The New York Times

PRINTER-FRIENDLY FORMAT SPONSORED BY IN THE PERFORMANCE OF A LIFETIME

November 8, 2009

Making Health Care Better

By DAVID LEONHARDT

I.

During one of our first conversations, Brent James told me a story that you wouldn't necessarily expect to hear from a doctor. For most of human history, James explained, doctors have done more harm than good. Their treatments consisted of inducing vomiting or diarrhea and, most common of all, bleeding their patients. James, who is the chief quality officer at Intermountain Healthcare, a network of hospitals and clinics in Utah and Idaho that President Obama and others have described as a model for health reform, then rattled off a list of history books that told the fuller story. Sure enough, these books recount that from the time of Hippocrates into the 19th century, medicine made scant progress. "The amount of death and disease would be less," Jacob Bigelow, a prominent doctor, said in 1835, "if all disease were left to itself."

Yet patients continued to go to doctors, and many continued to put great in faith in medicine. They did so in part because they had no good alternative and in part because, as James put it, they wanted a spiritual counselor with whom they could talk about their health. But there was something else, too. There was a strong intuitive logic behind those old treatments; they seemed to be ridding the body of its ills. They made a lot more sense on their face than the abstract theories about germs and viruses that began to appear in the late 19th century.

So the victory of those theories would require a struggle. The doctors and scientists who tried to overturn centuries of intuitive wisdom were often met with scorn. Hippocrates himself wrote that a physician's judgment mattered more than any external measurement, and the practice of medicine was long organized accordingly.

In the end, of course, the theories about germs and viruses won out. They had the advantage of being correct, and doctors — haltingly and skeptically, but eventually — embraced them. "Medicine adopted the scientific method," James said as we were sitting in his Salt Lake City office, which looks out onto the Utah State Capitol Building and the Wasatch Mountains. "It transformed medicine, and it's easy to make the case." Diphtheria, mumps, measles and polio were conquered, and pneumonia and heart attacks became far less deadly. In 1910, life expectancy at birth in the United States was less than 50 years, and it had not risen much for centuries, James noted. Life expectancy today is 78 years.

But there is one important way in which medicine never quite adopted the scientific method. The explosion of medical research over the last century has produced a dizzying number of treatments for different ailments. For someone with heart disease, there is bypass surgery, stenting or simply drugs and behavior changes. For a man with early-stage prostate cancer, there is surgery, radiation, proton-beam therapy or so-called watchful waiting. To enter mainstream use, any such treatment typically needs to clear a high bar.

It will be subject to randomized trials, statistical-significance tests, the peer-review process of academic journals and the scrutiny of government regulators. Yet once a treatment enters the mainstream — once we know whether it works in certain situations — science is largely left behind. The next questions — when to use it and on which patients — become matters of judgment, not measurement. The decision is, once again, left to a doctor's informed intuition.

"There are some real advantages to that," James says, "and in some ways there are some real disadvantages too." The human mind can sometimes do a better job of piecing together amorphous bits of information — diagnosing a disease, for example — than even the most powerful computer. On the other hand, human beings can also be unduly influenced by just a few experiences, like the treatment of an especially memorable patient. As a result, different doctors frequently end up coming up with different answers to the same question. Cardiologists in Davenport, Iowa, are quick to insert stents; cardiologists in Iowa City and Sioux City are not. They can't both be right. Some people with heart disease are getting the best treatment, and some are not. The same is true of debilitating back pain, various cancers and even pregnancy.

The health care debate of 2009 has had so many moving parts that it has sometimes seemed impossible to follow. The crisis behind the debate, though, is about one thing above all: the scattershot nature of American medicine. The fee-for-service payment system — combined with our own instincts as patients — encourages ever more testing and treatments. We're not sure which ones make a difference, but we keep on getting them, and costs keep rising. Millions of people cannot afford insurance as a result. Millions more have had their incomes pinched by rising insurance premiums. Medicare is on a long-term path to insolvency. The American health care system is vastly more expensive than any other country's, but our results are not vastly better.

Any bill that Congress passes this year is unlikely to fix these problems. The lobbying groups for drug companies, device makers, insurers, doctors and hospitals have succeeded, so far, in keeping big, systemic changes out of the bills. And yet the modern history of medicine — the story that James tells — nonetheless offers reason for optimism. Medicine has changed before, after all. When it did, government policy played a role. But much of the impetus came from inside the profession. Doctors helped change other doctors.

For the past decade or so, a loose group of reformers has been trying to do precisely this. They have been trying to figure out how to improve health care while also holding down the growth in costs. The group includes Dr. John Wennberg and his protégés at Dartmouth, whose research about geographic variation in care has received a lot of attention lately, as well as Dr. Mark McClellan, who ran Medicare in the Bush administration, and Dr. Donald Berwick, a Boston pediatrician who has become a leading advocate for patient safety. These reformers tend to be an optimistic bunch. It's probably a necessary trait for anyone trying to overturn an entrenched status quo. When I have asked them whether they have any hope that medicine will change, they have tended to say yes. When I have asked them whether anybody has already begun to succeed, they have tended to mention the same name: Brent James.

II.

ON A RECENT Wednesday morning, about 25 students gathered in a conference room in downtown Salt Lake City. The students were doctors and hospital executives who came to Utah to be taught by James. His four-month course is called the Advanced Training Program, and it is a combination of statistical methods

and management theory applied to the practice of medicine. “I’ve wanted to go for years,” Janet Porter, the chief operating officer of the Dana-Farber Cancer Institute in Boston, told me later. For anybody interested in improving the quality of health care, she said, the program is the equivalent of Harvard.

At the front of the room stood James, a 58-year-old surgeon by training who speaks with the clipped accent of an Idaho native and likes to make his points by telling stories. On more than one occasion, including this one, I watched him pour himself a Diet Coke and then leave it untouched as he jumped from one illustrative tale to another. On this morning, he was telling the class the story of Intermountain Healthcare.

In the late 1980s, a pulmonologist at Intermountain named Alan Morris received a research grant to study whether a new approach to ventilator care could help treat a condition called acute respiratory distress syndrome. The condition, which is known as ARDS, kills thousands of Americans each year, many of them young men. (It can be a complication of swine flu.) As Morris thought about the research, he became concerned that the trial might be undermined by the fact that doctors would set ventilators at different levels for similar patients. He knew that he himself sometimes did so. Given all the things that the pulmonologists were trying to manage, it seemed they just could not set the ventilator consistently.

Working with James, Morris began to write a protocol for treating ARDS. Some of the recommendations were based on solid evidence. Many were educated guesses. The final document ran to 50 pages and was left at the patients’ bedsides in loose-leaf binders. Morris’s colleagues were naturally wary of it. “I thought there wasn’t anybody better in the world at twiddling the knobs than I was,” Jim Orme, a critical-care doctor, told me later, “so I was skeptical that any protocol generated by a group of people could do better.” Morris helped overcome this skepticism in part by inviting his colleagues to depart from the protocol whenever they wanted. He was merely giving them a set of defaults, which, he emphasized, were for the sake of a research trial.

The crucial thing about the protocol was that it reduced the variation in what the doctors did. That, in turn, allowed Morris and James to isolate the aspects of treatment that made a difference. There was no way to do that when the doctors were treating patients in dozens of different ways. James has a provocative way of describing his method to doctors: “Guys, it’s more important that you do it the same way than what you think is the right way.”

While the pulmonologists were working off of the protocol, Intermountain’s computerized records system was tracking patient outcomes. A pulmonology team met each week to talk about the outcomes and to rewrite the protocol when it seemed to be wrong. In the first few months, the team made dozens of changes. Just as the pulmonologists predicted, the initial protocol was deeply flawed. But it seemed to be successful anyway. One widely circulated national study overseen by doctors at Massachusetts General Hospital had found an ARDS survival rate of about 10 percent. For those in Intermountain’s study, the rate was 40 percent.

All along, Morris has been reluctant to give the protocol credit for the increase. As he explained to me, Intermountain’s trial differed from the earlier study in any number of ways. Still, his once-skeptical colleagues were impressed. Orme said that the gap in survival was eye-opening for him and others. James was thrilled not only by the results but also by the fact that the doctors managed to put together such a complex set of clinical guidelines.

In the years since the ARDS study, one Intermountain department after another has embarked on a similar project. By now, the hospital has gone through the exercise for 50 clinical conditions, accounting for more than half of Intermountain's patients. For each, a committee made up of doctors, nurses and administrators has tried to identify variation and then figure out which treatments have not been working.

The committee members are drawn from Intermountain's network of 23 hospitals and dozens of clinics in Utah and Idaho. These doctors and nurses can then spread the gospel of the protocol, and their words are far more influential than any printed document. Whenever possible, the guidelines are also embedded in the hospital's computer system. Doctors and nurses are presented with a default choice — how much of a given drug to prescribe, for example — and have the option of overriding it. Most important, the electronic records system allows both committees and doctors to track patient outcomes. Doctors with consistently poor results can expect to be pulled aside for a collegial conversation with a supervisor about what they might be doing wrong. Doctors with the best results can expect to be asked what they are doing right. Doctors in many areas are also eligible for bonuses of up to about $2,500 a year if their outcomes are good.

Tracking outcomes and adjusting care, however, is rarely easy or clear-cut. Among many other things, the committees have to decide how to balance Intermountain's internal evidence with published studies that are both more scientific and potentially less relevant. By any definition, the exercise depends on human judgment. At one primary-care meeting I attended, Dr. Scott Lindley said he had heard complaints from doctors who thought the committee made a mistake by setting the goal for hemoglobin A1c levels — a common measure of blood sugar in diabetes patients — at 8. If an obese person came in at 13 and the medical team reduced the level to 9, wasn't that a success? An 8 might be too ambitious a benchmark, Lindley said. "Some literature shows 9 is better," he noted.

In response, Dr. Michael Visick, another committee member, pointed out that nobody was being punished for having patients with hemoglobin levels above 8. Doctors were simply asked to take a second look at those patients. And the only reason the committee set a benchmark was that data had shown the percentage of patients with a level above 8 was rising, Visick said. That was a sign that Intermountain's diabetes care might be slipping. Lindley seemed to accept the explanation. Still, he added with a tone of mild sarcasm that he was sure his colleagues would "just go away happy" when he conveyed the explanation to them.

James's answer to such skepticism — and there is a lot of it, especially beyond Intermountain — is to show results. Intermountain has reduced the number of preterm deliveries, as well as the number of babies who must spend time in the neonatal-intensive-care unit. So-called adverse drug events, which include overdoses and allergic reactions, were cut in half in the mid-1990s. A protocol for dealing with one broad category of pneumonia cut its mortality rate by 40 percent over several years. The death rate for coronary-bypass surgery was cut to 1.5 percent, from the national average of about 3 percent. Medicare data on heart-failure and pneumonia patients show that Intermountain has significantly lower-than-average readmission rates. In all, James estimates that the changes have saved thousands of lives a year across Intermountain's network. Outside experts consider that estimate to be fair.

Wennberg, the Dartmouth researcher, argues that Intermountain is fundamentally different from other oft-cited models of high-quality, lower-cost care, like the Mayo Clinic and the Cleveland Clinic. These places, including Intermountain, share certain traits, like having a large number of doctors who receive fixed salaries rather than being paid piecemeal for each treatment. Partly as a result, these hospitals do

fewer tests, treatments and operations than other hospitals and still get excellent results. What sets Intermountain apart, Wennberg says, is that it is also making a rigorous effort to analyze and improve bedside care.

“It’s the best model in the country of how you can actually change health care,” Wennberg told me. I heard nearly the same argument from Anthony Staines, a health scholar and hospital regulator in Switzerland who recently completed a study of some of the world’s most-admired hospitals. “Intermountain was really the only system where there was evidence of improvement in a majority of departments,” Staines said.

Among James’s biggest points of pride is his growing, if still small, group of imitators. Thirty-five hospitals have set up in-house versions of his course, usually run by one of his former students. “Everybody is trying to systemically improve value and quality,” says Dr. John Mendelsohn, the president of the University of Texas M.D. Anderson Cancer Center in Houston, which started its course in 2005. “But at Intermountain they have worked out the operational system and the culture to do it.” Based on the success of the Anderson program, the University of Texas has required all the other branches of its medical system to start their own courses.

Viewed across the entire health care system, however, the pace of change is extremely slow. The journal Health Affairs will soon publish a survey of the chairmen of more than 700 hospitals. Its main message is that many hospitals are not even aware of what they do well and what they don’t. The physicians who conducted the survey, Ashish Jha and Arnold Epstein, gave the chairmen a list of issues — including financial performance, organizational strategy and the quality of health care — and asked them to name their board’s two top priorities. Roughly half did not name the quality of care. Yet the chairmen said they believed that the care at their hospitals was above average. Even at those hospitals that Medicare data suggest are among the worst in the country, 58 percent of the chairmen said they thought their hospital was above average. Not a single one said the hospital was below average.

“Brent is the future,” says Lucian Leape, a professor of public health at Harvard and a former surgeon. “But how long are you willing to wait? It may take 100 years.”

III.

WHEN JAMES WAS growing up on a cattle ranch in Blackfoot, Idaho, as the oldest son in a family of six children, he spent a fair amount of time on a tractor. Sometimes he would have nothing to do but wait for a ditch to fill up with water. So he brought along a calculus textbook. “I’m one of the relatively rare subset of people that finds math fun,” James said. “Just thinking about it was fun. It’s how my brain is wired.” He liked the elegance of mathematics, and he also liked that it could describe the workings of the world. Numbers could tell stories. Like many number lovers who don’t want to do pure, abstract math, James decided to be an academic physicist. He enrolled at the University of Utah and spent his time there working on high-energy physics and the relatively new field of computer science.

“One day, we’re in the lab and we’re working away, and we had a postdoc there,” James recalled. “We had a little conversation, and he said I was an idiot for going to into physics.” The postdoc explained that there was “a line 200 people long for any university faculty position.” After checking around, James decided that the postdoc was right, and he began looking for another field that offered both fascinating research

questions and decent career prospects. Medicine seemed as if it might be the answer. He applied to the University of Utah's medical school and was accepted

James enjoyed treating patients more than he expected, and he became a cancer surgeon. But research remained his main interest. After his residency, he did a fellowship at the National Cancer Institute, outside Washington, and then took a job at the American College of Surgeons, helping to oversee its cancer research. One of his projects involved studying variation in how oncologists determined cancer stages and then treated patients.

Eventually he joined the faculty at the Harvard School of Public Health. While in Boston, he and his wife divorced, which made him want to be closer to his family out West. Salt Lake City was especially appealing because James is an observant Mormon. In 1986, he was hired by Intermountain as the director of medical research and continuing medical education. At the time, Intermountain was one of the few medical systems with electronic patient records.

The job gave James his first real chance to put his research into practice. He was no longer working where so many other reformers do, in an academic department or government agency. He was working for a hospital. But being in the real world also created a problem for him. He could not simply tell Intermountain's doctors what to do, no matter how much research he brought to bear. Doctors have a degree of professional autonomy that is probably unmatched outside academia. And that is how we like it. We think of our doctors as wise men and women who can combine knowledge and instinct to land on just the right treatment. Our fictional doctor heroes, from Marcus Welby to House, are iconoclasts who don't go by the book. They rely on intuition, and intuition is indeed a powerful thing, be it in medicine or other parts of life.

Everyone has had the experience of being able to read someone's face or voice — to know his or her mood — without knowing how. Then there are the stories of firefighters who have rushed out of a burning building shortly before it collapses. Gary Klein, a cognitive psychologist and researcher, collects examples like these, and one of the most powerful involves a paramedic who, at a family gathering, told her father-in-law that he needed to go the hospital. He said he felt fine. She prevailed on him. The next day, he was undergoing heart-bypass surgery. Like the firefighters and the face readers, the paramedic could not explain her reasoning. She did not know how she knew what she knew. When she was interviewed later, she said that she must have been tipped off by the kind of paleness and swelling that she had seen dozens of times before.

Stories like this one are deeply appealing. They allow us to feel that we are tuned into the mysterious logic of life. Indeed, in many ways we are. The human mind can store huge amounts of knowledge. Intuition is not simply belief; it springs from this knowledge. A doctor making an intuitive diagnosis is doing so on the basis of thousands of hours spent treating patients. The problem, however, is that the mind is not particularly good at sorting through this knowledge and weighing different parts appropriately. We give too much weight to information that confirms our suspicions or that is highly memorable.

Behavioral researchers have come to believe that there is a clear pattern to when intuition works and when it doesn't. "Intuitive diagnosis is reliable when people have a lot of relevant feedback," says Daniel Kahneman, a Nobel laureate in economics who recently collaborated on a project about intuition with

Klein. People need a great deal of experience, and the feedback from these experiences — whether a treatment is working, say — needs to come quickly and to be clear. “But,” Kahneman adds, “people are very often willing to make intuitive diagnoses even when they’re very likely to be wrong.” When doctors have been asked to estimate the likelihood of a treatment succeeding based on experience, for example, they give wildly divergent answers. Medicine is full of such examples.

James is a voracious consumer of social science, and he likes to frame these issues with opposing concepts: pattern matching and rate estimation. Pattern matching refers to intuition at its best. It is what people can do in those few areas in which they have had vast experience and clear feedback. Rate estimation is a task that people usually do not perform well but that happens to make up a great deal of modern medicine. “When a person says, ‘In my experience,’ what’s actually happening is you’re being dominated by one or two recent cases that you can recall or by some distant case that was either particularly good or particularly bad,” James says. “My first goal for Intermountain is that anytime a physician or nurse says, ‘In my experience’ when they’re talking to a patient, they mean, ‘In my measured experience.’ ”

IV.

TWO YEARS AGO, Jerome Groopman, the Harvard doctor and New Yorker writer, published a book called “How Doctors Think.” It would seem in many ways to be the kind of book that James and the other medical reformers would love. Groopman tells a series of stories about misdiagnosis and uses academic research, including Kahneman’s, to explain how intuition could lead doctors astray. But Groopman comes to a very different conclusion than the reformers do. In the book and his subsequent writings, he lays out the central challenge to what might be called the Intermountain way.

He argues that evidence-based medicine is useful in only a limited number of run-of-the-mill situations, like distinguishing between strep throat and a simple sore throat. “Human beings are not uniform in their biology,” wrote Groopman and Pamela Hartzband, a Harvard endocrinologist (and Groopman’s wife), in a Wall Street Journal op-ed article criticizing the Obama administration’s plans to tie Medicare payments to so-called quality metrics. “A disease with many effects on multiple organs, like diabetes, acts differently in different people.” Groopman and Hartzband mentioned a handful of studies in which protocols had led to outcomes that were no better, or even worse, than what doctors had previously been doing. A couple of the studies dealt with the regulation of blood sugar in diabetics, the same issue that came up in the primary-care meeting I attended at Intermountain.

To Groopman, a fundamental problem with “systems analysis,” as he calls it, is that it discourages doctors from considering a wide-enough array of possible treatments. He also worries that if doctors are judged based on how well they follow a protocol, they may follow it even when they are correctly skeptical of it. Groopman says that the proper solution to misdiagnosis instead lies with individual doctors. If they are taught the ways in which their instincts can lead them astray, and if they reflect on their previous mistakes, they can avoid some of the pitfalls of intuition. They can become more self-aware.

This debate between intuition and empiricism is as old as Plato, who thought that knowledge came from intuitive reasoning, and Aristotle, who preferred observation. The argument has seemed especially intense lately, as one field after another has struggled to define the role of human judgment in a data-saturated society. The police officials in New York City who overhauled crime fighting were classic empiricists. The

debate over education reform revolves around how well teachers can be measured and what the consequences of those measurements should be. These disagreements can sometimes be exaggerated, because everyone agrees that intuition and empiricism both have a role to play. But the fight over how to balance the two is a real one.

I asked James one day whether he had read Groopman's criticisms, and he said yes. "Groopman's right at one level," James said. "You cannot write a protocol that perfectly fits any patient. Humans that come to us for care are just too variable." James likes to say that the trained, expert mind of a physician is the most valuable resource in medicine. He adds that he is simply trying to focus that resource on the problems where it is most needed: those for which data does not have an answer.

But James then pulled out a graph that was sitting on his desk. It showed a steep fall in mortality after Intermountain put in place a heart-failure protocol. Among other things, doctors now automatically receive a beta-blocker prescription to sign, or not, as part of a patient's discharge process. The changes appear to save about 450 lives a year. Graphs like that one, he said, are the reason he believes in evidence-based medicine. It must be done right — with hospitals monitoring outcomes at every step, quickly sharing that data with doctors and altering the guidelines as necessary — and James acknowledges it isn't always done right. He is not defending protocols per se. He is defending measurement. "Don't argue philosophy," he told me. "Show me your mortality rates, and then I'll believe you."

Groopman declined to be interviewed for this article, but after talking with medical researchers and social scientists, I think there is a way to make sense of Groopman's and James's dueling narratives. The researchers say that Groopman is right to highlight examples of human judgment being just as good as data. There are many of them. Still, the overall record of decision-making approaches that are based mostly on intuition is far weaker than the record of decisions based mostly on data. To give just one example, an article in the journal Psychological Assessment, analyzing dozens of studies that compared clinical judgments with data-based diagnoses, found that clinical judgments were better in only a few instances. The two approaches were equally accurate about half of the time, but the data-based diagnoses substantially outperformed human judgment in nearly half of the studies. And with data collection becoming ever cheaper, Kahneman says that the number of occasions in which an intuitive approach beats a systemic one is getting smaller all the time.

American medicine, then, appears to have it backward. Yes, it is possible to rely too heavily on numbers and patterns when treating patients. But the bigger risk — the one we are now taking — is relying too heavily on intuition. "There is too much evidence — good evidence — that the care many patients receive isn't up to snuff," says Dr. Alan Garber of Stanford University.

Perhaps the clearest example is the Pronovost checklist. As many as 28,000 people in this country die each year from infections that come from intravenous lines. Several years ago, Peter Pronovost, a Johns Hopkins physician, developed a simple list of five steps that intensive-care doctors should take before inserting an IV line, in order to prevent the introduction of bacteria. The checklist reduced the infection rate to essentially zero at 108 hospitals in Michigan where it was adopted. Pronovost published the results in The New England Journal of Medicine in 2006. But most intensive-care doctors are still not using the checklist. To insert an IV line, they continue to rely on their own judgment.

V.

THE COMMITTEES that James sets up to study variation in treatment do not disband after they have written their initial protocols. They meet monthly to tweak those protocols, set clinical goals and track patient outcomes. The statistics the committees examine reach down to the level of the individual doctors.

Last summer, the members of the labor-and-delivery committee noticed some worrisome signs about an obstetrician at an Intermountain hospital outside Salt Lake City. His births were taking unusually long on average, and a relatively large number of them were Caesarian sections. So Ware Branch, the head of the labor-and-delivery committee, a fit obstetrician in his 50s, sent the doctor a letter asking him to think about what might be causing the trends. One item on the committee's September agenda was talking about the doctor's response.

Sitting at the head of a long conference table, Branch started the discussion by inviting the other members to predict what the doctor had said. "What do we know the first issue is?" Branch asked.

A few called out, "The data's wrong!"

This is the classic response when doctors (and many other people) are confronted with numbers indicating they could be doing their job better. Doctors often say that their outcomes look worse because their patients are sicker. In this case, the obstetrician suggested that Intermountain's numbers were just not right. Branch and his colleagues were confident of their statistics, and they thought this might be what Janie Wilson, the lead nurse on the committee, called "a little growth opportunity."

The labor-and-delivery committee was formed in 1998, and its main success since then has been reducing the number of elective inductions — births that are induced without a medical reason. Elective inductions can be convenient for doctors and expectant families and can spare mothers some of the discomfort of the final weeks of pregnancy. But since 1999, the American College of Obstetricians and Gynecologists has recommended that, for the sake of the baby's health, no elective inductions be done before the 39th week of pregnancy. The dating of pregnancy is sufficiently uncertain that what is thought to be the 38th week may really be the 36th week, and a baby born in the 36th week is more likely to have underdeveloped lungs or other problems. Early elective inductions also lead to longer labors and more C-sections.

Despite the recommendation, though, about 30 percent of elective inductions at Intermountain in 2001 were done before 39 weeks, roughly what the national share was. That year Intermountain adopted a protocol urging doctors to avoid most early inductions, and only then did the rate begin to fall. One hospital in southwest Utah has gone so far as to allow nurses to refuse a doctor's early-induction orders unless the medical director has given permission. By 2004, the share of elective inductions done before the 39th week at Intermountain fell to 5 percent, and it is now less than 2 percent. The number of newborns with respiratory problems has also dropped.

At the September meeting, Branch distributed his own response to the obstetrician's response. It was a breezy letter full of doctor bonhomie, and it profusely thanked the obstetrician for taking the time to respond in writing. "You are perfectly right to question the data," Branch wrote. "We have been found incorrect in numerous cases." But for all its politeness, Branch's letter was also pointed. With it, he attached a list of every elective induction the obstetrician had done recently and invited him to identify any that had

been incorrectly classified. Branch also enclosed statistical profiles of other, similarly busy obstetricians. They performed fewer C-sections and had shorter delivery times. The letter's final section included the following:

"Lastly, quality improvement is a process, not an event. In part it works by finding variation and drawing attention to it, as has happened with you and others in this effort. And well-done quality improvement is not punitive; it's educational. It is also worth noting that those docs determined not to learn never do."

VI.

THERE IS, OF COURSE, an alternative to Intermountain's focus on doctors. Instead of creating committees charged with ensuring the best possible medical care, a hospital could turn over that responsibility to patients. Some parts of the grass-roots medical-reform movement are already trying to make this happen.

Academic research has suggested that when doctors share hard information about the risks and benefits of different treatment options, it can affect patients' decisions. Patients tend to choose less-aggressive treatments but still end up with similar outcomes and are more satisfied with their care. Intermountain is one of the hospitals starting to experiment with such "shared decision" models. Dartmouth's Hitchcock Medical Center is the pioneer. The availability of medical information on the Internet encourages these approaches.

In the end, though, it is not clear how many decisions most patients really want to make. For the past several years, Medicare has published data on the Web comparing hospitals on various measures, like infection rates and surgical-complication rates. Patients have largely ignored it. (Do you know which hospitals to avoid where you live? I didn't before writing this article.) President Obama, when discussing his own health care in an interview earlier this year with this magazine, made a similar point. "I'm a pretty well educated layperson when it comes to medical care; I know how to ask good questions of my doctor," he said. "But ultimately, he's the guy with the medical degree."

James's strategy acknowledges this reality. He tries to win over doctors with a combination of flattery, deference and, finally, evidence. "We never name names," he told me. He admitted that Intermountain was probably too soft on doctors who evidence suggested were not giving their patients the best possible care. Intermountain rarely forces a doctor to leave.

This approach obviously involves some realpolitik. Since his fellow doctors have so much clinical autonomy, James has little choice but to woo them. As Robert Wachter, the chief of hospital medicine at the University of California, San Francisco, and an expert on medical errors, told me, "He knows that the minute he says, 'I'm right, and you must do this,' he loses everybody but the true believers." James is appealing to the same idealistic side of doctors — the flame, he calls it — that helped persuade their predecessors to adopt scientific methods a century ago.

"That flame burns brightly within the heart of any physician," he told his students during one recent class. "It's what brought us into medicine. That's what defines us as a profession. And that's your real leverage point. There are a few outliers, but don't let those outliers get you off track."

It would be a mistake, however, to see the deferential approach as solely political. James also frequently

notes that many medical questions still have no data-proven answer. Many never will. When patients have conflicting symptoms, statistics and protocols won't always help. Sometimes, intuition is the only good tool a doctor has.

VII.

ONE DAY, WHILE I was standing in Intermountain's cardiology intensive-care unit, which, unlike those in many other hospitals, is next to the cardiac-surgery wing, it occurred to me that Intermountain really was not so unusual. It is unusual for a health care organization. But its story is fairly typical in the rest of the economy.

The executives at a company realize that their industry has built up all kinds of bad practices over the years. Those practices damage the quality of their product and waste money. The executives do a rigorous analysis of their operations, relying on solid information rather than conventional wisdom. And then they persuade their colleagues to make changes. Much of the lingo of management theory — "quality," "lean," "Six Sigma" — is simply a dressed-up way of describing this approach.

James peppers his classes with anecdotes about W. Edwards Deming, arguably the original quality guru, and it is easy to see why Deming would be attractive to James. Deming grew up on a farm in Iowa in the early 20th century and majored in electrical engineering at the University of Wyoming. During World War II, he was part of a committee that helped the government make wartime production more efficient. After the war, his statistical methods caught on in Japan, and the Japanese credit him with helping to make their postwar boom possible. The so-called Toyota way stems from Deming's work. Eventually, the same ideas caught on at General Electric, Intel, Wal-Mart and elsewhere in this country.

But there is a fundamental difference between Toyota and Intermountain. As Toyota built better cars than its competition for less money, it won new customers. Some rivals matched its successes (as Honda did); some lost market share (as Detroit did). No such dynamic exists in health care. William Lewis, a former director of the McKinsey Global Institute who studies productivity, says that the economic benefits from the various quality movements have been quite large but that they are also largely in the past. Most industries have incorporated Deming's big ideas and are now making only incremental progress. "However, there is one big exception," Lewis adds. "You guessed it: health care."

Why? In part, it is the faith that patients have in their doctors. When people are buying a car, they often consult Consumer Reports or Road & Track. When they are choosing a place to have surgery, they ask their doctor to recommend a surgeon and go to the hospital where that surgeon works. Hospitals that provide less than top-quality care are rarely punished in the way that General Motors and Ford have been.

Even more important than how we choose our health care, though, is how we pay for it. One of Deming's principles is that improving quality also tends to reduce costs. That is not always the case in health care; expensive treatments — implantable cardiac defibrillators, for instance — can bring enormous benefits. But Deming's principle holds more often than you might think. When in doubt about the best procedure, doctors tend to do more — more tests, more procedures, more surgery. So if a hospital does a rigorous analysis of what actually works, it is likely to discover a fair amount of waste.

But in our current health care system, there is no virtuous cycle of innovation, success and expansion.

When Intermountain standardized lung care for premature babies, it not only cut the number who went on a ventilator by more than 75 percent; it also reduced costs by hundreds of thousands of dollars a year. Perversely, Intermountain's revenues were reduced by even more. Altogether, Intermountain lost $329,000. Thanks to the fee-for-service system, the hospital had been making money off substandard care. And by improving care — by reducing the number of babies on ventilators — it lost money. As James tartly said, "We got screwed pretty badly on that." The story is not all that unusual at Intermountain, either. That is why a hospital cannot do as Toyota did and squeeze its rivals by offering better, less-expensive care.

For all of its focus on efficiency, Intermountain, too, can be tempted by the dark side of the fee-for-service system. In one committee meeting, I listened to a debate about how much the hospital should charge patients for a certain medical device. Intermountain previously had negotiated a price reduction from the manufacturer that saved thousands of dollars on each device. But the hospital was still charging patients the old price, and the insurers, including Medicare, were still paying. That was what their reimbursement charts said they would pay.

A few people in the meeting were clearly bothered by this. They asked the finance executive, participating by speakerphone, if anything could be done. One committee member argued that Intermountain (which is nonprofit) should not overcharge for a treatment, even if it helped the hospital cover its overall expenses. The finance executive replied, apologetically, that changing the reimbursement rate would cost Intermountain millions of dollars and that there did not seem to be any way to make up for the loss. The meeting then moved on to another topic.

VIII.

IF YOU SIMPLY looked at Intermountain's overall results — the good outcomes and low costs — you might be tempted to dismiss them as a product of the environment. Utah has the youngest population of any state, as well one of the lowest rates of alcohol and tobacco use. More than half of the state's residents are Mormons. This homogeneity creates a noticeable sense of community, even a sense of mission, among many Intermountain doctors and nurses.

The places that spend far more on medical care and get worse results — south Texas, south Florida, New York City and its suburbs — don't have those advantages. They tend to have more diverse populations and a more diverse set of medical needs. None of these places is ever likely to reduce its costs, or raise its life expectancy, to Utah's levels.

But once you acknowledge all this, you are still left with some fairly striking facts. There is nothing inherently Mormon about waiting until the 39th week to deliver a baby. Nor is there something unique to Utah that allows doctors there to analyze their results and systematically try to improve them. There is no reason, really, that a hospital anywhere else cannot do the same. Maybe more hospitals will begin to do so on their own, pushed by the same internal forces that remade medicine a century ago. But maybe not. The economic incentives in health care are still pointing in the other direction. As long as doctors and hospitals are paid for each extra test and treatment, they will err on the side of more care and not always better care. No doctor or no single hospital can change that. It requires action by the government.

One big remaining uncertainty about health reform — assuming some version of it passes — is how much it

will do on this front. Earlier this year, James and doctors from Dartmouth, the Mayo Clinic and the Geisinger Health System in Pennsylvania traveled to Washington to talk about health reform with a small group of Obama administration officials. It was part of a continuing effort by the evidence-based crowd to influence reform in Congress. At one point during the meeting, the doctors began to talk about a potential pilot program that would make it easier for hospitals to improve care and hold down costs. Ezekiel Emanuel, an oncologist and budget-office official (and brother of Rahm, the White House chief of staff) who has spent much of the past year trying to get such programs included in the bill, asked how much this one would cost to set up. The doctors estimated $250 million over five years. The White House officials laughed. It was a much smaller sum than they usually discussed.

Several pilot programs with similar aims have made it into some of the health-reform bills considered by Congress. One is a bundling program, in which Medicare would pay hospitals a set fee for certain operations or chronic illnesses, rather than paying piecemeal for every aspect of the treatment. Hospitals would then have an incentive to avoid complications and readmissions, because they would no longer be automatically reimbursed for them. The hospitals that did the best job of keeping their patients healthy would end up helping their bottom lines. The details are still being fleshed out, but Medicare or private hospital groups would most likely monitor outcomes to make sure the incentives didn't lead hospitals to skimp on care or turn away the sickest patients.

These pilot programs have been largely overlooked in the public discussion of health reform, because they start small. At first, they would be voluntary. Places like Intermountain would presumably sign up for them, and high-cost hospitals would not. But the Obama administration is hoping to make the pilot programs national — and mandatory — if they are successful. In that case, the program would suddenly not be so small. It would begin to attack medicine's most upside-down incentives.

Other such ideas also have a chance to be a part of health reform. One is the so-called Cadillac tax on the most expensive health-insurance plans. It would put pressure on insurers to hold down costs, which would increase their incentive to steer patients to hospitals like Intermountain. Another idea would aim to make the market for health care more like the market for new cars. Pushed by Senator Ron Wyden, the Oregon Democrat, the proposal would encourage employers to let their workers choose from a much wider range of insurance plans, which would allow people to shop around for those that provided good, cost-effective care.

James and his allies have no illusion that any of these ideas is a silver bullet. But given the scale of Medicare's long-term budget shortfall, the only sensible strategy is to try anything that seems promising. At the top of that list is moving medicine away from the fee-for-service system and toward something like a fee-for-health system. As dispiriting as the health care debate has been at times, Congress still has a chance to pass a bill that would begin to make life easier on the hospitals trying to do the right thing and, eventually, nudge many more hospitals into that category. That would be no small thing.

Some doctors will resist the change. But the bet that James is making is that most will not. We may still want our doctor to be like Marcus Welby, but our great fortune is that he cannot be. Medicine has made too much progress. The range of cures and treatments is too vast. Every year, medical journals publish hundreds of new findings that doctors are supposed to synthesize. Yet somehow, both doctors and patients have come to imagine that a physician can accomplish far more than any human being reasonably can. As a

result, modern medicine is accomplishing far less than it reasonably should.

James told me that one of his first challenges, when talking to a new group of doctors, is to persuade them he is not accusing them of failure. You can think of this as yet another part of his charm offensive, but there is something to it. Most doctors want to do the best possible job for their patients. Most also do not have the ability to do so right now. “We’re still not nearly as good as we’re going to be,” James says.

David Leonhardt is an economics columnist for The Times and a staff writer for the magazine.

Copyright 2009 The New York Times Company

Privacy Policy | Terms of Service | Search | Corrections | RSS | First Look | Help | Contact Us | Work for Us | Site Map