The Richard and Hinda Rosenthal Lectures Spring 2001: Crossing the Quality Chasm

Institute of Medicine
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THE RICHARD AND HINDA ROSENTHAL LECTURES
SPRING 2001

Crossing the Quality Chasm

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The serpent has been a symbol of long life, healing, and knowledge among almost all cultures and religions since the beginning of recorded history. The serpent adopted as a logotype by the Institute of Medicine is a relief carving from ancient Greece, now held by the Staatliche Museen in Berlin.

"Knowing is not enough; we must apply.
Willing is not enough; we must do."
—Goethe

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Foreword

In 1988, an exciting and important new program was launched at the Institute of Medicine. Through the generosity of the Richard and Hinda Rosenthal Foundation, a lecture series was established to bring to greater attention some of the critical health policy issues facing our nation today. Each year a subject of particular relevance is addressed through three lectures presented by experts in the field. The lectures are published at a later date for national dissemination.

The Rosenthal lectures have attracted an enthusiastic following among health policy researchers and decision makers, both in Washington, D.C., and across the country. Our speakers are the leading experts on the subjects under discussion and our audience includes many of the major policy makers charged with making the U.S. health care system more effective and humane. The lectures and associated remarks have engendered lively and productive dialogue. The Rosenthal lecture included in this volume captures a panel discussion on the IOM report *Crossing the Quality Chasm,* which did an excellent job of identifying potential demonstrations that might lead to broader health reform. There is much to learn from the informed and real-world perspectives provided by the contributors to this book.

I would like to give special thanks to Marion Ein Lewin for moderating the Spring 2001 lecture. In addition, I would like to express my appreciation to Janet Corrigan and Kari McFarlan for ably handling the many details associated with the lecture programs and the publication. No introduction to this volume would be complete, however, without a special

expression of gratitude to the late Richard Rosenthal and to Hinda Rosenthal for making this valuable and important education effort possible and whose keen interest in the themes under discussion further enriches this valuable IOM activity.

Harvey V. Fineberg, M.D., Ph.D.
President
Institute of Medicine

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Opening

Ken Shine

It is my pleasure to welcome you to this Richard and Hinda Rosenthal Lecture. This is a very special event for us, for many reasons. This lecture series, which began in 1988, was designed to explore issues related to the improvement of health, health care, and health policy. Over the years, it has produced some memorable presentations. A number of these presentations have been published, including a particularly notable one by David Eddy, which was published in *Health Affairs*. The talks have also been published as a series, and many people have found them to be quite useful.

So to have the series continue is, itself, a great thing. It is also a great event because this is the first lecture that commemorates a permanent endowment of the lecture series. The Richard and Hinda Rosenthal Foundation had been supporting these lectures on an annual basis, but recently they have committed a major endowment to allow the series to continue in perpetuity.

Associated with the endowment has been the dedication of the Richard Rosenthal Presidential Suite, a third-floor suite of offices for the president of the Institute of Medicine. Those who have not been by or who have come by at other times, can now see a terrific picture of Richard, as well as a collage of photographs showing him in various activities related to the National Academy of Sciences and Institute of Medicine (IOM).

Hinda and Richard have had close relationships with both the National Academy of Sciences and the Institute of Medicine for a long time. They both were members of the President's Circle, which is an important support group. From Hinda we received an enormous amount of encour-

agement and advice, and from Richard we received mostly advice. Richard was an individual who had very keen analytical skills. He was a terrific negotiator, which was reflected both in his success in business and his dealings with philanthropy. He was one of the really fun people I was privileged to get to know.

He said, in one of the publications, something I think is a very important statement, and I quote: "Individuals fortunate enough to receive unusual benefits from society have the distinct obligation to return meaningful, tangible support to that society in the form of creative energy as well as funding."

That statement is very significant because, as it suggests, it was not just the money. This creative energy found its way into many, many of the activities that Richard and Hinda have been involved in through the years. Those of you who are active in medicine know that they have endowed a whole series of awards, lectures, and so forth in many, many organizations, as well as programs at Columbia University and elsewhere. I think the medical community, the health community, and the American people need to be very grateful for that.

We are also pleased about this special event because I think this may be the first that Hinda's husband, Bernie Rosenberg, has been able to attend. Bernie is a very well respected public health official in his own right. Hinda and Bernie first met at their wonderful home in Connecticut in a consultation over a sick swan, and having decided that the swan was probably going to be all right, became interested in each other. We all rejoice in their marriage, and we are also very pleased that Seth Rosenberg and Jane Cahoon, members of Bernie's family, are also with us. I could spend the rest of the evening talking about these extraordinary people. I am not going to do that, other than to say, Hinda, it is wonderful to have you here, along with Bernie and the family. We recognize that through the years, your encouragement, your support, and your interest have been of extraordinary value. Moreover, people will be standing here well into the twenty-first century working on issues of health because of what you and the Foundation have done. The ability to memorialize Richard is one of the great joys that all of us share with you in terms of what you both have done.

Let me now turn to tonight's program. Marion Ein Lewin will introduce our two speakers, Don Berwick and Allen Feezor, but I want to say a word or two about the genesis of the topic and how it relates to the IOM.

As you know, the Institute of Medicine, like the National Academies, has a responsibility to respond, when asked, to requests for advice and analysis by government and other organizations. Historically, we have tended to do reports when asked about specific kinds of projects. In the middle 1990s, however, we decided that there were important issues in

the American health care system that could not wait for us to be asked. Specifically, we developed an initiative that focused on the quality of health and health care in America.

We chose quality, out of the major issues of access and cost, because first we thought it was an issue where an analytical, deliberative, evidence-based approach could be effective. There were data. We believed that quality could be measured, and that meant there was an opportunity to say something about it that was not simply political rhetoric or bias, but in fact represented data.

We first undertook a roundtable, and one of the interesting things about that roundtable was that it brought people together from industry and from academia, from the private sector and the public sector. Among the members of that roundtable was a fellow named Chuck Buck, who, many of you know, is the health director for General Motors. He became very impressed by the fact that there were real problems in the American health care system, both with quality and with patient safety. It was out of that kind of deliberation that he suggested the so-called "leapfrog group," the group of major corporations interested in health care, should adopt these issues, including patient safety, as a vital agenda for major corporations in the United States. We may hear more about that this evening.

But we are very pleased that this deliberative process led to what now are 77 major corporations that have committed themselves to quality of health for the individuals they employ. Subsequently, we established a Committee on Quality of Care in America, chaired by Bill Richardson. Again, you will hear more about that. The committee issued two reports, a report on medical errors and medical patient safety, and the *Crossing the Quality Chasm* report, which you will hear more about this evening.

I happened to be at a meeting this afternoon where I delivered a so-called keynote address about some of our activities, and my presentation and question period was followed by a discussion by Mark McCollum. As you know, Mark, with Ann Phelps, is a principal advisor to the president. It was exciting for me to hear Mark say that he felt the administration was in fact going to be committed to improving the quality of health care in America. He described a 14 percent increase in the budget of ARC, which is not enough, but certainly is a step in the right direction. It is a good place to start the discussions. He described the commitment he and his colleagues in the White House had to aligning reimbursement with quality. He also described a specific agenda with regard to diabetes under Medicare, saying that chronic illness, as you will hear, is one of the priority areas where one can get a significant improvement in quality of health care in America. And he described how the administration, he believes, will work to do that.

We see this initiative as continuing. We are planning activities to look

at information technology in support of quality. Mark was very eloquent in his discussion about liability and tort reform, indicating that he believed this was an important issue for the administration to take on, and he quoted the president as being anxious to address liability reform. As you know, we are planning a series of activities that will have to do with the legal system in the area of quality of care.

We also have recently released a report of a committee chaired by Bill Roper on what the criteria ought to be for a national quality report, and you will hear more about that. But again, we want you to know we are committed in the foreseeable future to continuing work in this important area.

Finally, the quality area provided an opportunity for us to address other important issues. So after much deliberation within the Institute, we determined that the next major overarching initiative—that is, an initiative where we would do multiple studies over an extended period of time—would be the problem of the uninsured. We are very grateful to the Robert Wood Johnson Foundation, which has given us a grant of $3.7 million to do a series of studies on the uninsured. We are also pleased that they have saved a million dollars in their own bank account to disseminate the results of work on the uninsured in a variety of venues.

We will also be launching an overarching set of studies on information technology in support of health, as well as a study on the future of academic health centers, which is not irrelevant in that we have to get some of these academic health centers to understand that education for health professionals about quality is an essential part of what we do.

With that prolonged preamble, thanks again to the Rosenthals, Bernie and his family, and all the rest of you for being here. It is now my pleasure to introduce Marion Ein Lewin, who will introduce our speakers.

Introduction

Marion Ein Lewin

It is a great pleasure and delight to introduce tonight's distinguished speakers. But they really need no formal introduction. This good crowd, despite the rain and during a week that Congress is out of session, is a testament to their reputations and name recognition.

I know very few people in the world of health care who are so uniformly admired as Don Berwick. As president and CEO of the Institute for Health Care Improvement in Boston, Don—and his colleagues—are at the vanguard of developing new paradigms for quality improvement. Those of you who have heard Don speak know that his presentations are nothing less than inspiring in offering a creative and substantive framework for improving the American health care delivery system in all of its quality dimensions.

I can give personal testimony that Don's words and ideas inspire and have an impact. A few months ago, my husband, Larry Lewin, came home very late one evening from a meeting in California, where Don had delivered the keynote address on quality improvement, entitled "Escape Fire." Larry woke me up at two in the morning to rave about the speech and was disappointed that I did not want to listen to the tape right at that moment.

It was an amazing tape. I did listen to it the next day, a tape that Larry has since distributed far and wide, almost as much as Girl Scout cookies. I am sure you will hear some of the themes that Don addressed in that speech this evening.

Allen Feezor, health benefits administrator for the California Public Employees Retirement System, calPERS, is one of my favorite people in

the health care field. We are enormously pleased he could be here this evening to provide responding remarks to Don's presentation. Allen has served on several Institute of Medicine committees and is a highly respected expert on insurance, health benefits, and health care financing. Allen happened to call me the day Don agreed to give the Rosenthal Lecture. Allen was calling to find out how he could get a speaker on the medical errors study for an upcoming calPERS board meeting. He then proceeded to tell me about the ongoing changes and challenges of the California health care marketplace. When we spoke, Allen was in the midst of negotiating new contracts and trying to purchase quality-effective health benefits for over one million public employees.

I thought that his on-the-ground experience would be a terrific complement to Don's remarks. I got lucky and was able to strike a deal. With the help of Janet Corrigan, we got Allen a speaker and, in exchange, he agreed to come to Washington for this Rosenthal event.

Overview

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Donald M. Berwick

It is an honor to be here, and I have deep gratitude for the chance to share my thoughts with this group.

In the spirit of thanks, I want to begin my remarks, which will summarize the work of the Institute of Medicine's (IOM) Committee on Quality Care in America, with a special note of gratitude and admiration for the person who really led us through this work, and that is Janet Corrigan. Several years ago, in my role as a member of the President's Advisory Commission on Consumer Protection and Quality in the Health Care Industry—a group that included approximately 30 people, who ranged all the way from as far left to as far right as you can get—I watched the masterful leadership of Janet as she guided the secretary of labor, the secretary of health and human services, and the whole committee, to a consensus that would not otherwise have been achievable. Watching Janet move over here to help us on this committee has been a thrill and an honor, and I just want you to know what an impact Janet has had on my career. I appreciate it deeply.

I am fortunate to have been involved in this work. The *Crossing the Quality Chasm* report, which I will discuss, is a complicated document, which means I will have the opportunity to insert my own opinions into it and you won't know.

I want to begin by setting the stage for those of you who don't know about the history of this report and its pedigree and the work of the IOM and elsewhere. I believe the foundation of the work was set in place by the IOM roundtable Ken Shine mentioned. That roundtable really put a stake in the ground in about 1998, drawing on five decades of research

about the state of care in the United States, and it made a declaration at length about the need to address improvement of care as an important national priority, a kind of declaration that had not been made before.

I want to share with you the words of the IOM roundtable, from the lead article in the *Journal of the American Medical Association* that appeared late in 1998. Here is what the roundtable said:

> Serious and widespread quality problems exist throughout American medicine. These problems occur in small and large communities alike, in all parts of the country, and with approximately equal frequency in managed care and fee-for-service systems of care. Very large numbers of Americans are harmed as a result.

I have enormous respect for the Institute of Medicine, but it is not known for overstatement. A statement with this degree of drama, appearing in the public record from a group with the prestige of the roundtable, really set in place the work that I am now going to present to you.

The roundtable did offer vocabularies that I will return to later, but as it began to examine the issues that the American public were facing, and were relatively unaware of, it offered us specific ways of thinking about what is wrong with the care we give. It said the problems with health care received by the American public can be understood in three major categories: overuse of unnecessary care, that is, procedures that cannot scientifically help the beneficiaries; underuse of care that is effective but does not reach the population it should help; and what the IOM roundtable called misuse, failures to execute plans successfully, the area of error in care. It was probably the first major body to speak out, leading to the work of our committee.

Theirs was not the only voice asking for change in the late 1990s. The IOM roundtable was the most important, but the President's Advisory Commission that Janet led came to very similar conclusions with very similar rhetoric. Similarly, work here at The National Academies by the National Cancer Policy Board produced a relatively underexposed report, one that has not received anywhere near the attention it should, showing that the average American cancer patient does not receive care even close to the state of the art of modern cancer care. Tens of thousands of cancer patients may well, in my opinion, die as a result of not having access to treatments that are known to cure curable cancers nowadays. And when one looks at the area of end of life care and pain control, there are even more serious defects.

I don't know what was in Ken's mind and in the minds of the leaders of the Institute of Medicine, but I think courageously and importantly they decided, based on reports like this and other evidence, to begin a major program under Janet's leadership, the IOM program on the quality

of care in America. I was privileged to be a member of the first committee, chaired by Bill Richardson, the Committee on Quality of Care in America, and that is the work that I am about to present to you.

For someone who had been working in the arena of health care quality for 20 or 30 years, to say that I had been frustrated trying to get the attention of the public would be an understatement. I feel very deeply that there are serious issues in the quality of our care system. But that all changed suddenly. The findings of the IOM report on patient safety were dramatic. They changed the vocabulary of discussion about quality of care in America in a way that I don't think anybody associated with that report would have anticipated. They changed in a single day, on November 30th, 1999. That is when the report was issued. It was an immediate blockbuster.

So far as I understand, the reaction to the report, *To Err Is Human*, was unprecedented in the history of the Institute of Medicine. Within hours, the findings in that report were front page news in the American press and headline news in every radio and TV network news station. Within days, President Bill Clinton had ordered immediate and far-reaching responses from every governmental agency in the United States that provides or pays for health care. Within weeks, major projects in response had begun in the American Medical Association, the American Hospital Association, and in professional and trade societies throughout the nation.

That wave of reaction to the report on patient safety was not a flash in the pan, it turns out. It is still going on. Just last week, NBC asked me to be interviewed on network news.

The findings of the IOM report on patient safety were dramatic. We reviewed decades of prior research, and our committee, the same committee that issued the *Chasm* report, concluded that health care in America was, after all, remarkably unsafe. We estimated that tens of thousands of Americans are being injured each year in American hospitals. Between 44,000 and 98,000 Americans actually die each year from injuries caused by the care that is supposed to help them, not by their diseases. That would place medical injuries high on the list of public health problems. If those numbers are correct, medical care kills more Americans each year than do AIDS, breast cancer, or motor vehicle accidents.

The safety problems were severe, and that was our first conclusion. We then went on to two other major findings. The second finding was that blame, fault finding, would not help solve this problem. Our committee found that safety hazards were only rarely, very rarely, traceable to bad people giving the care. Incompetent doctors or careless nurses, we concluded, are not the primary reasons that patients get hurt. Instead, the reasons for injury lie very deeply embedded in the processes of the work of health care, the designs of the health care system. When a patient gets

hurt, we can choose to blame the doctor, but we will almost always be wrong when we do that.

Let me give you an example of this idea of embeddedness. Suppose a patient gets hurt when a piece of information gets lost. If it turns out that the work design requires that someone, doctor or anyone else human, prevent that injury by remembering information, then we are relying on memory for safety. That is an element of the design. But we know from decades of research in human factors, human cognition, and human memory, that memory is a terribly unreliable function. We always forget things, and we always will forget things.

If the health care process relies on memory to function well, it will fail sometimes, no matter how the people in that system try hard not to forget. The title of the IOM report was, *To Err Is Human*, and blaming people does not change that fact.

The third finding of our committee in this report was much more optimistic. It said basically, "We can do something about it." The IOM committee found that there is a treasure trove of good science and practice dealing with how to make systems safer, the sciences of safe design. But, sadly, health care systems have not yet used those safety sciences to prevent injury, and we urge that this change begin right away.

I have been nothing less than thrilled by the response to this report. It is gaining momentum in the United States. Hospitals all over this country are being asked now, quite directly, to replace outmoded medication systems, which often rely on memory, or rely on something even less reliable, handwriting. These systems can be replaced with computerized physician order entry systems, which are known by systematic, well-designed clinical trials to reduce hospital medication errors by 80 percent. Progressive hospitals are learning from aviation and from other high-hazard industries about how investments, for example, in team training, simulation, or communication skills can help operating room teams or emergency departments reduce errors.

So the work of our committee in the second report began with a relatively happy story—not that health care is safe; it is not safe. But rather that, at long last, it looks as though maybe we are going to do something about it.

But then we needed to take a step back. Our committee did so, and I ask you as well to look at the bigger picture, because, as compelling as the story of improving patient safety has been in the past year and a half, it is actually sort of confusing. It is confusing to realize that the IOM report, *To Err Is Human*, had one very important feature. It said almost nothing new. In fact, the vast majority of the scientific information that the report summarized was not new at all. It wasn't even recent. It was quite old. Key studies of patient injury and medical errors appear in our literature as far

back as the 1940s and the 1950s, and they are not published in obscure places. They are published in mainstream medical journals.

Patient safety might be a new concern for the American public at long last, but the problems of patient safety have been there for a long time. But that is not the whole story about what has been ignored. On the heels of the patient safety report, the same IOM committee, the Committee on Quality Care in America, has written this second report, which I think is actually a more important, though less widely read, document. The report was released on March 1 of this year, and although the public reaction has been far less loud than the reaction to the safety report, I think the implications of this *Chasm* report go deeper. I want to take you through it now.

In a lot of ways, the *Chasm* report follows exactly the same format as the safety report, but it is on a bigger topic, a far larger topic, a more important topic than patient safety. It is not concerned with safety alone, you see, it is about the quality of care as a whole.

The findings are parallel. First, the new report finds that quality problems are serious and highly prevalent. They take an enormous toll on U.S. citizens. They take a toll on our lives, on our function, on our dignity, on our convenience, and on our wallets. We, in this committee, have categorized these quality problems, these dimensions of quality, into six issues or areas, which go beyond the area of the work of the IOM roundtable.

The first issue we are flagging remains the same. It is safety. We suggest that Americans should be as safe in health care as they are in their own homes, and not a bit less. Yet as the first report said, that is not the case now: we are off target by several orders of magnitude. If you board an airplane today, you would have to fly continuously for 20,000 years in order to have the odds go above 50 percent that you would die. If you enter a hospital today, you would have to lie in a hospital bed for only five years before you would have a 50 percent chance of dying from an injury.

Our committee stated in this report, as in the first one, that safety ought to be a reliable property of care, but it is not. A particularly compelling burden of this has come from a French investigator, Rene Amalberti, whose work has been graphed by Lucien Leape, my friend and colleague and the leader of the patient safety movement. Amalberti says it is possible to categorize industries on a plane, which you see here. The horizontal axis, which you will notice is a logarithmic scale, is a measurement of the number of exposures per fatality. If you get on the European railroad, there is one death per 10 million exposures. Amalberti calls that an ultrasafe industry. So is nuclear power—less than one death per 10 million exposures. Airplane travel is about one death per 2 million exposures. As you go along the scale to the left you find what you could call dangerous

industries or enterprises. Bungee-jumping wins the prize. There is about one death for every 200 bungee jumps. Aggressive mountain climbing is there and so is health care.

The vertical axis adds up the total number of deaths incurred by, in this case, the American population as a result of these activities. Not many people bungee-jump for long, but most of us use health care. And because of the rate of exposure, health care occupies the privileged upper left corner of this diagram, killing, as we know, tens of thousand of people per year.

Aim two is effectiveness. That single term collapses the two problems of performance in health care in the United States that the roundtable identified, the problem of overuse and the problem of underuse. Overuse refers to the use of care—medicine, tests, hospital days—that cannot, on scientific grounds, be predicted to help the patient. It refers to useless care, care that won't work. One example in the United States is the widespread overuse of powerful antibiotics for simple infections. About 30 percent of American children with first ear infections, easily treated with amoxicillin or Bactrim at five dollars for a course of treatment, instead get powerful toxic antibiotics that cost over a hundred dollars and that encourage the emergence of resistant strains of organisms, and that incidentally place the child at much higher risk of toxicity side effects.

Underuse of care is the failure to use care that is known scientifically to be beneficial. About half the elderly people in this country still fail to get pneumococcal vaccine, for example, and 50 percent of people still in hospitals with heart attack fail to get simple drugs that help prevent recurrence of heart attack.

In this new report, the *Chasm* report, our committee says that it is time to reduce the rates of overuse and underuse in this country. Instead, we call for a commitment to put science into practice, which will lead to more effective use of treatment.

The third proposed aim is patient centeredness: putting the patient in the driver's seat; offering choices; respecting diversity; and involving loved ones. In general, patient-centeredness is aimed at reminding ourselves that, in the end, the health care system should serve the patient, not the other way around.

We find that the current system too often forgets the patient. It fails to respond to individual needs, preferences, and values. It hides information and fails to answer questions. We know this, in part, because patients who rate our health care system, as a whole, rank it just below the Internal Revenue Service. Our report is a strong call for giving patients control over the care that affects them.

The fourth aim is timeliness. We are asking for systematic reductions in delays in waiting times in the United States health care system, not just

for patients, but for those who give care as well, who find the system quite unreliable in letting them use their time well. We think that waiting is, *per se*, poor quality.

The fifth aim we call efficiency, which basically refers to the reduction and elimination of what I call pure waste: unwise use of materials; time; space; energy; and human spirit. I remember arriving at Heathrow airport a few years ago, as the customs official took out a four-part NCR form and a rubber stamp, stamped the first page, stamped the second page, stamped the third page, stamped the fourth page, ripped off the fourth page, and rolled it into a ball and threw it in a wastebasket overflowing at his feet. That is what I call pure waste.

In the U.S. health care system, there is a lot of that. I know, for example, the vicious expansion of burden on the American nurse today to create and maintain elaborate records, mindless records that no one will ever use. I recently surveyed a hundred nurse cancer specialists, very highly skilled people, in New York City, and asked them to estimate the proportion of their day spent creating records. The median estimate was 50 to 60 percent. I asked them what percentage of those records was ever used by anyone for anything. The median answer was 10 percent. We think that such waste, however it was originally justified, is poor quality.

The sixth aim for improvement designated in our committee, more relevant to the United States than any other Western nation, is equity of care. In our wealthy nation we have 40 million uninsured people. Moreover, the best predictors of health status in the United States, overwhelming anything else, are race and wealth. Smoking is a distant third. A black American male born in the nation's capital today has a life expectancy eight years shorter than a white one. We find such inequity a travesty. We think it is the biggest American health care problem of them all, and we welcome the initiative of the IOM to deal with that issue.

As the patient safety report called for major improvements in safety, the *Chasm* report calls for improvements across the board in all six areas of performance. This is a clear and direct call to the entire nation from a disciplined and economically disinterested institution. In our committee, we have come to say that the safety report was the tip of the iceberg; the *Chasm* report is the rest of the iceberg.

Remember that the safety report said clearly that the way to a safer health care system does not follow the road of blame. The vast majority of people who work in health care are trying very hard not to make errors. Indeed, they provide the safety net against the flawed systems they work in. We cannot get safer care by blaming them, by exhorting them, by suing them, or by punishing them. The new report, the *Chasm* report, says exactly the same thing about the other five dimensions of quality. It is not the people themselves; rather, it is the processes in which the people work

that lie at the root of our troubles. Only by changing those processes can we possibly find a way out of our current health care problems and into the care that we want. Quality of all dimensions is a property embedded in the system of work.

The first law of improvement that I wrote a number of years ago, not that I have legislative authority, is that every system is perfectly designed to achieve exactly the results it gets. I own a Ford Windstar. If I take it out on the Bonneville salt flats and floor the accelerator, it will rise to a top speed of about 92 miles an hour—not that I have tried it. Some days 90, some days 94, but about 92. If I don't like that top speed I can have a plan, such as yelling at the Windstar or providing it incentives or putting an incident report in its file—none will make the car go faster. Ninety-two is its capability. If I want to go faster, what do I need to do? Buy a Ferrari, I suppose. That's 150 to 180 miles an hour. The characteristic top speed is an embedded characteristic of the system. A Ferrari is a different system from a Ford Windstar.

You can see that in the health care world in incident after incident. If you are interested in safety, look at this slide from the *New England Journal of Medicine* about an outbreak of deaths in a newborn nursery. A few infants died, CDC ended up investigating, and this was the ultimate finding. On the left is a bottle of racemic epinephrine intended to be put down the nasotracheal tube of premature infants to help them breathe better. On the right is a bottle of vitamin E intended to be put down the nasogastric tube of young infants who are vitamin E deficient. Can you guess how the babies were dying? The racemic epinephrine was being put into the nasogastric tube and the babies were dying of gastric hemorrhage. This is a system perfectly designed to kill a few babies.

The nurse who puts the racemic epinephrine into the nasogastric tube will be censored, put on probation, and possibly fired. That will have no effect whatsoever on the probability that the next infant will have a gastric hemorrhage. Not until this system is fixed does safety become a property.

It would be a lot easier if quality improvement depended on people. The remedy would be obvious. Fire all the wrong people and keep the right ones. That plan, the incentive plan, is bankrupt. But it is seductive. It is so seductive, so clear, that it remains the basic plan for a great deal of the work on health care quality that is forging ahead in this country, and it won't work. I know that, the IOM committee knows that, and I think, in your hearts, you know that. The answer for improvement is a much tougher answer. It is change, change in the way we work. Reject the status quo system of care. Invent new care: change; change; change. There is no other way.

The new IOM report, the *Chasm* report, deeply explores the changes

we need, and it becomes a little confusing. It is a hard report to read. I am going to take a minute to guide you through the framework, so if you want to read the report, you can more easily. It is a way to understand the basic categories of change that this report calls for, which I think are the right changes, and the necessary approach to achieve better health care, not just in the United States but in other nations, too.

I think of the changes needed as occurring at four levels. At the first level, we will call level one, are changes in the experiences of the people health care serves, the patients, their careers, and the communities. It is in their experience, only in their experience, that quality lives. If we are satisfied with those experiences, then change is not an issue, not in the lives of the people we serve nor in the ways we choose to serve them. Change in health care as a system is important. It makes sense only in terms of the intention to change the experiences of the patients and families, and in no other way.

The first change, the change that fuels every other change, is change in purpose: the intention to improve. We see this in the six aims for improvement that are articulated in the report, and it is those aims that make the report something other than a defense of the status quo. We suggest an overarching aim to the system, as the President's Advisory Commission did, to remind us always that the purpose of the health care system is to continually reduce the burden of illness and disability and to improve the health status and function of the people of the Untied States.

We make recommendations with respect to this key area of change. We recommend first that there be widespread endorsement of the statement of purpose for the health care system. It is the center, the ethical center, of the activities of any stakeholder or actor in the system. We think it needs to be parsed into specific aims for improvement. We encourage the national endorsement of the six aims for improvement and the linkage of that endorsement to specific measurements in annual reports to the president and Congress on the state of quality of care in America. The new report from Bill Roper's committee is in fact attempting to recommend how to do that kind of measurement nationally.

The second level of change—call it level two—is change in the care process. It is change in the care—from the Windstar to the Ferrari. It is change in the places where the patients who need us actually need us, interact with us, and the others who would help them. This is the heart of care. It is carried out by very small units of production, teams of caregivers that our colleague Paul Batalden calls microsystems. The emergency department is a microsystem. So is the clinical office. A patient is brought through cardiac surgery by a microsystem. A patient in critical care is helped by a microsystem.

Our report says that the current microsystems of care cannot achieve

the aims we propose even if they wanted to. We say that the microsystems of today function under rules and specifications that render them incapable of giving the care that they ought to be able to give. Exhortation cannot possibly work. To achieve changes in patient experience at level one, we say we have to change the work process at the front end, the sharp end, level two, in the microsystems.

I remind you that not one bit of this is about blame. No one on the IOM committee, I think, actually believes that the problems at the front line of care are fundamentally ones of carelessness, incompetence, or motivation or corruption. Those occasionally occur, but they don't explain what we are talking about. We are not naive about human nature, but we believe without apology that most doctors, most nurses, others at the front lines, deeply want to do the right thing. The question is whether their work is constructed in such a way that they can succeed.

For example, if the work design requires reliance on short-term memory, as I have already told you, we have set the doctor and nurse up for failure. Not because they are not trying, but because they are human. Our report calls for changes in the work system, changes in work design at the front line, to make the microsystems better able to achieve the improvement aims. We frame our recommendations rather complexly in terms of 10 new simple rules for care, guidelines that would help the detail work to occur with fidelity at the microsystem level to allow them to achieve those aims. In many cases, these rules violate current assumptions about the proper conduct of a microsystem. I am going to discuss a couple. But underneath it all, I think there are three basic pillars to the changes we are recommending.

First, base care on the best available knowledge and science—not just randomized trials, but knowledge-based care. Second, put the patient at the absolute center of care. Third, cooperate, act as a system. Those three ideas—evidence-based care, patient-centered care, and systems-minded care—parse into the 10 simple rules, which I will show you very quickly.

On the left-hand side of each of these is something like the current belief structure, and on the right is the new rule we are proposing. First new rule: base care on healing relationships, not visits alone. The current system equates care with visits or encounters. We require patients to see clinicians directly, when there are many other, often more effective, ways to answer a lot of their needs. In redesigning care, we suggest that patients should be able to get care over the Internet, through better training in self-care, through group encounters, from other patients, and in many other innovative ways. We strongly suspect that half or more of the visits the current system enforces are pure waste from the viewpoint of the patient, the clinician, and society.

The second rule is to customize care based on individual patient needs

and values. The current system homogenizes care. It tells the patient to yield or conform to our system, not bending our system to their individual circumstances, not enough. Videotapes show that the average doctor begins speaking approximately 17 seconds into a patient encounter. Listening is cheapened. As a result, patients lose dignity, they lose control, and they lose opportunities to heal, I think.

The IOM recommends that the microsystems of the future adopt the following guideline. Every patient is the only patient. Microsystems must employ much improved approaches to listening to patients and sharing decision making and customizing care.

The third proposed new rule is this: the patient is the source of control. The current system seizes or assumes control that the IOM committee feels properly belongs, in the first instance, to the patient. Our patient should start with control, and we should get it only when they choose to give it to us. Wherein, we ask, do health care systems accrue the right to control visiting hours, or to prevent patients from seeing their own medical records or hearing their own laboratory test results? We specifically call, by the way, for free and unfettered access by patients to their own medical records as a routine standard.

The fourth proposed new rule relates to changing the attitude toward knowledge. Knowledge should be shared and information should flow freely. We believe that the status quo system, the one we have now, places much too little value on the transfer of information. In fact, many care systems often treat the transfer of information—answering patients' questions or helping people understand and manage their own illnesses—as impediments they have to get through so they can go ahead and give care. They don't recognize these as forms of care itself. In the postmodern era, information is care. We think that withholding information is unworthy of this era. The health care system needs to make a much greater investment in the habits, beliefs, and technologies that make providing information a form of care itself.

The fifth rule we suggest is to base decisions on evidence. We oppose the overuse of scientifically discredited, unsupported care, and we oppose the underuse of scientifically effective care. We want to guarantee patients evidence-based care with high reliability.

If this implies, and it does, a reduction in the so-called autonomy of physicians, so be it. We believe that the modern physician would rather have some help in making sure that his or her care reflects the best available knowledge rather than preserving some medieval rights. I think it is a mistake to give care exactly the way one wants if that care deviates from evidence systematically gained and critically interpreted.

The sixth rule goes back to *To Err Is Human*. We just declare again here that safety is a system property. In this simple rule, we reaffirm the

findings of the first report: safe patient care won't be found by exhortation or blame, but only by adopting ever-safer designs for the systems of care themselves. We need to stop the bungee-jumping.

The seventh rule is that transparency is necessary. We think that a transparent care system, in the long run, will do far better than a secretive one. Our recommendation for the microsystems of the future is that they know and report on their own work, openly and to all and with honesty. The absolute right of patients to confidentiality does not give health care systems the right to secrecy about their performances and their achievements. We don't believe in blame, but we do believe in openness.

The eighth rule is to move to anticipation from reaction. Anticipate needs. We find the current system far too reactive for its own good or the patient's good. Using registries, which most practices don't use; information systems, which most practices don't have; and sound planning, we believe we can construct a far more proactive system of care: a system with memory that can maintain continuity in transitions over time, even when the patient's own memory has failed.

The ninth rule is to continually decrease waste. We recommend a future system much more mindful of pure waste as poor quality and far better able to cease wasteful activities and habits rather than allow them to accrue like barnacles on the hull of care. This includes an almost entirely wasteful and dysfunctional medical records system, long overdue for a major overhaul. We need a thoroughly redesigned medical record, and we need to avoid handwritten records whenever we can.

Tenth, we want to place cooperation at the highest level of priority. I like the prior wording before the final edit on this recommendation. It was that the role trumps the team; the new rule is: the team trumps the role. We find today that too often status, role, and discipline trump cooperation in the system. By habit and tradition, for example, some physicians and specialists can insist on prerogatives in scheduling, supplies, and procedures that may help them locally in the short run but that in the long run hurt a lot of other people in the system. We think cooperation needs to be the trump.

Health care microsystems need to place a much higher priority on shared aims, cooperative acts, and teamwork than they currently do. This recommendation has very profound implications, by the way, for professional preparation.

The framework of the ten simple rules we think offers a fine starting place for the redesign of health care delivery in the United States. Our fourth recommendation is that these rules be adopted. Our fifth is that they apply first to fifteen of the most common conditions in our population, mainly chronic illnesses. If we could adopt the strategy as a nation of applying these principles to the care of just those fifteen conditions, which

we now call for identification of, we think we can make tremendous progress against the burden of chronic illness in our population. For that, we need to make some investments in innovation about how best to take care of those conditions and redesign our systems.

This framework is a good starting place. We find that the current system, designed according to current rules, is incapable of achieving the improvement aims we are recommending. Those new rules, the ten rules, aren't just nice. They are a solution to a very deep set of problems and, without adopting them, we just don't see another way out. But the new rules at level two are not sufficient. The IOM *Chasm* report finds problems at two other levels, levels beyond the microsystems that give the care. The level of organization, level three, in which the microsystems generally are embedded and in the level of the outside environment of payment, regulations, professional development, accreditation, liability—level four—which shapes and channels the activities of the organizations that channel the activities of the microsystems.

More bluntly, we think that the broken microsystems lie within and depend upon broken organizations that cannot help them very much, and that those organizations are, in this country, often working in an environment that is broken, one that is toxic to productive change. Just as we recommend changes in care according to the ten rules, we recommend some changes at the organization and environmental level that can help increase the probability that these newly conceived microsystems can in fact emerge into daylight.

I am running short on time, so I cannot review in any detail the design ideas we have at these other two levels—the organization and the environment. I guess that is not too bad because, given the wide variations in organizations and environments from area to area, the changes at level three and level four, as opposed to the more generalizable changes at level two, require very strong customization in local systems of care. But to make things a little clearer, let me show you what we recommended and give you a couple of examples of needed changes at those other two levels.

At the organization level, many of our new simple rules require assets and supports to microsystems that the microsystems cannot arrange themselves. For example, if we want to urge a more proactive system—recommendation number nine, anticipatory—it has to have a memory, rather than a current reactive system. And that probably depends on the capacity to establish and maintain good patient registries, lists of patients with chronic illnesses, for example, that can help the clinicians reach out to the patients in timely and reliable ways. Has the diabetic patient had an eye examination lately? Is the patient with heart failure gaining weight?

Similarly, our recommendation that patients be able to access their

own medical records without any restrictions whatsoever—no restrictions, no costs, no barriers—or to use e-mail to reach the physician, which we think it is high time to offer as a national standard, require changes in institutional policies and procedures in training and, again, information systems.

If we map our recommendations into the next level, beyond the organization—as with the recommendation on e-mail care—we find at the next level that few American environmental systems, few payments systems in this case, would pay doctors to give care through the Internet. Most payment systems today define productivity purely in terms of face-to-face encounters. Yet our first recommendation is to shift the concept of care from encounter to healing relationships. A doctor in such a system who tried to behave as rule one recommends would suffer criticism and income loss, not just from the organization, but from the environment, if he or she tried to substitute, let's say, an hour of patient visits with an hour of tending to patients on the Internet.

So in the *Chasm* report we find it entirely insufficient to call for changes in aims or even in aims and care systems alone. We think and we recommend that everyone must have solutions to the quality problems, and the redesigns that get us there will require nothing less than a rebuilding of our industry.

Our recommendations on changing the environment are quite broad. We recognize the strong need to reform payment to ally with the kind of microsystem performance that we imagine. There are strong needs for social experimentation on how to align payment, because it is not a solved problem. We ask for new requirements of the workforce, able to function in the system we describe, which is an environmental issue related to training and education and educational strategies. And we think the tort system needs to be tackled. No one has an answer yet to how we can configure the tort system in this country to better encourage these kinds of changes, but we think it is high time for social experimentation at that level also.

All of this is bold, and yet our committee concluded, over a wide spectrum of initial positions, that this is worth the effort. Modern science, modern information systems, modern consumerism, and modern aspirations now give us a wonderful and unprecedented chance to craft a care system that our patients deserve and that we want to give them. The changes ahead are daunting. We don't minimize them. Many are unsolved, they are not easy, but they are the right changes; this is the right time and it is the right reason.

I have seen that realization emerge in our country at a level I have never before experienced, first around the safety report. I have seen it not just in the United States with the IOM report, but there is a dawning pub-

lic and professional sense of just how good it could be on a worldwide level. It is going to take people who know that the reality is not as it should be, who are not afraid to say so, who know how impoverished blame is as a remedy, and who not only hope for, but intend to, change systems until they can make the promises that they ought to and keep them every single day.

Insurance, Health Benefits, and Health Care Financing

Allen D. Feezor

First off, it is a delight to be here and see so many good friends and colleagues with whom I have had the pleasure of working while I was in Washington. In fact, I think I attended, when I was on one of the IOM panels in 1988 or 1989, one of the first Rosenthal lectures. So it is a pleasure being back at this time.

Actually at the risk of maligning Marion, she misled you a little bit. The fact of the matter is that she did not swap a speaker for me to show up here, she just couldn't get anybody else to follow Don. And Don, after seeing your presentation and having read the entire report, I felt that you did a superb job of breaking it down and putting it in a definable fashion, which I didn't think you could do in a 30-minute period of time.

The reason I so readily accepted Marion's invitation was that I would not be spending much time talking about the quality measures and try to be on a par with Don, but rather I would talk about where a third-party payer—I should say an employment-based health plan—is at this time, in the plight of desperation that we have. In that regard, I think if we can begin to move our health care system in many of the directions that are laid out in the *Chasm* report, it is something I and many other employment-based health plans will welcome.

There are two big caveats right up front. First, I am not an employer. I will frequently jump over to an employer role, but I run a health plan for 1.2 million public employees. Second, the observations you will hear about our health care system are my own. If they fall short of the intellectual stimulation that you might have hoped for, then they clearly are my own.

I am a little like a congressional staffer. If they turn out to be very stimulating, then they are obviously a product of the board with which I work.

What I would like to try to do in about 20 minutes time, is to give you just a little bit about what calPERS is or is not. Having spent my formative years in policy and having seen calPERS made into a poster child for managed competition, I think I probably have to do a little bit of correcting on that and tell you what it is and, more importantly, what it is not.

I would also like to spend a little bit of time talking about what the marketplace in California is like and the frustrations that many of us on the payer side are currently having.

Third, I would like to finish with this, the 2002 bids, which I can tell you for the first time publicly what our rates will be—are a little bit short of what Wall Street was expecting. But more importantly, we must cast that in a framework in which now we try to say, "What does this *Chasm* report mean to us?" I will give a very few observations about some particular points I think the report made that are like water in a dry desert, and something that I hope will be picked up and run with more broadly.

Finally, I would like to come back and say a little bit about what calPERS is trying to do—not that we are unique, but that we may symbolize a little bit early the frustration of employment-based plans at this particular time.

I will start where I hope to end, and that is that payers—that is, employment-based coverages—are facing about four options, especially as we face the next 6 to 10 years of double-digit inflation due to the aging of our population.

The first option is not to provide that coverage. If you have not looked at the most recent *Mercer Report*, from 1993 to 2000, the number of employers of over 500 that are offering retiree health coverage, that is, retirees over 65, has dropped from 40 percent to 26 percent, a significant drop that accelerated even more than we thought in the late eighties when that was happening.

The second option is what I refer to as death by incrementalism: continue to whittle away at the benefits, continue to whittle away, and try to shift the cost from the employer to the employee. This is something I have been engaged in myself with my self-funded plan this past year. That is not a good option, and also what I call death by incrementalism. You then hope and pray that things will get better and that the funding-pricing cycle will return to your favor. It probably will not, given some of the demographics we are looking at.

The third option is what I call put the money on the table and run—that is, defining contribution strategies. Being a little bit harsh with that, there are a range of variations of where you provide a lot of employee

support, decision making, and some prescreening of the options they would have.

The fourth option is to try to find a way to get the current health care system and the current care management system to produce better value. I think the blueprints that the IOM has laid out, both in the first report and certainly in the latest report, set forth a call not just for improving quality, but a call for revolution in the design and delivery and the values that our health care systems promote, and I hope we will be able to deliver on that.

What is calPERS? Most of you know the pension plan. More specifically, we are a public employee health plan for 1.2 million people; that includes both actives and retirees. Retirees count for about 20 percent of my business. While my predecessor—many of you may know Margaret Stanley—referred to us as a TPA, we probably more closely approximate a multiple employer welfare arrangement. In that regard, I have 13,980 employers that I try to provide coverage for and it runs the gamut from a four-member mosquito abatement district to a 400,000 employer called the State of California. Pleasing all of them is an interesting task.

Sixty percent of my enrollment is, in fact, state-based, and 40 percent are locals, local governments and education. Current expenditures for this year will be about $2.3 billion. The increase we were projecting, or that I was asked to approve this year before we started our negotiations with our HMOs and before we have done our calculation on our self-funded plans, is about $600,000 more dollars. Yes, that calculates to about 23 to 24 percent of the base, which is significant.

Three-fourths of our enrollees are in 10 HMOs. Many of you may have read we are going to have three fewer HMOs next year. Actually we will have two fewer; we are adding one back. Three-fourths of our HMO population are in three HMOs: Kaiser; HealthNet; and Pacific Care. One-fourth are in our fastest growing plan, which is in fact our PPO plan, and it is fast growing because of two things: the first is a certain reaction to the anti–managed care public policy initiatives that were particularly prevalent in California in 1999 and 2000; and the other one is, quite honestly, that almost all of the HMOs in California are withdrawing from the rural and nonurban areas. They only want to do business in those counties where they know they have the margins and the volume needed.

Myth versus reality is very important. calPERS is a price maker. I know that Tom Elkin has served on some of the committees here as well, but Tom basically saw what we call a soft pricing market in the mid-1990s and opportunistically took advantage. Soft market? I would say it was a stupid market. Forgive me for this, but Kaiser was trying to give away or buy a lot of business. We had our commercial HMOs trying to increase their volumes and willing to bid any price, thinking they could make up that price by leveraging the providers. And quite honestly they were able

to do that because providers either did not know how to price their business or were not willing to listen to the laws of nature and economics. The reality is we are not a price maker, but we do take advantage of the market.

We are an early price setter. The fact of the matter is, I get very frustrated with my good friends at Kaiser when they come in with some high rates and two months later come in with some different rates. They say, Allen, you are the first of any of our major contracts that we have to negotiate with. Hence, we just have some plug figures when we start negotiating with you and then we get serious. The fact of the matter is, because we are the earliest plan to go into the negotiation for the year 2002, and we are one of the larger ones, we are watched by Wall Street, especially in this day and time. Seven out of 10 of my HMOs currently are for-profit HMOs. Five out of 8 that I have next year will be for profit.

Size means big discounts. The reality is that in the current marketplace, profitability of business is more important. With Lifeguard, one of my best from my consumer reportings, one of my best in terms of physician satisfaction, we accounted for 12 percent of their business. They could no longer afford to sustain the losses they felt they had to get in order even to be priced on our sheet. Hence profitability is important.

In addition, and this is my favorite, we always talk about calPERS being so very big in California. We are the third largest payer for health care in California. Medicare is first; MediCal is about three times what I am—poor payer by a long shot, but nonetheless three times the size. Then I like to remind my board that in fact there are five times the number of people who are uninsured in California than we have insured through calPERS, a pretty good driver in the marketplace itself.

Although we were made the poster child for managed competition, the reality is until this year, until next week, and I won't know until the board concurs in it, we have never, at the group purchasing level, thrown out an HMO. Whether for quality, whether for price, we have said once you are there, you are there. Not a prudent purchaser.

In addition, our enrollees, up until last year, have had very little cost sharing, either in terms of premium or in terms of benefit, and we are being brave enough to say that the office visit copay ought to rise to $10 next year.

Value purchaser? In that regard I think we try hard. We spend better than $2 million a year in various surveys. The California Cooperative Healthcare Reporting Initiative (CCHRI)—many of you are familiar with that—not only profiles the plans, but we finally started moving to try to do something that the report speaks to: try to move it away from plans and to the individual providers. As it turns out, even with our profiling the plan during any open enrollment, I have less than three percent of my

membership move. And we are now beginning to grapple with the issues of choice.

The number one issue, of course, in health care in California right now is cost. Like parts of the rest of the nation, we are looking at some cost inflation coming back. But quite honestly I have told my board that it is going to stay with us. Given the demographics of our group, and it is not different from that of the Federal Employees Health Benefits Program or any other employment-based program, the fact of the matter is that last year when I stood before my board for the first time telling them what the future was going to be, having been there a total of 30 days—and I probably should have left after that prediction—I told them my cost would be going up, doubling every six years. The fact of the matter is that it is now doubling every 4.8 years. Inflation is back.

What are the drives? They are no different in some regards: an aging population; pharmaceutical costs; and utilization. In the two years preceding this one, utilization in my self-funded plan was a 13 percent a year increase. Clearly, whenever there is a hiccup from the Balanced Budget Act, we are the first to get tagged for some additional resources. Probably one of the most significant drivers in California now is what I call the depressed provider reimbursement. Those good years when calPERS not only had no rate increases but negative rate increases in premiums, I am now paying for. Nonetheless, that is genuinely understood and a lot of the provider repricing is very significant.

Seismic retrofitting. We essentially, in California, will rebuild all of our inpatient bed structure in the next 10 to 15 years. We have a chance for systems enhancement and engineering; we have the microcosm. What we will do in response to that is going to be a very big issue for us. There are 7 million uninsured. The good news is that the uninsured have not grown. The bad news is, in the 10 or 12 years of robust economy, we have not done a darned thing in public policy to deal with that.

Pacific Business Group on Health is one of the lily pads, I guess, for the leap-frog initiative. I sit on that board. We are their biggest member. In fact, not only is Pacific Business Group on Health requiring its HMOs to inventory the level of readiness in terms of the three initiatives in the leapfrog, but their various hospitals are, and we are asking our own HMOs to do that. So we anticipate beginning to see that come back and haunt us in some rates.

HMO profit expectations. One of the good things of living with the pension investment side of the house is that I get to see a lot of materials about some of the plans that I work with from a little different perspective. There was a good reading this year: it was supposed to be a banner year. Buy HMO stocks, everybody said. But the reality is that the expectations were that the premiums would be nationally around 15 to 16 percent

for the year. I will come back to this, but it has played a very big part in the prices we looked at this year.

Then the anti–managed care initiatives in the legislature I talked about as being one of the others, and then this one is one that I had in the Gray column and I moved it over; you might pick up on that. We don't have blackouts or brownouts in California. We have Grayouts. For those of you who are a little slow, that is the governor's name.

Quickly, just to give you an idea, it is interesting that we still have a very good buy in the West. This is the West, not just California. That's the good news. The bad news is that we had the second highest increase last year in health care costs. HMOs are still a bargain in California. This shows that the farthest to the left is in fact the current price of the average HMO—and not surprisingly since that is still a deal—the enrollment trends in California versus the West, versus the rest of the nation. In terms of enrollment in HMOs, we are about 1.5 times what the rest of the West is and about two times more than the nation. And my group is even higher than that at about 77 percent.

Let me run through some key changes in the health care market, because I want to get to some comments about our current procurement payment practices. Kaiser is no longer the leader. One of the great successes in calPERS in California has been that we had Kaiser. They are 35 percent of my enrollment. Kaiser, because of its heritage, because of its size, because of its economies, has always been one of the lowest-cost plans. It has been the cornerstone and the bedrock of employment-based coverages in the West. As Kaiser was unsuccessful in its expansion, as it in fact tried to recoup some of those losses that have been so painful in the mid-1990, in the last three years, Kaiser has moved from my lowest-cost plan to my second highest. They have assured me they will move back to their point of competitive position, but they don't ever anticipate being back at the lowest. That is a reality that many of us in the California market have to deal with.

Provider mergers and the clout that the mergers have provided is another factor. If I had enough perspective, enough distance, I could have enjoyed, from a public policy perspective, the battle between Sutter and Blue Cross, because that was fascinating. On the one hand you had a health system stating that the cost of delivery of a normal baby for a HealthNet patient has got to be approximately what it is for a Blue Cross patient, so we are not going to recognize big discounts just because you are big and have purchasing clout. On the other hand, you had a system that has been one of the darlings of Wall Street, that is, Blue Cross, and Leonard has gotten good marks, for in fact having and exercising his big discounts. If I had had 40,000 people who were without coverage, I would have thought that was a very interesting debate.

The for-profit trend we have talked about. The real issue now, and I will come back to this, is: this is why we are beginning to doubt that managed care organizations have the will—they have the ability—but the will to manage. Long-term commitments needed for healthy outcomes are not present in a marketplace where, as the report points out, the relationships are based on annual contractual arrangements.

The 2002 bidding process is very important. We have not only the highest rates, but we have the greatest disparity in the requested rates from what we call our target rates. And those are not target rates our employers wanted to pay. Those are target rates for which my staff works very hard in projecting the expenses, following the medical expenses and trends, of each plan that we deal with; there is even a geographic rating, on the demographics as well as the kinds of services. The rates being requested were almost two times what the target rates were. We asked the plans to bid under various scenarios: current bid; high-low option; alternative; and then one in which we said you get to design your own plan. Mr. HMO, you get to design your own plan, all the innovations that you would like. I will come back to what we found on that.

Second was there were no statewide HMOs. We asked if any of them would like to take all of our business statewide, being given an exclusive. Nobody is either that crazy or that ambitious. We have a constant erosion from our nonurban areas. About 10 percent of the population, 15 counties, and 10 percent of the calPERS population do not have an HMO option.

calPERS has historically made choice among plans instead of choice among quality providers or provider systems. That is coming back to haunt us now as we try to move our enrollees away from that idea. Our enrollees do not understand quality, even though we have a tremendous number of measures and expenditures in the area of quality, and getting them to even think in those terms is very important.

Medicare plus choice we no longer have. Only two of our eight HMOs have it. We really have found now—what, in fact, is most surprising—that almost none of our HMOs seem to have any real strategy in terms of targeting costs, improving quality, or repositioning themselves in the marketplace. When we ask them to design their own plans, to tell us how to deliver care but just simply keep it within X amount of dollars, 95 percent of the responses were cost shifting to the enrollees, which reminded me of some of the indemnity carriers in the late 1980s. The fact is that most of the strategies of the HMOs appear to go PPO. Interestingly enough, at precisely the time we are talking about trying to find volumes of business to more cost-effective care givers, we find our vendors going the other way in terms of broadening their networks even further.

Finally, the current market focus is contrary to the longer-term com-

mitments and investments needed in NIS or in terms of provider relationships we think to be successful.

So that is where we are. I can now jump to a couple of comments on the report and then I will probably will stop, rather than talk about some of the initiatives in the Q&A that we are doing at calPERS.

First, the quality did not start the revolution. It was the fact that we paid too much and we didn't have a say in what we were getting, I think. I agree that we need fundamental change and we need a revolution. But I think to go beyond health policy types and to go beyond professionals in the business, we have got to get a currency that spreads it more widely to get the fundamental change. And I think the report points to it in terms of talking about the effectiveness and the efficiency as well as the safety. If we take the initial report on errors at face value, when we do a back-of-the-envelope calculation on the number of calPERS lives that are potentially lost each year, in my plan, depending on which numbers you want to use, between 100 and 200 of my enrollees die because of errors or problems.

The second thing I would suggest is that we need to remember that at least the commercialization of our service industry is still relatively new. Eight years ago we were talking about a government-designed health care system. We rejected that and gave license to entrepreneurial energies of which we are still seeing the fruits. Hence, it may be that instead of trying to define our industry in a more narrow frame, as well thought out as it might be, the pressures are almost to the contrary, particularly given the economic incentives.

The two points in the study that I think are absolutely on target are the implications of our migration from acute to chronic care. I don't know that many people, perhaps outside the distinguished panel that put the book together and a few others, who really understand the implications of that. What is calPERS doing with regard to that?

I have access to some pretty good health benefit consulting folks, and I called them and not a single one could tell me what benefit design changes to make, let alone as the report suggests, what reimbursement changes should be made to accommodate that point of moving to chronic. We have a lot of work to do, and the report is beautiful for pointing that out.

The second aspect is reinserting the individual and his or her social family in the center of care and care management decisions. I will speak for myself. I have always been a little concerned about a lot of the conservative thought that wanted to move immediately to putting money in the hands of the uneducated—uneducated with respect to health care—and perhaps unmotivated, and expected somehow to control costs and produce better outcomes. The fact is that the report, the study, suggests that

with a total change and with a supportive delivery system you can make that move. I think that is something we are going to have to think about and work very hard on.

Certainly the reengineering of our physical as well as our human resources is something that will be an indomitable task, and it is one that I don't know, having just left an academic health center last year, we have even begun to think about.

More remains. I think if there is an area that causes me some concern in the report, it is the idea that inviting a free flow of information is a way of improving care, is moving away from blaming for errors in terms of using it for quality improvement, and is absolutely where we need to go. But I don't think we can expect that to be done significantly in advance of tort reform or legal reforms in dealing with the issues of privacy and confidentiality. I am pleased that one of the latter recommendations is that the Institute will in fact be looking at the legal reform issue as well.

Finally, dissemination of best practices in evidence-based management with current competitive markets is something I would like to see the Urban Institute or the likes deal with, because I don't think we have really thought it through. If you take away the proprietary nature of this sort of innovation, and you make that information broadly available, what does that do? How do providers compete? How in fact do you help your payers compete if you are going to? If one of the rewards is to move more volume to the centers of excellence, or to the better producers of care, then my concern is what impact does that have in terms particularly of rural care and care distribution in our country. I think there are some questions that should be brought out of that.

The final point is that the committee's work was good in saying that it is absolutely essential that third party payers get into the picture, and I think it is essential that we be part of that. Many of our providers are currently conflicted, if you think about it. They have in their books of business both capitation and fee for service payment: it is not a bad hedge strategy. We do that in our investment, and maybe they are trying to figure out which way this is going to go.

The reality is that we do need some dramatic changes in our payment system. Keep in mind that when we start thinking about that, the biggest impact payer, without any doubt, in fact is government. If we consider particularly the opportunity in the prospective payment system in terms of outpatient payments, we will have an excellent opportunity to take into consideration some of the reports.

The employer's commitment is likely to be cyclical. If you are asking an employer to put some additional money on the table for quality improvements, as Pacific Business Group has tried to do in terms of its initiatives, if you try to do that during good economic times, where there is a

tight labor market and fairly static premiums, yes, that is probably something that we would be interested in doing. If, on the other hand, it is in a downturn, where the labor market is getting looser and if premiums in fact are on the rise, which is our current situation, then your answer is going to be something different.

Having said that, rather than asking payers to put more money in the pot by producing better outcomes, and that is ultimately what the report is about, it is right on target. I have a board that won't be happy when I have to go before them next week and ask for about $350 million more next year. The first question they will ask is this:, "Allen, for that money, can we get better performance and better practice?" And I think that is what it is all about.

Should the money accompany the individual as essential decision maker? I think that is something a lot of the employment-based coverages are poised to do, although like me, they are a probably a little uncertain about doing it in terms of a free defined contribution strategy; but in the right environment that is likely to happen.

One point on which I would differ a bit: not only are longer-term relationships between provider and plan and employer group desirable, but I would argue that the individual himself should have a longer commitment to his provider to the extent possible. They should always be free to move for dissatisfaction, but I spend more than $2 million a year for open enrollment. I sort of bombard people with a great deal of paper about why they should move and make changes, and why they should be unhappy, and as I said 97 percent of them seem not to be motivated to change. Maybe I simply ought to let them change any time during that time, and only do a really concerted effort every three years.

New payment forms are a must, and as we move from an encounter to relational care, not only what we pay for, but how we make those and what kinds of incentives must also change.

Then, finally, I think the report was a little bit conservative in saying that perhaps it is too early to try for episodic chronic care reimbursement schemes. I can tell you without any hesitation that the likes of Tom Davis at Verizon, Peter Lee at Pacific Business Group on Health, and Allen Feezor at calPERS are poised and ready to begin to try some of that from the private sector side. So we would look forward to that.

I had a few more minutes on what we are going to be doing in making some changes, but in light of both the hour and the need to get to some more substantive questions, I simply will say thank you very much and look forward to the panel discussion.

Discussion

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DR. CORRIGAN: Thank you very much, Don, for that wonderful overview of the *Chasm* report and for giving us all a good sense of how much better the health care system can be and really needs to be in the future—a real vision of where we want to be 5 or 10 years out.

And thank you very much, Allen, for a response from the front lines of how the reactions to this report have been and also for giving us a very real sense that there is tremendous leadership out there to act on some of the tough recommendations in this report. We are running a little bit overtime here tonight, but we would like to take a few minutes for questions from the audience.

DR. GOLD: I am Marcia Gold, Mathematica Policy Research. One of the questions I had listening to Allen, was whether your point would be: nice try, great academic report, or no way would we be able to do this in the real world. I guess the question I have is whether in fact that is the case? It sounds like this is appealing, but when I hear what you talked about, this involves fundamental changes in the health care system. Don, because Allen has had his chance to talk, what do you see as the challenges in an environment like California? Clearly it is attractive, but how much of it is attractive because it sounds good versus how much can you really do? And where are the places that you move that strategically can have an effect?

DR. BERWICK: I don't know. The closer you get to the patient, the more sense the report makes. That is my view. I think people who look at

what we did, and I must include the members of the committee who represented a wide spectrum of players, want the care system to look like we said. There is very little dispute about that. The closer you get to where Allen does his work, the policy level in finance, the more disconnection there is. It is as if, despite superb leadership from people like Allen, the environment in which we try to do our work has become less and less mindful of the work itself. One of Allen's slides showed the kind of defect we live with. For example, he showed you that—I don't remember the term used in the slide, but it is like medical loss ratio—we actually have a financing system which seeks systematically to offer a service to people who need it the least. And if you are at the people-end of that story, it doesn't make any sense.

So yes, the changes needed are big, but the gap is so big that I think the will may be there to try something. I think Allen has got it exactly right when he focuses in on the chronic illness story. The real shift here is from a system originally configured, not well but adequately, to take care of people who get sick and then get better, to a population now where 70 percent of the expenditure in Allen's budget is for people who have illnesses that are not going to go away. We have a system that cannot reach them, cannot help them. We all know it. Allen knows it. Maybe there is will enough to make it right. I don't know.

DR. FEEZOR: First, Don, I think you are right. One of the things I was a little bit bothered by was when I saw the note that a majority of people who are in that chronically ill group prefer the passive form, prefer to be treated and be a passive patient as opposed to at least a knowledgeable partner in their care. I think that gives me a little pause.

But, Marsha, I am desperately concerned that employment-based coverage, as we know it, is going to fade away very fast, and my fear is that the timing here will be that we will be departing, we the employment-based, will be departing at precisely the time when there is at least a sense of vision and in fact some opportunities, and quite honestly a bit of a blueprint to go forward in terms of where to go.

DR. BERWICK: That worries me, too. That is the best I have ever heard it said, Allen, that we are just about to move to passing on to the individual patient problems that aggregated intelligent purchasers are now able to solve, just at a time when we have a plan for what that purchasing should look like. So I am very doubtful that if we just pass the buck out to the periphery, an invisible hand will make this happen. I don't think it will.

DR. FEEZOR: And I can tell you, not a two-week period goes by that I don't have a new e-health enterprise. Many times I think people have just put it together on a laptop as they have flown in to talk to me. But one way or the other, it is some sort of an enabler for an individual to be able to design their own network, design their own benefit plan, and parcel out their own dollars. I guess I am enough of an old liberal—I don't know whether you can use that term anymore—to say that I get very concerned about that. Yet the one thing I felt more comforted by, and to me it is moving light years, Don, is maybe seeing a health care system that is in fact patient-centric, if you will. I am a little easier at that transition, which I think is going to happen, and I think it is going to happen very fast in employment-based coverage.

DR. CORRIGAN: I might add the one comment that I have heard a lot, about the report, that as people look at the demographic trends projected there, there is increased realization that the design of the current health care system is really a misfit for the needs of the population and that will only grow worse over the next 5 to 10 to 20 years. So we have to deal with it now or we can deal with it later.

Other questions?

DR. FEEZOR: Just one other observation I missed, which is more calPERS-centric. One of the downsides of employment-based coverage that we are finding is to make any benefit change or innovation. Let's say I come up with a great design that moves us to a more efficient reimbursement of chronic care. You are absolutely right. About 60 percent of my exposure is now and will be those 15 conditions. Because it is employment-based and because it is seen by—at least in mine, which is 60 percent union—membership as a take-away, it makes even more and more hurdles to get a benefit design in. Having said that, it also provides an excellent opportunity in some additional audiences to help me educate and move to a more motivated and educated patient. But in the short run it is a tremendous barrier that, at least in a heavily unionized arena because it is so much a part of the bargaining table, any design that is not accepted is considered a take-away.

MR. KNUTSON: I am Jim Knutson from Aircraft Gear Corporation. I just wondered, as we are talking about promoting change and looking at a new system, if the choice of the 15 conditions, focusing on them first, was maybe a tipping point, may be creating a tipping point for change? I wonder if you could comment on that.

DR. BERWICK: If we understand the demographic shift from acute

to chronic illness and the inadequacy of the system to face chronic illness, a natural question arises, which is what are the illnesses? It turns out that the burden in society of chronic illness is very highly concentrated in a relatively small number of diagnoses or conditions. So by listing as many as 15, we will actually be tackling more than the majority of the disease burden in the country, trying to make it more evidence-based and more patient-centered. I must say there are many people on the committee who are a little nervous about defining the task as taking care of a disease better, because in a patient-centered system, the patient who has both acute illnesses and multiple chronic illnesses and other life circumstances needs to be, as we say, treated as the only patient. So I think we look at it like a way station. If we can get care of diabetes and chronic heart disease and cancer and 12 other conditions straight, we would be making a big step forward.

DR. COHEN: Jordan Cohen, AAMC. You mentioned an obvious fact that maybe the government is the big purchaser of health care in this country. To the extent that our financing system is misaligned with the kind of outcomes that the *Chasm* report is pointing us towards, what is the prospect of getting Medicare, for example, to do some real demonstration projects, to finance some options to try to get us moving in this direction?

DR. FEEZOR: I have enough trouble speaking for calPERS. I don't know if I want to speak for HCFA. But one of the problems this year, due to some plant selections, a hundred thousand people will be going to open enrollment, three times the number we have ever had. My guess is that HCFA would probably be open to at least experimenting with some demonstration grants. I am just not sure of what bridge gets us there, at least from the payer's standpoint. As I said, I even started calling some of my benefit consultants, asking: "What kind of design change would I have to make to really do a better job of taking care of reimbursing, for what I call, relational or longer term commitments?" The best they came up with was a product where in fact we would pay on a three-year cap—when I say cap, I mean a significant cap—say for diabetics to be treated by a particular medical group that serves a lot of our area. And we would say, okay, we will pay you for three years. Here is the amount of money we will put up for that and that way you take care of everything.

DR. BERWICK: I think in the framing that it is very important that there is a current state, a future state, and a transitional state. It is easy to imagine the benefits of where we want to get. It is a little harder to imagine how to get there. I totally agree with you.

I have had the great privilege this year of working a lot in the NHS in

the UK and in Sweden, which are essentially single-payer systems. You can have a rational conversation with people who are deciding what should happen in the configuration of the care system. And it is a dream relative to the United States. The transitional moments there are political, but rationally political. You can sit down with the minister of health or with the prime minister and ask: "How about going this way?" And they may say: "Okay." And you can begin something. In the United States we cannot.

So absent that plan, about which I would shoot myself in the foot by saying what I think, I don't think the committee believes—and correct me if I am wrong, Janet—that there is a known solution of what the payment configuration ought to look like, or indeed what the tort system ought to look like, to support the kinds of changes we are talking about. As a scientist, I see no other recommendation that there ought to be social demonstrations, encouraging calPERS or HCFA or Medicaid or anybody—the State of Iowa—anybody to take a shot at it, to try to construct a two-year or two-year trial to figure out what the payment system ought to look like to encourage much more rational evidence-based care.

DR. SHINE: As you point out, there is a committee chaired by Gil Omen that is responding to a congressionally mandated study to look at quality programs in HCFA, DOD, and DA. We intend to look at some of these issues in terms of the nature of the program and what some of the opportunities are to do exactly what you are talking about.

Biosketches

Donald M. Berwick, M.D., M.P.P. is President and CEO of the Institute for Healthcare Improvement (IHI). Dr. Berwick is Clinical Professor of Pediatrics and Health Care Policy at the Harvard Medical School. He is also a pediatrician, an Associate in Pediatrics at Boston's Children's Hospital and a consultant in Pediatrics at Massachusetts General Hospital. Dr. Berwick has published over 100 scientific articles in numerous professional journals on subjects relating to health care policy, decision analysis, technology assessment, and health care quality management. Books he has co-authored include *Curing Health Care, New Rules: Regulation, Markets and the Quality of American Health Care*, and *Cholesterol, Children with Heart Disease: An Analysis of Alternatives*. Dr. Berwick was chair of the Health Services Research Review Study Section of the Agency for Health Care Policy and Research from 1995-1999, and Chair of the National Advisory Council of the Agency for Healthcare Research and Quality from 1999 through 2001. He was vice chair of the U.S. Preventive Services Task Force from 1990 through 1996. From 1996 through 1999, Dr. Berwick served as the first "Independent Member" of the Board of Trustees of the American Hospital Association. He also served from 1989 through 1991 as a member of the Panel of Judges for the Malcolm Baldrige National Quality Award program. He is a member of several editorial boards, including that of *The British Medical Journal*. From 1987 through 1991, Dr. Berwick was co-founder and Co-Principal Investigator for the National Demonstration Project on Quality Improvement in Health Care (NDP). He is a past president of the International Society for Medical Decision-Making. He is an elected member of the Institute of Medicine, and since 2002 serves

on the IOM's governing Council. A summa cum laude graduate of Harvard College, Dr. Berwick holds a Masters of Public Policy degree from the John F. Kennedy School of Government and an M.D. degree cum laude from the Harvard Medical School.

Allen D. Feezor is assistant executive officer, Health Benefit Services, California Public Employees' Retirement System (calPERS). Previously, Mr. Feezor was vice president for planning, marketing, and managed care for University Health Systems of East Carolina in Greenville, NC. From 1985 to 1995, he was chief deputy commissioner for the North Carolina Department of Insurance, where he chaired two national task forces that pioneered state health insurance and small group reform. He has headed the 430,000-member North Carolina Teachers,' State Employees' and Retirees' Health Plan and has served as Senior Representative in Washington, D.C., for the Blue Cross/Blue Shield Association. He was a founding faculty member of the National Academy for State Health Policy and a contributor to two Institute of Medicine studies—one on the future of health benefits and another on improving Medicare. He currently serves on the boards of Pacific Business Group on Health and the Integrated Health Association. Mr. Feezor earned his B.A. and M.A. degrees in political science from Duke University.