations will have to do more with less. RPI provides opportunities to streamline processes and reduce waste. Tools such as Lean Six Sigma have been used in healthcare over the past several years to improve various financial and administrative processes, but in the realm of clinical processes their application has been modest.

In addition to reducing preventable complications and their associated costs, RPI can also be applied to the problem of overuse by addressing, for example, preventable hospitalizations or adherence to evidence-based clinical guidelines. Smartly focusing on quality improvement priorities that also offer the opportunity to reduce costs and bolster revenue is an

*Continued on page 30*
### FUTURESCAN SURVEY RESULTS: Quality and Process Improvement

#### How likely is it that the following will be seen in your hospital's area or, if in bold print, your hospital specifically, by 2016?

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1. Today, some systems have established methods to share results of root-cause analyses among their hospitals. The objectives are to reduce variability and drive down costs closer to a mean associated with highly efficient providers. By **2016**, a national clearinghouse will have responsibility for providing guidance to improve the quality and efficiency of care.

2. An enhanced national surveillance program will offer local surveillance data to identify problem areas, detect outbreaks and episodes of increased incidence, and monitor progress with respect to such agents as *C. difficile* and MRSA (methicillin-resistant *Staphylococcus aureus*).

3. All patients admitted to your hospital will be screened for MRSA colonization.

4. Your hospital’s CEO will be required to sign off on healthcare-associated infections by mandatory data submissions to a national agency.

5. All hospitals will be required to appoint a director of infection prevention and control—a senior person with clinical and managerial responsibility—to ensure control programs are properly implemented.

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6. A 2008 University of Pennsylvania study found that a 10 percent increase in nurses with bachelor’s degrees correlated with a 5 percent decrease in the risk of death and failure to rescue for surgical patients. For hospitals to obtain accreditation, in **2016** all nurses must have, at a minimum, a baccalaureate credential.

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7. The Carnegie Foundation for the Advancement of Teaching recommends baccalaureate degrees for all new nurses and master’s degrees within ten years of licensure. This standard will be adopted in your state by **2016**.

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8. Data will be made available to all physicians that will compare each against others in his or her specialty nationally and locally relative to costs, outcomes, complication rates, antibiotic usage, and device usage.

**Note:** Percentages in each row may not sum to 100% due to rounding.
What Practitioners Predict

National initiatives to come. More than 80 percent of practitioners agreed that two national initiatives are likely by 2016 relative to quality and process improvement. First, a national clearinghouse will have responsibility for providing guidance to providers to improve the quality and efficiency of care. Second, an enhanced national surveillance program will offer local data to facilitate identification of problem areas and detection of outbreaks and episodes of increased incidence of such agents as *C. difficile* and MRSA.

Hospital-level initiatives. There was broad consensus from about 80 percent of practitioners that all patients admitted to their hospitals would be screened for MRSA colonization and also that their CEOs would be required to sign off on healthcare-associated infections through mandatory data submissions to a national agency. All hospitals, according to 76 percent of respondents, will be required by 2016 to appoint a senior person with clinical and managerial responsibility to ensure infection control programs are properly implemented.

Enhancement of nurse credentials and physician competencies. Two scenarios requiring enhanced nursing credentials were deemed unlikely to materialize by 2016. First, over three-quarters of CEOs (but just over half of strategy and marketing respondents) thought it unlikely that by 2016, all nurses would be required to have bachelor’s degrees as a condition of hospital accreditation. An even larger proportion of CEOs (83 percent) rejected the notion that their states would require bachelor’s degrees for all new nurses and master’s degrees within ten years of licensure. But 85 percent of respondents thought it likely that all physicians would be given national and local data to enable comparisons with others in their specialty relative to costs, outcomes, complication rates, and antibiotic and device usage.

Figure 1. Center Hand Hygiene Project

Source: Joint Commission Center for Transforming Healthcare
essential win-win strategy in this challenging environment. Individual organizations that have applied RPI to solve their key clinical and administrative problems have improved quality and safety while simultaneously producing a positive return on the investment required to acquire this vital set of skills.

Reaping the Rewards of Process Improvement

By applying RPI, healthcare organizations can:

- Improve their understanding of their specific process improvement needs. RPI requires rigorous measurement. In the Center project, most of the hospitals had an inflated perspective of their hand hygiene compliance rate until they adopted an effective approach to accurately measure their performance. Another key distinctive feature of RPI is that it homes in on the specific underlying causes of a problem, enabling the development of targeted solutions. RPI also requires a plan for “control”—the fifth step of the Six Sigma DMAIC framework—to ensure the sustainability of improvement.
- Improve financial performance and unnecessary risk to patients by reducing waste inherent in overly complex and inefficient processes.
- Reduce preventable complications and their costs in both human suffering and financial expense.

With RPI, healthcare organizations can effectively address quality problems that align with improved financial performance.

- Move closer to the level of high reliability that other high-risk industries have been able to achieve.

Implications for Hospital Leaders

As the results of the Futurescan survey suggest, the future will bring greater transparency of and accountability for healthcare quality problems, such as healthcare-associated infections. In this environment, it is essential to step up to RPI to achieve and sustain improvements in quality and safety, reduce costs, and enhance financial viability. To make the transition to RPI, leaders of healthcare organizations should:

Provide aggressive staff training to build internal capacity to apply RPI tools and methodologies. This may mean training a handful of staff at the highest level of knowledge—for example, Six Sigma Black Belt. But there are varying levels of training—from orientation to mastery—that can be offered to a wide range of staff members and disciplines. Offering widespread training sets the expectation of a safety culture and reinforces the idea that safety and quality are everyone’s job.

Embed RPI tools throughout the organization. Once training becomes widespread, staff will become comfortable using RPI tools, such as value stream mapping to redesign processes and consensus-building skills to manage change. Although these tools and methods are essential to process improvement project work, they are also useful for day-to-day problem solving, team building, and improved efficiency.

Empower all employees to lead improvement. With trained staff and embedded tools, process improvement is no longer the sole responsibility of the quality officer. From the reception desk to the operating room, there is widespread mindfulness of opportunities to improve. Senior leaders take a collaborative role in the oversight of process improvement projects and provide recognition for the results gained. Safety and quality are acculturated throughout the organization.

Emphasize leadership’s role in adopting and maintaining RPI and a safety culture. Leaders must devote their time and energy to supporting RPI initiatives. An overarching strategy should be created to deploy RPI resources to produce a positive return on investment. This can be accomplished by focusing on cost reduction and revenue enhancement opportunities while at the same time tackling safety and quality problems.

References


More has changed in the past 2 years than has changed in the past 20. With the passage of the Health Information Technology for Economic and Clinical Health (HITECH) Act and the Patient Protection and Affordable Care Act, the healthcare industry has begun a journey that will fundamentally reshape healthcare delivery in America. The next five years will see changes we have never seen before—changes that are both uprooting and uplifting. That is precisely what the industry needs.

Many comparative measures are used to contrast the cost of care in the United States to the rest of the developed world. Sadly, the US expenditure on healthcare is without peer, whether expressed as a percentage of gross domestic product, as a percentage of household income, or in absolute dollars. The fact that, per capita, Americans spend two to three times more on healthcare than do citizens of any other developed country is neither appropriate nor sustainable. Worse yet, despite our high expenditures, the United States lags the majority of other developed countries in mortality amenable to healthcare (deaths that can theoretically be averted through good healthcare).

A Once-in-a-Generation Opportunity

Why hasn’t the United States been improving at a faster pace? Most would agree that it is our unique payment system, which perversely rewards increased volumes and punishes achievement of better outcomes that would result in lower utilization of healthcare services. But if payment reform were to suddenly happen overnight, could the United States quickly transform itself from a volume-based health system maximizing utilization to an outcomes-based system maximizing health?

No industry has succeeded in orchestrating such a massive turn-around in the way it does business without a robust information infrastructure. Yet, as with other global health comparison measures, the United States lags far behind other countries in implementation of an electronic health information infrastructure. Healthcare leaders have a responsibility—and a tremendous opportunity—to rectify this under-developed capability.

The stars have aligned to present the country with a once-in-a-generation opportunity to put in place enablers necessary for health reform. President Obama has made healthcare his top domestic priority.
HITECH provided substantial financial incentives—more than all past initiatives combined—to accelerate the adoption and meaningful use of electronic health records (EHRs). The administration’s focus on healthcare, combined with the enablers provided through HITECH, will focus industry attention on one of the most pressing infrastructure needs—adoption and effective use of health information technology (HIT)—that must be in place before true health reform can be implemented.

**HITECH and Meaningful Use of HIT**

Despite decades of literature demonstrating the value of EHRs to improve health (Bates and Gawande 2003), the market failed to overcome major obstacles impeding their dissemination and effective use. HITECH provides enabling financial incentives and programmatic support to overcome many of these obstacles. Congress clearly intended HITECH not as a “cash-for-software” program, but rather money to be applied to meaningful use of EHRs and personal health records (PHRs).

To help support Congress’s intent, HITECH called for the establishment of an HIT Policy Committee to advise the national coordinator for HIT and the Centers for Medicare & Medicaid Services (CMS). The HIT Policy Committee developed a framework that CMS subsequently used to qualify whether providers meet the “meaningful use” test. The framework includes five categories of criteria, four clinical and one foundational:

1. Improve quality, safety, and efficiency of healthcare and reduce healthcare disparities.
2. Engage patients and families.
3. Improve care coordination.
4. Improve population and public health.
5. Ensure privacy and security of health information.

Healthcare organizations must meet fairly aggressive criteria in each of these categories to receive HITECH incentives. CMS estimates that as much as $27 billion may be paid out in Medicare and Medicaid HIT incentives throughout the life of the program. Each eligible professional could qualify for as much as $44,000 in the Medicare program or almost $64,000 under Medicaid. Hospitals may qualify for $2 million (base) plus an additional amount based on volume. Although it has received less media attention, another $2 billion has been set aside for programs that address critical infrastructure issues that benefit all healthcare providers and organizations, with a special focus on community hospitals and physician practices (Blumenthal 2010).

**Implications for Hospital Leaders**

Health reform is a near certainty. Hospital leaders must activate or accelerate plans to put in place a robust HIT infrastructure that will ensure that their hospitals not only can take advantage of the HITECH incentive program but, more important, will have the essential infrastructure needed to meet the objectives of health reform.

According to the Futurescan survey data, the vast majority of respondents plan to implement EHR systems, but most have not completed their implementations. For some, lack of full physician support and engagement may be an impediment. HITECH aligns hospital incentives with physician incentives, making now a good time to act. Hospital leaders should take advantage of the aligned incentives to partner with their medical staffs and community physicians in a shared strategy to interconnect and exchange patient information to improve care. The following recommendations are critical not only to successful implementation of HIT, but also to effective use of the information to continuously improve clinical performance and efficiency.

**Hire the best.** As Jim Collins states in his book *Good to Great* (HarperBusiness, 2001), it is always the “who” before the “what.”

According to Collins, those who build great organizations make sure they have the right people on the bus and in the key seats before they figure out where to drive the bus. Implementation of an EHR is a complex, multiyear, multimillion-dollar project in any setting. Both the cost of implementing and the opportunity cost of failing are too great to risk on an inexperienced leader.

An experienced chief medical information officer is critical. Training in informatics and the skills of an executive physician leader are essential to this role because of the importance of physician engagement. Informatics goes beyond IT; it is a multidisciplinary field that combines knowledge of information technology, project management, and change management with firsthand knowledge about clinical practice and workflow considerations.

Although the available workforce suitable to fill this role is still limited, new training programs are being developed. In addition, remote learning opportunities such as the American Medical Informatics

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*Healthcare Trends and Implications 2011–2016* 33
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1. Today, IT spending amounts to 3.5 percent of the total operating budget in the average hospital. By **2016**, this percentage will double.

2. Hospitals will allocate a sizable proportion of their EHR budgets to train physicians in the effective use of EHRs.

3. By **2016**, all hospitals will have EHRs that are interoperable with those of their physician staff to assist with care coordination between inpatient and outpatient care, during admission, and following discharge.

4. By **2016**, hospitals will use remote home patient monitoring to track patient recuperation from hospitalizations and to intervene early in order to reduce unnecessary readmissions.

5. By **2016**, your hospital will no longer use paper charts to deliver and manage patient care (Stage 7 on the HIMSS Analytics EMR Adoption Model℠).

6. By **2016**, your hospital will have received (or be on track to receive) its full share of federal stimulus funding as a result of complying with federal “meaningful use” requirements.

7. By **2016**, all of your hospital’s patients will have access to their electronic health information, which they can export to various websites that will help them make more informed decisions about their care.

8. Advances in clinical research will accelerate as a result of widespread adoption of EHRs and personal health records (PHRs). With patient consent, use of EHRs will make it easier to conduct clinical research, and use of PHRs will allow researchers to assess patient outcomes more easily.

*Note:* Percentages in each row may not sum to 100% due to rounding.
What Practitioners Predict

EHRs will spur hospitals to spend more, train doctors, and coordinate care. Respondents predict that electronic health records will be a major source of change in their own hospitals and in hospitals in their community. Nearly half consider it “very likely” and another 39 percent “somewhat likely” that by 2016, IT spending will double to 7 percent of hospital total operating budgets, compared with 3.5 percent today. One driver of increases in EHR spending, according to respondents, will be the availability of funds to train physicians in the effective use of EHRs. By 2016, over three-quarters of respondents think all hospitals will have EHRs that are interoperable with those of their physician staffs, improving coordination of care. By that date, respondents predict, hospitals will also use home monitoring to track patient recuperation from hospitalizations and to intervene early to reduce unnecessary readmissions.

In their own hospitals, use of paper charts will cease as hospitals reap stimulus federal funds. Predicting the impact of EHR implementation in their own hospitals, more than half of respondents think it is “very likely” and another 32 percent “somewhat likely” that their hospitals will have stopped using paper charts by 2016. In addition, 89 percent expect their hospitals to receive federal stimulus funding as a result of complying with federal “meaningful use” requirements.

Patient-initiated and clinical research will be enhanced. Eighty-three percent of practitioners predict that their hospitals’ patients will have electronic access to their health information, which they can export to various websites to help them make informed decisions about their care. Finally, 85 percent of participants think it likely that widespread use of EHRs and personal health records will accelerate progress in clinical research, in part by making it easier for researchers to assess patient outcomes.

built, poised to meet the needs of health reform.

Provide feedback reports using credible quality measures. Futurescan survey respondents agree that payment for volume of health-care services will be coming to an end soon. Creating a culture of improvement must be based on credible clinical quality measures that physicians believe in. The country must convert from its traditional claims-based public reporting measures to ones that are based on clinical data derived from EHRs. Field experience shows that when providers receive well-validated, credible quality reports that are consistent with clinical guidelines, they naturally work to improve their own scores. As part of its HITECH activities, CMS is developing new measures that will fully leverage clinical data in EHRs.

Engage patients. One of the meaningful-use criteria categories addresses electronic connectivity with patients to provide them with access to their health data and to the knowledge needed to undertake actions that improve their health. Patients and their families are untapped resources to improve care. Online home monitoring and electronic visits will be crucial to hospitals’ efforts to reduce 30-day readmission rates. It will be important for hospital administrators to work with their medical staffs to share information between hospital and ambulatory care settings and to work together to extend care to the home environment.

Integrate health data across the continuum. Reliable, seamless exchange of health information is critical to care coordination and will be essential to operating new models of care (e.g., accountable care organizations, medical homes) upon which future payment systems will be based. As part of implementing HITECH, the federal government has provided grants to state organizations to help implement standards and policies to exchange health data securely among multiple provider organizations. Hospitals should participate in these health information exchange organizations and establish not only technical electronic partnerships but also organizational collaborations, which are important to instituting these new models of care.

In Closing
The trajectory of health reform is clear. Following Wayne Gretzky’s often-quoted strategy, the industry should skate to where the puck is going to be, not where it has been. Qualifying for the meaningful-use incentives provides more than supplemental revenue. Successful implementation and meaningful use of HIT position the hospital to not only meet the goals of reform, but to succeed because of it. True health reform may be several years off, but the HIT infrastructure must be put in place now—before time runs out. ☮
References

Since the turn of this century, digital wireless devices have had a profound impact on how we communicate, read, listen to music, play games, and even think. Now, in the coming decade, we are poised to see digital wireless medical devices have a radical, transformative effect on the future of healthcare.

In-Hospital Wireless Medicine

The rebooting of healthcare to integrate wireless technologies will occur at many levels. First, the in-hospital landscape will be markedly changed. Rather than the intensive care unit being the sole place where frequent vital sign measurements are recorded, every hospitalized patient’s heart rate and rhythm, blood pressure, and other vital signs will be continuously monitored by noninvasive wireless sensors in the form of Band-Aid-like adhesive strips on the skin or wrist transceivers. Furthermore, wireless accelerometers that monitor a patient’s position and activity at all times may help prevent falls and accidents.

The reach of wireless sensors extends well beyond vital signs and well beyond the hospital environment. Continuous glucose monitoring is now available; we know that achieving optimal glucose homeostasis in diabetics improves acute-phase, in-hospital outcomes for patients with heart attack or those undergoing major surgery. Physicians can now access the vital signs of hospitalized patients who are in the intensive care unit via their smart phones (Figure 1), and obstetricians can similarly monitor the uterine contractions and fetal heart rate of expectant mothers via their cell phones. Wherever there is connectivity to the web, patients can be monitored in real time.

In addition to monitoring, the quality of care in the hospital setting can be facilitated through wireless technologies. This includes the ability to track every medication that is ingested, using pills tagged with digestible sensors that are activated in the stomach by the change in pH. Skin patches incorporating a particular drug make it possible, via wireless activation, to administer a precise dose at a specific time for any patient. Wireless sensors can monitor even routine procedures, such as physician and nurse hand washing. Medical errors that occur in the hospital environment may potentially be reduced by integrating data from the electronic health record with the physiologic data provided by wireless sensors.

However, this newfound capability engenders major questions,
1. In March 2009, the Kaiser Health System published evidence in *Health Affairs* showing that the use of e-mail and telephone communications has cut visits per patient by an average of 26 percent, saving money and increasing the efficiency of care. It is likely that widespread adoption of e-mail will affect all providers similarly by 2016.

2. Care for the socioemotional needs of patients, for example, those diagnosed with depression, will increasingly be provided by telephone or online. For example, one online service lets physicians see their patients at a time and place convenient to physicians. Patients are queued online so that providers can process 15 consults per hour. Such telephone and online access will be used by your hospital’s physicians in 2016.

3. Patients with diabetes who use web-based case management programs, such as websites where they can access their medical record, upload blood glucose readings, create a daily activities diary, and generate care action plans, scored higher self-efficacy and empowerment scores than patients without access to such programs. By 2016 your hospital will have established web-based case management programs for at least half the chronic diseases cared for.

4. Communication with referral sources and other providers will shift primarily from telephone, fax, and e-mail (from high to low rank) to social media, e-mail, and telephone.

5. Hospitals with an average daily intensive care unit (ICU) census of fewer than eight patients will outsource ICU monitoring via telemedicine.

6. To ensure that appropriate hand washing takes place, most of your hospital’s rooms will be equipped with wireless monitoring devices, that is, sensors and wrist badges worn by those entering and leaving the room.

7. “Smart pills” contain a tiny computer chip that sends an electrical signal to a small bandage that reads and stores information. That information can then be transmitted to a device that updates the patient’s physician via e-mail. Smart pills will be widely used in your community to enable practitioners to monitor compliance with drug regimens.

8. Drug delivery will be much more targeted. For example, a commonly available silicon chip will be able to store and release medication on demand. When a remote wireless signal is sent, a tiny electrical current will spur the chip to release a prescribed amount of the drug. Such technology will be commonly available for diabetics, heart attack patients, and those suffering from hypoglycemia, helping them manage their chronic diseases.

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**FUTURES CAN SURVEY RESULTS: Wireless Technology**

| How likely is it that the following will be seen in your hospital’s area or, if in bold print, your hospital specifically, by 2016? |
|---|---|---|---|
| **Very Likely (%)** | **Somewhat Likely (%)** | **Somewhat Unlikely (%)** | **Very Unlikely (%)** |
| 26 | 54 | 19 | 1 |

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**Note:** Percentages in each row may not sum to 100% due to rounding.
What Practitioners Predict

Physicians will adopt e-mail in caring for patients. Eighty percent of respondents thought it likely that by 2016, all providers will use e-mail and the telephone to communicate with patients, resulting in a reduction in the number of patient visits and the costs of providing care. But respondents were divided as to the likelihood that their hospitals would adopt online services that would allow physicians to conduct up to 15 consults per hour.

Hospitals will use the Internet to communicate with patients and referral sources. Nearly three-quarters of respondents agreed that their hospitals will establish web-based case management programs for at least half the chronic diseases cared for. For example, patients with diabetes could gain access to their medical records, input their blood glucose readings, and generate care plans. More than two-thirds agreed that social media, followed by e-mail and the telephone, will be the most frequent way hospitals will communicate with referral sources by 2016. (Today, phone, fax, and e-mail, in that order, are the most frequently used communication vehicles.) But practitioners were divided on the likelihood that ICUs with fewer than eight patients on average would outsource monitoring via telemedicine.

Practitioners are skeptical about widespread adoption of futuristic devices. Nearly two-thirds of respondents did not think two monitoring devices asked about would be widely adopted by 2016. A device that monitors hand washing on entry into and departure from patient rooms was deemed unlikely to be adopted at their hospitals by 62 percent of practitioners. Another device, rejected by 64 percent, are “smart pills” that e-mail information to the patient’s physician to allow monitoring of compliance with drug regimens. Finally, respondents were divided on the likelihood that drug delivery will be more targeted (for example, by using a remote wireless signal to spur an embedded computer chip to release medication to patients with chronic diseases).

Wireless Sensors in the Outpatient Domain

The adoption of wireless devices in the outpatient practice of medicine has already begun. Congestive heart failure is the number one cause of hospitalization and hospital readmissions in the United States, with a rehospitalization rate of over 27 percent in 30 days and over 50 percent at 6 months in the Medicare population (Jencks, Williams, and Coleman 2009; Bueno et al. 2010). Strategies such as daily patient weigh-ins and telephone check-ins with nurses have failed to reduce this major problem.

Recently, the implant of a microelectrode mechanical sensor (MEMS) device into the pulmonary artery, which transmits blood pressure information via a wireless signal, has been shown to markedly reduce rehospitalizations (by 30 percent at 6 months and 38 percent at 1 year) in a randomized trial of 550 patients (Abraham and Adamson 2010). This suggests that a substantial benefit can be achieved by having more precise assessment of the patient’s hemodynamic status to...
guide the appropriate use of diuretics. If noninvasive sensors can replicate this magnitude of benefit, placing a Band-Aid sensor on the chest to measure the patient’s fluid status could prove to be a viable alternative to a permanent device implant.

A second area of innovation for outpatients is the use of Band-Aid sensors for monitoring heart rhythm. Currently, the most common way patients have heart rhythm monitoring is with Holter monitoring. However, the Holter monitor is a bulky device with multiple leads attached; it requires hookup and subsequent unhooking at a hospital or doctor’s office; and it keeps patients from being fully active. Most patients can tolerate this form of monitoring for only one or two days, and the monitoring is not real-time; a tape has to be reviewed to analyze the heart rhythm. Real-time monitoring for extended periods (weeks or a month) is available through systems marketed by CardioNet and LifeWatch, but these also involve multiple leads and are somewhat cumbersome for patients. Moreover, real-time monitoring is often not necessary and is quite expensive.

A new wireless entry for heart rhythm monitoring is the iRhythm patch, which can be mailed to the patient, placed on the chest skin for a week or more, and then mailed back. It is inexpensive (about $150 compared with $1,500 for the Holter monitor) and convenient. The iRhythm patch is a good example of the potential of innovation to substantially cut costs. In another encouraging study by the Veterans Administration health system, the use of widely available home telehealth disease management for a variety of chronic conditions— including diabetes, chronic obstructive pulmonary disease, congestive heart failure, and hypertension—led to a 20 percent to 30 percent reduction in resource utilization (Darkins et al. 2008).

**The Impact of Mobile Medical Imaging**

A revolution in ultrasound imaging is also taking place. The Vscan, the first pocket, miniature, high-resolution ultrasound device (Figure 2), was released in the United States in February 2010. Vscan images approximate the quality of the standard, expensive, hospital-based system (Liebo et al. 2010), which usually costs $250,000 to $300,000. The Vscan currently sells for $7,500 and can be incorporated into the routine physical examination.

More than 8 million echocardiograms are performed in the United States every year; it is easy to imagine that a substantial fraction of these could be preempted by use of a Vscan. The device also can be used for ultrasound examination of the abdomen or fetus. The Vscan is not ready for rapid wireless transmission yet, but once that capability is achieved, it will be possible for emergency room physicians to acquire the images and transmit the video to specialists for rapid interpretation. Similarly, paramedics in the field assessing patients with trauma or possible heart attack could transmit ultrasound images to physicians to get the hospital prepared.

Accordingly, mobile, miniature, high-quality ultrasound imaging presents exciting new opportunities for improved healthcare. What’s more, the use of “free” screening echo examinations—free in that

**Figure 2.** The GE Vscan is a pocket, miniature, high-resolution ultrasound imaging unit that can be used for echocardiography or ultrasound of the abdomen or fetus. Courtesy of GE Healthcare.
there is no reimbursement set up for the rapid ultrasound scan—might prove to be a remarkable cost reduction.

**Moving Toward e-Visits**

While sensors and advances in imaging are a major part of the wireless medical leading edge, the ability to conduct office visits over the Internet also needs to be highlighted. Texting and e-mailing have already been shown to be effective tools to connect patients and physicians efficiently, as a Kaiser study of over 35,000 patients with hypertension, diabetes, or both nicely documented (Zhou et al. 2010).

A parallel study by Kaiser showed that the use of e-mail communications and telephone visits cut office visits by 26 percent, improving the efficiency of ambulatory care (Chen et al. 2009). In these studies, which used the secure e-mail messaging functionality of Kaiser Permanente’s nationwide comprehensive electronic health record system (known as KP HealthConnect), management of these conditions improved, and perceptions by patients and physicians were positive.

Taking these advances many steps further to the concept of virtual medical practice, Dr. Jay Parkinson in New York City has set up a Facebook-like platform known as Myca Health, which enables video visits and instant messaging along with conventional, face-to-face office visits (Salter 2009; Hawn 2009). The Myca platform has been remarkably popular, and the e-practice of medicine is spreading to many other regions of the country.

The widespread availability of software such as the FaceTime app on the iPhone, which permits high-definition video calls, and high-resolution cameras on smart phones facilitates such video office visits. These innovations, coupled with the ability to transmit vital signs and other metrics via wireless sensors, raise the realistic possibility that much routine office care for nonacute conditions could be handled by such links. This opportunity to improve efficiency, for both patients and physicians, is especially important in the face of the growing physician shortage.

**Implications for Hospital Leaders**

**Consider wireless real-time monitoring.** Awareness of the capabilities of wireless sensors for in-hospital monitoring should lead to advance planning about whether to provide continuous vital sign monitoring for beds not currently in intensive care or step-down, telemetry units—areas where special machines are used to help staff closely monitor patients, especially for changes in blood pressure and heart rate and rhythm. Besides whether to monitor such beds, decisions need to be made about the type of monitoring—heart rate alone, heart rate and rhythm alone, or complete vital signs with continuous blood pressure, oxygen saturation, respiratory rate, and body temperature. Also, consideration should be given to whether to use continuous glucose monitoring in diabetic patients who are critically ill or are undergoing major surgical procedures.

**Beef up IT support.** Related to in-hospital monitoring, hospital leaders will be faced with requests from physicians to follow their patients’ vital signs on their smart phones. This will require information technology support to ensure data security.

**Look for technologies that improve care or lower costs.** Emerging technologies such as the pulmonary artery pressure monitoring device or noninvasive wireless sensors have considerable potential to reduce rehospitalizations for such diagnoses as congestive heart failure. Devices such as iRhythm and Vscan also may lower costs and improve the quality of care. In addition, preparing for the use of mobile ultrasound by paramedics or emergency room physicians, with rapid connection to the appropriate specialist to review the images and provide feedback, is in order.

**Get ready for e-visits.** Finally, although most hospitals and health systems are not ready for e-visits and the extensive exchange of data between patient and physician by e-mail, texting, video, and real-time relay of wireless sensor data, it is time to prepare for some of the inevitable changes in the way the office visit and physician–patient communication will be redefined in the future.

**Disclosures:** Dr. Topol is on the boards of directors of DexCom, a company that manufactures wireless glucose sensors, and Sotera Wireless, which manufactures wireless vital sign monitoring devices.
References


The term “social media” describes online applications and services used by individuals, groups, and formal organizations to develop and sustain interactions among constituents (Table 1). Although social media might seem like a brand-new phenomenon, it isn’t. Throughout human history, information has been transmitted among people known to one another; groups have been strengthened or formed as a result. Social media are “social” not because these media involve lots of chitchat, but because groups of similarly purposed individuals emerge as a result.

Although types of social media vary, the success of any online tool depends on active engagement among users. In the world of social media, this involves one or all of the following: brief written exchanges, hyperlinks to web-based resources, and commentary on original as well as third-party material. As is the case in real-life groups, online groups develop rules to guide participation. Unlike real-life groups or communities, those generated by social media tend to change quickly. The velocity generated by social media is real; keep this in mind as you learn to deploy social media in your organization. Fortunately, models exist for successfully deploying these media in hospitals.

With every passing day, social media become less trendy and more essential; less likely to be dismissed as something only marketing people use and more valued by managers in other departments. This essay focuses on how hospitals are using the most well-known social media services (i.e., Facebook, Twitter, YouTube, discussion forums, and networking sites).

Social Media in the Hospital Environment
Social media services have been rapidly adopted and adapted for hospital use during the past few years. Only 19 hospitals maintained Twitter accounts in May 2008, according to my research. By the time I started tracking hospital adoption in my Found in Cache blog (http://ebennett.org) in January 2009, 157 hospitals were actively using social media: 60 had Twitter accounts, 69 maintained Facebook pages, and 108 had uploaded video material onto YouTube.

By August 2010, 634 hospitals had realized the value of Twitter; hospital accounts on YouTube had grown from 108 to 391 (Figure 1). As I write this (August 2010), more than 630 hospitals have at least one Facebook account, and it’s a safe bet more will have been added by the time you read this article. Every one of the 14 Honor Roll hospitals—those identified by U.S. News & World Report (2010) as among the best in six or more specialties—and 78 percent of the 152 hospitals identified as among the best in at least one specialty use social media to provide information and education to internal and external audiences.

Emerging experts are quick to emphasize how social media applications and services are tools that must be integrated into a comprehensive, coherent strategy. What are organizations using social media for?
1. By 2016, the business case for communicating with patients electronically will be accepted by all providers, including independent physicians. This will be largely due to the economies associated with fewer phone calls and less need for dictation and records documentation.

2. Physicians who do not participate in social media with their patients will attain lower ratings on evaluation websites such as RateMDs.com and mydochub.com.

3. To take advantage of social media, your hospital will need to offer training to physicians, nurses, and other clinicians on how to use these tools to obtain maximum benefit.

4. Social networking sites allow candidates to participate passively in the job market. As a result, hospitals will rely more on such sites than on executive recruitment firms because they (1) save on search firm costs and (2) reduce the time it takes to fill positions.

5. By 2016, healthcare organizations will have adopted private-organization-based social media that permit individuals within hospitals, for example, to share confidential information behind a corporate firewall. In effect, such private social media will allow organizations to capture knowledge and identify experts on different subjects.

6. When a chef at a local café decided to donate a kidney to a work colleague on dialysis, Henry Ford Hospital used Twitter to publicize the need for organ donation. Such public education efforts by hospitals using social media will be adopted by your hospital.

7. Your hospital’s marketing activities will be radically changed as a result of social media like Facebook and Twitter. For example, these networking opportunities serve as faster and more dynamic ways to learn of patient preferences than traditional face-to-face focus groups.

8. A study conducted in 2009 by IDC, a research firm, discovered that knowledge workers spend between six and ten hours a week looking for information. With greater use of social networks, physicians and others will reduce the time spent searching for answers and devote more of their time to other activities.

Note: Percentages in each row may not sum to 100% due to rounding.
What Practitioners Predict

Providers will communicate with patients electronically; those who don’t will receive lower ratings. By 2016, the business case for communicating with patients electronically will be accepted by all providers, including independent physicians, according to 82 percent of respondents. Providers will be swayed by the economies associated with fewer phone calls and less record keeping. Three out of four respondents thought it likely that physicians who do not participate in social media will score lower ratings on physician evaluation websites.

Hospitals will train clinicians to employ social media, and they will use it to recruit staff, help identify experts, and share knowledge. Nearly 90 percent of respondents agreed that, to take advantage of social media, their hospitals will need to offer training to physicians, nurses, and other clinicians on how to use these tools. Three out of four practitioners thought that by 2016, hospitals looking to fill job vacancies will rely more on social networking sites than on executive recruiters because of savings on costs and the time it takes to fill positions. Nearly 70 percent of respondents agreed that healthcare organizations will adopt social media for private, confidential internal use, allowing them to capture knowledge and identify experts on different subjects.

Hospitals will use social media to educate the community and learn about patient preferences. Eighty-one percent of respondents thought it likely that their hospitals will use social media like Twitter to publicize the need for organ donors and conduct other public education campaigns. Similar agreement was seen on Facebook and Twitter as faster and more dynamic ways to learn about their patients’ preferences than traditional face-to-face focus groups.

Because of social media, knowledge workers will spend less time searching for information. Sixty-two percent of respondents thought it likely physicians and other knowledge workers will use social networking to reduce the six to ten hours a week they currently spend looking for information.

Table 1. Social Network Description, Usage, and Applications

<table>
<thead>
<tr>
<th>Network</th>
<th>Description</th>
<th>Usage</th>
<th>Business Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twitter</td>
<td>140-character news feed</td>
<td>169 million users1</td>
<td>• Posting press releases like announcements in some cases, can supplant traditional news formats</td>
</tr>
<tr>
<td>Facebook</td>
<td>Recreational peer-to-peer social network</td>
<td>400 million users1</td>
<td>• Building fan pages for specific causes, organizations, or products</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Sharing recruitment campaigns</td>
</tr>
<tr>
<td>YouTube</td>
<td>Video</td>
<td>3.5 billion views1</td>
<td>• Posting educational videos and testimonials</td>
</tr>
<tr>
<td>Blogs</td>
<td>Internet web diary</td>
<td>1.2 million blogs1</td>
<td>• Discussing happenings in an organization (e.g., product launches, executive changes)</td>
</tr>
<tr>
<td>LinkedIn</td>
<td>Professional peer-to-peer networking</td>
<td>80 million users1</td>
<td>• Recruiting talent, announcing staff news</td>
</tr>
<tr>
<td>Wikis</td>
<td>Tool that allows groups to create and edit pages of content</td>
<td>47 percent of surveyed Americans have used Wikipedia2</td>
<td>• Enabling knowledge management</td>
</tr>
<tr>
<td>Forums and discussion boards</td>
<td>Online locations to post questions and receive community replies</td>
<td>20 percent of surveyed Americans have posted on bulletin boards2</td>
<td>• Facilitating participants’ sharing of experiences and knowledge</td>
</tr>
<tr>
<td>Peer-to-peer social network</td>
<td>Organization’s own social network, which includes profiles of its members</td>
<td>47 percent of surveyed American adults report using a peer-to-peer social networking site3</td>
<td>• Supporting members in therapeutic areas that are high-impact and high-burden</td>
</tr>
</tbody>
</table>

6 The Pew Internet and American Life Project, Internet Usage Over Time Data ACT2/9/2008.
8 Lemert, Armanda, “The Democratization of Online Social Networks: A look at the change in demographics of social network users over time,” The Pew Internet and American Life Project, October 2009.

Source: “Social Networks in Health Care: Communication, collaboration and insights,” Deloitte Center for Health Solutions, July 2010. © 2010 Deloitte Development LLC. All rights reserved.
To date, regardless of industry, social media have been used primarily to supplement traditional print and electronic public relations and marketing communications efforts. This has been true for hospitals using Twitter and Facebook to announce news and promote events. Hospital managers beyond the marketing department are steadily realizing additional uses for social media, including but not limited to those discussed below.

**Crisis management.** The near real-time nature of social media allows hospitals to post updates and provide information quickly and accurately during crisis situations. A prime example is Scott & White Healthcare’s use of Twitter during the mass-casualty shooting at Fort Hood in Texas on November 7, 2009. Frequent “tweets” kept the surrounding community—and the world—informed about emergency department access and blood supply needs. This vital information was supplemented by detailed communications on the website’s homepage and on YouTube videos (Widmann 2009).

**Brand monitoring and customer service.** Social media include hundreds of specialized discussion forums, networking sites, and weblogs (aka blogs) that have emerged to provide education about and support for those with specific medical conditions. Examples include tudiabetes (www.tudiabetes.org), a social media site for people with diabetes with 15,000+ members, and theBump (www.thebump.com), which provides information for expectant parents.

Because conversations among patients and caregivers on public forums inevitably include complaints among the kudos, new services have emerged to provide real-time monitoring (see, for example, Radian6 at www.radian6.com and ScoutLabs at www.scoutlabs.com). However, given the proper training and resources, hospital personnel can do much of their own real-time monitoring and can intervene swiftly if hospital customers post negative comments (Figure 2).

**Patient education and recruitment.** Hospitals are getting creative about attracting and educating patients. Most noteworthy is the live “Twittercast,” during which surgical procedures are documented and discussed in real time. Surgical Twittercasts have captured the interest and attention of medical personnel, medical students, and those engaged in the participatory medicine movement, as well as people who are simply curious.

Henry Ford Health in Detroit was one of the first to offer this extension of the live video webcasts used by hospitals for more than a decade (Israel 2009). Typically, during live-tweeted surgery, an assistant scrubs in, sits at a laptop, and updates the online audience via Twitter. Because of the interactive nature of social media, the audience has opportunities to ask the surgeon questions—and get answers—in real time. Photos of the procedure are taken and posted on a photo-sharing service like Flickr, and inexpensive flip cameras make it possible to make brief videos and post them on YouTube. After Twittercasting a double-knee replacement in April 2009, Aurora Health Care in Milwaukee scheduled
14 surgeries as a result (Garrett 2010).

For more than five years, the University of Maryland Medical Center (UMMC) has offered “Ask the Expert,” a popular website feature (www.umm.edu/ask_the_expert/). Eighty physicians respond to more than 6,500 questions each year and, according to anecdotal evidence, see new patients as a result. UMMC also reaches new audiences with its library of 300 educational videos on YouTube. In a typical month, the 300 videos are watched 100,000 times, with 50 percent of that activity happening on YouTube. These videos are commented on, shared, and frequently embedded in patient blogs.

**Emerging Trends and Implications**

**Established services like Facebook and Twitter will continue to grow and become a common form of communication.** Casual conversations will shift from telephone and e-mail to text messaging and updates via Facebook, Twitter, Yammer, and the next generation of social media.

Facebook already has 500 million users, 50 percent of whom use the service daily. By March 2009, Facebook had surpassed Google as the most visited website. By April 2009, Twitter had grown to over 100 million users (Yarow 2010). In a related development, the number of cell phone calls peaked in 2007 and is beginning to decline (Thompson 2010). Social expectations will force people to participate in social media or risk losing touch with family and friends as social media become the norm for interaction.

Routine communications between employees have already started shifting to services like Yammer, an enterprise collaboration tool designed for use within organizations. Yammer, which allows users to see only others with the same corporate e-mail address, is currently used in 80,000 organizations and has more than one million users (Yammer 2010). Because Yammer is an external service and any employee can create a free account, executives may not even realize that staff is using Yammer to collaborate, share information, and solve problems.

**Heads up:** Hospital executives should determine if enterprise social media tools like Yammer are already in use by their staff. Hospitals should have usage guidelines in place and be considering tools like Socialcast.com to provide this type of collaborative service.

**Healthcare consumers seeking advice will increasingly reach out to trusted online social networks as part of that process.** As awareness about participatory medicine and the e-patient movement grows, consumers will come to hospitals better prepared to ask questions and expect clear, direct answers.

Hospital marketers have always known that positive word of mouth is an important driver of new patients. Patients with chronic conditions will share information, compare treatment regimens, and express opinions on sites like ACOR (Association of Cancer Online Resources, http://acor.org) and Patients Like Me (www.PatientsLikeMe.com). Caregivers will turn to chat rooms or bulletin boards on sites like Wellspouse (www.Wellspouse.org) to express...
concerns. Patient activists routinely scan traditional and social media to post alerts about complaints. Healthcare consumers who neither understand nor particularly care about HIPAA (Health Insurance Portability and Accountability Act) privacy regulations will continue going public about their concerns on social media.

**Heads up:** Hospital leaders must establish processes and procedures for monitoring their organization-institutional image in real time (see, for example, Vanderbilt University Medical Center’s Social Media Toolkit at http://bit.ly/bxabOK). I urge hospital executives to budget for call center and customer service staff who already are—or who can be—trained to use social media to respond to challenges. I also recommend encouraging physicians and other staff to consider becoming more accessible via social media with, of course, the proper safeguards for security and privacy in place. A good example is the Mayo Clinic Alzheimer’s Disease Expert Blog (www.mayoclinic.com/health/dementia-anger/MY01389).

As hospital staff see the speed and efficiency of social media tools for collaboration and research, they will expect access and availability in the workplace.

There is already an active community of health industry professionals who interact on Twitter. What started out in January 2009 as a weekly chat among marketing communications mavens, hospital IT pioneers, and a few physicians has grown exponentially. Not only has the #hcsm (i.e., healthcare social media) chat become the go-to and be-there place to share information, solve problems, and socialize, but it has led to the development of specialized chats for nurses (#RNChat) and those involved with hospice and palliative medicine (#HPM).

**Heads up:** Hospital leaders must become willing to use social media. Blocking it is a lost cause and deservedly so, because it is already a preferred format for your employees, patients, and visitors. And hospital leaders themselves must learn to use these media. Although primers about social media abound, much can be learned by simply diving in. I recommend using Facebook to connect with family and friends. LinkedIn, which serves to display expertise and credentials, is a good way to engage with other professionals.

In sum, hospital leaders need to accept that the days of top-down, rigid message controls are over. Brand and reputation have always been determined by the community, but now the community has the power to discuss, praise, and criticize in public forums. Becoming an active participant in the conversation is prudent and makes good business sense.

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**References**

Note: See: [http://ebennett.org/futurescan](http://ebennett.org/futurescan) for a list of references, links, and other resources mentioned in this essay.


