The State of the nation's

Dartmouth's Elliott Fisher, left, and Jack Wennberg, right, have put Dartmouth on the map with their health-utilization research.

ALL: JON GILBERT FOX

By Maggie Mahar

health

The U.S. spends more on health care than any other nation. Does that money buy what it should? Not according to decades of Dartmouth research on regional variations in spending and outcomes. But policy-makers are now paying attention to the DMS work—and therein may lie a solution to the money-medicine puzzle.

"Care Varies Widely At Top Medical Centers"
—*Wall Street Journal*, May 16, 2006

"Less care could help chronically ill, study says"
—*St. Louis Post Dispatch*, May 16, 2006

"Spending won't get N.J. better end-of-life care"
—*Philadelphia Inquirer*, July 26, 2006

"Heart Procedure Is Off the Charts in an Ohio City"
—*New York Times*, August 18, 2006

"Back pain is behind a debate"
—*USA Today*, October 17, 2006

"High prices don't translate into better healthcare in South Florida"
—*Miami Herald*, December 17, 2006

These are a few of the headlines that research from Dartmouth's Center for the Evaluative Clinical Sciences (CECS) generated last year —a clear sign that its message is beginning to reach a wider public, just in time to become part of the nation's renewed discussion about health-care reform. That message can be distilled to a single sentence: "More care does not mean better care."

For decades, Americans have assumed that the fact that we spend so much more on health care than any other country stands as proof that we have the best health-care system in the world. But over the

The findings about geographic variations made by Jack Wennberg, Elliott Fisher, and their colleagues in Dartmouth's Center for the Evaluative Clinical Sciences have made headlines in major papers all across the country ever since the first edition of the *Dartmouth Atlas of Health Care* was published in 1996.

"The fact that the work [Dartmouth is] doing is so rigorous, and the reputation of those doing it beyond reproach," says Dr. George Isham, medical director of HealthPartners of Minnesota, "means that [it] brings issues to the table that we wouldn't be talking about otherwise."

past 20 years, work done by Dartmouth's Dr. John Wennberg and Dr. Elliott Fisher has forced U.S. health-care leaders to acknowledge that this simply isn't true.

Investigating staggering differences in how much Medicare spends on patients in various parts of the country, the Dartmouth team has discovered that in Manhattan and Miami, chronically ill Medicare patients receive far more aggressive care than very similar patients in places like Salt Lake City, Utah, and Rochester, Minn. Their research reveals that Medicare beneficiaries in high-cost states are likely to spend twice as many days in the hospital as patients in low-cost states and are far more likely to die in an intensive care unit. The odds are higher that patients in high-spending regions will see 10 or more specialists during their final six months of life. These facts alone aren't terribly surprising. But here's the stunner: Chronically ill patients who receive the most intensive, aggressive, and expensive treatments fare no better than those who receive more conservative care. In fact, their outcomes are often *worse*.

In high-cost regions, "patients with the same disease have higher mortality rates, very likely because of medical errors associated with increased use of acute-care hospitals," Wennberg and colleagues noted in a 2006 study of patients suffering from chronic diseases like cancer or congestive heart failure. As Fisher puts it, "Hospitals can be dangerous places—especially if you don't need to be there."

Thirty years of research

When CECS founder Jack Wennberg began publishing his research some 30 years ago, the medical establishment did not welcome his input. After all, one person's overtreatment is another's income stream. When people who have known Wennberg for a long time talk about him, they often use the word "courage."

"In the 1980s, people tried to poke holes in the data—to say that patients are different in different parts of the country," recalls Glenn Hackbarth, chair of the Medicare Payment Advisory Commission (MedPAC), an independent body charged with making recommendations to Congress.

But of course Dartmouth's researchers had considered the possibility that patients in some regions of the country might simply be sicker. So, over the decades, they have bent over backwards to adjust for differences in race, age, sex, and the overall health status of each community.

They acknowledge, for instance, that salubrious conditions in Grand Junction, Colo., mean that per capita Medicare outlays there will probably be about 20% below the national average, and they make an adjustment for that fact. By contrast, the comparatively poor health of Medicare beneficiaries in Birmingham, Ala. (one of the nation's least healthy communities), suggests that spending there should be nearly 25% above the national average. Nevertheless, even after factoring in these differences, Medicare expenditures are still twice as high in some regions as in others.

The CECS researchers have found no medical reason to justify the differences. Fear of malprac-

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tice suits in particularly litigious states comes to mind as a reason why some doctors and hospitals might be more zealous in performing diagnostic tests and interventional procedures. But even proponents of tort reform say that malpractice caps would reduce hospital spending by only 5% to 9%—not enough to explain twofold differences in the cost of care.

By the 1990s, it was getting harder and harder to shrug off Dartmouth's findings. With the 1996 publication of the first *Dartmouth Atlas of Health Care*, the work began making headlines nationwide. Today, almost no one questions the team's evidence or its conclusion: "Less care can be better care."

"The fact that the work they are doing is so rigorous, and the reputation of those doing it beyond reproach," says Dr. George Isham, medical director of HealthPartners of Minnesota, "means that [it] brings issues to the table that we wouldn't be talking about otherwise—namely the fact that more care leads to poorer quality. We are not just talking about wasting money," adds Isham.

"What is so profound—and so scary—is that the data is so powerful, and it doesn't change," observes Dr. Christine Cassell, president of the American Board of Internal Medicine. "There is a stark correlation between reduced utilization and better outcomes."

Study after study has proven the case. Just last spring, for example, Fisher and Dartmouth economists Jonathan Skinner and Douglas Staiger published a study in *Health Affairs* revealing that while there have been tremendous gains over the last 20 years in survival rates following an acute myocardial infarction (commonly known as a heart attack), survival gains have stagnated since 1996—even as spending has continued to climb—suggesting that we may have hit a point of diminishing returns. And once again, the results contradict the conventional wisdom that more care is better care: the gains in survival rates have been the smallest in regions like Southern California, where patients received more expensive, intensive care, and the greatest in areas like Minnesota, where they received more conservative care.

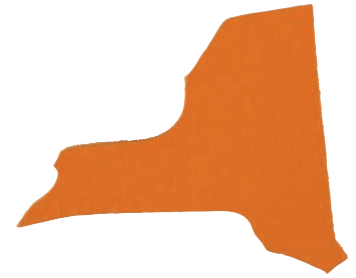
Meanwhile, the citizens of Minnesota contribute the same share of their paychecks to Medicare as do workers in California. But, on average, Medicare spends far more per beneficiary in Southern California than in St. Paul.

"Minnesota pays for the hospital building boom in California," observes HealthPartners' Isham. "And as long as the number of representatives in Congress coming from high-cost states [like New York and California] exceeds the number of representatives coming from low-cost states [like Utah and Minnesota], this will continue to be the case."

This uncomfortable fact helps to explain why politicians have been slow to act on the Dartmouth research—even though veteran members of Congress have been well aware of the data for years, according to Susan Dentzer, health correspondent for PBS's *NewsHour with Jim Lehrer.*

"We know that we're spending two and a half times as much to treat patients in Florida as in Minnesota—and we're killing them faster," says Dentzer, who is a 1977 graduate of Dartmouth College. "When [Florida's] Bob Graham was still in the Senate, I asked him about this. He changed the subject. A smart guy, he realized that it was politically impossible for him to tackle the issue."

Nevertheless, the evidence is inescapable, and in recent years what has become known simply as "the Dartmouth research" has found widespread acceptance, among both the cognoscenti of medicine and many of the movers and shakers in the Washington health-policy world. And now, as the conversation about health-care reform heats up once again, Dartmouth's work is helping to shape the discussion.



In Manhattan and Miami, chronically ill Medicare patients receive far more aggressive care than very similar patients in places like Salt Lake City, Utah. And here's the stunner: Patients who receive the most intensive, aggressive, and expensive treatments often fare *worse* than those who receive more conservative care.

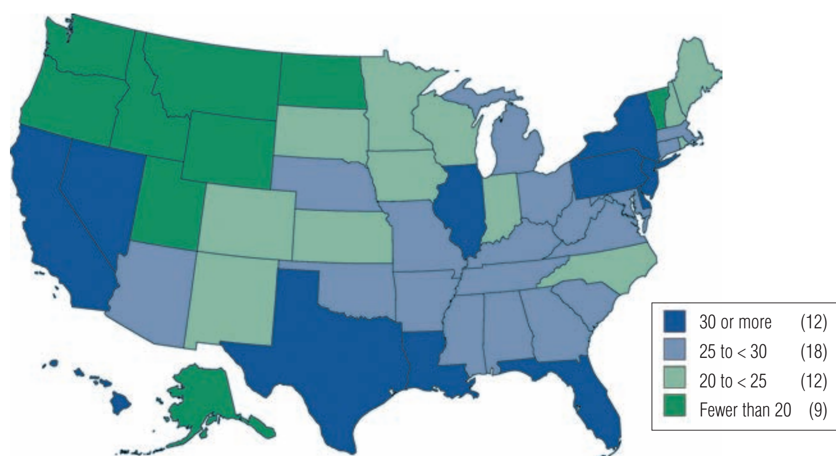
Re-examining reimbursements

The impact of Dartmouth's findings is manifest in a report on reimbursements to physicians that MedPAC released on March 1.

Today, Medicare pays most physicians on a fee-for-service basis: the more they do, the more they are paid. On the face of it, this makes sense—the doctor who performs more tests and procedures earns more.

The trouble is, the number of services physicians provide has been escalating ever-upward. So in 1997, Congress set a target for growth in Medicare's payments to physicians; called the Sustainable Growth Rate (SGR), the formula is tied to the growth of the economy as a whole. If overall billings from the nation's physicians come in under the SGR target, they are all supposed to be rewarded with a larger annual update in their Medicare fees; but if they miss the target, their reimbursements are supposed to be cut. Congress hoped that the SGR would provide a collective incentive for physicians to control the volume and intensity of services that they delivered. At least, that was the theory.

In practice, the SGR system has failed on all counts. From 2000 to 2005, the volume and intensity of Medicare physician services grew by over 5% annually—more than double the 2.2% growth rate permitted under the SGR. To offset this "excess spending," the SGR target called for reductions in physician fees. But when Medicare put the plan



Many of the maps in the *Dartmouth Atlas of Health Care* break the country up into hospital service areas, which cross state boundaries (like those shown in the newspaper clippings on page 28). But some of the studies based on *Atlas* data look at care on a state by state basis—such as this map showing the variation in the number of physician visits that patients made during their last six months of life.

In another study, the Dartmouth researchers zeroed in on how hospitals in California care for the chronically ill during their final two years of life. They found that Medicare paid some hospitals four times more than others—with no gain in the quality of care or patient satisfaction.

into action, slashing fees by 5.4% in 2002, the AMA howled, warning that some physicians might begin refusing to take new Medicare patients. And, in fact, the fees Medicare pays some doctors—particularly family physicians and general internists—are so low already that further cuts could make it hard for some to stay in business. "The primary-care physicians, they are the ones I worry about," says U.S. Representative Pete Stark, chair of the House Ways and Means Health Subcommittee.

And despite the threat of the SGR, physicians have continued to do more. In 2005, Medicare laid out $57.8 billion for physician services—up roughly 9.5% per beneficiary from 2004. Under the SGR formula, Congress should have continued to trim fees. But legislators have backed off. In 2003, they agreed that rather than cutting physician fees they would freeze them for two years beginning in 2004. And at the end of 2006, Congress granted doctors an 11th-hour reprieve, blocking a 5% cut planned for 2007. All scheduled cuts have now been pushed into the future.

Meanwhile, doctors continue to bill Medicare for more tests and more services. This is in part because technological advances are making more treatments available to more patients, as well as in part, say some physicians, because they must work harder to maintain their income levels. The cost of supplies, labor, and malpractice insurance continues to rise, and reimbursements are not keeping up with inflation.

What is more difficult to explain is why the use of specialists and ICUs is growing fastest in areas that Dartmouth's 2006 report on chronic diseases described as "regions with the highest baseline spending rates. In other words, the disparity between regions in spending and utilization appears to be increasing."

Here it becomes clear how Dartmouth's work cuts to the heart of what is wrong with the SGR formula: By calling for national cuts in physicians' fees, the SGR system turns a blind eye to geographic variations in care. If physicians in Portland, Ore., are conserving resources—and getting better outcomes—they don't deserve to have their fees cut. By contrast, specialists in Miami are doing more tests and performing more procedures—without getting better results. As MedPAC Chair Glen Hackbarth told the *New York Times* in 2005, the SGR system "is inequitable, because it treats all physicians and regions of the country alike."

But Congress recently asked MedPAC to recommend alternatives to the SGR, and this time no one is ignoring Dartmouth's work. When MedPAC met last November, Elliott Fisher was among the experts asked to testify.

Supply as a driver

Fisher began by explaining what is driving the more aggressive care for chronically ill patients in cities like Los Angeles and Miami: "More hospital beds per capita, more medical specialists, and more internists."

The numbers are stunning. According to Dartmouth's 2006 report, high-cost regions boast 32% more hospital beds, 31% more physicians, 65% more medical specialists, 75% more general internists, and 29% more surgeons than low-cost regions. Yet with all of these resources, the outcomes are no better. In other words, more intensive care is driven not by medical need but by what looks very much like excess capacity. Supply is fueling demand. And Medicare is not alone; studies show that Blue Cross Blue Shield has identified the same disparities.

Build the beds, in other words, and someone will fill them. And not just in big cities like Miami or Los Angeles. If you live in Lubbock, Tex., or Hattiesburg, Miss.—places where there are twice as many hospital beds per 1,000 residents as in the av-

erage low-spending region—you are more likely to find yourself in one of those beds.

And once you are there, "lying down and spending more time in the hospital," you are bound to see more specialists and subspecialists, Fisher told the MedPAC commissioners. And you will "get more tests and minor procedures—because that's what we do to you when you're there."

The Dartmouth team does not believe that specialists in high-treatment areas count the beds in their region and then, with an eye to boosting their income, grimly set out to fill them. As Wennberg explains it, the number of beds plays a subconscious role in physicians' decision-making. "While physicians don't really know how many beds are available," supply has a "subliminal influence on utilization," says Wennberg. "If there's a bed available, naturally you'll use it."

This is because when it comes to deciding whether or not to hospitalize a chronically ill patient, there is no rule book. When should a 65-year-old cancer patient suffering from congestive heart failure be admitted to the hospital? When would she be better off at home? The differences in spending come largely "in the gray areas of medicine," Fisher told MedPAC, areas "where there is uncertainty about the right thing to do."

Convenience often influences the decision, too. From a physician's point of view, it is easier to manage care in an inpatient setting, since there are no late-night calls. But hospitalization lowers the threshold for further intervention: it is now easier to order tests, perform minor discretionary surgeries, or consult with other specialists, who in turn order their own tests and treatments. So one thing leads to another. And in the background, the fee-for-service system rewards everyone for doing more.

When it comes to how often a patient sees a specialist, the uncertainties of medical science once again come into play. How frequently should a doctor see a patient suffering from congestive heart failure? Every two months? Every four months? Again, there are no clear guidelines.

"The doctor will sort it out based on how sick the individual patient is and how many openings he has in his schedule," Wennberg explains. "Specialists tend to fill their appointment books to capacity," so it is easy to see how doubling the supply of cardiologists in a particular town means that patients there will see their doctors twice as often.

The result of overtreatment

Uncertainty, convenience, and the automatic tendency to use whatever resources are available—whether time, beds, or technology—all of these explain how supply drives a doctor's decision-making. The process proceeds quite naturally. Yet none of these factors seem to have much to do with either medical science or the needs of the patient. Each step of the way, an individual doctor may or may not be overtreating a particular patient. But, as Fisher pointed out to MedPAC, a big-picture view of aggregate outcomes in high-spending regions shows "higher mortality rates . . . and no improvement in function."

Nor do patients appear to appreciate all of the attention. "We have some preliminary data about patient reports on quality, mostly from California," Fisher told the commission, "and patients in the higher-cost systems seem to report less satisfaction with care." Doctors in high-treatment areas appear equally unhappy. "We now have had an opportunity to interview doctors across the country," Fisher said in his MedPAC testimony, "and when physicians describe the quality of care, those in the higher-spending regions say that quality is worse."

What is most startling is that even at the nation's most prestigious academic medical centers, supply seems to drive medical decision-making. Since teaching hospitals are seen as setting the standard for best practices nationwide, one would assume that at these facilities, treatment rates would not vary much from one part of the country to another. One would be wrong.

For example, Dartmouth's researchers compared patients at different academic medical centers six months after a hip fracture. They discovered that patients at teaching hospitals in high-spending regions were the recipients of 82% more physician visits, 26% more imaging exams, 90% more diagnostic tests, and 46% more minor surgeries—without noticeable benefit.

In another study, researchers zeroed in on how hospitals in California care for the chronically ill during their final two years of life. They found that Medicare paid some hospitals four times more than others—with no gain in the quality of care or patient satisfaction. Meanwhile, the two-year tab for similar patients ranged from less than $20,000 to more than $90,000, with the number of days that patients spent in the hospital accounting for roughly two-thirds of the difference. Among academic medical centers, the University of California-Los Angeles (UCLA) and the University of California-San Francisco (UCSF) stood out, with UCLA's patients spending 45% more days in acute-care hospitals than UCSF's and getting 37% more referrals to 10 or more different physicians.

Some hospitals claim that they provide more services because that's what consumers in their area want. But the truth is that few patients cry out for

What is driving the more aggressive care for chronically ill patients in cities like Los Angeles and Miami is "more hospital beds per capita, more medical specialists, and more internists." Yet with all of these resources, the outcomes are no better.

Jack Wennberg, left, and Elliott Fisher, right, have focused on doing studies that examine the relationship between per-capita medical expenditures and health outcomes, while their colleagues in the Center for the Evaluative Clinical Sciences have investigated many other aspects of health-care utilization.

Donald Berwick, cofounder of the Institute for Healthcare Improvement, confirms Wennberg's estimate that one out of three dollars spent on U.S. health-care is wasted. He calls the outcomes research being done at Dartmouth "the most important health-service research of this century."

the opportunity to die in an ICU. Indeed, during their final two years of life, most would prefer to spend their days at home.

"People don't just go out and get care—their providers are telling them that they need care," points out consumer advocate Debra Ness, president of the National Partnership for Women and Families. "This is not about consumer demand for the most aggressive care," she continues. "The 'more is better' mindset begins with the health-care provider—not the consumer—because all of the financial incentives point providers in that direction."

Can waste help fund reform?

With its decades of data, Dartmouth has exposed the incredible waste in the U.S. health-care system. Sizing up the evidence, Wennberg estimates that up to one-third of the over $2 trillion that we now spend annually on health care is squandered on unnecessary hospitalizations; unneeded and often redundant tests; unproven treatments; over-priced, cutting-edge drugs; devices no better than the less-expensive products they replaced; and end-of-life care that brings neither comfort nor cure.

As Dartmouth's 2006 paper, "The Care of Patients with Severe Chronic Illnesses," points out, if this waste were eliminated, "the Medicare system could reduce spending by at least 30% *while improving the medical care of the most severely ill Americans*" (emphasis added).

In resource-heavy, high-spending regions, Medicare spends 61% more keeping all those hospitals beds full and all those specialists busy. (And the researchers adjusted for price differences in different communities; it was sheer volume of services that accounted for the 61% difference.) Yet the money does not buy "a longer life, or better quality of life." On the contrary, the study reveals that mortality rates at academic medical centers in high-cost regions were 5.2% higher for colon cancer patients, 5.2% higher for heart attack patients, and 1.9% higher for patients with a fractured hip.

"This is a frightening finding—with imponderably large implications for American health care," Dr. Donald Berwick, cofounder of the Institute for Healthcare Improvement (IHI), declared in 2003. "In fact, nobody wants to touch this one with a ten-foot pole."

Berwick confirms Wennberg's estimate that one out of three health-care dollars is wasted. He calls the outcomes research done at Dartmouth "the most important health-service research of this century." And Berwick faults policy-makers for not acting on the evidence: "Not a single leader of a health-care system or a single visible policy-maker has had the courage to take those findings to the next logical step, in either corporate or public-policy planning."

Berwick is not alone in recognizing that Dartmouth is talking about what almost no one else in the medical community quite dares to discuss. "By talking about unnecessary health care—and value—Dartmouth has walked into a huge vacuum," says Dr. Steven Schroeder, former president of the Robert Wood Johnson Foundation and now a Distinguished Professor of Health at UCSF. But the evidence is getting hard to ignore. "They've given power to businesspeople, who say we are not getting value for our health-care dollars," Schroeder adds.

The American public tends to be suspicious of talk by businesspeople about getting "value" for "heath-care dollars." Are they really concerned about the quality of care—or are they just trying to save money? But when prominent physicians like the IHI's Don Berwick and UCSF's Steve Schroed-

er, or consumer advocates like Debra Ness, speak out, people are more likely to trust the message.

"To understand that 'more is not better,' people first need to realize that 'not all health care is good,'" explains Ness. "We need to make this information easily available. And we need a credible messenger." Insurers and employers don't have the foundation of trust needed to persuade patients, says Ness. "Physicians and consumer groups need to deliver the message."

In Minnesota, HealthPartners Medical Director George Isham agrees that physicians must take the lead. "The care system needs to be redesigned, but I'm increasingly of the view that it doesn't need to be managed from outside by private insurers or the government." Instead, believes Isham, "the incentives need to be realigned so that physicians themselves reshape care."

Yet as presidential candidates and other politicians float plans for national health-care reform, few appear to recognize that achieving high-quality universal care requires first wringing the waste out of the system.

Most tend to look at only one part of the elephant, Schroeder observes: "Some want to cover the uninsured. Some worry about cost. Some focus on quality. They don't understand how each issue is linked to the other." Yet the Dartmouth research demonstrates that "cost-containment and quality go hand in hand."

"High-quality providers automatically contain costs by reducing errors, avoiding redundancy and unnecessary procedures," Schroeder explains. At the Mayo Clinic in low-spending Rochester, Minn., for example, patients are less likely to develop complications or infections following surgery—so they spend fewer days as inpatients and see fewer subspecialists. "Health-care organizations [in low-cost regions] are not rationing care," observed Dartmouth's 2006 paper on chronic care. "Rather, they are relatively more efficient, achieving equal and possibly better outcomes with fewer resources."

Few think of the Mayo Clinic as discount health care. But, the report notes, if UCLA managed resources the way Mayo does, it would need 50% fewer physicians.

In other words, "affordable, high-quality" care is not an oxymoron. Moreover, if we could learn to provide better care with fewer resources nationwide, we could then afford to provide high-quality care for everyone. "Long-term, we cannot create a sustainable health-care system that provides 'the right care at the right time' to everyone—unless we learn to contain costs," Schroeder warns. "As long as we focus on access, quality, and cost separately, we are going to continue to spin our wheels."

The beauty of the Dartmouth research is that it addresses all three issues—quality, cost, and covering the uninsured—simultaneously. By looking at outcomes as well as costs, it deconstructs the myth that "more" leads to higher quality. And, in the process, it points to how we might find the funds needed to cover the uninsured. There is enough money sloshing around in the system already to provide excellent care for all—if providers in Miami could just learn to practice medicine the way they do in Minneapolis.

Otherwise, the inequities will multiply as providers in high-spending regions continue to expand the volume of services they provide: "If the people of Iowa were ever to realize how their Medicare dollars are used [to pay for unnecessary care in high-spending regions]—while their own Medicare premiums go up—there would be a revolt," says Robert Reischauer, president of the Urban Institute and cochair of MedPAC. "Without compromising quality, we could save a lot of money," he adds.

MedPAC calls for change

Although politicians don't like to talk about geographic variations in health-care spending, MedPAC, to its credit, addresses the issue head-on in its March 1 report to Congress.

Citing the Dartmouth research more than 50 times in the 236-page document, MedPAC notes that "fee-for-service reinforces a general style of medical practice beyond the financial means of an increasing number of Americans. We fear that fee-for-service, left unchanged from its current design, . . . may contribute to more Americans joining the ranks of the uninsured."

Acknowledging that the sustainable growth rate (SGR) plan has not contained health-care inflation, the report lays out two alternatives:

Congress could repeal the SGR. Instead of paying the nation's doctors according to whether or not they exceed a national target, Medicare might adopt a pay-for-performance system that rewards providers for quality and efficient use of resources.

Alternatively, if Congress wants to continue to use annual targets for growth, the report suggests that those targets apply to all providers—hospitals and nursing homes, as well as physicians. Moreover, "the target, and any resulting payment adjustments, [should] be applied on a *geographic* basis," with "the greatest pressure . . . applied to those areas of the country *where per-beneficiary costs are highest* and the contribution to growth in expenditures is greatest" (emphasis added).

"This will be very controversial," acknowledges

The Dartmouth research points to how we might find the funds needed to cover the uninsured. There is enough money sloshing around in the system already to provide excellent care for all— if providers in Miami, Fla., could just learn to practice medicine the way they do in Minneapolis, Minn.

Inpatient Reimbursement Cost Equations: Selected Ratios to Mary Hitchcock Memorial Hospital										
	RATES DURING THE LAST TWO YRS OF LIFE			RATIOS TO MHMH						
HOSPITAL NAME	REIMBURSEMENTS	HOSPITAL DAYS	REIMB / DAY	HOSPITAL DAYS		REIMB / DAY		RATIO		
UCLA Med Ctr (Los Angeles, CA)	57,721	34.1	1,691	1.68	x	1.29	=	2.16		
New York-Presbyterian Hosp (New York, NY)	57,079	41.0	1,392	2.02	x	1.06	=	2.14		
Hosp of the University of Pennsylvania (Philadelphia, PA)	51,570	33.5	1,541	1.65	x	1.17	=	1.93		
Johns Hopkins Hosp (Baltimore, MD)	50,105	29.8	1,682	1.47	x	1.28	=	1.88		
UCSF Med Ctr (San Francisco, CA)	47,928	22.4	2,138	1.10	x	1.63	=	1.80		
University of Chicago Hosps (Chicago, IL)	43,185	24.5	1,760	1.21	x	1.34	=	1.62		
UPMC Presbyterian Shadyside (Pittsburgh, PA)	42,376	29.0	1,461	1.43	x	1.11	=	1.59		
Brigham and Women's Hosp (Boston, MA)	40,977	24.7	1,658	1.22	x	1.26	=	1.54		
University of Michigan Health System (Ann Arbor, MI)	40,952	25.1	1,635	1.24	x	1.24	=	1.53		
Stanford Hosp (Stanford, CA)	40,272	21.1	1,905	1.04	x	1.45	=	1.51		
Massachusetts General Hosp (Boston, MA)	37,122	29.9	1,240	1.48	x	0.94	=	1.39		
Barnes-Jewish Hosp (St. Louis, MO)	34,885	29.1	1,198	1.44	x	0.91	=	1.31		
Duke University Hosp (Durham, NC)	31,911	23.9	1,334	1.18	x	1.01	=	1.20		
St. Mary's Hosp/Mayo Clinic (Rochester, MN)	29,733	22.9	1,299	1.13	x	0.99	=	1.11		
Cleveland Clinic Foundation (Cleveland, OH)	28,805	23.9	1,205	1.18	x	0.92	=	1.08		
Mary Hitchcock Memorial Hosp (Lebanon, NH)	**26,687**	**20.3**	**1,316**	**1.00**	**x**	**1.00**	**=**	**1.00**		
LDS Hosp (Salt Lake City, UT)	22,326	18.0	1,238	0.89	x	0.94	=	0.84		

These charts show the efficiency of DHMC's Mary Hitchcock Memorial Hospital on two utilization measures, compared to selected other teaching hospitals; the data is from the *Dartmouth Atlas of Health Care*. Jack Wennberg says that although DHMC does well on many measures, institutions "don't get paid to do well," since the current reimbursement system rewards quantity rather than efficiency. For such institutions to remain efficient, he adds, "depends on maintaining the supply of resources at its current level and not jumping on a bandwagon to increase revenue" by doing more highly reimbursed services. For a video WEB EXTRA Q&A with Wennberg, see dartmed.dartmouth.edu/spring2007/html/atlas_we.php.

Average Number of Days in Intensive Care Units in the Last Six Months of Life at Selected Teaching Hospitals	
UCLA Med Ctr (Los Angeles, CA)	11.4
Thomas Jefferson Univ Hosp (Philadelphia, PA)	11.2
New York-Presbyterian Hosp (New York, NY)	5.0
Barnes-Jewish Hosp (St. Louis, MO)	4.5
Johns Hopkins Hosp (Baltimore, MD)	4.3
St. Mary's Hosp/Mayo Clinic (Rochester, MN)	3.9
Cleveland Clinic Foundation (Cleveland, OH)	3.5
Duke University Hosp (Durham, NC)	3.3
UCSF Med Ctr (San Francisco, CA)	3.3
Massachusetts General Hosp (Boston, MA)	2.8
Mary Hitchcock Memorial Hosp (Lebanon, NH)	**2.0**
Fletcher Allen Hosp (Burlington, VT)	1.9

MedPAC Chair Glenn Hackbarth. "People will argue that a geographically-based reimbursement system is unduly harsh on Miami. But we don't have an equal cost problem in all parts of the country."

Nevertheless, it's unlikely that Congress will ax reimbursements to Miami and Manhattan. More likely, politicians will search for ways to encourage providers in high-cost regions to emulate their peers in Minnesota.

Re-examining reimbursements

It's worth noting that Minnesota's providers don't just naturally practice more conservative medicine—it's learned behavior. "In the latter part of the 1980s, the Minneapolis-St. Paul region was at the national average for using medical resources," recalls David Durenberger, a former U.S. Senator from Minnesota. But then, in the heyday of managed care, Minnesota's providers learned how to manage resources and "utilization fell to 17% below the national average," says Durenberger, who now chairs the National Institute of Health Policy.

"Managed care actually worked in about 15% of the country," adds Durenberger, who is also a member of MedPAC. Now, he suggests, "we need to turn to the doctors and hospitals that have been successful in offering better quality care for less—and ask them how they do it."

On that point, Dartmouth offers some insights. For one, regions dominated by organized care—whether group practices or integrated health-care systems—tend to be more efficient. "Notable examples are the Mayo Clinic, the primary provider serving Rochester, Minn., and Intermountain Healthcare, an integrated system serving Salt Lake City, Utah," report Dartmouth's researchers. If providers everywhere followed Salt Lake's example, "Medicare reimbursements to hospitals would be cut by 32%, and payments for physicians' visits would fall by 34%."

Although solo practitioners treasure their autonomy, medicine today needs to become "a team sport," says Fisher. One reason is that large group practices are better able to afford the sophisticated information technology that allows providers to share electronic medical records and thus better coordinate care, reduce medication errors, and eliminate redundant tests. By contrast, "physicians in high-use areas, [where care is more fragmented], report worse communication among themselves, . . . greater difficulty ensuring continuity of care, and greater difficulty providing high-quality care," the MedPAC report observes.

But "requiring all doctors to abandon solo practice for group practice is a political nonstarter,"

Hackbarth acknowledges. At the same time, "physicians need to be accountable" for the quality of the care they provide. Yet measuring the performance of a solo practitioner is difficult. It's too easy for a few very sick or noncompliant patients to skew the results. Moreover, these days, treating any serious disease usually requires care by several providers, and the quality of that care depends to a large degree on how well they communicate and cooperate with each other.

In his testimony before MedPAC, Dartmouth's Fisher offered a possible solution: create virtual multispecialty groups on paper, clustered around the hospital where doctors in the "group" admit most of their patients. Any doctors who don't treat inpatients would be assigned to the hospital that most of their patients choose when they need to be hospitalized. (Since both doctors and patients tend to be loyal to one or two hospitals, most could easily be assigned to a virtual group.)

The hospital and its "extended medical staff" could then be held accountable, together, for the care they provide. "But first, we need to learn to measure the quality and efficiency of care," says Fisher. "Then Medicare can adjust how it pays," bundling payments to the hospital and its extended medical staff.

By rewarding "accountable groups," Medicare would encourage doctors and hospitals to work together—and to think twice about how excess capacity drives overtreatment, Fisher suggests. If groups are rewarded for prudent use of resources, they might hesitate before investing in yet another MRI unit. A new payment system also could "create incentives for physicians to say, 'Hey, the way to preserve our income is *not* to recruit six more cardiologists next year. We've already got 20,'" says Fisher. "It's key for doctors to realize that their future depends on professional birth control. If we try to control volume at the individual physician level, that means cutting fees, whereas if you look to the future and encourage people to make wise decisions about the capacity they're putting in place," over time they could reshape the system.

Challenges to reform

But change won't be quick. Fisher sees reform playing out over the next 10 to 15 years. The IHI's Berwick agrees: "This is a massive system facing massive change." Change needs to begin as soon as possible—but it will be a long process.

Just ask Dartmouth's Jack Wennberg what UCLA did when it saw the report comparing it to UCSF: "To make the changes they would need to make [to become as efficient as UCSF], they would have to fire a lot of doctors and close a lot of beds. And so far," he adds dryly, "we haven't seen a lot of doctors on the job market in Los Angeles."

Yet Wennberg is not unsympathetic: "They know they have a problem. But they don't see a solution. They have bonds and huge indebtedness." In other words, UCLA can't afford to slash its income stream. "We won't see any real progress until Medicare changes the economic incentives," Wennberg adds.

"Medicare has the size and reach to have an impact," explains Dr. James Mongan, CEO of Partners HealthCare in Massachusetts. "But Medicare is run by a board of directors called Congress. And politicians don't want to take money out of their districts."

"The problem is not the doctors," says Berwick. "They know the present system isn't working. It's the institutional interests—the hospitals, the insurers, the drug-makers, the device-makers that profit" from the notion that more care is always better. And all those organizations have lobbyists.

Can Congress find the political will to stand up to those lobbyists? Some say that the politicians involved in the ill-fated Clinton health-care plan of the early 1990s were too badly burned to ever stick their necks out again. But Berwick does not accept this excuse: "This country has overlearned from the Clinton experience," he declares. "It's like saying I proved you can't play the cello because I tried it one time."

It's still "early days," he adds. "The steps that we are taking now—health savings accounts and consumer-driven care—will fail. The pain will remain unabated. And then maybe we'll turn to the insights the Dartmouth team offers us."

First, he says, patients need to understand what is in their own best interests. Many still view "efficiency" as an ugly word when applied to medicine. And many cling to the notion of "my doctor." Although health-care leaders are beginning to realize that the complexity of 21st-century medicine requires that it be a "team sport," patients often don't want to be treated by a group. "Where we need to go runs counter to some deeply held American traits and values," says Hackbarth, "both our deeply ingrained belief that more is better and our belief in the autonomy of the individual."

Yet the MedPAC commissioners have heard the Dartmouth message—that a fee-for-service system designed to reward quantity, not quality, is headed for the wall. Soon, Congress will be forced to act, too. "Wennberg, Berwick . . . there are always a few people ahead of their time," says Dave Durenberger. "All it takes is for someone to light a fire, and we'll all come flocking to them." ■

Group practices and integrated systems tend to be more efficient. A notable example is Intermountain Healthcare, serving Salt Lake City, Utah. If providers everywhere followed Salt Lake's example, Medicare payments to hospitals would be cut by 32%, and payments for physicians' visits would fall by 34%.