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David W. Young

fiscal strategy in an era of reform

after the election: what's next for providers

preparing for ACA-driven Medicare cuts



Robert Fromberg
Editor-in-Chief

micro and macro

The day before a routine outpatient procedure, I received three phone calls.

All three callers asked me the same questions about medical history and reminded me to fast after midnight.

One call was from the physician's office, and two were from different hospital departments. All three callers left me messages, and when I returned the calls, I had to leave messages. At first, I didn't know that the three calls came from three different sources—I assumed they were three different messages from the same source—and so I didn't know that I needed to reach all three people, and when someone returned my call, I didn't know which original message the person represented. But eventually all three parties and I found one another.

The implications are obvious: Why not one phone call, with the responses shared among the three entities? Or better still, why not have me fill out an online form, with certain responses triggering a phone call?

This anecdote is a microcosm of our healthcare system's challenges and opportunities. In the cover story of this month's *hfm*, Boston University professor emeritus David W. Young explains those problems and opportunities at the macro level. The article, "Fiscal Strategy in an Era of Reform," outlines the forces driving the need to reduce healthcare costs. Then, with laudable clarity, he reminds us that there are only five drivers of healthcare costs: case mix, volume, resources used per case, cost of a resource unit, and fixed costs. His explanation of each puts a healthcare organization's opportunity to control costs into sharp focus.

I asked myself where my modest micro example of healthcare waste fits into Young's rubric. Sure enough, it's there: cost of a resource unit. "Even without having good cost information," Young writes, "any hospital manager knows that cost reductions can take place with an increase in efficiency." My anecdote conceivably could also fall into the category of fixed costs, if a more efficient process leads to a reduction in staff not related to the volume of care provided.

My simple anecdote also illustrates the problem of what Young calls the healthcare food chain, in which lack of aligned incentives means that one entity's cost is another entity's revenue. Closer alignment between my physician and hospital would eliminate at least one of those three phone calls.

Young concludes that cost control is everyone's business. I imagine the frustration of the people who called me that day, and the frustration they must feel calling multiple patients each day. I am reminded of Donald Berwick's early writings about quality improvement in health care, in which he remarks on good people caught in a bad system. (By the way, Berwick is one of the keynote speakers at this year's ANI: HFMA's National Institute—hfma.org/ani.) Each person I spoke with on the phone—indeed, each person I encountered in the entire episode of care—was bright, pleasant, and professional. I enjoy envisioning healthcare professionals like these across the country being unleashed by innovative organizations to tackle our cost problem at both the micro and macro levels. ■

David W. Young

fiscal strategy in an era of reform

Hospitals should develop strategies around four forces that will affect their financial performance in the next five to 10 years.

Hospitals and health systems will face a variety of financial challenges over the next decade, including pressures related to the economy, healthcare reform, and increased demand for care.

Addressing these challenges will require, at a minimum, an understanding of the costs associated with care delivery. It also will require that healthcare organizations develop an ability to *control*—rather than simply *understand*—their costs.

Combined with pressures related to healthcare reform, the financial challenges facing hospitals and health systems present a “call to action.” These organizations will need to conduct more in-depth analyses of the cost implications of care processes and delivery than most have done to date. In particular, they will need to concentrate

on four forces that will affect their future costs:

- > The impact of demographic changes on the Medicare Trust Fund
- > Medicare spending patterns
- > Morbidity in the non-Medicare population
- > The complex nature of the healthcare market

The Four Forces at Work

Collectively, the first three forces will create intense pressures on healthcare costs; the fourth—the complex nature of the healthcare market—limits the ability of market mechanisms to control cost increases.

Demographic changes. The exhibit on page 58 shows how annual inpatient days per person change as people age. This is not surprising: As people grow older, they tend to use more inpatient care. The problem is that members of the “baby boom” generation—those born between 1945 and 1955—are now in their late 50s to mid 60s. If the historical pattern of healthcare use continues, the demand for inpatient care for baby boomers will increase geometrically. This idea is supported by an analysis from the Kaiser Family Foundation, which forecasted that Medicare spending would nearly double in an eight-year period, from just over \$500 billion in 2010 to about \$1 trillion in 2018 (“DGA analysis of the

AT A GLANCE

- > In a reform environment, hospitals and health systems should be able to *control*—rather than simply *understand*—their costs.
- > Senior managers and line managers throughout a healthcare organization should be solidly behind—and deeply involved in—the organization’s cost-control efforts.
- > Physicians also should be heavily engaged in cost control, as they are the only ones who can both establish clinical pathways and monitor their colleagues’ use of them.

Go to hfma.org/hfm to view estimates of the Medicare Part A Trust Fund balance before and after the Affordable Care Act was enacted, as well as variations in Medicare spending for 90-day episodes of congestive heart failure.

Kaiser Family Foundation's *Update on Medicare Spending and Financing Highlights from the 2009 Medicare Trustees' Report*, May 2009," *hfm*, July 2009).

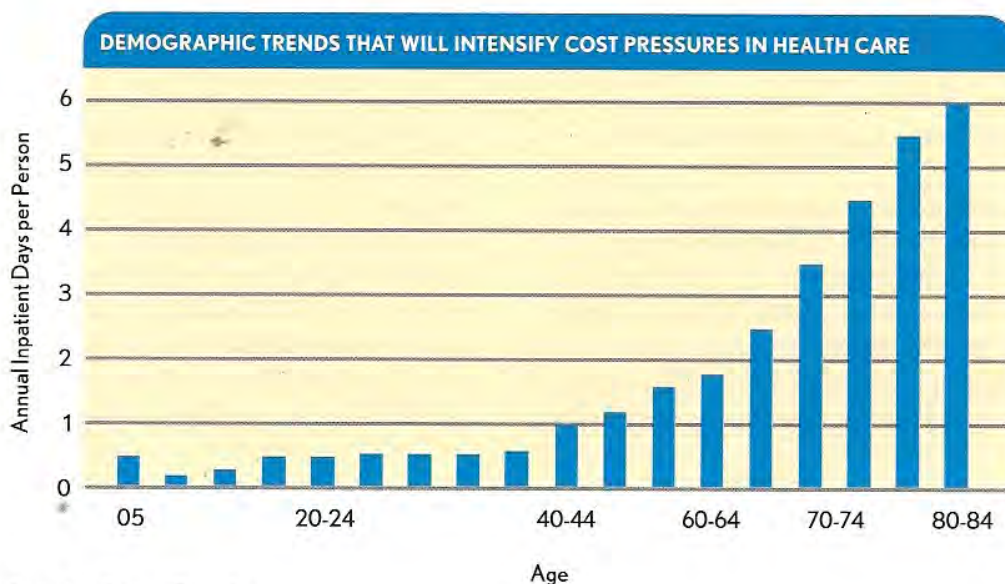
Medicare spending patterns. Medicare spending is not uniformly distributed among beneficiaries. Approximately 20 percent of the program's beneficiaries consume more than 80 percent of the spending. Much of this spending is related to chronic conditions. According to one analysis, approximately one-fourth of Medicare beneficiaries have five or more chronic conditions, accounting for some two-thirds of the program's costs (Pear, R., "Consumer Risks Feared as Health Law Spurs Mergers," *The New York Times*, Nov. 20, 2010).

Morbidity in the non-Medicare population. The elderly are only part of the story. Prior to becoming eligible for Medicare, many individuals experience high-cost medical conditions—mainly cancer and heart disease. With some 18 million individuals gaining insurance coverage in 2014

under the Affordable Care Act (ACA), the impact on insurers will be significant.

The complex nature of the healthcare market. The healthcare market is unlike any market described in an economics textbook. In no other market that we know of does Person A (a patient) receive services ordered by Person B (a physician) that are delivered by Person C (a hospital) and paid for by Person D (an insurer), whose revenue comes from Person E (the insured). The result is five separate markets:

- > A premium-sharing market (between an employer and its employees)
- > A per-member-per-month market (between an employer and a managed care plan)
- > A deductible market (between a patient and a managed care plan)
- > A copayment market (between a patient and a provider, usually either a physician or a hospital)
- > A fee market (between a provider and an insurer)



This last market can be quite complex, involving payment approaches such as fee-for-service (discounted or otherwise), DRGs, bundled prices, and subcapitation.

Responding to the Four Forces

Conceptually, it is relatively easy to describe how these four forces can be addressed. There are only five drivers of healthcare costs:

- > Case mix
- > Volume
- > Resources used per case
- > Cost of a resource unit
- > Fixed costs

Each of these cost drivers relates to one or more of the forces creating pressure on healthcare costs.

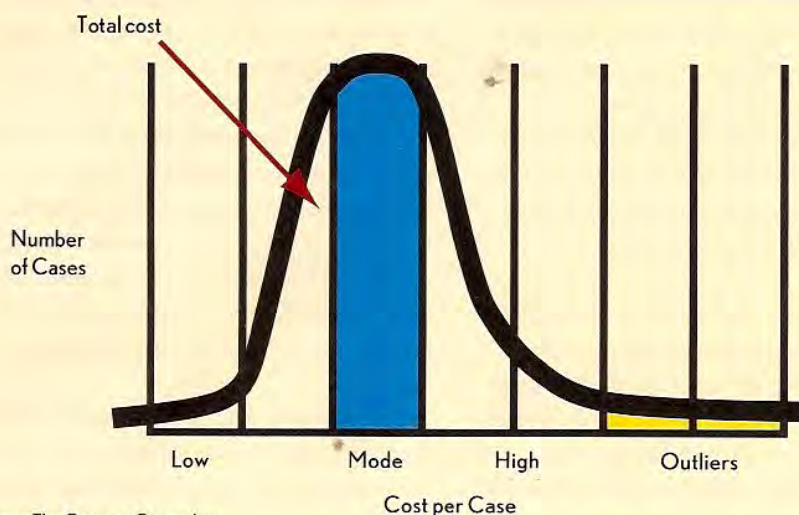
Case mix and volume. These two drivers are related to morbidity patterns in the population that result mainly from the environment, genetics, and health habits. Although some improvements in the environment (such as cleaner air and

water) may have an impact, nothing can be done to alter genetics. Therefore, to address case mix and volume, society should focus primarily on changing health habits, particularly given that nearly 35 percent of all deaths in the United States are related to tobacco, diet, and physical inactivity.³ Public health initiatives that include prevention programs (such as laws to require the use of seat belts and motorcycle helmets), early intervention (such as cancer screening), and wellness programs (such as smoking cessation and weight management) should be considered.

Computing the benefits of a prevention or wellness program is by no means easy, in part because not all people want to improve their health. For example, in a 2007 study, the Centers for Disease Control and Prevention found that the average body mass index for people between 50 and 70 years of age was 30 percent or above

a. Mokdad, A.H., Marks, J.S., Stroup, D.F., and Gerberding, J.L., "Actual Causes of Death in the United States, 2000," *JAMA*, March 10, 2004.

FOCUSING ON THE RESOURCES USED PER CASE



Source: The Crimson Group, Inc.

(30 percent is defined as obese). Yet obesity prevention is enormously difficult in a society where people do not live—nor do they apparently wish to live—healthy lifestyles.

In addition to computing the benefits of each new programmatic endeavor (in terms of a reduction in morbidity), health policy analysts also should undertake an analysis of the relevant program costs; otherwise, a benefit-cost analysis will not be possible. But determining the “relevant” costs can be difficult. In part, this is because some of the “benefits” will come in the form of cost reductions in the delivery system, such as a decline in hospitalizations for conditions caused by obesity or smoking. To assemble all the disparate pieces into one programmatic package is a daunting challenge, to say the least.

Resources per case. Addressing this cost driver means, in effect, lowering the bars in the exhibit on page 58, in addition to reducing the other resources used to treat a case, such as tests and procedures. The exhibit on page 59 demonstrates this idea conceptually. Because the horizontal axis represents number of cases, and the vertical axis represents cost per case, the area under the curve represents total costs. The obvious goal is to shift the average cost per case to the left, which can be done by, say, using outpatient instead of inpatient care, engaging in preadmission activities or in-home care to shorten a patient’s length of stay, or undertaking any of a variety of similar resource-reducing measures. (Note that a focus on outliers has very little cost-saving potential in most hospitals.)

The *Dartmouth Atlas* working group has studied how resources per case can be reduced without affecting the quality of care (*Tracking the Care of Patients with Severe Chronic Illness: The Dartmouth Atlas of Health Care 2008*, www.dartmouthatlas.org/downloads/atlas/2008_Chronic_Care_Atlas.pdf). The researchers examined the treatment for

chronic conditions in the last two years of life in several organizations where the Centers for Medicare & Medicaid Services had rated the quality of care as being similar. They found a variation between the “most aggressive” and “most conservative” hospital of nearly \$74,000 per case (\$117,998 versus \$44,090). Most of the variation was due to days in the ward (42 versus 12), but there also were significant variations in days in the intensive care unit (12 versus 4), specialist visits (97 versus 18), and primary care visits (34 versus 23).

Similarly, the exhibit on page 61 shows an alternative (physician-designed) pattern for treating a patient with a certain presenting condition in a hospital emergency department. As this exhibit and the *Dartmouth Atlas* research indicate, there are some important opportunities to address the growth in healthcare costs by focusing on resources per case.

One of the most dramatic efforts to address resources per case was made in Grand Junction, Colo., a site often used as an example in healthcare reform discussions (Bodenheimer, T., and West, D., “Low-Cost Lessons from Grand Junction, Colorado,” *New England Journal of Medicine*, Sept. 30, 2010). In Grand Junction, leadership by the primary care community resulted in a “culture” of incentives for cost control—a culture that was reinforced by withholding 15 percent of fees from physicians to create a risk pool managed by the Mesa County Physicians Independent Practice Association. When a physician’s costs were kept low, the physician received the withheld fees at the end of the year, which provided an incentive for cost containment.

To better control resources per case, the Grand Junction primary care physicians gathered data on the cost profiles of specialists, and reduced their referrals to those who were high-resource

utilizers. Primary care physicians also led the way toward the regionalization of services: For example, there is only one tertiary care hospital in Grand Junction and the surrounding area (many communities have two or more tertiary care hospitals), and this hospital is fed by several secondary hospitals. Primary care physicians in Grand Junction also support “robust” (and lower-cost) end-of-life care, with an emphasis on hospice services rather than inpatient hospital care.

The results were impressive: Grand Junction saw a reduction in high-cost surgical interventions (with CABG and inpatient coronary angiography rates dropping to 60 and 55 percent of the Medicare national average, respectively), and a decrease in inpatient days during the last two years of life to 61 percent of the national average (with hospice days rising to 174 percent above the national average and deaths in hospitals declining to half the national average).

To assess the options and make the needed trade-offs to achieve these types of results requires an

understanding of the relevant costs under alternative scenarios. Changing the way resources are used to treat a case without understanding the relevant cost implications of doing so is the clinical equivalent of flying blind.^b

Cost per resource unit. The distinction between resources per case and the cost of a resource unit is important. For example, the number of complete blood counts (CBCs) ordered for a patient during an inpatient stay is a measure of the resources used to treat a case. However, the cost of performing a blood analysis is a separate matter. Few hospitals have engaged in the activities needed to understand the cost of providing such physician-ordered resources as laboratory tests, radiology procedures, and other “intermediate products.”

b. Knowing the relevant cost implications does not mean reducing resources per case without a consideration of the clinical consequences. For a discussion of some of the related issues, see Neumann, P.J., and Chambers, J.D., “Medicare’s Enduring Struggle to Define ‘Reasonable and Necessary’ Care,” *The New England Journal of Medicine*, Oct. 31, 2012.

REDUCING RESOURCE USE WITHOUT AFFECTING QUALITY OF CARE

Treatment patterns for a 48-year-old smoker presenting in the emergency department with atypical chest pain and family history of heart disease with a normal echocardiogram (EKG).

Current Pattern	Optional Pattern
Admit to Telemetry Average Length of Stay (ALOS) = 2.2 days \$2,800	Admit to Observation Unit ALOS = 23 hours \$1,000
Daily EKG × 3 \$225	EKG × 2 \$225
Enzymes and Full Bloods \$175	Enzymes and Limited Bloods \$175
Cardiology Consult \$150	Cardiology Consult \$150
EKG \$350	EKG \$350
Thallium Stress Test \$450	Non-Thallium Stress Test \$450
Total Cost \$4,150	Total Cost \$2,350

At an incidence rate of 5/1,000, the purchaser would save \$3.5 million annually.

Source: Robert Galvin, MD.

Even without having good cost information, any hospital manager knows that cost reductions can take place with an increase in efficiency, or with a decrease in hourly wage rates or unit supply costs (such as a shift from name-brand to generic drugs). However, computing the cost implications of these decisions can be tricky.

To make accurate unit cost computations, hospitals need to adopt the technique of activity-based costing (ABC). The use of ABC is not widespread in health care, but it is becoming increasingly prevalent.^c Unfortunately, many users of ABC in healthcare organizations do not fully understand the kinds of problems it was designed to solve, nor do they understand the importance of using “multiple second-stage cost drivers.”

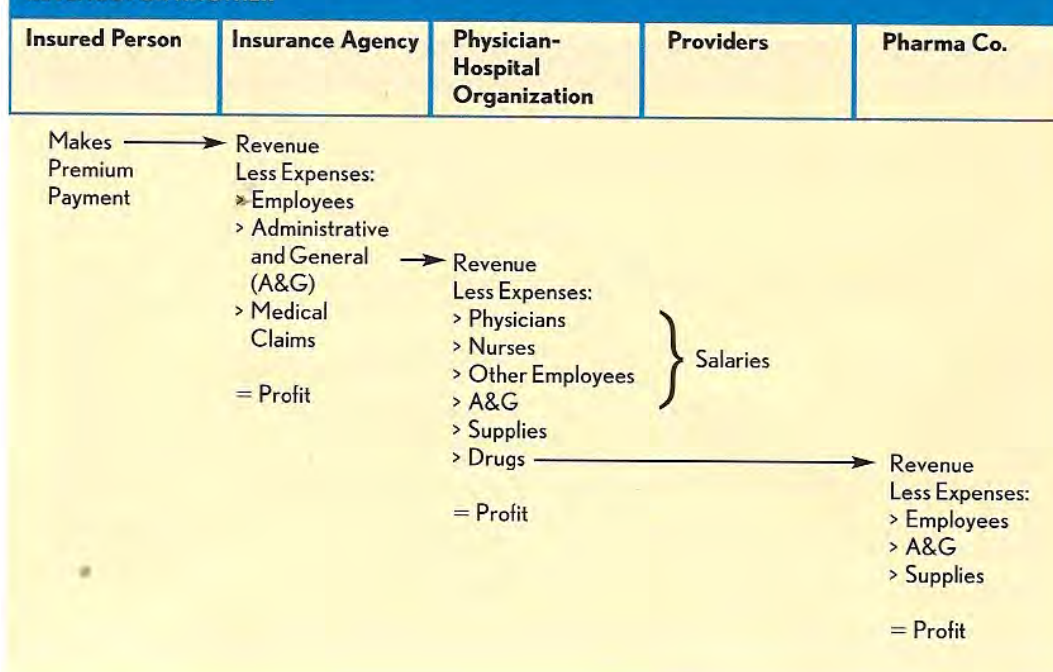
Nonetheless, to make informed decisions

c. For a discussion of how ABC can be used in a healthcare setting, see Pandey, S., “Applying the ABCs in Provider Organizations,” *hfm*, November 2012.

regarding ways to reduce the cost per resource unit, a hospital’s financial managers must implement ABC quickly.

Fixed costs. Most healthcare organizations incur significant fixed costs. For example, depreciation of physical plants and equipment can represent a large percentage of a hospital’s annual operating budget. Indeed, because the healthcare sector is characterized by a high rate of technological change, many hospitals (as well as other provider organizations) are likely to experience continuous growth in their annual depreciation expense. To avoid the resulting fiscal difficulties, senior managers and physician leaders need to make judicious choices regarding the acquisition of new technology. In Grand Junction, the idea of having one tertiary care hospital fed by several secondary hospitals was one way to curtail the growth of new technology while continuing to ensure that patients had access to needed

THE HEALTHCARE FOOD CHAIN: HOW EXPENSES FOR ONE ENTITY REPRESENT REVENUE FOR ANOTHER



resources. However, few hospitals have shown a willingness to bite the “technology-sharing bullet.”

Full-time employees whose daily activities are largely unrelated to the volume of care provided also constitute fixed costs. Unless there is a significant change in a hospital’s average occupancy, the salaries of people such as admitting clerks, schedulers, housekeepers, dieticians, laundry staff, and department administrators will remain largely unchanged over the course of a year. By the same token, if a hospital’s average occupancy declines, the hospital will need to make some difficult choices regarding staffing patterns.

The Healthcare Food Chain

These difficult choices emerge, in part, because a reduction in one entity’s costs in a healthcare system is accompanied by an equivalent reduction in another entity’s revenue. As a result, implementing cost reduction efforts can become complicated.

For example, consider the scenario shown in the exhibit on page 61. The cost reductions shown in this exhibit are for the payer, not the hospital. That is, the payer (be it Medicare, a managed care organization, or some other insurer) pays less as a result of this change in resources per case. As a result, the hospital receives less revenue. If the hospital does not find ways to decrease its costs, its operating margin will decline.

The nature of this healthcare “food chain” is shown in the exhibit on page 62. As it indicates, at each step along the way, the expense for one entity represents revenue for another. Unless physicians and hospital managers have a good understanding of their costs—and unless they design good systems to control their costs—they will be at the mercy of entities higher up in the food chain. And of course, the same principle applies to those entities (such as pharmaceutical

firms) to which hospitals or physician group practices make payments.

In this respect, it is important to note that many of the “entities” to which hospitals make payments are employees. It should be noted that in a hospital or physician-hospital organization—where many costs are in the form of salaries and wages—cost reductions will inevitably require a “resizing” of the work force.

There are some early indications of the ways that costs will be affected under the ACA. The following efforts are expected to emerge over the next few years, most of which will attempt to reduce resources per case:^d

- > A focus on providing more coordinated care for patients with chronic conditions
- > An increase in the use of electronic medical records to help physicians choose the right tests and treatments
- > A reform of the healthcare system’s infrastructure that will “enhance horizontal coordination among providers and provide more constant monitoring of patients”
- > An imposition of penalties for hospitals with high risk-adjusted readmission rates, to address the fact that 20 percent of Medicare patients are readmitted within 30 days after discharge
- > A provision of incentives for hospitals to adopt practices that reduce rates of hospital-acquired conditions, via penalties for hospitals with high rates
- > Use of “bundled” payments to provide physicians and hospitals with incentives to coordinate care for patients with chronic illnesses
- > Evaluation and testing of new programs that enhance quality and reduce cost

d. Orszag, P.R., and Emanuel, E.J., “Health Reform and Cost Control,” *The New England Journal of Medicine*, Aug. 30, 2010.

All of the above measures—but especially the last two—will require an understanding of a hospital's costs and an ability to address the cost implications of alternative approaches to care delivery. These measures also will require an understanding of when to use full cost accounting and when to use differential cost accounting. And they will require hospitals and other provider entities to have much more sophisticated cost control systems than many now have.

Moreover, if the decline in Part A (hospital payments) of the Medicare Trust Fund balance is to be reversed in accordance with the estimates made after passage of the ACA—that is (to use the current jargon), if “the cost curve is going to bend”—something's gotta give!^e To know what that *something* is, and to make sure that it “gives” in the right places, health policy analysts, hospital administrators, group practice managers, and physician leaders must have a good understanding of their costs and an ability to control them.

The “handwriting on the wall” was revealed in a recent study of variations in 2009 Medicare spending among 35 hospitals for a 90-day episode of congestive heart failure (Mechanic, R., and Tompkins, C., “Lessons Learned Preparing for Medicare Bundled Payments,” *The New England Journal of Medicine*, Nov. 15, 2012). The results showed a wide variation among the studied hospitals. If Medicare were to draw the payment line at some reasonable level, and were to bundle the price (as it likely will do), a significant proportion of the hospitals (and their attending physicians) in the study would have their payments reduced, with a corresponding need to

reduce their costs. (An exhibit illustrating the data in the study is available online at hfma.org/hfm.)

Cost Control Is Everyone's Business

Controlling costs in hospitals and health systems requires the involvement of managers at all levels in the organization. Healthcare accounting professionals can be helpful in establishing transfer prices, designing a budget formulation process that relies on the five cost drivers discussed here, and preparing analyses of variances from the budget using these same cost drivers. However, both senior managers and line managers throughout the organization need to be solidly behind—and deeply involved in—the organization's cost-control efforts.

Perhaps less obviously, physician leaders also must be heavily engaged in cost control, as they are the only ones who can both establish clinical pathways (resources per case) and monitor their colleagues' use of them. Indeed, without a collaborative effort among physician leaders, senior and middle managers, and the accounting staff, a provider entity may find itself being mercilessly devoured by those entities higher up in its food chain. ●

About the author



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e. For details on how the cost curve will “bend,” see DGA Partners' analysis of the Kaiser Family Foundation's *Medicare Chartbook*. An exhibit that illustrates the estimated changes is available online at hfma.org/hfm.