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The ABIM Foundation's mission is to advance medical professionalism and physician leadership in quality assessment and improvement.

OPINION LEADER PERSPECTIVES ON HEALTH CARE EFFICIENCY:

Avoiding the Tragedy of the Commons

Although they define efficiency in different ways, 13 opinion leaders from diverse parts of health care agree much more than they disagree about what drives waste in our health care system and how to enhance its efficiency. In addition to leaders identifying a dysfunctional delivery and payment system that undermines efficient care, they underscored the contribution of the device and pharmaceutical industries, health insurers, physicians, and patients themselves to this pressing problem. While emphasizing the need for a collaborative, multi-stakeholder approach to furthering efficiency, the interviewees also suggested concrete ways that physicians could reduce overutilization of unnecessary services, assert their role as stewards of scarce resources, and more adeptly integrate and coordinate care across specialties.

"Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons."

—Garrett Hardin
TRAGEDY OF THE COMMONS (1968)

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INTRODUCTION

Using a standard protocol, the ABIM Foundation conducted interviews with opinion leaders—from patient/consumer, health plan, hospital, employer and union organizations, as well as from provider groups—to surface what was anticipated to be different definitions of health care efficiency; why our system is riddled with waste; and what physicians and others should do about it. These interviews were conducted to inform discussions at the 2006 ABIM Foundation Forum and the future work of those attending the event, as well as the thinking of a broader set of policymakers.

While there were some differences in the perspectives of the various stakeholders, particularly with respect to their beliefs as to what motivated the behavior of different groups, there was significant unanimity about the nature of the efficiency problem and solutions to address it. That said, these opinion leader interviews were not drawn from a representative sample so it is not possible to generalize responses. Nevertheless, the consensus that emerged does suggest hope for collaborative solutions to materialize from enlightened leaders.

OPINION LEADER INTERVIEWEES

Richard Baron, Greenhouse Internists, PC

Troy Brennan, Aetna, Inc.

Marilyn Chow, Kaiser Permanente

Sharon Drager, vascular surgeon

Elizabeth Gilbertson, Hotel Employees and Restaurant Employees International Union Welfare Fund

John Harold, Cedars Sinai Health System

Helen Haskel, Mothers Against Medical Errors

Clarion Johnson, ExxonMobil

Gary Kaplan, Virginia Mason Medical Center

Steve Pierdon and Glenn Steele, Geisinger Health System

Timothy Ranney, BlueCross BlueShield of Nebraska

Ellen Stovall, National Coalition for Cancer Survivorship

DIVERGENT DEFINITIONS

Most opinion leaders defined efficiency as the intersection between lowest cost and highest quality, with some noting that cost alone is sometimes misidentified as efficiency. This is perhaps not surprising as even The Institute of Medicine (IOM) definition of efficiency—one of the IOM six aims—has evolved over time.[1] One stakeholder group appeared to be distinct: opinion leaders from patient groups did not explicitly include cost in their definitions. Instead they described efficient care processes as meeting patient rather than clinician needs—more specifically, as care that is free of redundant tests, overuse and misuse of services, as well as the underuse of medically indicated services. Richard Baron, a practicing internist, defined efficiency expansively "as the best care for the most people," taking into account the population as a whole, not just those in his practice or those with insurance.

A theme that clearly emerged is that "efficiency is in the eye of the beholder." One interviewee gave this example. Now that Claritin is available over the counter, patients ask for Allegra. A similar drug (both are antihistamines), Allegra requires a physician prescription and related pharmacy co-payment, but for many patients that is less costly than purchasing Claritin on their own. So, from the patient's perspective, Allegra may be a more efficient option. Not so from the perspective of the health plans and employers who pay the larger bill, nor from the perspective of a society interested in alleviating the allergy symptoms of the greatest number of people for the least amount of money. In addition, physicians who resist making the case to health plans for Allegra may cause their unhappy patients to go elsewhere. Further, appealing decisions related to formularies, imaging or other services makes the physicians and/or their practices less efficient.

SOURCES OF INEFFICIENCY

Most of the opinion leaders interviewed asserted that the health care system had become a lot less efficient in the last decade, citing double digit cost increases and grim reports about the state of the nation's health care quality. They believe the primary reasons for this growing inefficiency are the system issues ably dissected in the IOM's Quality Chasm report, namely unintegrated, disorganized care delivery, the absence of a functioning information technology infrastructure, and a "toxic" financing system.

That said, opinion leaders also pointed to the contributions of the device and pharmaceutical industries, physicians, the insurance industry, and patients themselves. More specifically, the widespread availability and marketing of a broad array of drugs, devices, and therapies, coupled with physician willingness to prescribe them, were widely noted as key contributors to growing inefficiency. As Aetna's Troy Brennan noted, "you could point the finger at almost everyone."

> "Many physicians find it extremely difficult to stand between patients and resources—they believe our major accountability is to satisfy the desires of the patient in front of us."
>
> **Richard Baron**
> GREENHOUSE INTERNISTS, PC

"The system has become less efficient because of the reasonable amount of uncertainty coupled with financial incentives."

Troy Brennan
AETNA, INC

"Each piece of the delivery process is trying to maximize revenue on its piece, but maximizing revenue in this way minimizes integration."

Elizabeth Gilbertson
HOTEL EMPLOYEES AND RESTAURANT EMPLOYEES INTERNATIONAL UNION WELFARE FUND

There was some disagreement as to the underlying motivations of those involved in making or influencing treatment decisions. Timothy Ranney, BlueCross BlueShield of Nebraska, described the expanding portfolio of imaging interventions—CT, MRI, PET-scans and now PET-CT—as offering ever more sophisticated tests that can help in diagnosis, and prevent more costly and risky invasive treatments. However, both Ranney and Brennan suggested that physician treatment decisions are driven more by individual practice experience than the evidence base which, while limited, is growing.[2] "Physicians' primary impulse is to do something good for patients," said Brennan. "That said, they do not always consult clinical guidelines."

A number of interviewees noted that imaging was a "poster child" for dramatic increases in lucrative but not necessarily medically indicated services. According to MedPAC, for services covered by the Medicare fee schedule for each year between 1999–2003, the growth rate in imaging was almost twice the growth rate for all other physician services.[3] The same report showed a three-fold variation in the number of imaging services provided across the country, with no correlation between rates of imaging and survival for Medicare beneficiaries. John Harold, a cardiologist from Cedars Sinai, suggested that the four CT-scanning centers within blocks of his institution, and the 135 cardiologists on his hospital's staff (more than the total number in many western states), may be a big part of the reason why. "Instead of routine treadmill tests, patients sometimes go right to nuclear imaging," commented Harold. But imaging is only part of the problem. In his study of California hospitals, John Wennberg found that Los Angeles hospitals greatly exceed regional benchmarks with respect to Medicare spending, resource inputs, and utilization for terminally ill patients, without much difference in discrete quality outcomes (see table at right.)[4] A related study shows that more intensive utilization and resource input does not correlate with higher quality care, and may in fact have an inverse relationship.[5]

While noting that many innovations are helpful, Sharon Drager, a vascular surgeon in California, described instances where industry efforts to drive return on investment (ROI)—including, in some cases, physician consultants compensated to promote costly new technologies—are stimulating the use of these interventions in areas of questionable clinical benefit. Examples of this "private practice entrepreneurial environment" include treatment of asymptomatic peripheral vascular disease and overuse of cancer drugs, where payment encourages chemotherapy drug administration and de-emphasizes palliative care, care coordination and patient management, although recent payment changes seek to address this imbalance. At the extreme, there are investments such as the one that recently came to light at the Cleveland Clinic, where more than 1,200 patients agreed to an operation that inserted a device used "off label" without knowledge that the institution and select cardiologists had extensive financial ties to the device company and stood to gain directly as a result of their

Resource Inputs, Utilization of Services (1999-2003), and Measures of Quality of Care (2004) For Medicare Decedents In Three California Hospital Referral Regions (HRRs) Compared with Sacramento HRR

	Los Angeles	San Francisco	San Diego	Sacramento
Medicare spending per decedent, last 2 years of life				
Inpatient and Part B	$58,480	$45,672	$41,319	$34,659
Utilization per decedent, last 6 months of life				
Hospital days	17.9	13.2	13.1	11.1
Physician visits				
Primary Care	19.5	16.9	13.5	13.3
Medical specialists	38.3	16.3	19.4	11.5
Percent seeing 10 or more physicians	43.1%	34%	36.7%	26.4%
Quality measures				
Summary scores for care related to				
Acute myocardial infarction	88.3%	91.7%	87.1%	92.2%
Congestive heart failure	78.7%	85.5%	77.3%	84.6%
Pneumonia	59.1%	64.1%	60.5%	65.7%

SOURCE: Authors' analysis of Medicare claims; also, see below.
Excerpted, with permission from Health Affairs. Exhibit 3 in Wennberg JE et al., "Evaluating the Efficiency of California Providers in Caring for Patients with Chronic Illnesses," Health Affairs' Web Exclusive, November 16, 2005. Published at: http://content.healthaffairs.org/cgi/content/abstract

clinical recommendations.[6] Six months after this news appeared in the Wall Street Journal, the Cleveland Clinic announced a ban on doctors and administrators making such investments.

Helen Haskel, Mothers Against Medical Errors, and others expressed growing mistrust about whether the peer-reviewed literature related to new innovations was truly objective, and expressed concern about the lack of time that most physicians have to research, understand and communicate clinical options to patients. In addition, Drager, Baron and Haskel echoed the sentiments of many who voiced reservations about the ambitious marketing of new technologies to physicians and patients, and the news media's coverage of "miracle wonders" which can drive demand on all sides. A recent article by Marcia Angell showed that pharmaceutical companies spend more money on marketing and administration (31% of sales) than they do on research and development (14% of sales).[7] The front-line clinicians interviewed suggested that marketing by drug and device companies is a stimulus to patients to seek treatment, whether it is medically justified or not.

"I worry about the appropriate use of new cancer drugs. They give a few more months of life but quality of life may be poor and efficiency may not be improved."

Ellen Stovall
NATIONAL COALITION FOR CANCER SURVIVORSHIP

PROMISING STRATEGIES TO REDUCE INEFFICIENCIES

Opinion leaders suggested that they had a strong belief but limited evidence that comprehensive strategies—including financing reform, a robust information technology infrastructure coupled with changes to work design and culture, and alignment between financial and clinical accountability—could engender a more efficient health care system. Although they recognized the challenges that sweeping changes represent, interviewees agreed that more limited initiatives in these areas would not result in meaningful efficiency gains. About a third of the opinion leaders underscored the critical role of government in bringing about these changes.

Financing Reform. Few opinion leaders held out much hope for current pay-for-performance strategies, suggesting instead the need for more fundamental changes: global capitation, capitation for outpatient care, risk-based contracting, bundled compensation for an episode of care, or new payment models for primary care that promote coordination of care and support patient self-management. Glenn Steele from Geisinger Health System described his organization's experiment with an acute episodic care model, where they provide care and assume all risk from diagnosis through rehabilitation for select conditions. This project, a pilot with patients insured under Geisinger's health plan, takes advantage of the organization's integrated delivery system.

"Without overhaul of the payment system, dramatic changes will not be achieved…P4P skirts around the edges."

Gary Kaplan
VIRGINIA MASON MEDICAL CENTER

Information Technology. Many cautioned that information technology alone will not enhance efficiency, even though it promises to reduce repeated tests, provide patients with more, and more useful, information, and improve access to clinical guidelines and decision support. "Technology will be most beneficial if an organization's entire set of administrative and clinical processes is also evaluated and redesigned…so that bad processes are not replicated electronically," said Marilyn Chow from Kaiser Permanente, an organization that is in the midst of implementing an electronic health record (EHR) across its system. Others have noted that such comprehensive redesign work necessitates a transformation of the culture.[8, 9]

Redesign of Care Delivery. Interviewees offered both integrated delivery systems and HMOs as back-to-the-future models to enhance efficiency, and commented on the promise of alternative models, including the Advanced Medical Home[10] with its emphasis on the re-emergence of primary care. "The medical home—where primary care clinicians are supported to integrate and coordinate services—may offer a strategy for addressing the compartmentalization of care," said Glenn Steele. "This type of system brings back the notion of managed care…as opposed to managed cost, which was appropriately killed," he added. Another of the payers noted, "We have starved primary care and have incentivized the care we are getting. Now, how do we fix it?…We are starting with the sickest patients and defining a role for primary care in managing their conditions."

In addition, some interviewees promoted other approaches such as information dissemination strategies and using lean management principles to map processes and drive out waste.

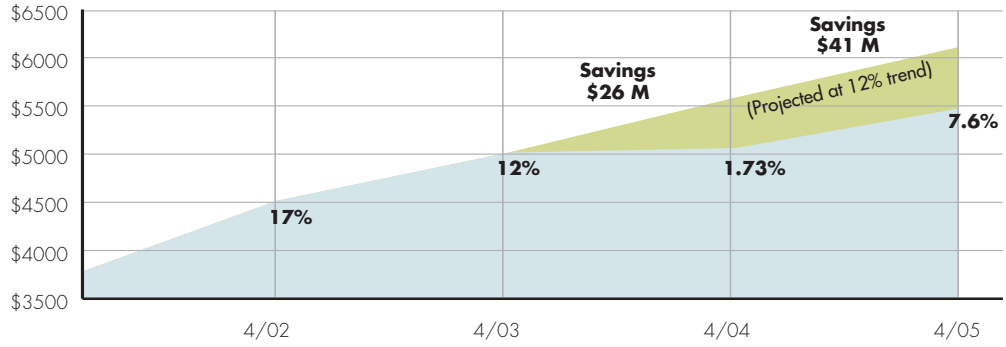
Information Dissemination. John Harold and Elizabeth Gilbertson reported that profiling of physicians at both Cedars Sinai Hospital, Los Angeles and the Hotel Employees and Restaurant Employees International Union (HEREIU) Welfare Fund, Las Vegas reduced practice variation. In both cases, the programs have evolved to include one-on-one follow-up meetings—physician to physician—to discuss and further understand profiling results.

In the case of the Fund, they formed an advisory group of physicians to garner input into the design of the profiling program, which assesses physicians on a broad set of quality indicators and uses cost as a screening mechanism. The physician community in Las Vegas was informed well in advance of the program launch and, according to Gilbertson, practice patterns began to change rather quickly. The Fund found that—based on episode costs—the highest cost physicians in their network were between four and nine times more expensive than their least expensive colleagues in treating common conditions. About 60% of the time, these higher costs could not be explained by the characteristics of the physician, practice or larger system, for example, by an unusual case mix such as a high proportion of HIV patients. According to Gilbertson, over the course of the profiling program's first year, the Fund cost trend fell from 12.3% to 1.73%, resulting in estimated savings of $67 million over two years (see chart below). During this period, the Fund also terminated 50 out of 1,800 physicians based on a variety of factors including specialty/sub-specialty, location, languages spoken, hours of operation, and patterns of care. Cost was used only as a screening tool, stressed Gilbertson.

Information can also moderate patient and physician demand for new treatments. Haskel applauded the recent effort of Medicare to disseminate data on the efficacy of new procedures and related risks, information that is based on beneficiary participation in clinical trials, which is required as a condition for payment. A specific case in point: patients and their doctors lost enthusiasm for a previously popular operation for advanced emphysema when the data showed a nearly 10% mortality rate and no lengthening in life for most patients. As a result, economists drastically cut their $15 billion estimate for Medicare's cost of the procedure once they saw that patients' more conservative treatment decisions were not an aberration.[11] Finally, another forthcoming example of using information to drive change is Aetna's partnering with high performing hospitals that have associated medical groups to exchange and analyze data, identify where efficient practices exist, and experiment with alternative payment models to foster efficiency.

HEREIU Fund, Las Vegas Network Physicians: An Example of Cost Variation: Urinary Tract Infection, Internal Medicine (2003)

Medical Cost Increases for HEREIU Welfare Fund, Las Vegas (2003–2005)
(per Eligible Enrolled Employee, Includes Rx)



"In the recent 'managed care era,' we looked for clinical accountability among those who have financial accountability; now we need to find ways to give financial accountability to those who have clinical accountability."

Richard Baron
GREENHOUSE INTERNISTS, PC

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Results of 175 Rapid Process Improvement Weeks at Virginia Mason Medical Center

Category	2004 Results (after 2 years of "lean")	Metric	Change from 2002
Inventory	$1,350,000	Dollars	Down 53%
Productivity	158	FTEs	36% redeployed to other open positions
Floor Space	22,324	Sq. Ft.	Down 41%
Lead Time	23,082	Hours	Down 65%
People Distance	Traveled 267,793	Feet	Down 44%
Product Distance	Traveled 272,262	Feet	Down 72%
Setup Time	7,744	Hours	Down 82%

SOURCE: Innovation Series 2005: Going Lean in Health Care. Institute for Healthcare Improvement 2005. Accessed at http://www.ihi.org/NR/rdonlyres/F4E4084A-6297-44DB-8A78-75008F6DA7A1/0/GoingLeaninHealthCareWhitePaper.pdf on 21 June 2006.

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Implementing Lean. Lean thinking, most commonly associated with the Toyota Production Model, is one of many waste reduction management methods that other industries have successfully implemented and that health care is beginning to adopt. It is focused on redefining processes to drive out waste, so that all work adds value and serves the needs of the patient. Virginia Mason Medical Center, which has been involved with lean work for the last five years, is a pioneer in this area; Cedars Sinai is also implementing lean. Gary Kaplan of Virginia Mason noted that all 5,000 employees in his organization are required to go through an "introduction to lean" course and a large number of them have participated in "lean weeks" to redesign core processes. Virginia Mason reports that they have used lean production techniques to significantly reduce inventory and floor space. They have also scrapped $8-10 million in planned expansions—for a hyperbaric chamber, and surgery and endoscopy suites—due to increased capacity in their existing hospital as a result of lean efforts.[12] Kaplan believes that his institution is making progress (see table below) but that full implementation of lean and the cultural changes it requires may take 20 or more years.

There were few marked differences in perspective across the stakeholder groups in terms of solutions, with most noting that any gains in efficiency as a result of such efforts needed to be shared. Specifics about how that might happen were not discussed; almost certainly there would be differences of opinion. Nevertheless, there was broad acknowledgement that the status quo was untenable and that collaborative efforts to focus on the "tragedy of the commons"—in this case, cost escalation—were necessary in order to stave off a future collapse of the health care system.

"Professionalism is not about autonomy or a lack of accountability, although it is sometimes construed that way."

Gary Kaplan
VIRGINIA MASON MEDICAL CENTER

"The system is so fragmented, it is dangerous for patients. Our hope is that primary care physicians will act as arbitrators and coordinators to reduce threats to patient safety."

Helen Haskell
MOTHERS AGAINST MEDICAL ERRORS

"In the early 1960s, we had limited knowledge but unlimited resources to apply that knowledge. Now the trend is reversing; we have unlimited knowledge but limited resources."

Timothy Ranney
BLUECROSS BLUESHIELD OF NEBRASKA

PHYSICIAN ROLE IN ENHANCING EFFICIENCY

Opinion leaders saw both distinct and overlapping roles for individual physicians and physician organizations in enhancing efficiency. Variation across stakeholder groups seemed to be related more to a lack of understanding about the roles of boards and specialty societies than to true differences of opinion.

Almost without exception, opinion leaders stressed that individual physicians need to assume broader accountability beyond their own patients and act as stewards of a finite set of resources. This notion of broader accountability for resource use is captured in the Physician Charter on Medical Professionalism[13] but is at odds with how most physicians are acculturated. Historically, physicians have been trained to focus on doing what is best for their individual patients, without consideration of the broader cost implications. "We need to help physicians provide excellent care and access, while not pricing patients out of the market," said Richard Baron. "Too often physicians do not think about those they do not see, e.g., the uninsured; they only think about who is at their door." Helen Haskel concurred. "Patients are terrified at the prospect of being caught in a spiral of unpredictable, unaffordable medical treatment…Medical bankruptcy is a far too common occurrence among the people I deal with." Further, each of the patient representatives and some of the payers underscored the need for physicians to hold each other accountable for reasonable standards, which could conceivably reduce variation in utilization.

Physicians will need additional skills and knowledge as well as a change in attitude to successfully take on this expanded role, and opinion leaders identified the need for medical schools, professional societies and the specialty boards to help in this regard. Two physician interviewees suggested that doctors learn specialized skills such as what tests to order and how to sequence them, and how to make resource tradeoffs, the latter from exposure to health administrators during their residency training programs. Clarion Johnson, ExxonMobil, noted that specialty societies should learn how to "infiltrate physician offices" in the same way that pharmaceutical companies have done with detailing, in order to promote IT, CME and other tools to teach practicing physicians ways of becoming more efficient. Marilyn Chow and others encouraged physicians to help lead and support care teams focused on enhancing efficiency. A case in point: Gary Kaplan, Virginia Mason's Chairman and CEO, led his entire organization, including 400 employed physicians, to adopt lean principles.

Elizabeth Gilbertson and Helen Haskel asked that physician organizations better define efficient care, particularly the quality component, and related metrics. Steve Pierdon, also from Geisinger, would like physician groups to come to a consensus about the hierarchy of quality goals, guidelines and related measures, and focus clinical guidelines on conditions instead of individual specialties in order to help integrate care and reduce waste. Others saw a need for physician organizations to define best practices in care coordination and transitions, and the key role that primary care might play in this regard. Timothy Ranney noted that physicians need to take leadership in designing disease management programs.

Both physician and patient leaders see a role for physician organizations to critically evaluate the existing evidence base for industry biases that may lead to inefficiencies before incorporating such information into CME programs or board exams. Baron and Steele noted that board exams could also include more questions about resource consumption and tradeoff decisions. Finally, Ellen Stovall and others suggested that societies or boards could build registries to facilitate physician benchmarking with respect to cost and quality, and learning networks focused on sharing best practices—in order to exemplify the scientific and ethical principles that they promote.

NOTES

[1] In the Quality Chasm report, efficiency is defined as "avoiding waste." In the recent IOM report on Performance Measurement, while noting that there is not yet consensus on this matter, efficiency is defined as "the mix of health care resource inputs that produce optimal quantity and quality of health and healthcare resource outputs."

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