Healthcare Reform and Hospital Systems
Preparing for the Future
Means Structural Transformation
The authors would like to thank Phil Lathrop for his valuable contribution to this Perspective.
EXECUTIVE SUMMARY

All players in the U.S. healthcare system are coming to grips with healthcare reform, working to formulate the responses that will best position them for ongoing vitality and success. On the supply side of the equation, hospital systems across the nation face significant financial challenges due to anticipated reductions in reimbursement rates across the board—from Medicare and Medicaid, commercial plans, and private groups—coupled with ongoing demographic shifts that are already straining their bottom lines.

Although the full extent of the financial impact remains to be seen, hospital systems can do no harm by responding boldly. Much of the scaffolding for change—integrated delivery systems, and healthcare information technology, for example—is already being built, but hospital systems will not be able to avoid more substantial, transformative change to both financing and care if they hope to thrive in a post-reform environment. Ultimately, that will entail a wholesale redesign of care delivery that is underpinned by a clear, comprehensive vision and encompasses a fresh approach to network design and management; the rise of e-medicine and market makers; strong-form products with embedded evidence-based medicine; and expanded reliance on information technology.
HOSPITAL SYSTEMS BRACE FOR FINANCIAL HIT

U.S. healthcare reform, as legislated in the Patient Protection and Affordable Care Act (PPACA) of 2010, mandates structural changes to the demand side of the nation’s healthcare financing system. The changes include the creation of insurance exchanges, expansion of coverage to near universal levels, a ban on certain long-standing practices such as lifetime caps and limitations on preexisting conditions, and new incentive payment schemes.

Collectively, these changes will force hospital systems—including small rural facilities, academic medical centers, urban safety-net hospitals, and large integrated delivery systems—to respond with their own structural changes to the supply side of healthcare delivery.

While providers’ macro-level structural strategies of the past two decades will prove useful in transforming the supply side, they will not be sufficient. Another round of difficult, fundamental change is required. The upside of the journey ahead for providers is that these changes will work to their benefit whether or not all the features of healthcare reform are implemented.

There is no shortage of scenarios projecting future hospital prices and expected net revenues in the first few years following full implementation of PPACA. None provides any comfort to hospital leadership, and the worst predicts a drop in real net revenue of 25 percent or more. Booz & Company’s own projections through 2020 range from serious to alarming—depending primarily on the extent to which commercial insurance payment schemes for larger groups reduce reimbursements (see Exhibit 1).

Demographic shifts were already beginning to strain hospitals’ bottom lines, with large tranches of baby boomers moving out of relatively high-margin commercial insurance plans and into the ranks of Medicare beneficiaries. These pressures will be dwarfed by the expansion of the Medicaid population and the shift of micro- and small-group enrollees onto state insurance exchanges (all at
reimbursement rates below cost), although larger employers will likely retain their health benefits (see “Demise of Employer-Sponsored Insurance Exaggerated,” page 4). The largest shocks, though, will come from three other sources:

- Medicare reimbursement reductions (in real terms) as mandated by PPACA, based on targeted reductions in the rate of expenditure growth for the program.
- Lower overall commercial reimbursement rates, driven at least in part by closer monitoring of rates by states. Also, hospital systems will have less justification for cost shifting, as most patients will have some form of insurance. In the best-case scenario, providers can expect a cut of 5 to 15 percent, translating to an overall decline of 2 to 6 percent in net revenues. These projections include the newly enfranchised beneficiaries on the exchanges; otherwise, the declines would be even larger.
- Most significantly, Medicaid- to Medicare-level reimbursement for medium-sized and large employer groups. Alternatively, these groups may simply “dump” their covered lives onto the exchanges (where Medicaid-like reimbursement levels are likely). Either way, providers can expect a drop in net revenues of 4 to 14 percent.

The worst-case scenario—projecting a 25 percent or larger reduction in real net revenues—is very unlikely, but even the more likely reduction of 10 percent or more spells trouble for healthcare providers. Structural change on the financing side of providers’ ledgers will need to be accompanied by structural change on the delivery side. Tweaking existing operations will simply not suffice—deeper and more fundamental change is imperative.

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**Exhibit 1**

Trends Affecting Hospital Net Revenue

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<table>
<thead>
<tr>
<th>NET REVENUE CHANGES</th>
<th>2010-2020, WITH SCENARIOS FOR COMMERCIAL INSURANCE REIMBURSEMENT CHANGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of 2010 Baseline</td>
<td>Estimate range low to high</td>
</tr>
<tr>
<td>2010 Baseline</td>
<td>72%-89%</td>
</tr>
<tr>
<td>Baby Boomer Shift</td>
<td>4%-14%</td>
</tr>
<tr>
<td>Medicaid Expansion/Exchange</td>
<td>0%-1%</td>
</tr>
<tr>
<td>Medicare Reimbursement Drops 7%-10%</td>
<td>2%-6%</td>
</tr>
<tr>
<td>State Fiscal Problems</td>
<td>3%-4%</td>
</tr>
<tr>
<td>Scenario: Commercial Rates Decline 5%-15%</td>
<td>0%-1%</td>
</tr>
<tr>
<td>Scenario: Commercial at Medicaid/ Medicare Rates</td>
<td>2%-3%</td>
</tr>
</tbody>
</table>

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1 Overall, impact of inflation on charges is assumed to be fully passed through in pricing increases, keeping reimbursements as a percentage of charges constant during the time frame.

2 Medicaid rates drop as much as 5% as state budget constraints force slowing of Medicaid spending.

3 Potential of medium-size and large commercial group charges succumbing to pricing pressures and declining 5% to 15% is likely. To Medicaid or Medicare rates is possible.

Demise of Employer-Sponsored Insurance Exaggerated

There are good reasons to believe that major employers will retain their health benefits and not push their employees onto the exchanges. We have conducted targeted research to understand the evolving needs of employers and their likely responses to the new law, and to gain specific insights into the dumping and switching issue, given its potential to substantially influence the overall reform picture.¹ We interviewed more than 150 employers, associations, and policy experts, and conducted employer focus groups and online surveys to gather additional input from nearly 300 small and large employers. Additionally, we conducted deep-dive employer studies in Massachusetts and Utah, two states where some level of state reform has already been in place.

This research suggests that although the traditional employer group market will slowly change over time, employer-sponsored insurance will remain a large component of the healthcare financing system. Employer-sponsored insurance currently makes up 62 percent of the insured market, with about 160 million employees and dependents enrolled through their company health benefits program. Many large employers cite recruitment and retention of talent as key reasons to keep their own plans—and many also believe that the underwriting numbers favor self-insurance over statewide pools. We expect employer-sponsored insurance to constitute more than 50 percent of the market after 2016, with 152 million members enrolled in group plans, even after most of the major reform provisions have been implemented. Indeed, even in Massachusetts, where healthcare reform was enacted in 2006, group programs continue to make up 64 percent of the health insurance market, down only three percentage points since reform went into effect. The upshot: Exchanges will largely serve the subsidized individual market, the unsubsidized individual market, and micro/small groups.
LONG-STANDING PROVIDER STRATEGIES: A GOOD START

Geographically coherent and vertically integrated delivery systems have become the norm for many hospital systems in moderate-sized to large markets over the past two decades. This strategy initially focused on hospitals, but physicians have also signed on over the past five years. During that time, overall hospital physician employment has been increasing by 2 to 3 percent per year.² And integrated health systems have expanded their hiring beyond principally primary care physicians to include a much broader representation of specialists. For example, 58 percent of hospitals surveyed by the Center for Studying Health System Change reported increasing the number of specialists employed.³

This strategy has worked well, delivering the direct benefits of securing or growing market share and setting the scene for rationalizing, coordinating, and integrating services. Further, branding these systems around high-profile services (such as cardiac care or cancer treatment) has been an effective strategy for harnessing consumer support that influences payors’ marketing plans and network selection choices. The most successful systems have essentially immunized themselves from payor efforts to exclude them from networks because of cost, since consumers will not select plans that fail to include such strong local brands.

Of course, any successful supply-side strategy is bound to face criticism from payors, plan sponsors, and regulators. In this case, the shift in market power toward health systems has been significant, and in some markets, demand-side allegations that health systems operate as oligopolies may have merit. In a trend that is likely to continue, the share of hospitals that are independent of a major-system affiliation has declined from 46 percent in 2004 to 40 percent in 2010.⁴ This trend—
combined with the recent resurgent acquisition of physician practices by integrated systems, following a hiatus during the last decade—means that the portion of the value chain controlled by large systems has increased substantially and, in the view of some payors, alarmingly. One cautionary trend that may slow this vertical integration is that hospital system losses on physician practices have crept up $20,000 over the past five years, now exceeding $80,000 per physician per annum.\footnote{Criticisms notwithstanding, PPACA is unlikely to put a dent in the current state of provider consolidation and may even drive further growth. In fact, integrated delivery systems should be advantaged if there is a wholesale shift toward accountable care organizations (ACOs), as envisioned in the law. While some physician groups may step forward to fill the ACO role in selected markets, in most cases they will not be able to match integrated systems in financial strength, geographic coverage, infrastructure, and clinical integration—all critical factors for success. Further, integrated systems with near proprietary physician panels are likely to have fewer political and practical problems with the new ACO reimbursement schemes. Gain-sharing schemes under PPACA have the potential to foment bitter disputes among hospital systems, primary care physicians, specialists, and other providers—a situation ameliorated (but not eliminated) if they are under a single organizational umbrella. Initiatives to accelerate the proliferation of healthcare information technology (HIT) and healthcare information exchanges (HIEs) also favor larger, more sophisticated provider entities. The American Recovery and Reinvestment Act (ARRA, aka the stimulus bill) provided guidelines, timetables, and billions of dollars in financial incentives for providers to acquire, install, and effectively use information technology in clinical care and in communicating across providers and settings—including with patients and their families. Unfortunately, several recent studies indicate that these increased HIT investments have not generated significant cost savings or care improvements. Clearly, this basic platform is a necessary but not yet sufficient capability to improve care, service, and cost. Its true value will only be realized once it enables effective evidence-based medicine (EBM) and enhanced productivity at the point of care.}
STRUCTURAL CHANGES MUST FOCUS ON CARE REDESIGN

Within the broader national conversation surrounding healthcare reform, provider concerns have appropriately focused on the narrower questions related to ACOs: Should we participate in an ACO? Can we make up for the revenue hit? Should we take on underwriting risk? Should we play with others? These are all essentially questions of organization—concentrating on the “O” in “ACO.” Whether ACOs work to improve outcomes and reduce cost, though, will ultimately depend on the “C”—care and its redesign. Without appropriate emphasis on care, the organizational changes will be window dressing and the promise of accountability will be impossible to achieve.

What is the fundamental problem with care today? It continues to be plagued by the same negative adjectives that have been used (accurately) to describe it for more than 25 years—fragmented, variable, high-cost, impersonal, and opaque. Yes, there are shining examples of improved processes and outcomes, but they shine brightly precisely because of their relative scarcity. Doctor-to-doctor, hospital-to-hospital, and market-to-market variations in care, cost, utilization, and outcomes simply cannot be explained away using good science and sound management principles. Although the system has been described as “broken” for decades, evidence of real change throughout the industry is hard to find.

ACOs, HIT/HIEs, and EBM may prove to be powerful forces for change—but only if they are underpinned by a broader vision and are implemented much more broadly and deeply than they are today. Whether ACOs become a dominant force or not, organization models that link providers more closely and hold them more accountable will likely proliferate. In addition, information technology, especially EBM embedded in HIT and accessible via HIEs, will increasingly empower providers to redesign and manage care in near real time and will enable patients and their physicians to make better and more cost-effective decisions.

Care redesign is a term that addresses the entire care process and its structures—from network membership and dynamics, to intervention decisions, to individual interactions.
at the bedside and in other settings. Virtually every aspect of care needs to be in play. The system must be simplified and more transparent at every major level of the organization. The following sections highlight the status quo and the direction of change that is needed, starting at the network level and then drilling down to care sites and care itself.

A Fresh Approach to Network Design and Management
Deciding which providers participate in the care network and also the rules of engagement is familiar territory. Most providers have participated in or controlled such a network as part of a PPO or HMO. Rules governing referrals and, increasingly, protocols to prevent and manage chronic disease are the most common levers to control cost and outcomes within networks. Usually, though, provider self-interest has been a major factor in network design and management—using brand strength and geography to ensure inclusion, but often resisting externally imposed rules focused on cost-effectiveness and improved outcomes. Provider integration, which has sought to optimize market control and reputation, will need to shift toward a focus on streamlining care and enhancing productivity. Relationships with payors need to change from adversarial, retrospective arrangements to collaborative, point-of-care efforts to enhance care delivery. So, though past experience with networks will be important, the rules defining future success are changing.

The Rise of E-Medicine and Market Makers
As HIT is phased in (with an embedded electronic health record) and subsequently linked across providers and sites using HIEs, two major innovations will emerge: e-medicine and market makers.

The potential for e-medicine—the capability to provide lower-level consultations, monitoring, and communications via the Internet—has existed for some time, but its development has been hampered by the lack of reimbursement for the service (and also by some liability concerns). The spread of high-speed Internet access, the proliferation of HIT/HIEs (spurred by ARRA and PPACA), and innovations in payment mechanisms now being encouraged should result in a more rapid uptake. E-medicine is clearly a structural change in care. The addition of video will make e-medicine a game changer—for patients, for their families, and, most of all, for providers. New operating models, primarily in historically ambulatory settings, could revolutionize the way doctors, midlevel practitioners, and other professionals use their time, expertise, and revenue-generating capacity. For example, primary practices, traditionally designed around the unit of a patient-scheduled office visit, could employ a mix of virtual visits, e-alerts, and other modalities in which physician

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assistants and clinical educators could handle patients seen by physicians today. In other cases, e-medicine could eliminate some visits altogether. Equally important, e-medicine will enable a cost-effective transition to emerging new care models—notably patient-centered medical homes—where physician practices move from a reactive stance almost exclusively focused on the sick and chronically ill to one that proactively manages their entire panel of patients, including the healthy and at-risk.

These same information technology tools will create a new breed of player in the healthcare delivery value chain. Market makers will emerge by using generally available cost/price data and combining it with detailed information on outcomes and customer service (enabled by HIT/HIEs). The market maker will offer its services to providers within networks (and perhaps to individual patients) to enable them to make better decisions—using facts, not anecdotes.

To illustrate: A primary care physician sees a patient who is a candidate for a knee replacement. In deciding which orthopedist to refer the patient to, the primary care doctor (or assistant) accesses the market maker to determine the options and make a decision based on cost, quality, and service. The referral may not be to the group the physician has historically used most often. The market maker may even work with providers to offer real-time pricing based on utilization rates (lower rates during slow times, such as weekends or holidays, for example). This is not wild speculation; the basics of such market maker functions are already available on the Web in some markets for low-risk, high-volume services such as colonoscopies and CT scanning. Once these services become integrated in electronic medical records and populated with negotiated discounts, the physician and patient will have the ability to select the best location for a test or procedure before the patient leaves the office. The days of assuming that the patient was sent to a facility because a physician owned the facility or was employed by the facility will be gone. Equally gone will be the secretly negotiated contracts between hospital systems and payors, which enabled the former to be in the latter’s network but provided no other information to decision makers. This move will truly revolutionize how large portions of healthcare are purchased.

Indeed, one San Francisco–based startup organization, Castlight Health, is developing the capability to provide price transparency for routine and/or well-defined procedures and services, such as colonoscopies and newborn deliveries. By displaying this information to its employees, a self-insured company such as Safeway can—through innovative benefit design—effectively steer volume from one provider to another on the basis of cost without any appreciable impact on clinical outcome.

**Embedded Evidence-Based Medicine**

Hospital care consists overwhelmingly of customized care. While this sounds good, it isn’t—at least not when the customization stems simply from variations in everyday practice from physician to physician based on their anecdotal knowledge of care and due to time lags in the dissemination of current best practices. The judicious development and proliferation of EBM and protocols of care have the potential to transform healthcare delivery, especially in hospitals. At the basic level, EBM can guide doctors’
decisions about when to intervene and how to intervene, and advise them about what outcomes to reasonably expect. In some ways, Medicare diagnosis-related groups were an early form of EBM, setting norms for length of stay and costs. With mandated electronic health records and HIT, future generations of EBM can be much more powerful.

Leading providers are already piloting EBM-driven “products”—in which all care for a given procedure or condition is bracketed around best practices and norms. So-called strong-form products currently being piloted with providers and health plans go a step further, bundling world-class care at a fixed price from diagnosis through rehabilitation and providing simplified billing and payment and a service guarantee. For example, a knee replacement product includes all care, beginning with intake by the orthopedist, continuing through the procedure and hospital care, and concluding only when rehabilitation is complete. Reimbursement for the service includes all hospital costs and physician fees. The patient receives one bill—and the amount is never a surprise, since it was known in advance of the procedure. If, as we believe, two-thirds of hospital care could be packaged as strong-form products, the opportunity to reduce cost rises to the level of structural change—not just through reducing consumption and variability, but through ease of management and simplification of today’s blizzard of bills. First movers should also expect market share gains.

An Expanded Role for HIT and Strong-Form Products
While system-level structural change is extremely important, care delivery and the bureaucracy that surrounds it still force a focus on paperwork rather than “patient work.” Research from 20 years ago highlighted a myriad of unintended problems that still exist today in almost all hospitals: 60 or more individual employees interacting with a patient during a four-day stay; more than a quarter of all employee time devoted to documentation; and huge swings in workload due to largely “unpredictable” care requirements.

In recent years, new technologies—such as picture archiving and communication systems (PACS), portable lab analyzers, and portable communication devices that can receive and log orders remotely—have been developed that could help address some of these problems, but they have generally been put into traditional operational models and their transformative potential has been missed.

Of course, technology alone won’t fix the entrenched care delivery problems, but it can shine a light on these areas and help in targeting solutions. For example, EBM can drastically reduce documentation time through standard order sets and charting by exception against expected outcomes.
Meanwhile, HIT can decrease workloads in absolute terms (such as by standardizing “required” lab work and thereby providing legal protection for providers who make cost-effective decisions), highlight bottlenecks in care delivery, and assist in generating daily (or shift-by-shift) workload projections and matching staffing levels to them.

Without a more sweeping vision of the possibilities, though, HIT won’t do much to transform hospital operations and bedside care. By analogy, much of PACS’ potential to transform hospital operations was lost because hospitals continued to move large numbers of patients from their rooms to a central department for simple films—forgoing the chance to decentralize and reduce scheduling, documentation, and transportation costs, as well as missing the opportunity to give patients better service.

HIT could suffer a similar fate if care providers use it simply to guide care retrospectively and substitute typed documentation for handwritten documentation.

Structural change affecting care delivery at the bedside is both the most difficult and the most important factor driving better outcomes, lower cost, and improved customer care. Strong-form products and HIT will provide the impetus to leverage these opportunities, but success will come only through hard detailed work, innovative thinking, managing to the lowest level of needed complexity, and collaborative care.

The payoff will be in the form of cost savings that match the coming reductions in prices and net revenues while improving quality of care. Those systems that drive this change well and early will have a competitive advantage for years to come.
It is imperative that hospital systems heed the warnings evident in health-care reform legislation. Hospital systems that take initiative in implementing much-needed structural changes may not prosper in the event of a worst-case reform scenario, but they will position themselves to be the cost and quality leaders whatever the economic environment. There are huge opportunities available for capture: unleashing unused capacity, streamlining care delivery, and increasing transparency so that the most cost-effective systems become differentiated in the eyes of consumers. Well-structured, lean networks supported by appropriately used evidence-based guidelines enabled by effective information technology will be the market leaders of the coming decade and beyond.
Endnotes


3 Center for Studying Health System Change Issue Brief Number 115, November 2007.

4 American Hospital Association TrendWatch Chartbook 2010.


7 American Journal of Medicine, November 2009; Health and Hospital Networks, June 2010.


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