

From the Editor

- Rewarding Ethical Medicine** 563
Allison R. Bond

Educating for Professionalism

Ethics Cases

- How Do We Reward the Kind of Care We Want?** 565
Commentary by Shivan J. Mehta and David A. Asch
- Pay for Performance: What We Measure Matters** 570
Commentary by Laura A. Petersen
- Ethical Concierge Medicine?** 576
Commentary by William Martinez and Thomas H. Gallagher

The Code Says

- The AMA Code of Medical Ethics' Opinions on Financial Incentives and Conflicts under Various Models of Payment for Care** 581

Journal Discussion

- Testing the Incentive Power of Pay for Performance** 587
Ali Irshad, Matthew Janko, and Jacob M. Koshy
- Supply-Sensitive Variations in Care** 592
Anita Arora and Alicia L. True

State of the Art and Science

- Coding Patient Information, Reimbursement for Care, and the ICD Transition** 596
Christopher G. Chute
- Geisinger: An Insider's View** 600
Greg F. Burke

Law, Policy, and Society

Health Law

- State Implementation of the Affordable Care Act** 603
Alexander H. Sommer

Policy Forum

- Will the Medicare Value Modifier Get Us Closer to Rewarding Quality Care?** 606
Allan H. Goroll

History, Art, and Narrative

Medical Narrative

- A Story of Three Generations in Health Care** 611
Daniel B. Shulkin, Mark W. Shulkin, and David J. Shulkin

Op-Ed and Correspondence

Op-Ed

- Educational Debt and Specialty Choice** 615
Albert L. Hsu and Kelly J. Caverzagie

Resources

- Suggested Readings and Resources** 620

- About the Contributors** 629

Upcoming Issues of *Virtual Mentor*

- August: Ethics in Cancer Prevention and Care
September: Motherhood and Medicine
October: Mental Health and the Law
November: Patient Consumerism

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FROM THE EDITOR Rewarding Ethical Medicine

Physicians are motivated by many things, including the desire to improve the health and well-being of others and an insatiable curiosity about how the human body works in health and illness. But as much as it may pain us to admit it, more pragmatic considerations often factor into the equation—namely, money. It is human nature to be motivated by rewards—financial and otherwise—and health care reform raises myriad questions about which rewards and incentives motivate physicians effectively. Even more difficult to answer is exactly which behaviors and practices should be rewarded. What constitutes “value” in medical care? What are the constituents of quality in patient care? The July issue of *Virtual Mentor* examines the ethics of physician incentives and the struggle to reform health care delivery in the U.S. in a way that aligns incentives with the goals of medicine.

Ideally, we want to deploy incentives that motivate physicians to practice medicine that serves patients best. As Alexander H. Sommer explains in his health law piece, one of the provisions of the Affordable Care Act requires states to pay 100 percent of the federal Medicaid reimbursement rate for primary care visits—as much as a 35 percent increase for some states—to make sure that low payment rates do not discourage doctors from seeing patients on Medicaid. This policy incentive seems to align with patient care goals.

Too often in our current system, Anita Arora, MD, and Alicia L. True explain, the amount and intensity of care delivered correlates more closely with the number of beds or doctors available than with the degree of care needed or preferred by patients. So how can reimbursement systems best guide doctors to provide necessary and beneficial, but not excessive, care? That question is explored by Shivan J. Mehta, MD, MBA, and David A. Asch, MD, MBA in response to a clinical case scenario. Greg F. Burke, MD, gives one possible answer in his reflection on the success of Geisinger Health System, known for its tight-knit culture, performance-based compensation system, and such innovations as “warrantees” on outcomes affected by preventable complications. Laura A. Peterson, MD, adds that a key component of an effective performance measurement is not only the service or outcome measured, but the method of measurement.

One example of a reimbursement model that has not produced desired results is the Resource-Based Relative-Value Scale, or RBRVS, which provides incentives for performing procedures but not for face-to-face time with patients. As Allan H. Goroll, MD, writes, the consequences of implementing the RBRVS range from skyrocketing cost of health care to a shortage of primary care physicians. Why blame

RBRVS for a shortage of primary care doctors? Most doctors enter practice with more than \$100,000 in loan debt from medical school. Albert Hsu, MD, and Kelly Caverzagie, MD, tell us that this debt factors into a young physician's choice of specialty, and even a young person's desire to opt for or against a career in health care, as Daniel B. Shulkin, Mark W. Shulkin, MD, and David J. Shulkin, MD, reflect.

Even the codification of diagnoses and procedures, as in the ICD-9 and ICD-10 coding systems, encourages and rewards certain behaviors. When such systems are used for reimbursement, they create incentives that interfere with the longstanding primary use of clinical records—namely, patient care—and can come at great financial cost, says Christopher G. Chute, MD, DrPH. The so-called “red tape” that increasing paperwork and documentation (including coding) brings can drive a physician into concierge medicine in an effort to get back to simply caring for patients. William Martinez, MD, MS, and Thomas H. Gallagher, MD, discuss this temptation in their commentary on a case scenario.

The journal discussion piece by Ali Irshad, MD, Matthew Janko, and Jacob M. Koshy takes us through one retrospective study of 6 million patients that found that key outcomes were similar in hospitals where financial incentives were offered and hospitals where they were not, suggesting that financial incentives alone may not be the answer to ensuring benefit to patients.

That is the good news and the bad news—rewarding quality and value in health care is not a simple matter of dangling a financial carrot in front of physicians. It will require investigation into what boosts physician professional satisfaction and facilitates optimal patient care, and then implementing the fruits of that research to establish an environment in which both can thrive.

Allison R. Bond, MA
MS-3
Boston University School of Medicine
Boston, Massachusetts

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ETHICS CASE

How Do We Reward the Kind of Care We Want?

Commentary by Shivan J. Mehta, MD, MBA, and David A. Asch, MD, MBA

A quorum of physicians from the large, multispecialty King Practice Group have gotten together to consider a plan for changing the way they are paid. Members of the practice have been talking for months about reengineering the group's physician reimbursement method, moving towards one in which pay for specialty procedures and primary care clinical work is more equal. In prior discussions, group members had acknowledged that practices with fee-for-service payment and large disparities in charges by various specialists would be coming under scrutiny from Medicare and private insurers.

At this meeting, a task force selected by group members several months prior introduces a proposed plan that would address the significant income differences among the various specialties in the practice—from general internists who see fewer patients per day to those who are very specialized, see more patients in the course of the day, and do more procedures. In the end, the goal is to reward the value of care delivered rather than volume of care delivered.

Dr. Kellman, the group's president and task force chair, explained that, under the proposed plan, reimbursement for family practitioners in the group, who spend, on average, 50 hours a week providing health care maintenance and illness prevention along with general acute care and chronic illness management, would no longer be paid significantly less than that of a cardiologist or otolaryngologist who worked the same number of hours.

Making the plan fiscally sound called for some "leveling" of the pay. In other words, all practice members would not receive what the highest paid specialist had been receiving. The plan details were complicated, and a supermajority of the physicians would have to approve them in the end, but the pay for some specialists would come down as the pay scale for some primary care practice members rose.

While most of the practice members had agreed to the need for some sort of pay scale adjusting, some specialist practice members objected to the proposed plan when they heard it. "Don't those extra years and expertise acquired in a fellowship make some services more valuable?" a cardiologist asks. Other members grumbled to themselves that maybe they would take their skills elsewhere, where they would be appreciated and rewarded.

Commentary

The past several decades have seen many attempts to reform and update the physician payment system, but no “solution” has emerged, and every attempt has brought its own problems. This case highlights these ongoing issues, as it pits physicians against each other into factions competing for the same revenue. Recent interest in accountable care organizations brings these conflicts to the foreground, but the underlying tensions are not new.

We would argue that these problems are no different than those faced by any other organization that must allocate compensation for team activities, whether it is a not-for-profit organization or a for-profit partnership. They result from the incentives of the medical payment structure, which influence how physicians make decisions within organizations. Because payment structures so fundamentally determine the delivery of health care, an understanding of the history of medical payments in the United States, unintended consequences of the current system, and alternate payment systems is essential to evaluate issues of fairness and social welfare.

Medical Payments in the U.S.

In the U.S., specialty choice largely determines income: specialists who provide more procedure-oriented care get paid much more than generalists [1]. Popular opinion and the opinion of generalists argue that these disparities in income ought to be redressed, and over time there have been efforts to narrow these differences in income. For example, the Resource-Based Relative Value Scale, instituted by Medicare in 1992, assigned relative value units (RVUs) for each service provided, based on a formula of physician work, practice costs, and the cost of specialty training. This effort reflected an attempt to standardize Medicare payments to physicians [2], and many other payers followed Medicare’s lead. Despite this attempt at standardization, however, income disparities between specialists and generalists have persisted for a variety of reasons, including increasing volume of procedures and weaknesses and political pressures within the Relative Value Scale update process that continue to favor the status quo [3]. The result is a system no more equitable than those of the past.

But this time, the goals and stakes are different. What is now being asked for is not payment based on resources used, which is fundamentally the structure of the Resource-Based Relative Value Scale. Instead what we want is payment based on what outcomes are produced—a concept of value-based pricing that is substantially more consistent with a patient-centered view of health care. The trouble is that, as hard as it is to compare the effort involved in a cardiac catheterization to the effort and time involved in developing a comprehensive plan of care with a new patient, it is still easier to compare these inputs than to compare their ultimate value. Procedures are time-bound and have steps that are quantifiable and part of the activity each time it is performed. Care, on the other hand, is ongoing, less quantifiable, and can take many forms. Pricing inputs is easier than pricing value, but in the end pricing inputs rewards the volume of effort over the value of outcome, when it is the outcome we value most. And if our pay scales make it more attractive

for graduating medical students to enter well-remunerated rather than needed fields, we should not be surprised when we find we don't have enough physicians for the care we want.

The tension boils down to this: some kinds of care produce attractive financial margins. Doctors and hospitals make money doing these services, and so they will do a lot of them. Some kinds of care produce good outcomes for patients. These are the kinds of services we want done more. In the U.S., the kinds of care that produce high margins are not necessarily the same as the kinds of care that produce high value. Our reimbursement system does not create incentives for what we want, and it won't until the margins reflect the social value.

Is There a Better Way?

We know that any payment system will have unintended consequences. Fee-for-service, capitation, and salary all have their advantages and disadvantages, and none of them provides accountability for the outcomes patients care about. There is reason for optimism because accountability for quality is advanced by increased use of electronic medical records. More robust information systems bring greater opportunity to measure quality and outcomes and therefore greater opportunity to deploy payments to align incentives with those goals. Indeed, one reason that payment systems have so far not rewarded quality is that the measurement of (and hence payment for) performance has only recently come within reach. But quality-based payment or outcome-based payment does not yet seem within reach.

Outcome-based payment aligns payments more closely with what patients want, which is better health rather than more health care [4]. But, despite their appeal, these approaches remain challenging to implement in the overall population [5]. There are so many clinicians and clinical situations that it would be difficult to fairly measure quality for all specialties in a meaningful way. The Medicare Value Based Purchasing initiative takes a step in this direction by attempting to reward physicians when they meet certain standards for high-quality care. However, expected changes in payments may not be big enough to impact care delivery [6]. These approaches also carry the same concerns of "teaching to the test"—whereby the elements of care that are rewarded are performed to the exclusion of elements of care that, while also important, are not rewarded. And to date there is limited evidence of improvement in quality of care—evidence that is essential for moving forward. But while that evidence is gathered, these approaches offer conceptual appeal.

So, how should the King Practice Group reevaluate clinician payments? Just thinking about this is a step in the right direction, since any well-functioning organization should continually reevaluate how its implicit and explicit incentives affect its functioning and goals. But the practice faces a challenge: not only is this multispecialty group a microcosm of the broader world of physician reimbursement and all the challenges of that world, but it is situated in that world and affected by it.

They can redistribute practice income any way they want, so long as they are inclusive and considerate in their deliberations. And so they may decide to take some of the money derived from the higher fees that currently go to the orthopedists and redirect that money to the general pediatricians. Or maybe they will not pay physicians as much for services that provide low value to patients (some spine surgery performed by those orthopedists) even though they are highly reimbursed by payers, and will instead pay more to pediatricians or nurses for counseling on childhood obesity.

Of course physicians care about more than just money—they want to take good care of their patients and be contributing members of their community. But they also care about money, and physicians can take good care of patients and be contributing members of their community in practices other than King Practice Group. So, to the extent that redistributing income in a practice is a zero-sum game, the practice may have a hard time retaining those highly paid specialists if their internal redistributions redirect too much of the income the external market provides. It is hard to distribute money internally one way when the external world distributes it a different way. In all industries, it is hard to fight the market.

Does that mean that individual practices have no responsibility for their payment structures? Certainly not. Just as two wrongs don't make a right, so it is that practices have a responsibility to ensure that their internal financing—or any of the elements of their internal operations—don't get in the way of important goals. But we should recognize that their leverage is limited by external market forces that they cannot individually control.

So, what is to be done? The real targets are external and require broader action. It is pointless to sustain a financing system that rewards volume, and only certain kinds of volume at that, rather than one that rewards good clinical value and health. While we wait for that external system to change, perhaps King Practice Group can adopt an “all-of-the-above” approach. Since the current payment system is, at its core, fee-for-service, this element is hard to overcome. However, the practice can consider aligning patient care goals with physician incentives at the margins. They could provide some incentives for patient activity that may not result in direct reimbursement, such as coordination in care, phone calls, or virtual visits. They could provide additional payment for administrative or quality improvement activity. They could reward panel management that privileges the number of different patients who receive quality care, rather than just the number of patient encounters.

We all know the saying “you get what you pay for.” In most settings, it is meant to suggest that if you pay too little, you don't get enough. In health care the saying works equally well in both directions. We get lots of what we pay for in health care, and not enough of what we don't pay for. Given that reality, it is time for us to pay for what we actually want.

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Shivan J. Mehta, MD, MBA, is an instructor of medicine in gastroenterology at the Perelman School of Medicine and director of operations at the Penn Medicine Center for Health Care Innovation at the University of Pennsylvania in Philadelphia. His interests include health system improvement and behavioral economics.

David A. Asch, MD, MBA, is a professor of medicine and health care management at the Perelman School of Medicine and the Wharton School and executive director of the Penn Medicine Center for Health Care Innovation at the University of Pennsylvania, as well as a physician at the VA Center for Health Equity Research and Promotion in Philadelphia.

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ETHICS CASE

Pay for Performance: What We Measure Matters

Commentary by Laura A. Petersen, MD, MPH

Mr. Ozonoff arrived at Dr. Mehta's office for his annual checkup. His blood pressure had been in the normal range until a few months ago, when it had started to creep up, according to the blood pressure machine he sometimes used outside his workplace cafeteria. At Dr. Mehta's office, it registered 145/90—just into the hypertensive range.

Dr. Mehta wanted to get Mr. Ozonoff's blood pressure back into the normal range and thought the goal could be achieved by changes in his eating and exercising habits. At the same time she recognized that her practice received a financial bonus every quarter from several of the health plans they contracted with when a certain percentage of the patient panel maintained blood pressures within the normal range, and medication was the surest and simplest way to accomplish the goal quickly.

Because Mr. Ozonoff's blood pressure was only slightly above the 140/90 cutoff for hypertension, Dr. Mehta began to discuss lifestyle changes—such as regular exercise and eating a healthier, lower-salt diet— with him, changes that would help not only with his blood pressure but with other health problems; his weight, for example, had been edging upward over the past few years.

Mr. Ozonoff seemed uninterested in Dr. Mehta's suggestions that he alter his lifestyle in any way. "I'm too busy right now to change anything," he said. "But I know I can't continue with my blood pressure going up and up. Just write me a prescription and we'll see how that works."

Writing a prescription is a quick fix that'll leave him dependent on medication and not change his poor eating habits for the better, Dr. Mehta reasoned to herself. Moreover, she thought, does having a certain percentage of blood pressures under 140/90 really indicate that we're doing a good job clinically?

Commentary

There is a growing realization that financial incentives are powerful influences on the amount and type of health care provided to patients. The fee-for-service payment model is associated with greater use of (well-reimbursed) services, which does not necessarily entail any attention to their indications or quality [1]. Capitated and salary payments are associated with use of fewer expensive services and therefore poorer access to those that are needed. Such observations about the relationship between financing methods and use of services have influenced approaches to the

financing of health care under the Affordable Care Act (ACA). The provisions of the ACA seek to make health care more affordable for patients, control rising health care costs, and ensure high-quality care. Value-based payment systems, such as those being advocated by the Centers for Medicare and Medicaid Services (CMS) and other payers, are intended to align incentives with high-quality health care [2]. As one example, the New York City Health and Hospitals Corporation, the nation's largest public health system, recently announced a performance-based pay plan for physicians [3].

Despite the face validity of pay-for-performance programs, evaluations of their effectiveness have shown contradictory results [4-6]. Furthermore, many questions have been raised about how they should be implemented. In particular, the way that the quality of care is measured can have profound influences upon how hospitals and clinicians are ranked, rated, and rewarded.

How We Measure

In general, many of the “first-generation” performance measures, such as the Healthcare Effectiveness Data and Information Set (HEDIS) [7], do not necessarily account for the complexity of patients' conditions. So a single patient with multiple chronic diseases may be part of the denominator for a number of performance metrics (e.g., proportions of patients screened for colorectal cancer; proportion of patients receiving aspirin after acute myocardial infarction), with no consideration given to the relative benefit or relevance of those treatments to the specific patient. For example, risk factor control for a particular patient who is at risk for cardiovascular disease might be more urgent during a specific primary care visit than colorectal cancer screening. Yet, the patient is in the denominator when the percentage of patients who receive colorectal cancer screening is calculated.

Also, HEDIS-type measures incorporate only a “cross-sectional” approach; there is a yes-or-no answer to the question of whether a certain threshold is met or not. This approach does not account for patient preferences about trying lifestyle modifications, or even for patient visits following a lapse in medication adherence and when the patient merely returns for a repeat measurement. Measures that incorporate a follow-up assessment period would capture the results of treatment intensification (i.e., addition or dose titration of a medication) as well as the results of longitudinal chronic disease care [8-11].

What We Measure

What is measured also has a significant effect on how performance is rated. Process measures, such as ordering a test or providing tobacco cessation counseling, can be easily achieved in only a single encounter. Conversely, intermediate outcome measures (e.g., blood pressure or glucose control) may require many visits involving several medication adjustments and counseling regarding lifestyle modifications [8, 9, 12]. We have shown that diabetic patients with life-limiting chronic conditions are less likely to have standard “good” outcomes despite frequent monitoring [13]. For such patients, comfort control should take precedence over glucose control or retinal

screening. However, patients with life-limiting conditions are rarely excluded from the denominator when glucose control and retinal screening are assessed [13]. Few measures, if any, reflect patient preferences or inform clinicians specifically about how they might improve their care.

Given these methodological problem, physician skepticism about the motivation for and accuracy of performance measurement programs is understandable [14, 15]. While physicians overwhelmingly believe that financial incentives should be given for high-quality care, fewer than one-third think that current performance measures are accurate, and only slightly more endorsed the statement that those responsible for designing quality measures will work to ensure their accuracy [16]. Those who are being profiled expect rigorous statistical methods and approaches for performance measurement that are reproducible and robust. Failure to design methodologically rigorous performance measurement programs may limit physician buy-in and hinder quality improvement.

Poorly designed measures may lead to unintended consequences, including erroneously identifying physicians as poor performers and the even more concerning possibility that physicians may avoid seriously ill patients to prevent negative impacts on their individual or hospital ratings. Professionalism is what keeps physicians from weighing their personal and practice financial welfare ahead of that of their patients, and these programs must be designed so that they do not overwhelm professionalism.

Why might financial incentives work to improve guideline adherence, above and beyond other interventions such as computerized reminders or audit and feedback? Of course, there are myriad reasons, including professionalism and intrinsic motivation, for physicians to do a good job. But financial incentives for individual effort and task performance might amplify the effects of educational interventions and performance feedback reports. According to Bandura's self-efficacy theory, incentives work by piquing an individual's interest in a task, leading to greater effort at performing the task and ultimately to an increased sense of self-efficacy [17]. The goal of the incentive is to ignite motivation rather than to coerce or to overcome professionalism.

This case illustrates some of the pitfalls of performance measures and pay-for-performance programs. In this hypothetical case, the practice is rewarded for the proportion of patients who have achieved an arbitrarily bounded threshold blood pressure goal. As clinicians, we know that there are multiple reasons that patients do not achieve a given blood pressure threshold, many having little to do with the clinician and more to do with the patient's adherence or preferences and medication efficacy, side effects, affordability, and so on. Therefore, the best measures of quality of care should reward clinicians for "doing the right thing," regardless of whether the patient meets a particular blood pressure goal.

As in this case, despite the best intentions of the clinician, the patient does not wish to pursue weight loss and lifestyle modifications. Ideally, there should be a way to reward the doctor for having the discussion and educating the patient about lifestyle modifications and then documenting that the care provided followed patient preferences. But it appears that Dr. Mehta feels she is left with a choice between prescribing medication or the practice's forgoing the reward. The case raises the issue of whether the physicians in this practice can put the patient's well-being ahead of personal or practice group financial implications of treatment decisions, suggesting that a different performance metric and reward system are needed to properly align incentives.

Ratings of the quality of care at the hospital level (e.g., Hospital Compare, *Consumer Reports*, and others), at the practice group level (by health plans such as UnitedHealth and others), and at the level of individual clinicians (on websites such as Angie's List) are becoming ubiquitous. And changes in the way that clinicians are rated and reimbursed are inevitable under the ACA [18]. But as in anything else, what we measure matters. The challenge is to create measures and performance pay plans that enhance quality, support professionalism, and align incentives to promote delivery of high-quality care. Involving physicians in the design and execution of these programs may help achieve these goals.

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Laura A. Petersen, MD, MPH, is a professor of medicine at Baylor College of Medicine and director of the Health Services Research and Development Center of Excellence at the Michael E. DeBakey VA Medical Center and Baylor College of Medicine in Houston, Texas. Dr. Petersen’s research interests focus on assessing the effects of health care policy and organization on the quality and safety of health care.

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ETHICS CASE

Ethical Concierge Medicine?

Commentary by William Martinez, MD, MS, and Thomas H. Gallagher, MD

Dr. Lamb opened her e-mail inbox on Monday to find a message from her group practice manager—the third one that month—explaining more upcoming changes in how to code for what government and private insurers call E&M (evaluation and management services). The physician groaned and rolled her eyes. As members of a medium-sized group (40 members) that cared for many patients on Medicare, Dr. Lamb and her colleagues had been notified that the Affordable Care Act required them to phase in a value-based payment modifier (VPM) starting in 2015. The details of VPM and the measurement data participating groups had to provide if they did not want to accept an automatic reduction in payments seemed overwhelming to many group members whose primary goal was patient care.

Before the VPM reporting business started, it had been a new electronic records system. The original electronic records system the practice acquired just a few years before did not talk properly to other systems or report certain performance measures, and now Dr. Lamb and others had to learn the new system, apologizing to each patient as they searched for the right boxes and codes on the screen.

Then there was the upcoming switch from the current ICD-9 diagnosis coding system to the ICD-10 coding system, the latter containing 68,000 codes—a fivefold increase from the current number. In addition to these government requirements, physicians had the usual insurance filing to keep up with.

Dr. Lamb knocked on the office door of her co-worker, Dr. Tau, a pediatrician.

“Did you get the latest e-mail about the value-based payment modifier?” she asked.

“Sure did,” Dr. Tau answered with a groan. “You know, for the first time, I’m thinking about ‘going off the grid’ and starting my own concierge practice just to escape all of this paperwork. Sure, my patients will have to pay me directly, but instead of spending my time trying to understand the next government scheme and filling out forms, I’ll be able to spend my time helping them—which is why I went into medicine in the first place.”

Back in her office, Dr. Lamb thought about what Dr. Tau had said. She’d never even considered concierge medicine and knew that many, probably most, of her patients couldn’t afford it. Still, the idea of getting back to simply and purely practicing medicine was tantalizing.

Commentary

Frustrated by excessive paperwork, large patient loads, short visits, and diminished income, some primary care physicians have limited their involvement with traditional health insurance plans and embraced a less conventional model of medical practice known as “concierge medicine” or “retainer medicine.” These medical practices generally limit their physicians to somewhere between 300 to 800 patients, rather than the 2,000-plus panel sizes typical of traditional primary care physicians, and charge participating patients an upfront annual fee varying from less than \$1,000 to more than \$5,000 [1-4]. In exchange, these practices often offer some combination of unhurried office visits, same-day appointments, comprehensive physical exams and screening, house calls, 24-hour physician access, and streamlined (sometimes accompanied) visits to subspecialists [1-4].

At first blush, this arrangement appears to benefit both doctors and patients. After all, who would object to longer visits, improved access, and enhanced coordination of care? And many physicians would certainly welcome less stress and better pay. Providing increased comforts and conveniences at a price is a widely accepted business practice and not typically a cause for concern. Before making her decision to pursue retainer medicine, however, Dr. Lamb should carefully consider the advantages of retainer medicine alongside an important set of ethical concerns raised by the unique fiduciary nature of medical practice. Through thoughtful ethical deliberation, Dr. Lamb can make a decision that best serves her, her patients, and her profession.

Medicine is a profession characterized by fiduciary duties that do not apply to ordinary business practices. A fiduciary relationship acknowledges the imbalance of power between physicians and patients, given the specialized knowledge that physicians possess and the vulnerability associated with being sick. Therefore, unlike commercial interactions in which both parties are expected to act in their own interests, physicians are expected to put patients’ interests above their own. Some have extended this fiduciary responsibility beyond a duty to act in the best interests of individual patients to an obligation to all patients or the public as a whole [5]. In this view, the public grants the profession special status and privileges, and, in return, the medical profession is expected to have the advancement of health for all members of society as its primary goal and to adhere to strict ethical standards. This altruistic ideal is, of course, not without limits. Historically, physician altruism has been balanced with the needs and desires of physicians and the commercial dimensions of health care. Physicians have also been acknowledged to have discretion to choose which patients they care for, within limits. Thus, Dr. Lamb must consider how to balance these competing interests when considering a retainer medical practice.

Let us consider what may happen to her current patients if Dr. Lamb switches to a retainer practice. Here data is limited. In one survey of retainer practices, Alexander et al. found physicians who made the transition to a retainer practice maintained only 12 percent of their former patients [1]. Thus, Dr. Lamb’s transition practice may

result in discontinuity for the majority of her patients, who will have to find new physicians to care for them. The decreased panel size of retainer physicians must be compensated for by other physicians who may already be overburdened, given current shortages in the primary care workforce.

Proponents of retainer medicine might argue that discontinuity and increased demands on colleagues also occur when physicians move or decide to work fewer hours and that this is generally not considered ethically problematic [2]. True, but it is important to note that the discontinuity and burdens caused by the transition to retainer medicine do not affect all patients equally. Instead, patients who are unwilling or unable to pay an additional fee for extra services that are not associated with improved health outcomes are disproportionately affected. In the context of physicians' fiduciary responsibilities, limiting patients' access to necessary medical care because of their unwillingness or inability to pay for "extra services" is concerning. Retainer fees also differ from charges for elective procedures, in which a patient's inability to pay for medically unnecessary services limits their access to those services but not their access to basic medical care from that physician. Alexander et al. also found that physicians in retainer practices care for fewer African American, Hispanic, and Medicaid patients and fewer patients with certain chronic diseases such as diabetes [1]. More research is needed to confirm and better understand these findings.

Proponents of retainer medicine might argue that individual physicians are not responsible for addressing disparities in access to health care and are not ethically required to individually provide any particular amount of care to any particular group [2]. Instead, individual physicians are only considered responsible for providing ethical and competent care in the settings that society provides for such work [2]. However, the profession of medicine *is* ethically required to address problems of health care access and disparities, and how can it do this unless the individual physicians who make up that profession consider this obligation when making practice decisions?

On the other hand, retainer medicine is not without its benefits. Dr. Lamb would most likely experience an increase in her compensation and a less stressful, more streamlined working environment. Her relationships with her patients, while fewer in number, may be more satisfying. Longer visits with patients also have the potential to increase the quantity and quality of preventive and other health maintenance services that Dr. Lamb could provide. A relatively small number of patients, those willing and able to pay the retainer fee until Dr. Lamb's reduced-size panel is full, may experience enhanced service, more convenient access to care, and better care coordination [6].

So how, then, can we balance these competing interests? Attempting to design medical practice models that enhance both patient and clinician experience and improve health outcomes is a laudable goal likely to be shared by all physicians, including the two in this case scenario. Our professional obligations require that

patient considerations remain paramount in these attempts. Ethics exhorts us to consider all reasonable alternatives for achieving a certain end and to choose means that maximize goods and minimize harms.

In this case, Dr. Lamb might consider moving to a primary care practice within an integrated health system. By leveraging technology, physician leadership, and large systems of care, these practices can offer better working conditions for physicians, excellent access to primary and specialty care, and improved health outcomes [7]. Their patients reap some of the benefits of retainer medicine, including timely appointments and e-mail communication with their physicians [7], although they may not necessarily receive longer visits, or home visits.

Alternatively Dr. Lamb might consider how to mitigate the negative effects of a retainer medicine practice. After all, not all retainer practices are created equal. Some charge fairly modest fees (e.g., \$150 per year) to provide slightly longer visits, streamlined scheduling, and modestly reduced panel sizes, while others charge much higher fees for “luxury” services and more severely restricted panel sizes [4]. Some retainer practices waive fees for those who are unable to pay. These differences may have dramatically different implications for access and disparities. Physicians in retainer practices might attempt to address limitations and disparities in access by using retainer fees from some patients to subsidize care for others, by assisting patients displaced by the transition to find new doctors, by advocating and lobbying for just health care policies at a systems or governmental level, and by working in charity clinics [5].

Simply running away from the problems and inefficiencies of our current health care system and into the comforts of “retainer medicine” does little to advance health and well-being for the vast number of patients or address some of medicine’s biggest challenges (e.g., cost and access). These are difficult times for physicians and patients alike. We must be careful not to compromise on our commitments and renew our efforts to find sustainable solutions that support physicians in the advancement of the health and well-being of all patients.

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William Martinez, MD, MS, is a fellow in the Division of General Internal Medicine at Brigham & Women's Hospital (BWH) and Harvard Medical School and in the Division of Medical Ethics at Harvard Medical School in Boston. Dr. Martinez is a primary care physician in the Phyllis Jen Center for Primary Care at BWH. His principal research interests concern ethical and communication issues related to the safety and quality of patient care.

Thomas H. Gallagher, MD, is a professor in the Departments of Medicine and Bioethics and Humanities at the University of Washington in Seattle and a primary care physician in the General Internal Medicine Center at the University of Washington Medical Center-Roosevelt in Seattle. His research interests include the disclosure of adverse events and medical errors to patients, interprofessional communication, and transparency in health care.

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THE CODE SAYS

AMA Code of Medical Ethics' Opinions on Financial Incentives and Conflicts under Various Models of Payment for Care

Opinion 8.051 - Conflicts of Interest under Capitation

The application of capitation to physicians' practices can result in the provision of cost-effective, quality medical care. It is important to note, however, that the potential for conflict exists under such systems. Physicians who contract with health care plans should attempt to minimize these conflicts and to ensure that capitation is applied in a manner consistent with patients' interests.

(1) Physicians have an obligation to evaluate a health plan's capitation payments prior to contracting with that plan to ensure that the quality of patient care is not threatened by inadequate rates of capitation. Physicians should advocate that capitation payments be calculated primarily on the basis of relevant medical factors, available outcomes data, the costs associated with involved providers, and consensus-oriented standards of necessary care. Furthermore, the predictable costs resulting from existing conditions of enrolled patients should be considered when determining the rate of capitation. Different populations of patients have different medical needs and the costs associated with those needs should be reflected in the per-member per-month payment. Physicians should seek agreements with plans that provide sufficient financial resources for all care that is the physician's obligations to deliver and should refuse to sign agreements that fail in this regard.

(2) Physicians must not assume inordinate levels of financial risk and should therefore consider a number of factors when deciding whether or not to sign a provider agreement. The size of the plan and the time period over which the rate is figured should be considered by physicians evaluating a plan as well as in determinations of the per-member per-month payment. The capitation rate for large plans can be calculated more accurately than for smaller plans because of the mitigating influence of probability and the behavior of large systems. Similarly, length of time will influence the predictability of the cost of care. Therefore, physicians should advocate for capitation rates calculated for large plans over an extended period of time.

(3) Stop-loss plans can prevent the potential of catastrophic expenses from influencing physician behavior. Physicians should ensure that such arrangements are finalized prior to signing an agreement to provide services in a health plan.

(4) Physicians must be prepared to discuss with patients any financial arrangements which could impact patient care. Physicians should avoid reimbursement systems

that, if disclosed to patients, could negatively affect the patient-physician relationship.

Issued December 1997 based on the report “The Ethical Implications of Capitation,” adopted June 1997; updated June 2002.

Opinion 8.054 - Financial Incentives and the Practice of Medicine

In order to achieve the necessary goals of patient care and to protect the role of physicians as advocates for individual patients, the following statement is offered for the guidance of physicians:

(1) Although physicians have an obligation to consider the needs of broader patient populations within the context of the patient-physician relationship, their first duty must be to the individual patient. This obligation must override considerations of the reimbursement mechanism or specific financial incentives applied to a physician’s clinical practice.

(2) Physicians, individually or through their representatives, should evaluate the financial incentives associated with participation in a health plan before contracting with that plan. The purpose of the evaluation is to ensure that the quality of patient care is not compromised by unrealistic expectations for utilization or by placing that physician’s payments for care at excessive risk. In the process of making judgments about the ethical propriety of such reimbursement systems, physicians should refer to the following general guidelines:

(a) Monetary incentives may be judged in part on the basis of their size. Large incentives may create conflicts of interest that can in turn compromise clinical objectivity. While an obligation has been established to resolve financial conflicts of interest to the benefit of patients, it is important to recognize that sufficiently large incentives can create an untenable position for physicians,

(b) The proximity of large financial incentives to individual treatment decisions should be limited in order to prevent physicians’ personal financial concerns from creating a conflict with their role as individual patient advocates. When the proximity of incentives cannot be mitigated, as in the case of fee-for-service payments, physicians must behave in accordance with prior Council recommendations limiting the potential for abuse. This includes the Council’s prohibitions on fee-splitting arrangements, the provision of unnecessary services, unreasonable fees, and self-referral. For incentives that can be distanced from clinical decisions, physicians should consider the following factors in order to evaluate the correlation between individual act and monetary reward or penalty:

(i) In general, physicians should favor incentives that are applied across broad physician groups. This dilutes the effect any one physician can have on his or her financial situation through clinical recommendations, thus allowing physicians to provide those services they feel are necessary in each case.

Simultaneously, however, physicians are encouraged by the incentive to practice efficiently.

(ii) The size of the patient pool considered in calculations of incentive payments will affect the proximity of financial motivations to individual treatment decisions. The laws of probability dictate that in large populations of patients, the overall level of utilization remains relatively stable and predictable. Physicians practicing in plans with large numbers of patients in a risk pool therefore have greater freedom to provide the care they feel is necessary based on the likelihood that the needs of other plan patients will balance out decisions to provide extensive care.

(iii) Physicians should advocate for the time period over which incentives are determined to be long enough to accommodate fluctuations in utilization resulting from the random distribution of patients and illnesses. For example, basing incentive payments on an annual analysis of resource utilization is preferable to basing them on monthly review.

(iv) Financial rewards or penalties that are triggered by specific points of utilization may create enormous incentives as a physician's practice approaches the established level. Therefore, physicians should advocate that incentives be calculated on a continuum of utilization rather than a bracketed system with tiers of widely varied bonuses or penalties.

(v) Physicians should ascertain that a stop-loss plan is in place to prevent the costs associated with unusual outliers from significantly impacting the reward or penalty offered to a physician.

(3) Physicians also should advocate for incentives that promote efficient practice, but are not be designed to realize cost savings beyond those attainable through efficiency. As a counterbalance to the focus on utilization reduction, physicians also should advocate for incentives based on quality of care and patient satisfaction.

(4) Patients must be informed of financial incentives that could impact the level or type of care they receive. Although this responsibility should be assumed by the health plan, physicians, individually or through their representatives, must be prepared to discuss with patients any financial arrangements that could impact patient care. Physicians should avoid reimbursement systems that, if disclosed to patients, could negatively affect the patient-physician relationship.

Issued June 1998 based on the report "Financial Incentives and the Practice of Medicine," adopted December 1997; updated June 2002.

Opinion 8.055 - Retainer Practices

Individuals are free to select and supplement insurance for their health care on the basis of what appears to them to be an acceptable tradeoff between quality and cost. Retainer contracts, whereby physicians offer special services and amenities (such as longer visits, guaranteed availability by phone or pager, counseling for healthy lifestyles, and various other customized services) to patients who pay additional fees distinct from the cost of medical care, are consistent with pluralism in the delivery and financing of health care. However, they also raise ethical concerns that warrant careful attention, particularly if retainer practices become so widespread as to threaten access to care.

(1) When entering into a retainer contract, both parties must be clear about the terms of the relationship and must agree to them. Physicians must present the terms of the contract in an honest manner, and must not exert undue pressure on patients to agree to the arrangement. If a physician has knowledge that the patient's health care insurance coverage will be compromised by the retainer contract, the information must be discussed with the patient before reaching an agreement on the terms of the retainer contract. Also, patients must be able to opt out of a retainer contract without undue inconveniences or financial penalties.

(2) Concern for quality of care the patient receives should be the physician's first consideration. However, it is important that a retainer contract not be promoted as a promise for more or better diagnostic and therapeutic services. Physicians must always ensure that medical care is provided only on the basis of scientific evidence, sound medical judgment, relevant professional guidelines, and concern for economic prudence. Physicians who engage in mixed practices, in which some patients have contracted for special services and amenities and others have not, must be particularly diligent to offer the same standard of diagnostic and therapeutic services to both categories of patients. All patients are entitled to courtesy, respect, dignity, responsiveness, and timely attention to their needs.

(3) In accord with medicine's ethical mandate to provide for continuity of care and the ethical imperative that physicians not abandon their patients, physicians converting their traditional practices into retainer practices must facilitate the transfer of their non-participating patients, particularly their sickest and most vulnerable ones, to other physicians. If no other physicians are available to care for non-retainer patients in the local community, the physician may be ethically obligated to continue caring for such patients.

(4) Physicians who enter into retainer contracts will usually receive reimbursement from their patients' health care plans for medical services. Physicians are ethically required to be honest in billing for reimbursement, and must observe relevant laws, rules, and contracts. It is desirable that retainer contracts separate clearly special services and amenities from reimbursable medical services. In the absence of such clarification, identification of reimbursable services should be determined on a case-by-case basis.

(5) Physicians have a professional obligation to provide care to those in need, regardless of ability to pay, particularly to those in need of urgent care. Physicians who engage in retainer practices should seek specific opportunities to fulfill this obligation.

Issued December 2003 based on the report “Retainer Practices,” adopted June 2003.

Opinion 8.056 - Physician Pay-for-Performance Programs

Physician pay-for-performance (PFP) compensation arrangements should be designed to improve health care quality and patient safety by linking remuneration to measures of individual, group, or organizational performance. To uphold their ethical obligations, physicians who are involved with PFP programs must take appropriate measures to promote patients’ well-being.

(1) Physicians who are involved in the design or implementation of PFP programs should advocate for:

- (a) Incentives that are intended to promote health care quality and patient safety, and are not primarily intended to contain costs;
- (b) Program flexibility that allows physicians to accommodate the varying needs of individual patients;
- (c) Adjustment of performance measures by risk and case-mix in order to avoid discouraging the treatment of high-risk individuals and populations;
- (d) processes to make practice guidelines and explanations of their intended purposes and the clinical findings upon which they are based available to participating physicians.

(2) Practicing physicians who participate in PFP programs while providing medical services to patients should:

- (a) Maintain primary responsibility to their patients and provide competent medical care, regardless of financial incentives;
- (b) Support access to care for all people and avoid selectively treating healthier patients for the purpose of bolstering their individual or group performance outcomes;
- (c) Be aware of evidence-based practice guidelines and the findings upon which they are based;
- (d) Always provide care that considers patients’ individual needs and preferences, even if that care conflicts with applicable practice guidelines;

(e) Not participate in PFP programs that incorporate incentives that conflict with physicians' professional values or otherwise compromise physicians' abilities to advocate for the interests of individual patients.

Issued June 2006 based on the report "Physician Pay-for-Performance Programs," adopted November 2005.

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JOURNAL DISCUSSION

Testing the Incentive Power of Pay for Performance

Ali Irshad, MD, Matthew Janko, and Jacob M. Koshy

Jha AK, Joynt KE, Orav EJ, Epstein AM. The long-term effect of premier pay for performance on patient outcomes. *N Engl J Med.* 2012;366(17):1606-1615.

Instead of payment that asks, “How much did you do?” the Affordable Care Act clearly moves us toward payment that asks, “How well did you do?” and more importantly, “How well did the patient do?” - Dr. Donald Berwick, April 2011

In their 2012 paper, Jha et al. [1] describe the results of a 6-year pay-for-performance quality improvement initiative called the Premier Hospital Quality Incentive Demonstration (PHQID) project and discuss its implications for improving health care outcomes. In the PHQID project, hospitals were rewarded for delivering superior care, based on process measures, such as timing of antibiotic dosing, and outcome measures, such as survival at 30 days. Hospitals in the top 10 percent or 20 percent of performance and improvement measurements received annual bonuses of 2 percent or 1 percent, respectively, of Medicare payments.

The PHQID project closely approximates the Centers for Medicare and Medicaid Services' value-based purchasing program (VBP), which began providing financial incentives to more than 3,500 hospitals for performance improvement in October 2012. Thus, results from the PHQID may be predictive of the VBP success and instructive about defining performance and achievement goals in the future.

In the Jha et al. study, the authors compared 30-day, risk-adjusted mortality rates at PHQID hospitals with rates at hospitals that reported outcomes without receiving financial incentives. The authors also performed subgroup analyses to determine whether the PHQID had a greater effect on hospitals with greater incentive to improve quality (i.e., hospitals that were poor performers at baseline) or greater capability to improve quality (i.e., hospitals with better financial standing).

The authors collected and analyzed Medicare Part A data for more than 6 million patients discharged from hospitals from 2003 through 2009. Patients from the 252 hospitals participating in the PHQID program were compared to those from 3,363 hospitals who participated in the concurrent Medicare Hospital Compare program, which entailed public reporting of outcomes without incentive payments. Their study examined 30-day mortality of patients who received a discharge diagnosis of acute myocardial infarction (AMI), congestive heart failure (CHF), pneumonia, and coronary-artery bypass grafting (CABG).

Jha et al. assessed 30-day, risk-adjusted mortality for each of the four diagnoses and for all four conditions combined. Each patient's risk of death was adjusted using 29 patient comorbidities and hospital characteristics such as numbers of patients per hospital, teaching status, location (urban vs. rural), ownership (public vs. private, nonprofit vs. for-profit), region, financial margin, and the proportion of patients receiving Medicare. The analyses also evaluated three additional covariates of interest, including a calculation to reveal whether hospitals with higher proportions of Medicare patients would show greater improvements.

The authors report no significant difference in the 30-day, risk-adjusted mortality rate at PHQID and non-PHQID hospitals for all diagnoses combined and for each individual diagnosis considered separately [2]. At the start of the study, the mortality rate for all study conditions combined was approximately 12 percent for both groups, and it declined by approximately 0.04 percent in both groups each quarter during the study period [2]. At the end of the study period, CABG mortality was higher (4.12 percent) at Premier hospitals than at non-Premier hospitals (3.34 percent) [2]. Change in mortality rates for hospitals in each group that were poor performers at baseline did not differ significantly from top performers hospitals in either group [2].

Ultimately Jha et al. conclude that there is no statistical effect of pay for performance on 30-day mortality for AMI, CHF, CABG and pneumonia, based on comparison of data from PHQID and non-PHQID hospitals [2]. But this conclusion must be considered in light of the limitations of the study. Jha et al. acknowledge that, since the hospitals participating in the Premier HQID were "self-selected", they are "potentially different from control hospitals" [3]. For example, 90 percent of PHQID hospitals were private non-profit institutions, compared with 61 percent of non-PHQID hospitals.

In the discussion section, the authors state, "Expectations of improvement outcomes from programs modeled on the Premier HQID should therefore remain modest"[4], a conclusion that is consistent with recent literature. Ryan found no evidence that PHQID affected 30-day mortality rates through mid-2006 [5], and this finding was confirmed by Glickman and colleagues for Premier hospitals participating in a disease registry for acute myocardial infarction [6]. In 2006, approximately 80 percent of HMO-purchaser contracts for over 100,000 hospitals nationwide included bonus or penalty for performance beginning in 2004 [7]. Thus it is unclear what percentage of PHQID and non-premier reporting hospitals had process or care improvement programs in place before the start of the present study in 2003, and readers are left to wonder whether improvement had already been at least partially realized within each group.

Given the conclusions of these recent publications, the present study encourages us to ask, "Are economic incentives the best motivation available to hospital systems for improving performance?" Biller-Andorno and Lee have suggested that perhaps outcome transparency and non-financial incentive schemes such as performance ranking are sufficient incentives to improve outcomes [8]. Kavanagh has also

recently posited an interesting point: Institutions' profits from low resource utilization if a sick patient dies before using costly services might more than offset the penalty for mortality imposed by pay-for-performance programs. But, he says, few institutions wish to have it known that they have a higher-than-expected rate of patient deaths [9].

However, the effectiveness of the economic incentive model may have simply been unproved by the PHQID project. The Quality and Outcomes Framework (QOF), a nationwide initiative in the United Kingdom that started in 2004, offers one possible alternative economic incentive model [10]. In this effort by the National Health Service (NHS), general practitioners agreed to tie increases in their income to performance as measured by 146 quality indicators, covering clinical care for 10 chronic diseases, organization of care, and patient experience. The QOF initiative agreed to increase funding for primary care by 20 percent over previous levels, allowing practices to invest in extra staff and technology.

The initial examination of performance data for the QOF initiative demonstrated that substantially increasing physicians' pay based on their success in meeting performance measures was effective in improving quality of care. The 8,000 family practitioners in the study earned an average of £25,000 more by collecting nearly 97 percent of the points available [10]. The new GP contract as a whole cost £1.76 billion more than the NHS intended, but substantial improvements have been noted, particularly in the maintenance of disease registries and screening of risk factors for older patients with cardiovascular disease in the community [11]. This focus on rewarding primary care efforts demonstrates a contrast with the PHQID methodology. As Jha et al. show, the PHQID sought to consider 33 parameters, of which 4 were compared to non-rewarded outcomes and there was minimal focus on primary care through the PHQID. Lindenauer et al. offer further evidence that the PHQID may need to be re-evaluated as an incentive model; their study found that early gains in process quality had mostly dissipated after 5 years under the PHQID [12].

The U.K. example and Lindenauer et al. results suggest that it behooves pay-for-performance proponents in the U.S. to seek out additional models to identify an ideal method that, at the very least, improves mortality outcomes by enhancing the focus of incentives to include broader and earlier parameters (e.g., primary care).

Jha et al. demonstrate there is an overall decrease in 30-day, risk-adjusted mortality regardless of incentive, which may simply be the result of tracking and reporting outcomes. It is also possible that these findings indicate that the economic incentives necessary to truly motivate change remain unmet in the U.S. Alternatively, this pattern may demonstrate a hospital culture dedicated to improving care for patients, not for monetary reward, but to satisfy a professional obligation to serve the community. What Jha et al. regard as sobering findings for proponents of incentive-based health care improvements is possibly a propitious demonstration of the integrity of physicians and hospital care in this country.

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Ali Irshad, MD, is a first-year resident in integrated vascular surgery at The Methodist Hospital/Baylor College of Medicine, Texas Medical Center in Houston. He graduated from the University of Massachusetts Medical School in Worcester, where he was a member of the Clinical/Translational Research Pathway program and the president of the student body committee.

Matthew Janko is a fourth-year medical student at the University of Massachusetts Medical School in Worcester. He is a member of the Clinical/Translational Research Pathway program and represents his medical class in the school's student government.

Jacob M. Koshy is a second-year medical student at the University of Massachusetts Medical School in Worcester. He represents his medical class in the school's student government and is a voting delegate of the Worcester District Medical Society.

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JOURNAL DISCUSSION

Supply-Sensitive Variations in Care

Anita Arora, MD, MBA, and Alicia L. True

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Health care spending in the United States is expected to grow to 29 percent of the gross domestic product by the year 2030 [1]. This spending threatens to bankrupt the U.S. economy or, at least, crowd out investment in other critical services such as education. Research performed by the Dartmouth Atlas of Health Care is one effort being made to understand and develop solutions to rising health care costs. For many years, the Dartmouth Atlas has documented differences in spending and utilization of health care among medical centers in the United States.

Variations in End-of-Life Care

A significant contributor to variation in health care costs is the way that physicians provide end-of-life care to patients with chronic illnesses. In a recently published Dartmouth Atlas report [2], we consider the extent of this variation among major academic medical centers. For example, 66.6 percent of patients at one of the highest-spending institutions in the data set were likely to see 10 or more physicians during their last 6 months of life, while only 42.5 percent of patients at one of the lowest-spending institutions did—a difference of more than 20 percent. More aggressive care does not improve outcomes or quality [3], and, many times, it is more than the patient's preferences would dictate [4]. It also leads to a higher financial burden on the patient and on society.

In the same Dartmouth Atlas report [2], we examined the variation in medical care for Medicare beneficiaries among academic medical centers rated by *U.S. News and World Report* as the best hospitals for clinical excellence in 2012-2013 [5]. Our report also included several other notable teaching hospitals, for a total of 23 medical centers, reflecting a wide range of practice styles.

Table 1. Variation in resource utilization for chronically ill patients among 23 teaching hospitals [2]

Hospital	Hospital Care Intensity (HCI) Index	Hospital days per decedent, last 6 months of life	Physician visits per decedent, last 6 months of life	Percent of deaths occurring in hospital	Percent of deaths associated with ICU admission	Percent enrolled in hospice, last 6 months of life	Percent seeing 10 or more MDs, last 6 months of life
Cedars-Sinai Medical Center	2.06	19.0	72.6	42.1	38.2	32.8	65.3
NYU Langone Medical Center	1.73	19.1	58.5	34.3	23.8	39.2	66.6
Mount Sinai Medical Center	1.50	18.3	49.1	44.8	17.0	23.1	66.3
Ronald Reagan UCLA Medical Center	1.48	16.8	49.7	44.1	40.6	34.2	62.9
New York-Presbyterian Hospital	1.37	20.2	39.1	44.2	16.2	24.5	60.9
University of Pittsburgh Medical Center	1.28	12.8	42.5	31.7	23.6	48.8	59.2
Northwestern Memorial Hospital	1.28	14.9	42.0	38.4	29.1	44.2	62.8
Massachusetts General Hospital	1.19	15.5	34.7	34.4	17.9	44.9	59.9
Cleveland Clinic	1.12	16.0	35.3	35.4	26.2	46.2	60.4
Hospital of the University of Pennsylvania	1.08	14.7	30.6	26.0	19.8	57.9	61.7
University of Michigan Medical Center	1.07	14.3	30.8	22.8	11.9	59.1	60.8
Brigham and Women's Hospital	1.06	14.9	31.5	34.6	19.4	41.5	61.5
Johns Hopkins Hospital	1.01	13.6	23.4	30.2	19.9	49.4	45.7
Indiana University Health (Clarian Health)	0.96	12.6	30.3	26.2	21.2	51.2	57.0
Barnes-Jewish Hospital/Washington Univ.	0.95	14.1	28.9	31.4	17.8	48.7	52.9
UCSF Medical Center	0.92	13.2	28.3	37.8	22.7	39.0	53.4
Duke University Medical Center	0.87	13.6	24.2	30.7	22.1	47.9	54.8
Vanderbilt University Medical Center	0.80	11.5	26.6	25.9	21.1	56.3	56.3
University of Washington Medical Center	0.78	11.3	22.6	30.2	20.5	46.9	53.1
Stanford Hospital and Clinics	0.78	11.4	27.0	38.0	33.1	44.2	53.1
St. Mary's Hospital, Mayo Clinic	0.70	9.9	21.3	22.8	16.8	44.7	52.4
Scott & White Memorial Hospital	0.62	8.9	19.8	24.9	15.7	58.1	42.5
University of Utah Health Care	0.62	8.6	19.7	23.2	17.0	55.0	47.2
United States average	1.00	11.8	33.7	28.3	18.2	47.9	49.5

We found wide variation in the use of physicians, inpatient beds, and hospice among the 23 hospitals studied. Table 1 summarizes this variation with the hospitals ranked in order from the highest hospital care intensity (HCI) index to the lowest. The HCI index is a resource utilization measure that combines the number of days patients spent in the hospital and the average number of inpatient physician visits during the last 2 years of a patient's life. The highest HCI index is more than three times greater than the lowest among these medical centers. Patients who received most of their care at New York-Presbyterian Hospital spent more than twice as many days in the hospital as did those who received most of their care at University of Utah Health Care. And the University of Michigan Medical Center had more than twice the percentage of patients enrolled in hospice in the last 6 months of life as New York-Presbyterian Hospital did.

What Do These Variations Indicate?

These variations are examples of supply-sensitive care, services for which the supply of physicians and other resources—such as hospital beds—strongly influences the amount of care delivered. In areas with more hospital beds and more physicians, patients are admitted more frequently and see their physicians more often for reasons not necessarily justified by clinical condition (e.g., in one Dartmouth Atlas data set, “more than half of the variation in hospitalization rates for medical (non-surgical)

conditions is associated with bed capacity” [6]. This could be explained by current payment models that reward hospitals for fully utilizing the resources available. Just as an airline company wants to occupy the seats on its planes, providers are compelled to fill up the hospital beds and appointment slots that are available—to operate at full capacity.

Unfortunately, the supply of resources appears to be more powerful than patient preferences in guiding health care delivery. This was demonstrated by the SUPPORT study, a 2-year prospective observational study (phase 1) followed by a 2-year controlled clinical trial (phase 2) in the mid-1990s. The first phase indicated that patients preferred less care than they received at the end of their lives. Phase 2, during which patients were randomized to an intervention group and a control group, showed that even after efforts were made to improve communication between the physician, the patient, and the patient’s family about these preferences, patients still received care that they did not desire [7]. In a follow-up study, Pritchard et al. demonstrated that the supply of beds and resources was more powerful in influencing clinical decision making than patient preferences [8]. These studies suggest that we are not respecting patients’ preferences and instead letting the number of physicians and hospital beds dictate the care that patients receive.

As health care professionals, it is important that we understand the power of supply-sensitive care, and it is our responsibility to elicit our patients’ preferences and ensure that the care we provide does not pointlessly exceed them.

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Anita Arora, MD, MBA, is a resident physician in internal medicine at Yale-New Haven Hospital in Connecticut. While attending medical and business school at Dartmouth College, she became involved in research through the Dartmouth Institute. Her interests include health care cost and quality.

Alicia L. True is a medical student at the Geisel School of Medicine at Dartmouth in Hanover, New Hampshire. She received a bachelor of science degree in management from Boston College and worked in life and health insurance prior to attending medical school. Her research interests focus on improving value in health care delivery.

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STATE OF THE ART AND SCIENCE

Coding Patient Information, Reimbursement for Care, and the ICD Transition

Christopher G. Chute, MD, DrPH

Classifying Patient Data

Clinical information which, simplistically, consists of both structured data (e.g., laboratory test values) and unstructured information (notes, reports, dictations, discharge summaries), is intrinsically complex. The organization of clinical records has historically—and appropriately—focused on interpretability by people. After all, the major use of patient records has been to remind practitioners about where they left off in a patient care episode and to inform other caregivers about the case and patient course. Now many secondary uses of the record have evolved, including quality assurance, best practice discovery, translational research, and, of course, reimbursement. Coding for reimbursement purposes, however, creates incentives that may interfere with these other uses. Recognition of the record as a legal document is largely a twentieth-century innovation that may have been inevitable, though the legal status of a patient record should not be confused with its primary purposes. Nevertheless, it is in the context of a patient record as a legal document that it serves as the basis for reimbursement justification.

So how is the record organized to make these various uses possible? Like a book's table of contents, a problem list facilitates many uses of the record. The problem list enumerates key diagnoses, symptoms, surgical events, and associated metadata such as the onset of the problem and its present status (active, resolved, intermittent, and so on). A second dimension of this metadata is whether these problem list entries are maintained only as short textual strings or have, either in addition or as an alternative, coded values drawn from some formal classification scheme such as the Systematized Nomenclature Of Medicine Clinical Terms (SNOMED) [1] or the International Classification of Disease (ICD) [2].

Coded data arbitrarily restricts what can be entered into the record, while free text does not lend itself to most secondary uses of patient data, which are becoming increasingly important in the delivery of efficient and high-quality medical care (e.g., in developing clinical decision support systems). Obviously, a hybrid of free-text descriptions and the best available coding schema would be ideal. The costs of coding data can vary by method, however, with coding done by human specialists being the most expensive and fully machine-coded data being virtually free but not currently as reliable. The importance of accuracy in the use-case ultimately determines whether the added precision from human coding outweighs the extra costs.

Finally, the choice of coding systems comes to the fore. Reimbursement policies of the Centers for Medicare and Medicaid Services and major insurance companies,

together with legislation related to the Health Insurance Portability and Accountability Act, have mandated the use of ICD9-CM in the United States. However, the 2014 “meaningful use” requirements (for clinicians to receive financial rewards for the meaningful use of electronic medical record technology) specify that SNOMED-CT be used for problem lists in order to support a wider range of secondary uses. This begs the distinction between a statistical classification such as the ICDs and a detailed clinical terminology such as SNOMED. Statistical classifications, by definition, are mutually exclusive (meaning a diagnosis can be assigned to one and only one code) and exhaustive (meaning there is a code for every condition—though typically this is satisfied by including residual categories such as “not elsewhere classified”). Clinical terminologies, on the other hand, do not have these restrictions, and tend to be much larger. ICD-9CM has approximately 12,000 categories, while SNOMED-CT contains more than 300,000 discrete meanings and more than 1 million terms.

Secondary Uses of Patient Data

If problem lists, and for that matter other aspects of the patient record, are to be coded at significant cost, the next question is why. The simplest explanation is that modern medical care has become profoundly information intensive, and the management of large amounts of information ultimately requires the layering of comparable and consistent categories so that people and machines can make sense of it. More specifically, there are medical and scientific benefits that cannot be obtained without standardizing and coding medical record data.

Knowledge discovery. Among the questions we all have when we seek medical care, are: (1) what’s wrong? (2) what can be done to treat or cure this? and (3) what is the natural course of this problem with and without treatment? To answer these, we must consider how physicians and the larger clinical care community know what they know and where they learned it. The knowledge from which medical professionals draw consists of both a base of personal experience and medical science’s accumulated knowledge. Shared knowledge about what helps and what hurts is increasingly enhanced through analyses of existing patient data (e.g., outcomes research, retrospective epidemiology) or protocol-driven discovery (e.g., clinical trials, comparative effectiveness research). Drawing inferences from both types of sources ultimately requires that categories of patients be established so comparisons can be made. Obviously, knowledge discovery can be more efficient and faster if clinical data are already classified.

Quality improvement. The first step to improving the quality of health care is to measure it. Measuring the quality of health care processes and episodes entails identifying cohorts of similar patients (denominators) and consistently counting certain kinds of outcomes (numerators) such as specific kinds of adverse events. Not infrequently, health care management applies “carrots” and “sticks” by increasing or withholding salary or bonuses for clinicians who deliver high-quality care—as measured by a suite of metrics.

The major resource typically invoked to assign patients to the numerators and denominators of quality metrics is patient classification data, typically coded in ICD.

Absent such coded data, the cost and error rate of the quality-measuring process would likely exceed the capacity of health systems to generate, and therefore benefit from, clinical quality initiatives.

Clinical decision support. The ultimate goal of computer-based assistance of clinical practice is to develop and deploy algorithms that can detect orders or patterns of care for which there are measurably safer or more effective alternatives and advise practitioners about those alternatives. However, to achieve any practical benefit, decision support systems must recognize that a given patient matches the “trigger” conditions specified in the algorithm rule, which ultimately depends on classification. While the ICD may have sufficient resolution to contribute importantly to decision rule pattern detection, in many cases ICD9-CM does not support the detailed descriptions of clinical circumstances required for highly specific clinical decision support rules. This is part of the reason why meaningful use will require SNOMED-CT for clinical problems coding by 2014.

Reimbursement. The International Classification of Diseases (ICD) coding system was created for public health and statistical purposes [3], allowing countries to compare mortality rates—and, more recently, morbidity and disease incidence and prevalence. However, the strongest impetus for shouldering the expense of clinical coding in ICD has been most recently that such codes form the basis for reimbursement computations. For many professionals involved in health care, the ICD is only a coding system used for reimbursement.

Among the challenges of tying clinical coding to reimbursement is the temptation for some clinicians to err on the side of more severe or complex disease descriptions, because such “up-coding” results in higher reimbursement. This practice is correctly characterized as fraud and abuse by payers and is aggressively monitored. The payers’ concerns center appropriately on having to reimburse unethical clinicians more than is fair.

Furthermore, given the spectrum of secondary uses for coded data outlined above, there is a more significant consequence to up-coding—it distorts the data. The ability of society to discover clinical knowledge, determine best practices, improve the quality of care, or conduct valid translational research is severely threatened by the systematic distortions in the underlying clinical data. Importantly, misrepresentations of patients’ conditions may have more immediate consequences for some individual patients, because clinical decision support rules may fire inappropriately and advise interventions that are not optimal or appropriate for a patient’s true circumstances.

ICD Transition

In October of 2014, the United States will formally change from ICD9-CM to the next iteration of the ICDs modified for use in the US, ICD10-CM [4]. Among many questions is whether this will create dramatic changes in reimbursement and the other secondary uses exemplified above. Colleagues and I reviewed many salient aspects of this question in a recent article [5]. Briefly, while there are 68,000 codes in the new diagnostic system as opposed to 12,000 in the old, the majority of these codes pertain to external causes of injury and permutations on their detail. The

number of diseases accommodated by ICD10-CM is not significantly greater than that in ICD9-CM; thus SNOMED-CT will remain an obvious choice for secondary use-cases that require significant detail.

The cost of the ICD10-CM transition is estimated to run into the hundreds of billions of dollars, and the obvious question is whether anybody will realize a corresponding benefit for that investment. While the jury is officially out since the transition has not occurred, estimates suggest that the incremental value may not match the transition cost. On the other hand, the 40-year old ICD9-CM system is palpably out of date and literally does not have any room to accommodate the expanding understanding of disease and its characteristics. The country ultimately has little choice but to embrace this next generation of classification.

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Christopher G. Chute, MD, DrPH, is a professor of biomedical informatics at the Mayo Clinic in Rochester, Minnesota. His career has focused on patient data representation to enable clinical quality improvement, best practice discovery, and translational research. He chairs the International Classification of Diseases 11th Revision (ICD-11) revision project on behalf of the World Health Organization.

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STATE OF THE ART AND SCIENCE

Geisinger: An Insider's View

Greg F. Burke, MD

The nationally recognized Geisinger Health System is often viewed as a leader for innovation in cost reduction while simultaneously improving care quality. Many of its programs, such as a so-called “warranty” for patient outcomes, have generated keen interest not only among clinicians and hospital administrators but also among many of the political persuasion. Due to the system’s policy of implementing care standards across the board, critics can point to the possibility of a loss of professional autonomy—“cookbook” medicine, so to speak. Or is the opposite contention true? Champions of Geisinger’s approach cite a reduction in unnecessary care variance and a path to the implementation of solid, evidence-based medicine as worthy of imitation. And is Geisinger’s success replicable for other health systems? I will draw on my experience as an internist in the system’s main academic hospital and a 20-year tenure on its ethics committee to reflect on these questions.

It may be helpful to understand the background and culture that have animated Geisinger for decades. The vision of philanthropist Abigail Geisinger, the hospital opened in Danville in 1915. Danville, to this day, remains a quintessential rural Pennsylvania town. The presence of a tertiary teaching hospital in a community that celebrates a mega gas station as a major attraction is undoubtedly unique. From its beginning, including Mrs. Geisinger’s recruitment of its first physician-chief, Dr. Harold Foss, the hospital had a closed staff, employed its physicians, and emphasized specialty care. It should be no surprise that Dr. Foss trained with the Mayo brothers in Rochester, Minnesota, at the turn of the last century. A combination of strong physician leadership, small town friendliness, and a uniquely loyal employee base has formed what is often referred to as the “Geisinger family.” From this culture, with visionary leadership, there developed many of the programs that have led to Geisinger’s national prominence.

Geisinger is diverse in its mission and clinical enterprise. It includes several hospitals, a large multi-group physician practice, and the largest rural health maintenance organization (HMO) in the country. By aligning all elements of its system, Geisinger strives to embody its mission statement: to heal, teach, discover, and serve.

In theory, successful management of chronic disease states will improve the financial standing of the system’s health plan which in turn can lead to financial support for other clinical enterprises (hospital, clinic, etc.). Everyone in the system benefits and the health of the community is enhanced and protected.

ProvenCare

An example of how this works is Geisinger's ProvenCare initiative, an insurance offering that guarantees successful health outcomes and retains liability for preventable complications. If a preventable complication occurs after surgery, the health system will not pass the cost back to the patient's insurer. For a number of months I have served on a committee to develop a "medical guarantee" for elective lumbar fusion surgery. Input from orthopedic and neurological surgeons was crucial, but physical therapists, pharmacists, physician assistants, nurses, and information technology experts were also core participants in the project. The processes were transparent, literature-based, and, when necessary, open to areas of personal surgical preference. At no time was cost or financial risk a major topic of discussion. It is my contention that the Geisinger culture, with its history of cooperation between clinicians, allowed for such a collaboration to be successful.

The project is now expanding to include not only surgery but the management of chronic diseases. Early data we have collected suggest that employing evidence-based protocols reduces variability and error and, surprisingly, may reduce overall cost.

Physician Payment

Like most other multi-group practices, Geisinger sets a baseline of work activity for its clinicians, but 20 percent of a physician's salary is reserved as an incentive to be obtained by achieving a number of goals. The goals set forth in my own compensation plan have required compliance with deadlines for medical records, maintaining patient satisfaction ratings, participating in academic and educational activities, and meeting quality benchmarks such as improving diabetic control or hitting higher vaccine rates for an at-risk population. I cannot see any ethical objection to these goals—they are clearly patient-oriented—and they are consistent with the behavior of what I consider the "virtuous" physician. However, I have concerns about the all-or-none requirements for certain measures and a potential unwillingness on the part of leadership to stray from set quantitative guidelines. I have described the entire interaction as being much like a dreaded IRS audit. It provides a sense of equity and accountability, but of course the risk is that professional life may degenerate into a database of quantifiable achievements.

When I first joined Geisinger, a "softer" reimbursement model existed, much more dependent on a clinical leader's "gestalt" of a physician's performance. It remains unclear if the newer quantitative model is a better way to gauge overall competency, commitment, and work effort. Perhaps it is the most reproducible structure, but it may not be the most inspiring. It is my hope that our group practice will move forward with a compensation system that values clinicians primarily for their service to patients, excellence in practice, and example of compassion to students and colleagues—things that can perhaps be measured by patient satisfaction scores, participation in communication workshops, observation by one's supervisors, evaluations by colleagues, and so on. One cannot know all the motivations that attract one to a career in medicine, but one hopes salary is not the prime reward. The

Geisinger reimbursement model is laudable in that it is not fully dependent on productivity and therefore less prone to compromises in sound ethical principles.

Conclusion

I think Geisinger's way of doing things can teach us much about the advantages of caring less about production and more about outcomes. Geisinger's progress can show empirically that good care can lead to lower costs. Yet replicating Geisinger's success would be difficult, I think, given its unique development and demographic situation. Certain elements, including a robust electronic health record, group practice model, and "medical warranties" can be incorporated anywhere. Its rural location, static local population, and "employed physician" culture would be much harder to export. It must also be emphasized that, for much of its history, there was scarce competition in the way of other rural referral centers. Time will tell if other health systems can reproduce what Geisinger has achieved.

Greg F. Burke, MD, is an associate in the Department of General Internal Medicine at Geisinger Medical Center and medical director of Geisinger HealthSouth Rehabilitation Hospital in Danville, Pennsylvania. He is a member of the hospital ethics committee and has lectured and written extensively in the area of Catholic bioethics.

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HEALTH LAW

State Implementation of the Affordable Care Act

Alexander H. Sommer, JD

Three years ago, President Barack Obama signed into law the Patient Protection and Affordable Care Act (ACA). Until June 28, 2012, much of the health care reform debate was consumed by the pending Supreme Court review of whether the law was constitutional. The Court's decision to uphold key provisions of the ACA, coupled with President Obama's reelection in November, shifted the debate from repealing the law to effectively implementing it. That debate largely revolves around the various roles states must play in instituting the law and the division of financial responsibility between states and the federal government. The negotiation of states' participation in and responsibility for ACA programs will shape the form the requirements ultimately take. This article discusses recent developments in the ongoing implementation of the ACA, with focus on the role of the states in shaping these developments.

State-Based Health Insurance Exchanges

The states were intended to have one of the most important roles in implementing the Affordable Care Act through the establishment of state-run health insurance exchanges. Beginning January 1, 2014, the Health Insurance Marketplace, through each state's health insurance exchange, will be open to the American public [1]. Health insurance exchanges will create a competitive marketplace of qualified health plans for individuals and small businesses [2]. In response to the mandate that all individuals carry minimum coverage for essential health care, the health insurance exchanges aim to ensure that all American citizens can access quality and affordable health care coverage, through increased competition and price transparency.

But state resistance to the exchanges has complicated the process and altered the exchanges' form [3]. The Health Insurance Marketplace will still be opened by January 1, 2014 [1], but the federal government will play a larger role in starting the exchanges than it originally anticipated. Only 17 states will be initiating and running their own exchanges in 2014 [4]. Twenty-six states declined entirely to operate health insurance exchanges, thus leaving the federal government to do so [4]. The remaining 7 states are pursuing partnerships with the federal government, in which oversight and funding will be shared between the federal government and state government [4]. The final format of this partnership remains unclear, as the cost of running the exchanges is still largely unknown.

Medicaid Expansion

Originally, the ACA would have withheld all federal Medicaid funds from states that failed or declined to extend Medicaid eligibility to those earning up to 133 percent of

the federal poverty level [5]. The idea was to increase the pool of Medicaid recipients to cover some of those who would have difficulty paying for insurance under the individual mandate. The Supreme Court, though, struck down that provision as an unconstitutional withholding of federal funds [6]. The federal government, in an effort to retain the expansion of Medicaid, has offered to pay 100 percent of the costs incurred by a state as a result of the expanded Medicaid eligibility for the first three years and 90 percent of those costs in subsequent years [7].

Many states, however, are using the federal government's Medicaid expansion offer as their newest stand against the ACA. A number of states that had previously passed legislation, constitutional amendments, and resolutions declaring the federal government's mandate of the purchase of health insurance unconstitutional are now standing against what they deem to be further encroachment upon states' rights [8]. As of June 14, 2013, 13 states had declared that they will not participate in the Medicaid expansion and another six are leaning toward not participating [9]. Political differences largely account for the unwillingness [10]. In Florida, Republican Governor Rick Scott endorsed the Medicaid expansion, despite previously speaking out against the ACA. The Republican-led Florida legislature, though, ultimately opposed the move [10].

Arkansas, a conservative state with a Democratic governor that previously declined to participate in the Medicaid expansion, adopted what looks like a hopeful bipartisan solution [10]—allowing low-income citizens to shop for and purchase private insurance with federal Medicaid funds [9]. This appears to be a model that conservative states could adopt to appease legislative concerns about the growth of the federal government and make wider health care coverage appealing to those who favor market solutions to social problems.

Access to Care

An oft-ignored provision of the ACA is an attempt to promote Medicaid recipients' access to care; as of January 1, 2013, states were required to pay no less than 100 percent of the Medicare rates for primary care services [12]. Previously, Medicaid reimbursement rates, which were set by individual states, averaged only 66 percent of the federal Medicare reimbursement rate [12]. Additionally, the federal government is providing more funding to state Medicaid programs that cover preventive services [12]. The hope is that increasing reimbursement rates will make more physicians available to Medicaid beneficiaries for preventive care, reducing the need for expensive interventions for advanced conditions.

Conclusion

The ACA as originally signed will look much different than the ACA as implemented. The relationship between federal and state governments will ultimately mean a patchwork of related but not identical strategies, solutions, and regulations to unfold in the coming years.

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Alexander H. Sommer, JD, graduated from the DePaul University School of Law in Chicago, where he was an editor of the DePaul Journal of Health Care Law. His academic interests focus on health information technology and government involvement in health care coverage.

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POLICY FORUM

Will the Medicare Value Modifier Get Us Closer to Rewarding Quality Care?

Allan H. Goroll, MD

It is widely acknowledged that physician payment under Medicare's current fee-for-service mechanism (Resource-Based Relative-Value Scale [RBRVS]) is dysfunctional, paying excessively for procedures and insufficiently for cognitive services and coordination of care [1]. The consequences of this payment model range from excessive costs of care to distortions in medical student career choices that contribute to shortages of primary care physicians in the workforce [1, 2]. Despite its shortcomings, RBVRS serves as the basis of payment not only for Medicare but for most commercial payers.

As the Affordable Care Act was being written, policymakers began to realize that health system reform would require fundamental change in how physicians are paid, moving towards a more value-based payment system [3]. "Paying for value rather than volume" has become the policy mantra of discussions about physician payment. Models of payment reform range from refinements in fee-for-service to risk-adjusted global payment for comprehensive care [4, 5]. The Center for Medicare and Medicaid Innovation was established by the Center for Medicare Medicaid Services (CMS) to encourage and field test new payment models [6].

Recognizing that transformational payment reform may be years away, yet eager to begin moving expeditiously towards payment for value, Congress included in the Affordable Care Act a section reforming traditional Medicare fee-for-service by attaching a payment modifier to the fee schedule. The proposal adjusts physician payment up by as much as 2 percent or down by as much as 1 percent, starting in 2015, based on performance measured by cost and quality standards starting in 2013 [7]. It provides an additional 1 percent bonus for achieving goals in the care of high-risk patients. Initially, only practices with 25 or more practitioners would be subject to the modifier, with expansions to include all physicians by 2017.

As with payment reform in general, physicians and physician organizations have responded with ambivalence and concern, some asking for delay, a narrower application, and more physician education by the Center for Medicare Medicaid Services [8, 9]. Key questions include details about quality measurement and the validity of the quality measures selected [10]. The proposal also contains potential pitfalls for small practices, putting them at risk financially for actions they cannot control, such as patient behavior.

These proposals and the topic of physician payment in general raise questions about the ethics of payment incentives. Before considering the ethics, it is worthwhile to examine physician behavior to see if financial incentives actually matter. The public expects physicians, as highly educated professionals dedicated by oath to the health of their patients, to be the least affected by payment incentives because of the imperative to “do the right thing” regardless of financial consequences. However, economists, as students of human behavior, view physicians, like all human beings, as strongly influenced by financial incentives. After all, they argue, payment is a potent form of behavioral reward for work done, and using financial incentives is a good way to change human behavior.

An examination of physician behavior finds evidence supporting both views. For example, recent surveys of medical student attitudes found financial reward to be less of a consideration in career choice than other factors [11, 12]; more students are now choosing careers in primary care despite little immediate improvement in its financial rewards [13]. On the other hand, for over a decade actual residency applications have disproportionately gone down “the ROAD” (radiology, ophthalmology, anesthesia, and dermatology) [2], suggesting that high pay per unit of work does influence choice in many instances. The RBRVS’s mechanism for restraining growth in health expenditures (the sustainable growth rate or SGR) [14] has been ineffective, suggesting that physicians do indeed respond to fee for service by providing more services, just like everyone else being paid according to volume of work they perform.

The picture that emerges from epidemiologic study of physician economic behavior is a mixed one. Researchers find wide variation in per capita health care costs by hospital region as documented in the Dartmouth Atlas [15]. The only explanation for the marked differences Atul Gawande could find in health care costs for Medicare beneficiaries in McAllen and El Paso, Texas, (whose populations are very similar demographically and medically) was the amount of services provided; health outcomes were no different [16], indicating that the additional services did not improve patient health. Some march to the drummer of maximizing income, others march to a different drummer. From the intensity of responses by some professional societies to Medicare’s coding modifier proposal [9], it appears that economic incentives matter a whole lot to many of their members.

There is nothing inherently wrong or unethical with financial incentives; one need not be a saint and ignore them. The ethical problem comes into play when financial incentives distort behavior, tempting us to inappropriately maximize income. Maximizing income is not per se unethical either; it can be a matter of economic survival, as in practices that provide mostly underpaid yet essential evaluation and management services (the term assigned by CMS and private insurers to patient history taking, diagnosis, treatment planning, and associated activities, usually referred to as “E/M” services or “cognitive work”).

The ethical goal is not to eliminate financial incentives—they are inherent in every payment system, not just fee-for-service. Rather, the task is to better align them with societally desired health outcomes and the interests of our patients. The problem with RBRVS is that its incentives are misaligned (volume-based, excessive payment for procedures), leading to the world's highest per capita health care costs and mediocre health outcomes [17]. We get what we pay for.

Although the immediate impetus for payment reform is cost containment, the goals of our health care system are best expressed by the Triple Aim adopted by CMS under Donald Berwick's leadership: "better health, better health care, at lower cost" [18]. We designers of physician payment reform have focused our efforts on improving the value of care (defined as quality ÷ cost), in which cost is only one part of the equation.

How might one harness the power of financial incentives to accomplish value-based payment? Do the CMS-proposed value modifiers seem likely to support the desired goal of moving from "volume to value"? Allow me to share with you some considerations relevant to reform of physician payment in support of the Triple Aim. First we must ensure access to care. Fee for service does this very well, but in essence too well—as noted, the sustainable growth rate in RBRVS has failed to check provision of excessive services. Alternatives? Let us consider paying by practice panel size—the larger the panel, the greater the practice's income. That would ensure access, but might compromise visit availability and quality of care if one's panel gets too big. It might also encourage "cherry-picking" of patients to minimize the care burden of one's panel. However, if we risk-adjust the payment for each patient in the panel, we can obviate cherry-picking and better match practice financial resources with patient needs. Also, let's monitor patient access to be sure visits are readily available and measure care quality to ensure quality does not suffer from too many patients to care for. In this manner, panel size should self-correct, especially if we provide financial rewards for exceptional access and quality.

What emerges from such considerations is a model of risk-adjusted comprehensive payment for comprehensive care with bonuses for quality and patient experience. This has been proposed both for primary care's patient-centered medical home [5] and for accountable care organizations [19]. Cost is contained by paying on a risk-adjusted, predetermined per-capita basis (often referred to as "capitation," a term shunned due to its negative connotations from an early, failed version of global payment). As noted, monitoring and rewarding quality and patient experience counters gaming. Such payment models might not serve for all medical care delivery—some fee-for-service might be appropriate for discrete procedural services—but setting and living within a global budget does inhibit delivery of low-value services.

The CMS proposal represents a baby step in the direction of changing the reward system. It attempts to do so while maintaining RBRVS's fee-for-service system. One might question the wisdom of doing so, given the current payment system's

dysfunctionality. What's needed is a concerted effort to move more expeditiously towards fundamental physician payment reform that will better promote achievement of the Triple Aim.

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Allan H. Goroll, MD, is a professor of medicine at Harvard Medical School and a physician of the medical service at Massachusetts General Hospital in Boston, where he practices, teaches, and writes on primary care. He has served as president of the Massachusetts Medical Society and Massachusetts governor for the American College of Physicians.

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MEDICAL NARRATIVE

A Story of Three Generations in Health Care

Daniel B. Shulkin, Mark W. Shulkin, MD, and David J. Shulkin, MD

In 1950, a boy named Mark (now Mark Shulkin, MD) was thinking about going to medical school. Fast forward 25 years to 1976 and meet his son, David (now David Shulkin, MD) who was graduating from college and about to enter medical school. Fast forward again to 2013 and meet David's son, Daniel, recent university graduate beginning work in the health services sector.

Mark had a competing passion for theatre, David dreamed of winning the lottery, and Daniel has an interest in public policy and economic development. Their stories of the range of factors that affect choice of a career in health care in an unpredictable and rapidly changing environment are their own, yet representative.

For Mark, the choice of medical school was most obvious. In June 1950, when the Korean War began, he was an undergraduate. For the first time in our country's history, deferments from military conscription were awarded for education in occupational specialties needed to support the war effort. Mark opted for medical school rather than for combat.

David's initial motivation was a frequently heard one—to follow in his father's footsteps. But a love story altered that direction. David's wife-to-be was a dermatology resident at the University of Pittsburgh, where he was a resident in internal medicine. When it came time for David to finish his residency, his fiancée had another year to go. He could stay in Pittsburgh with the love of his life or leave to take a job elsewhere. David spent that year studying business administration in Pittsburgh, a divergence that sent him down the road to health care management, a road that will branch again and again as Obamacare takes effect.

As for Daniel, interest in the quality of medical care and in its distribution goes back to his undergraduate studies. It was a time of public alarm about shortcomings of many hospitals after Hurricane Sandy, the absence of an established mental health policy following the Newtown shooting tragedy, and of course the advent of Obamacare. The need for change in the structure of the health care system piqued Daniel's interest in public health and public policy.

A Bit of Background

In the 1950s, specialization did not yet dominate the profession of medicine. Medicare had not been established, and the concept of managed care was in its infancy [1]. By the mid-'60s, the effects of the Hill-Burton Act [2] and the

establishment of Medicare had accelerated the development of hospitals and research universities. And today, advances in technology and changes in health policy have completely transformed the health care delivery system [3]. Mark's career took place largely during the era of explosive growth in the capabilities of medicine. David's road to managing health care has focused chiefly on responding to the resulting problems of cost control and quality of care that have plagued the system over the past several decades. And Daniel's path to health care will help medicine fulfill the provisions of Obamacare, creating greater access to health services.

Why Choose Health Care?

What do we make of these choices during the past 50 years? The tri-generational Shulkin story points to larger truths about motivations for choosing a career in health care.

For Mark, whose father was a pharmacist, fascination with scientific subjects—while Mark may have had a passion for the arts, the mystery of the brain and the intricacies of DNA replication superseded his desire to become an artist—and a promise of the recognition and status that doctors commanded confirmed his choice of medicine. It is likely that Mark's rush to medical school was also a result of the U.S. army recruitment efforts to send young people overseas. Mark chose to specialize in psychiatry as result of experiences during adolescence and because the field offered more opportunities in academics and research than other specialties.

Without his father's strong interest in science and little motivation for other pursuits, it was most likely the desire for recognition that brought David to his career, but his path led toward the current medical culture's focus on care quality and improving health care delivery—he chose to study systems of care and why doctors make certain decisions and to apply that research to helping improve outcomes and efficiency in large health care systems.

Daniel attributes his first interest in social and health problems to *Children of the River* [4]—a book he read in middle school about a 13-year-old Cambodian girl who escaped the Khmer Rouge, leaving her family behind—for wanting to help families in poverty get access to the goods they needed to be healthy and survive. Daniel's interest—and that of many in his generation—in eradicating poverty in developing countries contrasts sharply with his grandfather's reluctance to deploy to Korea; thinking about health care has now gone global.

The opportunity for advancement, recognition and fame that comes with a medical degree has diminished over time, with new efforts focusing on international development and social change. Despite this, of course, financial gain remains an undeniable motivator for choosing a career in medicine.

Why Choose Not to Become a Doctor?

Would-be doctors appear to be concerned that the years of training and the expense of a medical education may not yield an adequate return on the investment. Research

by Gail Morrison at the University of Pennsylvania School of Medicine found that many students are discouraged from applying to medical school because of rising tuition rates, and that, of those who do attend medical school, more choose higher-paid specialties to compensate for their educational debt [5]. David's 1989 article in the *Journal of the American Medical Association* showed that medical student interest in primary care was diminishing and that specialty choice was directly related to the expected size of the physician's average income [6]. Only 51 percent of today's physicians would choose medicine again as a career, 42 percent would choose the same specialty, and only 19 percent would choose the same practice setting. Among various specialists, dermatologists lead the pack on satisfaction with their choice, with 74 percent stating that they would choose the same specialty, while just 19 percent of internists expressed that opinion [7].

We hear that, among today's up-and-coming doctors, part of the "millennial" generation, life balance is gaining ground, not only against the self-sacrifice of idealism, but also against the self-interest of purely financial goals. Nowadays, when students are exposed to attending physicians during their clinical rotations, they learn the realities of practice. Physician office expenses, costs of medical equipment, salaries of personnel, malpractice and disability insurance, and continuing education, as well as the loss of autonomy imposed by third-party payers have pushed many graduating medical students into nonclinical careers. Medicine has changed since the 1950s and 1980s, and it is no longer a secret that treatment choices can be based on reimbursement rather than solely medical indications. As Daniel learned, it may have become easier to make a difference in health care by not practicing medicine—not going to medical school and preparing instead for a career in health policy or international development.

So what's the student to do when his or her youthful idealism is overshadowed by the practical facts of twenty-first-century life and the inevitable cost-cutting that sustainable medical care delivery and payment will require? We firmly believe that in today's political, economic, and social environment students are not wrong to shy away from medical school to enter careers in other health professions, public health, or administration. Perhaps some will look to careers in nursing, the allied health professions, public health, research, and health care administration—careers that will gain increased status as they become more essential to securing access to whole health for greater numbers of people. If they were starting their careers today, David and Mark might not be doctors!

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Daniel B. Shulkin is a candidate for a master of public administration degree in health policy and management at the Robert F. Wagner Graduate School of Public Service of New York University. His research interests include pediatrics, oncology, and mental health practices with regard to health services, access to care, resources, and quality.

Mark W. Shulkin, MD, is a retired psychiatrist who practiced for more than 40 years in suburban Philadelphia. His research interests include new and innovative mental health treatment practices.

David J. Shulkin, MD, is a general internist and the president of Morristown Medical Center in New Jersey. His research interests include patient safety and improving quality within medical institutions.

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OP-ED

Educational Debt and Specialty Choice

Albert L. Hsu, MD, and Kelly Caverzagie, MD

Every year, the Association of American Medical Colleges (AAMC) conducts a comprehensive survey of graduating allopathic medical students. In 2011, 89 percent of graduating students carried outstanding loans, the average amount of which was \$161,290 [1]—more than three times the median annual income of U.S. households in that year [2]. While this is already an overwhelming amount of debt for most to consider, it does not even reflect the true burden. Compound interest on these loans adds significantly to the total debt, particularly considering that physicians are often unable to start repaying their student loans until after residency and fellowship training. Neither does this debt figure take into account the high cost of licensing, board examinations, and maintenance of certification.

Despite the crushing weight of these numbers, physicians are generally encouraged not to complain about money. Truth be told, we often feel silly asking for such sympathy in the first place. Most physicians would agree that it is more difficult for a social worker or elementary school teacher to pay off \$100,000 in undergraduate debt than for even the most debt-ridden physician. In the future, however, the alarmingly rapid rise of medical education debt may become a burden to more than just those who must repay these debts.

A recent *New York Times* editorial entitled “Student Debt and the Crushing of the American Dream” states that “robust higher education, with healthy public support, was once the linchpin in a system that promised opportunity for dedicated students of any means...[but now] the wealthiest are assured a spot, and the rest are compelled to take a gamble on huge debts, with no guarantee of a payoff” [3]. In higher education, educational debt is choking off opportunities for the latest generation of college graduates. In medicine, educational debt is driving medical school graduates away from practicing in underserved communities and entering primary care specialties—what our country will sorely need in the coming years.

Primary Care

According to the 2012 AAMC questionnaire [4], only a third of medical school graduates plan to practice in the primary care specialties of internal medicine, family medicine, and pediatrics. Of those who chose primary care, more than 70 percent plan to subspecialize [4], up from 52 percent in 1995 [5]. As noted by the American Medical Association (AMA) Council on Medical Education, “many reports and publications agree that the aging of the population and the increased incidence of chronic disease will result in an increased need for primary care physicians,” and

“deficits of 35,000-40,000 adult generalists have been projected by 2025” [5]. Even prior to passage of the Affordable Care Act, the AMA Council on Medical Education noted that “demand for primary care physicians will only increase as more of the U.S. population is covered by health insurance” [5].

Many factors influence the choice of a medical specialty, including educational opportunities, role models, lifestyle factors, debt levels, and anticipated income [5]. Between 2007 and 2012, at least one-fourth of medical school graduates consistently reported that their level of educational debt had a strong or moderate influence on their choice of specialty [4, 5]. Unfortunately, rising debt appears to have a negative impact on choosing primary care as a specialty, with one study reporting an “inverse relationship between the level of total educational debt and the intention to enter primary care” [6] and finding a disinclination to enter primary care among students who owed more than \$150,000 at graduation. In medical groups, starting salaries and compensation for primary care physicians are lower than for specialists [5], which suggests that high educational debt levels amid declining reimbursement rates are precluding some graduating medical students from pursuing primary care.

Underserved Populations

An even greater societal concern is the effect that high educational debt may have on those in underserved communities. The AMA promotes the development of programs to identify students from groups underrepresented in medicine as far back as high school and prepare them for careers in medicine; the hope is that increasing the diversity of the medical workforce will reduce racial and ethnic disparities in health care by cultivating doctors who will practice in underserved areas [7]. While loan forgiveness programs such as the National Health Service Corps are dedicated to placing physicians in underserved areas for a few years, it is unclear whether such programs drive lasting change.

Addressing the Problems

What is the solution to problems caused by the overwhelming burden of educational debt in medicine? Many suggestions have been proposed, but few appear to be feasible. Through strong advocacy from the AMA, incremental changes have been achieved, but broader reform is still necessary. For example, a decade ago, some public medical schools began a process of implementing mid-year and even retroactive tuition increases to help defray their educational costs. With leadership from its medical student section, the AMA effectively advocated against these unfair tuition increases, helping to stem the tide of escalating student debt for some [8-11]. While important and necessary, advocacy such as this is only a Band-Aid slapped over the much greater problem—the rapidly rising cost of medical education.

The greatest crisis in medical education financing is the problem of limited funding for residency and fellowship training positions. To be certified to practice medicine independently, medical school graduates must complete an internship or residency training program. Many residency programs in the United States are funded by Medicare, but Medicare capped the number of positions it would support in 1997

[12]. At the same time, medical schools have been expanding their class sizes and new medical schools are being established to address the impending shortage of physicians. Because of this, hundreds of fourth-year medical students were unable to find residency positions this year and will have difficulty repaying their massive educational debt [13]. Considering the rapidly growing number of U.S. citizens attending nonaccredited medical schools and the number of high-performing international medical graduates, it is easy to see how medical education reached this crisis.

Currently, the vast majority of funding for medical education is provided by governmental agencies, medical schools, and students themselves. Prior to the advent of health maintenance organizations (HMOs), excess funds in the health care system would be directed towards research, education, and care for the indigent; today, such funds are apparently directed to shareholders and salaries of the CEOs of HMOs. The AMA supports an “all-payer” system of medical education funding to help fund the costs of residency training of our future physicians [14]. There are many ways that such a system could be structured, but the concept is that all parties who benefit from physician education (possibly including hospitals, insurance companies, and pharmaceutical companies) should contribute to help fund undergraduate (medical school) and graduate (residency) medical education. An all-payer system—instead of placing the burden of repaying this debt solely on students who, without educational opportunities, may not be able to do so—may be a crucial component of reducing the debt.

Education debt is driving medical school graduates away from service in physician-poor communities and primary care, both of which our country will sorely need in the coming years. We are all awaiting a visionary who will introduce a bill in Congress to address the crisis in financing residency training programs for our future physicians.

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Albert L. Hsu, MD, is a second-year fellow in reproductive endocrinology and infertility at the Jones Institute for Reproductive Medicine in Norfolk, Virginia. His research interests are endometriosis and infertility. He is currently one of several delegates from the American Medical Association's resident and fellow section to its

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Suggested Readings and Resources

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Virtual Mentor

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Theme Issue Editor

Allison R. Bond, MA, is a third-year medical student at Boston University School of Medicine. She holds a master's degree in science, health, and environmental reporting from New York University and a bachelor of science degree in journalism from Northwestern University's Medill School of Journalism. She has written about science and medicine for a variety of publications, including *Scientific American*, *Scientific American MIND*, *Discover* magazine, and *Reuters Health*. Her academic interests include rheumatology, endocrinology, and the intersection of medicine and journalism.

Contributors

Anita Arora, MD, MBA, is a resident physician in internal medicine at Yale-New Haven Hospital in Connecticut. While attending medical and business school at Dartmouth College, she became involved in research through the Dartmouth Institute. Her interests include health care cost and quality.

David A. Asch, MD, MBA, is a professor of medicine and health care management at the Perelman School of Medicine and the Wharton School and executive director of the Penn Medicine Center for Health Care Innovation at the University of Pennsylvania, as well as a physician at the VA Center for Health Equity Research and Promotion in Philadelphia.

Greg F. Burke, MD, is an associate in the Department of General Internal Medicine at Geisinger Medical Center and medical director of Geisinger HealthSouth Rehabilitation Hospital in Danville, Pennsylvania. He is a member of the hospital ethics committee and has lectured and written extensively in the area of Catholic bioethics.

Kelly Caverzagie, MD, is the associate vice chair for quality and physician competence in the Department of Internal Medicine at the University of Nebraska Medical Center in Omaha, where he is an academic hospitalist. His interests include the evaluation of learners, particularly the assessment of resident competence, and he has been a leader in the Internal Medicine Milestones Working Group, a joint project of the Alliance for Academic Internal Medicine (AAIM), the American Board of Internal Medicine (ABIM), and the Accreditation Council for Graduate Medical Education (ACGME).

Christopher G. Chute, MD, DrPH, is a professor of biomedical informatics at the Mayo Clinic in Rochester, Minnesota. His career has focused on patient data representation to enable clinical quality improvement, best practice discovery, and

translational research. He chairs the International Classification of Diseases 11th Revision (ICD-11) revision project on behalf of the World Health Organization.

Thomas H. Gallagher, MD, is a professor in the Departments of Medicine and Bioethics and Humanities at the University of Washington in Seattle and a primary care physician in the General Internal Medicine Center at the University of Washington Medical Center-Roosevelt in Seattle. His research interests include the disclosure of adverse events and medical errors to patients, interprofessional communication, and transparency in health care.

Allan H. Goroll, MD, is a professor of medicine at Harvard Medical School and an attending physician in the internal medicine service and a primary care physician at Massachusetts General Hospital in Boston. He has been president of the Massachusetts Medical Society and Massachusetts governor for the American College of Physicians.

Albert L. Hsu, MD, is a second-year fellow in reproductive endocrinology and infertility at the Jones Institute for Reproductive Medicine in Norfolk, Virginia. His research interests are endometriosis and infertility. He is currently one of several delegates from the American Medical Association's resident and fellow section to its House of Delegates, and he was one of the original medical student authors of an AMA policy against retroactive medical school tuition increases.

Ali Irshad, MD, is a first-year resident in integrated vascular surgery at The Methodist Hospital/Baylor College of Medicine, Texas Medical Center in Houston. He graduated from the University of Massachusetts Medical School in Worcester, where he was a member of the Clinical/Translational Research Pathway program and the president of the student body committee.

Matthew Janko is a fourth-year medical student at the University of Massachusetts Medical School in Worcester. He is a member of the Clinical/Translational Research Pathway program and represents his medical class in the school's student government.

Jacob M. Koshy is a second-year medical student at the University of Massachusetts Medical School in Worcester. He represents his medical class in the school's student government and is a voting delegate of the Worcester District Medical Society.

William Martinez, MD, MS, is a fellow in the Division of General Internal Medicine at Brigham & Women's Hospital (BWH) and Harvard Medical School and in the Division of Medical Ethics at Harvard Medical School in Boston. Dr. Martinez is a primary care physician in the Phyllis Jen Center for Primary Care at BWH. His principal research interests concern ethical and communication issues related to the safety and quality of patient care.

Shivan J. Mehta, MD, MBA, is an instructor of medicine in gastroenterology at the Perelman School of Medicine and director of operations at the Penn Medicine Center for Health Care Innovation at the University of Pennsylvania in Philadelphia. His interests include health system improvement and behavioral economics.

Laura A. Petersen, MD, MPH, is a professor of medicine at Baylor College of Medicine and director of the Health Services Research and Development Center of Excellence at the Michael E. DeBakey VA Medical Center and Baylor College of Medicine in Houston, Texas. Dr. Petersen's research interests focus on assessing the effects of health care policy and organization on the quality and safety of health care.

Daniel B. Shulkin is a candidate for a master of public administration degree in health policy and management at the Robert F. Wagner Graduate School of Public Service of New York University. His research interests include pediatrics, oncology, and mental health practices with regard to health services, access to care, resources, and quality.

David J. Shulkin, MD, is a general internist and the president of Morristown Medical Center in New Jersey. His research interests include patient safety and improving quality within medical institutions.

Mark W. Shulkin, MD, is a retired psychiatrist who practiced for more than 40 years in suburban Philadelphia. His research interests include new and innovative mental health treatment practices.

Alexander H. Sommer, JD, graduated from the DePaul University School of Law in Chicago, where he was an editor of the DePaul Journal of Health Care Law. His academic interests focus on health information technology and government involvement in health care coverage.

Alicia L. True is a medical student at the Geisel School of Medicine at Dartmouth in Hanover, New Hampshire. She received a bachelor of science degree in management from Boston College and worked in life and health insurance prior to attending medical school. Her research interests focus on improving value in health care delivery.

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